CITIZEN INVOLVEMENT

INTRODUCTORY SUMMARY

PURPOSE OF THE CITIZEN INVOLVEMENT ELEMENT

The purpose of this Element of the Comprehensive Plan is to ensure the opportunity for active participation of an informed citizenry in Douglas County's Planning Process. Public input, comments, criticisms and recommendations concerning proposed land use plans and land use changes ensures that the needs and desires of area residents are considered in the land use decision making process.

WHAT DOES GOAL 1 REQUIRE?

Statewide Planning Goal 1 requires that a Citizen Involvement Program be developed that ensures the opportunity for citizens to be involved in all phases of the Planning process. It further requires that:

1. The citizen involvement program include a cross section of affected citizens who are broadly representative of geographic areas and interests related to land use and land use decisions. Members of advisory committees are to be selected by an open, well-publicized public process.
2. Effective two-way communication be established between the citizens and the governing body.
3. Technical information is available in an understandable form.
4. A feedback mechanism be established to assure that citizens receive a response from policy makers.
5. Adequate human, financial and informational resources are allocated for the Citizen Involvement Program.

WHAT IS INCLUDED IN THE CITIZEN INVOLVEMENT ELEMENT?

The Citizen Involvement Element sets forth the goals and policies that guide the Citizen Involvement Program for Douglas County. The supporting Element describes the development of the Program, and how citizen committees function within the Program. It further describes two approaches taken by Douglas County to develop the Comprehensive Plan. The supporting Element also addresses the function of the Committee for Citizen Involvement (CCI) and Planning Advisory Committees (PAC's) in the post acknowledgement period. An appendix to the supporting Element contains reference and support materials and a more in-depth discussion of the following items:

1. A brief history of citizen involvement in Douglas County in the early 70's prior to Senate Bill 100.

2. The recruitment efforts and recruitment results as well as the process of appointing citizens to the CCI and PAC's is included.

3. The objectives and tasks of the CCI and PAC's are outlined.

4. The "planning by sub area" and the problems with that approach to developing a comprehensive plan are explained.

5. A letter titled "Douglas County Comprehensive Land Use Plan Development Program Modification," a copy of the PAC land use questionnaire, a "Brief history of formal citizen involvement in Douglas County's Comprehensive Planning Program over the last decade".

6. Two evaluations of the Douglas County Citizen Involvement Program by the CCI are also included in the appendices. Also described in the supporting Element is the Comprehensive Plan hearing process and the post acknowledgement functions of the CCI and Planning Advisory Committees.

CITIZEN INVOLVEMENT ELEMENT FINDINGS

1. Douglas County utilized citizen involvement prior to adoption of Senate Bill 100 in its land use planning program. (Revised 6/28/89)

2. Small area representation (PAC areas) provides the best form of diversified citizen input of all citizen involvement approaches considered by Douglas County.

3. Planning Advisory Committee and Committee for Citizen Involvement members are selected by an open, well-publicized public process.

4. PAC's are diverse bodies selected to represent their areas. Selection of members is made after consideration of geographic location, occupation, age, sex and interests.

5. PAC, CCI and members of the public in general are provided the opportunity to be involved in all phases of the planning process.

6. Since 1975, over 340 citizens have actively participated as members of either the CCI or a PAC. On average, there are 60 Planning Advisory Committee member's serving each year. This average committee membership multiplied by the 33 years that the program has been in place, adds up to 1,980 years of Planning Committee service. (Revised 12/8/08)

7. In an attempt to encourage citizen participation, Douglas County sent by mail and newspaper over 25,000 public meeting notices for each of the three initial plan phases in 1980. (Revised 6/28/89)

CITIZEN INVOLVEMENT POLICIES

GOAL: To ensure the opportunity for citizens to be involved in all phases of the planning process.

OBJECTIVE: To involve a cross section of affected citizens in a program which ensures effective communication between citizens and decision making bodies.

POLICIES:

1. Douglas County shall continue to maintain a program for stimulating citizen interest and involvement in the County's planning programs.

2. Douglas County shall continue to recognize the Committee for Citizen Involvement and the local Planning Advisory Committees as official advisors to the Douglas County Board of Commissioners, Hearings Officer and Planning Commission on the Citizen Involvement Program and comprehensive planning matters.

3. Douglas County shall provide the opportunity for Planning Advisory Committee involvement during Comprehensive Plan updates and reviews.

4. The Douglas County Planning Director shall provide, in each annual budget request to the Board of County Commissioners, for sufficient financial support to ensure adequate funding of a citizen involvement program.

5. Members of the CCI and PAC's shall be selected after consideration of geographic location, occupation, age, sex and interests.

6. The CCI, with assistance from staff, shall conduct an evaluation of the Citizen Involvement Program on an annual basis.

7. During review and revision of the Comprehensive Plan and the Land Use and Development Ordinance, Douglas County recognizes and encourages participation by affected governmental units in accordance with the requirements of ORS 215.060 and 215.223, and pursuant to 2.065 and 6.600 of the Douglas County Land Use and Development Ordinance.

POLICY IMPLEMENTATION:

1. Maintain a Citizen Involvement Program Ordinance which details procedures and responsibilities for implementing the goals, objectives and policies of this element.

2. Provide in the County's Land Use and Development Ordinance that PAC's will receive notice of proposed land use actions in their planning area and will be entitled to be parties to quasi-judicial proceedings reviewing such land use actions.

FOREST RESOURCES

INTRODUCTORY SUMMARY

THE PURPOSE OF THE FOREST ELEMENT

The purpose of the Forest Element is to provide accurate and current information about forestry and its influence on Douglas County. This includes an examination of the current information on forest resources, the past and current affects of forest management on the economy, and the influence forestry has on life and living for the people in Douglas County. It is intended that the Forest Element satisfy all of the requirements of Statewide Planning Goal 4.

WHAT DOES GOAL 4 REQUIRE?

Statewide Planning Goal 4, Forest Lands, requires counties to conserve forest lands by maintaining the forest land base and to protect the County's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture. (Revised 8/26/92)

WHAT ARE FOREST LANDS?

Forest lands are those lands acknowledged as forest lands as of January 25, 1990 (the date that LCDC adopted major amendments to goal 4). Where a plan is not acknowledged or a plan amendment involving forest lands is proposed, forest land shall include lands which are suitable for commercial forest uses including adjacent or nearby lands which are necessary to permit forest operations or practices and other forested lands that maintain soil, air, water and fish and wildlife resources. (Revised 8/26/92)

WHAT IS INCLUDED IN THE FOREST ELEMENT?

The Forest Element identifies and evaluates the resources found in the forests of Douglas County. In the discussion of resources, this element compares Douglas County's forests with those of the rest of the state and nation. Other factors discussed include forest ownership, the distribution and productivity of commercial forest lands, and historic harvesting levels.

A discussion of forest economics as it relates to Douglas County is also presented. This discussion includes an examination of employment trends in the forestry industry, timber receipts and their role in financing the various levels of government services, and a discussion of the future demand and supply of timber in this region. Environmental and social considerations as they relate to the citizens of Douglas County are also described. The objectives and policies were derived through findings established from the Forest Element's supporting text.

FOREST RESOURCE ISSUES

Douglas County's forest resources are a dominant component of the County's economic, physical, and social environment. Nearly eighty-eight percent of the County's 3.2 million acres are forest lands; almost all of which are coniferous forests which make up the softwood timber supply. Because of its dominance as the primary means of economic support for both the private and public sector of Douglas County, issues concerning forest resources and forest land allocation are of extreme importance to the County.

Since 1925 the Oregon Department of Forestry has kept records on the amount of timber harvested in Douglas County. Timber harvesting peaked in 1955 with 1.96 billion board feet of timber harvested in that year. Since 1955, harvesting levels have fluctuated greatly, with 1961 and 1982 being historically low years with harvesting almost half that of 1955.

The government entities of Douglas County receive a very large portion of their operating revenue from the harvesting of forest products. The revenues come to each government entity in four different forms: the Western Oregon Severance Tax, the Timber Products Harvest Tax, the US Forest Service Timber Receipts, and Oregon and California Timber Receipts administered by the Bureau of Land Management. As much as seventy-one percent of Douglas County's revenue has been derived from timber receipts. The effect of stumpage prices and harvest levels can have a large effect on the services local government can afford to offer to local citizens.

The County's economy could be characterized as a "one industry" economy because of its heavy dependence on lumber and wood products manufacturing. There is no question about the importance of the forest industry in Douglas County. Unfortunately, the number of lumber and wood products jobs barely grew over the past decade. Since many of Douglas County's economic problems have been tied to its heavy dependence on the lumber and wood products industry, considerable thought and effort has gone into trying to broaden the economic activity of the area.

Issues such as scenic resources, wilderness, and habitats for man, animals and vegetation place social and economic demands on forest lands. Conflicts between these demands and the pressure for sawtimber will continue to be a major issue in Douglas County. The increasing desire to live in the woods is becoming more evident; however, this type of residential development creates pressure for converting potentially productive forest lands to other competing land uses.

The forest and man's activities associated with the forest resource have significant impacts on the Umpqua Watershed and its water quality. Improper forest harvesting practices will often increase turbidity and temperature which impact the region's commercial and sport fisheries and increase the costs for the delivery of domestic water supplies.

FOREST RESOURCE FINDINGS

Forestry in Oregon

1. Approximately one-half of the state of Oregon is forested. This forested land represents about twenty-three percent of the nation's softwood timber supply.

2. The average annual timber harvest in Oregon amounts to about twenty percent of the nation's softwood harvest.

3. The forest industry has remained the largest industrial employer in the state, with about eighty thousand direct industry jobs provided for workers in lumber, plywood, paper, logging, forest management, transportation, reforestation, and office work.

Forest Lands

4. In Douglas County, lands growing Douglas fir which produce less than eighty cubic feet per acre per year are generally not used for commercial uses. This is higher than the national standard for commercially productive forest land, which is twenty cubic feet per acre per year.

5. In general, northern and western Douglas County, with an average annual rainfall of above fifty inches, is the most productive forest land in the County.

6. Central County with its lower annual rainfall and south County with its lower rainfall and less productive soils are, by comparison, less productive for the growing of Douglas Fir than the northern portion of the County.

7. It should be noted that other tree species, such as pine, may survive on soils in varying climates that are found hostile to the growing of Douglas Fir.

8. Except for a belt of agricultural land and oak woodland paralleling the Umpqua River in the central interior, Douglas County is predominantly coniferous forest. These forests cover eighty-six percent of Douglas County.

9. Approximately eighty-two percent of the land base in Douglas County is considered commercial forest land.

10. The Federal Government, through the Bureau of Land Management (BLM) and the United States Forest Service (USFS), manages approximately fifty-five percent of the County's Commercial Forest land. State and local governments own a little over two percent.

11. The Forest Industry owns and manages almost thirty percent of the commercial forest land.

12. Nonindustrial private forest (NIPF) lands amount to nine percent of the commercial forest land in the

County. This compares to the statewide average of fifteen percent.

13. As shortages in the timber supply from federal and forest industry lands occur, the need to manage and harvest timber from NIPF lands becomes extremely important.

14. Timber harvesting in the County peaked in 1955 with 1.96 billion board feet of timber. Since 1955, harvesting levels have fluctuated greatly with 1961 and 1982 being historically low years. Harvesting in 1961 and 1982 was almost half that of 1955.

15. A survey of the Oregon forest industry, conducted in 1982 by the U.S. Forest Service, showed only sixty-two percent of the timber harvested in Douglas County went to mills in Douglas County.

16. Commercial Timber can be judged by cubic foot per acre per year or by board foot. The Comprehensive Plan uses cubic foot per acre per year, however, in some land use applications data may be provided in board feet. Therefore, the following table from the Forest Element of the Comprehensive Plan is included with a cross reference to board feet to assist in analysis of forest information.

TABLE 1. Comparison of Cubic Foot Site Class and Site Class For Douglas Fir.

100 yr. Site Index	50 60 70		80 90	100 110 120	130 140 150	160 170 180	190 200 210 220
Site Class			V	IV	III	II	I
Cubic Ft./Yr. (MAI)	0-19	20-49	50-84	85-119	120-164	165-224	225+
Cubic Ft. Site Class	7	6	5	4	3	2	1

*one cubic foot per acre per year = twelve board feet

Economics

17. Douglas County, like many areas of the state and nation, has been experiencing a changing industrial structure over the last two decades.

18. The Douglas County economy could be characterized as a "one industry" economy -- it is heavily dependent on lumber and wood products manufacturing.

19. In 1980, 7600 workers were on timber products payrolls. They accounted for about twenty-five percent of all wage and salary workers and eighty percent of all manufacturing workers. In 1986 8400 workers were on timber products payrolls.

20. The number of lumber and wood products jobs barely grew over the past decade. In 1972, lumber and wood accounted for thirty-six percent of payroll jobs compared with only twenty-six percent in 1985.

21. Low lumber and wood sector employment growth is typical across the State. Lumber and wood pro-ducts manufacturing are capturing a declining share of total employment. Non-lumber sectors are experiencing employment expansion while lumber employment holds steady or declines.

22. The lumber and wood sector has regained some of its recession losses of the early 1980s, but remains below pre-recession employment levels and probably will never fully regain those numbers of workers.

23. Douglas County's economic base could be strengthened by new forest product industries and by the addition of new industries especially those in the manufacturing sector.

24. The demand for timber from the Pacific Northwest Region over the next ten years is expected to grow slowly.

25. Although there currently is a backlog of housing demand, timber demand will depend primarily on continuing strength in personal income and availability of affordable housing and financing.

26. Evaluation of recent data and information indicates that the demand for timber is moving to a moderate rate of increase from the slowdown that occurred in the early 1980's.

27. The short-term future of timber and wood products demand is clouded by factors such as the severity and length of the housing and wood products recession that began in 1980.

28. The long-term trends in housing demand, the growing popularity of construction methods that use less wood, availability of wood substitutes, and a shift in business management strategies and methods, all contribute to a potential shift in future demand.

29. Actions by the forest industry to modernize facilities, adopt state-of-the-art technology, reduce costs, and diversify into other sectors of production could help to rebuild and stabilize the timber industry in the Pacific Northwest.

30. Part of the timber formerly supplied by the Pacific Northwest region is now being supplied by the Southern region of the United States and by Canada. Supplies from these areas are expected to drop between 1990 and 2005.

31. Between 1990 and 2005 private lands in the Pacific Northwest region are expected to reach their capability as second growth timber reaches maturity. Private lands in the Pacific Northwest could then become a major supply of softwoods for national and international demand. In the interim, non-industrial forest land and public forests will be looked upon as a major supply source of wood fiber.

32. Forest uses other than timber production also create sources of employment and represent other economic resources dependent on the forest. Sport fishing and commercial fishing dollars, for example, are also aided by the presence of forest land and good forest land management.

Environmental Considerations

33. Natural and environmental benefits from forest lands include wildlife and fisheries habitat, soil conservation, flood control, water retention, air purification and others.

34. The millions of acres of trees throughout the County play a significant role in maintaining air quality. While there is a lack of specific data on the forest's contribution to Douglas County's air quality, the forests do undoubtedly play a significant role in the air quality here and throughout southwestern Oregon.

35. Management of the forest resource relates directly to land quality. Proper road building, consideration and choice of appropriate logging techniques based on site specific conditions, and conscientious forest developmental activities can improve the overall land quality as it relates to the forest resource.

36. The forest and man's activities associated with the forest resource have significant impacts on the Umpqua watershed and the County's overall water quality. Improper forest harvesting practices will often increase turbidity which results in sedimentation problems throughout the watershed. Also, water temperature and volume is affected by improper harvesting practices.

37. The vast forest lands of Douglas County serve as a habitat for a number of wildlife species. For most species, man's use of the forest presents only minor conflicts. However, for some species, such as the northern spotted owl, goshawk, pine marten and three-toed woodpecker, man's disturbance of the old growth forests may affect their habitat. State and Federal land management practices and policies which promote survival for all wildlife and fish species native to Douglas County should be considered.

Social Considerations

38. Forest lands are essential to the welfare of the people of Douglas County as an economic, sociological, natural and environmental resource.

39. Sociological benefits from forest lands include the beauty and aesthetics of the forest, as well as a variety of forest-related recreational opportunities, including fishing, hiking, scenic driving, hunting, berry-picking, and other uses.

40. There are parts of three Federal Wilderness areas in Douglas County totaling 73,780 acres. These Wilderness areas are: Boulder Creek, Mt. Thielsen, and the Rogue-Umpqua Divide. (Revised 12/5/90)

41. Forest lands can often be used for several commodities on the same parcel. With the use of agroforestry techniques, trees are raised with the intent of grazing livestock or growing other crops in between the rows of trees.

42. Issues such as scenic resources, wilderness, and habitats for man, animals and vegetation place social and economic demands on forest lands. Conflicts between these demands and the pressure for sawtimber will continue to be a major issue in Douglas County.

43. The increasing desire to live in the woods is becoming more evident; however, this type of residential development increases pressure for converting potentially productive forest lands to other competing land uses.

44. The future rural residential dweller will be less likely to be knowledgeable about forest management and be less likely to have the long-term capital to finance an intensive, productive forest operation. The future rural resident may also cause an economic or social hardship to occur to a neighboring large forest owner who practices intensive forest management techniques such as fire, fertilization, or pesticides.

45. Rural development also presents an additional problem, particularly for the forest industry and BLM managed lands when one considers that scattered ownerships often mean fragmented and inconsistent and/or conflicting land management policies. This problem also exists between private industry forest land and federal lands, but becomes increasingly difficult to resolve as the number of ownerships increase and parcel sizes decrease.

46. Extensive facility, utility and transportation development in forest resource areas can serve as a catalyst for rural development and other competing land uses while utilizing productive forest land for easements, rights-of-way, etc. It is necessary to consider measures which conserve the forest resource land base as well as provide for other social needs.

47. Coordination between forest management programs and land use planning programs is necessary to facilitate and implement the desired goals and objectives of each.

48. Rural development conflicts with the forest resource when small parcels restrict economically feasible management practices. A conflict also occurs when fire danger is increased or fire suppression costs rise and firefighting techniques are altered due to the introduction of residential housing in forest areas.

49. As energy costs rise, the exploitation of wood wastes as an energy source becomes more promising. Already, most wood product companies are using their manufacturing wastes as a secondary fuel resource. Firewood for home heating will continue to be recognized as a forest value. The introduction of Cogeneration plants will increase wood by-products utilization.

50. As the population shifts to a service industry orientation more and more people will distance themselves from the forest industry. This distancing also separates people from a knowledge that is necessary when making decisions with regional importance.

51. Educating the public about forestry, soils, wildlife, agriculture, water resources, and other natural resources must be a continual process.

52. Douglas County has adopted thirty approved Community Wildfire Protection Plans (CWPP) in rural communities and rural areas in all nine Planning Advisory Areas of the County. Each CWPP was approved and adopted by Douglas County, The Fire District(s) serving the CWPP area, Douglas Forest Protective Association, the US Forest Service (for communities within Forest Service lands), and the United States Department of the Interior, Bureau of Land Management.

53. The CWPP plans for each community identifies locations of critical infrastructure, evacuation routes, and priority fuel reduction areas. The CWPP Plans for each community recommends fuel reduction methods, aiding fire fighting access during initial and extended attack, and fire protection standards.

54. Each CWPP recommends outreach and education programs on fire protection, structural ignitability and survivable space adjacent to structures, and identifies technical and potential financial assistance for property owners to reduce fire danger.

55. The CWPP is adopted as a support document to the Comprehensive Plan and is recognized by reference.

FOREST RESOURCE POLICIES

INTENT:

This policy resolution expresses a desire by the County to conserve forest lands for forest resource uses. It also provides encouragement and requirements for performing activities which enhance the overall forest resource.

This policy resolution supports the production of trees and encourages a reduction of conflicts from competing land uses in forest resource areas. It also provides for conservation and protection of recreational, wildlife habitat, watersheds and other significant forest values.

GOAL: To conserve forest lands by maintaining the forest land base and to protect the County's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading use on forest land consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture. (Revised 8/26/92)

RESOURCE MANAGEMENT

OBJECTIVE A: To assure that the forest land base in Douglas County is maintained for the continuous growing and harvesting of forest tree species as the leading land use consistent with sound management of soil, air, water, and fish and wildlife resources and to provide for recreational opportunities and agriculture. (Revised 8/26/92)

POLICIES:

1. **Douglas County Forest Lands Policy** - Douglas County finds and declares that:

    a. Open land in private use is an efficient means of conserving natural resources that constitute an important physical, social, aesthetic and economic asset to all the people of Douglas County and the State of Oregon, whether living in rural or urban areas.

    b. The preservation of a maximum amount of the limited supply of forest land is necessary for the conservation of the economic resources of Douglas County and the State of Oregon. The preservation of such land in large blocks is necessary to maintain the economy of Douglas County and the State and, for the assurance of adequate amounts of timber for the people of the county, state and nation.

c. Expansion of rural development into forest lands is a matter of public concern because of the unnecessary increases in costs of community services and conflicts between timber and rural activities.

d. The Timberlands and Farm/Forest Transitional designations in this Plan, as implemented by the Land Use and Development Ordinance, substantially limits alternatives for the use of such lands. However, the necessity of preserving such lands for the economic base of Douglas County justifies such restrictions.

2. Encourage the use of forest lands with emphasis on the production and harvest of trees, also including but not limited to watershed management; fish and wildlife management; grazing; development of mineral, aggregate, and energy resources; and recreational uses consistent with the State Forest Practices Act and sound land management practices.

3. Douglas County encourages silvicultural practices and reforestation efforts on under productive forest land to convert it to productive forest land.

4. Douglas County acknowledges the requirements of the Oregon State Forest Practices Act as the means for regulating commercial forest management activities and related practices in Douglas County. (Revised 8/26/92)

5. Douglas County shall regard residential subdivisions and parcelizations in designated timberlands as incompatible with the protection and efficient management of the County's timber resources.

6. Douglas County encourages the conservation and protection of watersheds, fish and wildlife habitats, and areas of historical, cultural or scenic importance.

LAND USE

OBJECTIVE B: To reduce conflicts between forest and nonforest uses.

POLICIES:

1. Forest land shall be reserved for forest uses which include: (1) forest operations, practices and auxiliary uses subject only to regulations found in ORS 527.722; (2) uses related to and in support of forest operations; (3) uses to conserve soil, water and air quality, and to provide for fish and wildlife resources, agriculture and recreational opportunities appropriate in a forest environment; and (4) locationally dependent uses. (Revised 8/26/92)

2. Unless otherwise identified within this Comprehensive Plan, the mining or quarrying of rock is permitted in accordance with OAR 629-24-111 of the State Forest Practices Act.

3. Encourage reforestation and better overall management practices of lands within forest areas.

4. Commercial forest practices within forest areas shall be in accord with the Oregon State Forest Practices Act rules.

5. Multiple utilization of existing utility rights-of-way shall be encouraged.

6. Communication facilities to be located in forest areas should be designed to minimize impacts on forest uses. (Revised 8/26/92)

7. Road widths in forest areas should be limited to the minimum necessary for forest management and safety.

8. Highways through forest areas should be designed to minimize impacts on forest uses. (Revised 8/26/92)

9. Before forest land in forest use is allowed to change to nonfarm or nonforest use, the act of justifying an amendment to the Comprehensive Plan must occur in the manner provided for in Statewide Planning Goal 2, except for those uses permitted without an exception by state statute or administrative rule, or for those uses found necessary for the public convenience and welfare which may be permitted conditionally. (Revised 8/26/92)

POLICY IMPLEMENTATION:

1. Inventory and identify Douglas County's forest land base. Delineate and separate prime commercial forest lands from farm/forest transitional and agricultural lands. Prime forest lands (identified by criteria in a. which follows) will be designated Timberlands while nonprime forest lands will be designated Farm/Forest Transitional.

    a. Forest lands designated as Timberlands shall consist primarily of the following: (Revised 8/26/92/)

        (1) Public and private industry forest lands located contiguously in large blocks;

        (2) Forested lands geographically or topographically separated from those lands predominantly used for agriculture and nonforest uses;

        (3) Critical wildlife and fishery habitat areas;

        (4) Forest lands which are predominantly cubic foot site class 1 through 4 in southern Douglas County and 1 through 3 in central and northern Douglas County;

        (5) Isolated pockets of land within forest areas which do not meet timberland criteria (1) through (4), but for practical reasons are precluded from any other land use; or

        (6) Lands needed for watershed protection or recreation.

    b. Farm/Forest Transitional lands shall consist primarily of the following:

        (1) Lands in areas where the lotting pattern is predominantly below 40 acres;

        (2) Lands where the predominant Natural Resource Conservation Service (NRCS) soil class is IV through VII where those soils have not historically been used for agricultural purposes; as an example, those lands that have not received the farm tax deferral;

        (3) Forest lands which are predominantly cubic foot site class 5 or below in southern Douglas County and 4 through 5 in northern, central, and coastal Douglas County; or

        (4) Other lands needed to protect farm or forest uses on

surrounding designated agricultural or forest lands.

2. Provide within the Land Use and Development Ordinance, provisions for a Farm/Forest Resource and a Farm/Forest Woodlot zoning category. These two separate zoning categories shall provide for the following minimum parcel sizes: (Revised 8/26/92)

   a. **Farm/Forest Resource** - This zoning category, authorized as a mixed agriculture/forest zone under OAR 660-06-050, shall be called "Farm Forest" (FF) and shall be implemented by an 80 acre minimum parcel size. The 80 acre parcel size meets the Goal 4 standard without additional approval criteria. (Revised 2/16/94)

   b. **Farm/Forest Woodlot** - This zoning category, authorized as a mixed agriculture/forest zone under OAR 660-06-050, shall be called "Agriculture and Woodlot" (AW) and shall be implemented by a 20 acre minimum parcel size, and applied only to those areas inventoried where a majority of the acreage is in parcels less than 40 acres. (see Inventory Procedure of the Land Use Element). The AW Zone is applied to small scale resource areas where parcelization has occurred. The AW Zone is not applied to commercial forest or agricultural lands. (Revised 10/19/94)

3. To minimize conflicts between resource management practices and other allowed uses, applicants for structural development within areas designated Timberland or Farm/Forest Transitional shall file a "Nonexclusive Resource Management Easement" with the County Clerk prior to receiving development authorization. Such easement shall grant adjacent and nearby property owners the right to engage in legal resource management activities, and shall be filed on a form provided by the County. (Revised 8/26/92)

TIMBERLANDS

OBJECTIVE C: To protect the County's forest economy by making possible economically efficient forest practices that assure the continuous growing and harvesting of forest tree species as the leading land use. (Revised 8/26/92)

POLICIES:

1. In designated timberland areas prohibit the creation of lots or parcels for nonforest uses not authorized in the Goal 4 Rule. (Revised 8/26/92)

2. With the exception of "Owner of Record" dwellings authorized by state statute, prohibit incompatible development such as the construction of dwellings not related to forest management within designated timberlands. (Revised 2/16/94)

3. Access to public facilities, such as sewer, water, electricity and telephone, unrelated to forest uses, shall be considered incompatible in designated timberland areas.

4. Access roads which are unrelated to forest uses shall be restricted in designated timberland areas.

5. Certain nonforest uses compatible with forest uses and necessary for the public convenience or welfare may be permitted within the Timberlands classification subject to review by the governing body or its designee.

POLICY IMPLEMENTATION:

1. The Timberland Resource (TR) zoning classification is a forest zone authorized under OAR 660, Division 6 and is intended to implement the Timberlands plan designation and to preserve and protect lands for continued timber production, harvesting and related uses; conserve and protect watersheds, wildlife habitats and other such uses associated with forests; and, provide for the orderly development of both public and private recreational uses as appropriate and not in conflict with the primary intent of the Timberland Resource zone, which is the sustained production of forest products. Use of land not associated with the management and development of forests shall be discouraged to minimize the potential hazards of damage from fire, pollution and conflict caused by nonforest and nonfarm related residential, commercial and industrial activities. (Revised 2/16/94)

2. Homesite development shall be discouraged within areas designated as timberlands and shall be subject to a review process where the burden shall

be upon the applicant to show that the homesite is compatible with the purpose and policies of the timberlands classification. (Revised 8/26/92)

3. Standards for development of forest dwellings in designated Timberland areas shall include the following: (Revised 2/16/94)

   a. The dwelling shall be found to be in compliance with provisions for forest dwellings authorized by state statute; and

   b. The dwelling shall be situated on the parcel so as to 1) have the least impact on nearby resource lands; 2) minimize the amount of forest land used to site access roads, service corridors, the dwelling, and related structures; and 3) minimize the risks associated with wildfire; and

   c. Domestic water supply shall be provided consistent with Goal 4 rule standards (OAR 660-06-029(3)).

4. Douglas County shall review all land divisions within the Timberlands classification to assure that all resultant parcels are used for forest purposes or conditionally permitted nonforest uses. However, division of lands for the purposes of exchange and transfer may be exempt from review.

5. The minimum parcel size for land divisions within designated Timberland areas shall be 80 acres. Divisions less than the 80 acre minimum may be allowed as provided for in OAR 660-06-026(3)and(4). (Revised 8/26/92)

FARM/FOREST TRANSITIONAL LANDS

OBJECTIVE D: To conserve and maintain open space lands which have potential for forest use and farm use or both such uses, or are otherwise necessary to protect natural resource areas.

POLICIES:

1. Encourage land uses which maximize the resource potential of designated Farm/Forest Transitional lands.

2. Encourage the consolidation of parcels in order to form larger, more viable agricultural or forest units.

3. When property is divided, the sale or exchange of the agricultural or forest unit to an adjacent owner shall be encouraged.
4. The Farm/Forest Transitional Plan designation allows for mixed agriculture/forest uses in accordance with both Goals 3 and 4, and as

authorized by OAR 660-06-050. (Revised 2/16/94)

POLICY IMPLEMENTATION:

1. Maintain provisions within the Land Use and Development Ordinance which encourage the management of designated Farm/Forest Transitional lands for resource uses. Such provisions should include the following: (Revised 2/16/94)

    a. To allow farm uses as set forth in ORS 215 and forest uses as defined in Statewide Planning Goal 4, Forest Lands.

    b. Dwellings shall be allowed under the provisions of ORS 215 or as authorized by state statute or rule and allowed by provisions in the Land Use and Development Ordinance.

2. Standards for development of forest dwellings in the Farm/Forest Transitional designation shall be as provided in the Forest Element Timberlands policies, Objective C, Policy implementation 3. (Revised 2/16/94)

FORESTRY PROGRAMS

OBJECTIVE E: To support the objectives of the Oregon Department of Forestry's "Forestry Program for Oregon" for timbersheds within Douglas County.

POLICIES:

1. Douglas County subscribes to all phases of the "Forestry Program for Oregon" for timbersheds within Douglas County and assists in the implementation of that program where possible.

2. Support programs which enhance protection of the forest resource, watershed and water quality, air quality, fish and wildlife habitat, and soil conservation.

3. Douglas County will continue supporting the small woodland assistance program to increase forest productivity on nonindustry lands.

4. Support programs which utilize the hardwood resource of Douglas County.

OBJECTIVE F: To increase citizen awareness and involvement in forest issues.

POLICIES:

1. Emphasize through program development the significance, value and role of Douglas County's forests and the reasons for protecting this resource.

2. Encourage the dissemination of information to local citizens which explains the principles of forest management, harvesting practices, watershed protection, wood processing and other related topics.

3. Encourage increasing citizen awareness of issues relating to the prevention and suppression of agricultural and forest fires.

4. Douglas County shall regularly update each CWPP as needed to address community changes and natural resource/natural hazard issues.

AGRICULTURE AND RURAL LANDS

AGRICULTURE INTRODUCTORY SUMMARY

THE PURPOSE OF THE AGRICULTURE AND RURAL LANDS ELEMENT

The purpose of the Agriculture and Rural Lands Element is to address Statewide Planning Goal 3 and its relationship to rural development as required by ORS 197, ORS 215.243 and the Statewide Planning Program. (Revised 2/16/94)

WHAT DOES GOAL 3 REQUIRE?

It requires that:

1. Agriculture lands shall be preserved and maintained for farm use, consistent with existing and future needs for agricultural products, forest and open space. (Revised 2/16/94)

2. Agricultural land shall be inventoried and preserved by adopting Exclusive Farm Use zones pursuant to ORS Chapter 215.

3. Minimum lot sizes for agricultural lands and criteria for land divisions shall be appropriate for the continuation of existing commercial agricultural enterprise in the area. (Revised 2/16/94)

WHAT ARE AGRICULTURAL LANDS?

The following <u>must</u> be included and protected as "Agricultural Lands":

1. Lands with predominantly Class I through IV soils.

2. Other lands suitable for farm use considering:

    a. soil fertility
    b. suitability for grazing
    c. climatic conditions
    d. present and future water availability for farm irrigation
    e. existing land use patterns
    f. technological and energy inputs required
    g. accepted farming practices

3. Lands in other soil classifications necessary to permit farm practices to be undertaken on adjacent or nearby lands.

WHAT IS INCLUDED IN THE AGRICULTURAL PORTION OF THE ELEMENT?

The agricultural portion of the element contains a description of agriculture in the County including historical agricultural trends; horticultural and livestock production; the potential for agriculture in the County; agricultural uses by region; the economic picture for agriculture; environmental and social considerations; and a process for designating agricultural lands.

AGRICULTURAL ISSUES IN DOUGLAS COUNTY

Although Douglas County has a large land area (fifth largest county in the state) only 15% of the land area is available for nonforest uses. This means that many varied land uses, such as urban, suburban and rural residential, industrial, commercial and agricultural, all compete for this 15% of the County's land area. There is a limited amount of land available for agricultural production, and there is much pressure for other uses on that land.

Consideration for protecting agricultural lands should be given for many reasons, but one

important reason is that the agricultural industry plays an important role in the County's economy. Douglas County produces more sheep than any other Oregon county and more cattle than any other western Oregon county.

The following graphic illustrates the 28% increase in gross farm sales which occurred between 1976 and 1978. Gross farm sales is one indicator of agricultural activity.

FIGURE 3-1. GROSS FARM SALES IN DOUGLAS COUNTY, 1976 & 1978

Full development of Douglas County's agricultural potential has not occurred. Various factors account for this including less than ideal farm management, the number of part-time operators who cannot for various reasons manage their agricultural operations full-time, cost of land, and the competition for rural homesites which make it difficult to acquire and manage large-scale farming units. Significant areas for potential improvement includes converting unproductive hillsides to improved pasture and the use of more intensive management techniques, including higher stocking rates.

Douglas County has a limited area of prime agricultural soils. Much of the County's agricultural activities take place on Class VI and VII soils (NRCS ratings). Therefore, there is a need to protect some Class VI and VII lands as well as Class I-IV lands for farm use.

DESIGNATING AGRICULTURAL LANDS

To carry out Statewide Planning Goal 3, Douglas County applies the agricultural designation to:

1. Land comprised of predominantly Class I-IV soils.

2. Lands with significant areas of improved pasture.

3. Lands receiving an agricultural tax assessment shall be carefully evaluated to see if they should receive this designation. If such land is producing agricultural products or is needed to protect such production on nearby lands, it shall be designated agricultural. This designation also includes areas dominated by existing agricultural or ranching operations.

4. Lands receiving irrigation water or areas where the potential for irrigation water in the next 10 years is likely.

5. Other lands used or well suited for agricultural cropping or grazing and other lands which are well suited for the accepted farm practices of the area or necessary to permit farm practices to be undertaken on adjacent or nearby land.

AGRICULTURE FINDINGS

AGRICULTURE IN DOUGLAS COUNTY

1. Livestock production, consisting primarily of sheep and cattle ranches, is the most important part of Douglas County's agricultural industry. Douglas County raises more sheep than any other Oregon county and more cattle than any other western Oregon county.

2. Gross sales of agricultural products have risen in Douglas County in recent years.

3. Total acreage for the 1,241 Douglas County farms tallied in the 1974 Census of Agriculture was 480,289 acres or 14.8% of the total land area in Douglas County.

4. Farming remained relatively steady in Douglas County both in terms of farm size and number of farms between the 1969 and 1974 Census of Agriculture.

5. Crop production occurs throughout the County although several isolated valley bottom areas support most of the major crop production.

6. Most farm products are processed outside the County or sold through fresh food markets such as roadside stands, U-pick areas, etc.

7. Full development of Douglas County's agricultural potential has not occurred. Various factors account for this including less than ideal farm management, the number of part-time operators, costs of land, and the competition for rural homesites which makes it difficult or impossible to acquire and manage large-scale farming units.

8. The County has the potential to significantly increase livestock production by converting unproductive hillsides to improved pasture and by using more intensive management techniques, including higher stocking rates.

NATURAL PRODUCTIVITY POTENTIAL

9. Douglas County does not contain any land designated as rangeland nor is open range grazing (where livestock roam and feed over an expansive area) typical of Douglas County livestock operations. The U.S.D.A. Natural Resource Conservation Service (NRCS) reports that there are no soils in Douglas County that are classified as "rangeland soils" and that there are no rangeland soils west of the Cascade Range. Grazing lands in Douglas County contain soils classed by NRCS as agricultural. These lands are generally designated in the Comprehensive Plan as "Agriculture" land and are generally zoned "Exclusive Farm Use - Grazing" (EFU-G). (Revised 2/16/94)

10. Approximately 141,000 acres of surveyed lands classed as cropland or grazing land in the County have soil capability class ratings of I through IV. (Revised 2/16/94)

11. Approximately 225,000 acres or 37% of lands classed as cropland or grazing land in the County have NRCS soil class ratings of VI and VII. (Revised 2/16/94)

12. There is a need to protect both Class I-IV lands and much of the Class VI and VII lands in the County, as much of these Class VI-VII lands are needed for livestock pasture.

13. There are nearly 30,000 acres of irrigated lands in the Umpqua Basin although summer water shortages and curtailments on the streams and rivers can limit the degree of available water. The Berry Creek reservoir should provide water to irrigate an additional 2,000 to 2,500 acres of land, located primarily in Lookingglass Valley. A new water study for the Umpqua Basin should be completed shortly.

ECONOMIC PICTURE

14. Douglas County's location between two major agricultural regions of the United States (the Willamette and Sacramento Valleys) places County producers at a competitive transportation disadvantage.

15. Since 1969, most commodity sales in Douglas County have risen faster than statewide averages. Moderate increases in County production levels are expected to continue in the immediate future.

16. The most important factor in agricultural production is wise and prudent management.

ENVIRONMENTAL CONSIDERATIONS

17. When properly managed, agricultural activities pose little environmental problems.

18. Improper management of agricultural lands can cause an increase in erosion and sedimentation.

19. The South Umpqua River Basin has been identified as a "regional hot spot" for stream bank erosion. The Main and South Umpqua River Basins have been identified as "regional hot spots" having large concentrations of severe sedimentation problems.

20. In Douglas County, adverse effects of agriculture on air quality are minimal.

21. Browsing animals often destroy crops while dogs and coyotes cause significant damages to livestock, especially sheep. Control of undesirable animals is both difficult and costly.

22. Dogs were responsible for over 300 sheep kills in 1978. Preliminary figures for 1979 will be higher. Increases in dog kills parallel population influxes into rural areas.

23. Coyotes were known to be responsible for 381 goat, sheep and lamb kills in 1978. Coyote kills in the first quarter of 1979 exceeded 400.

SOCIAL CONSIDERATIONS

24. There is an increasing number of people who desire a rural residential lifestyle, thus competing with the agriculturist for land.

25. The expansion of rural and urban homesites into farmland is a matter of concern because it threatens the agricultural integrity of many areas of the County, causes unnecessary costs to be incurred for community services, creates conflicts between farm and nonfarm activities and accelerates the loss of open space, natural beauty and economic enterprise.

26. The following is a partial list of reasons for protecting agricultural lands:

    a. Farming on prime soils requires less energy than on other soils.

    b. By directing rural residential growth away from farming areas, a more compact, less sprawling development pattern results which provides a more efficient use of land at the least overall cost to the taxpayer.

    c. Protecting agricultural lands helps preserve open space which in turn helps preserve the livability of Douglas County.

    d. The level of public services demanded by agriculturists is generally low, thereby reducing public costs.

    e. Food costs in the United States are significantly lower than in other nations due, in part, to the large acreages dedicated for foodstuff production.

f. The agricultural industry plays an important role in Douglas County's economy.

g. The character and livability of the County is dependent in large degree on a viable agricultural community.

h. By protecting agricultural lands, a productive land base is preserved without infringing on forest lands, wildlife habitat areas, etc.

AGRICULTURE - RURAL RESIDENTIAL CONFLICTS

27. As rural residential development intensifies, conflicts, often caused by a difference in values between the rural residentialists and agriculturist, increase.

28. Ruralist/Agriculturist conflicts have been evidenced in Douglas County by the increase in elections to form livestock districts, thereby closing formerly open ranges.

29. Speculation on agricultural lands invariably causes assessments to rise, which adds costs to agricultural operations.

30. Agricultural tax assessments help reduce the agriculturist's tax burden.

31. Identified agricultural land automatically qualifies for the special assessment when zoned for Exclusive Farm Use.

32. There is a documented disparity between market value and farm use or productive value of agricultural lands in Douglas County.

33. Livestock production is very limited (and often not feasible) without bottom ground soils. Livestock grazing on hill land usually requires a supplemental feed source such as hay or other bottom land forage crops. The necessity of bottom ground and Class I-IV soils for viable livestock operations means that the retention of bottom lands used in conjunction with the hill lands would be a positive step for assuring future viability of the County's livestock industry.

34. It is sometimes necessary to designate areas for agriculture that may not be suited to resource production, so that agricultural activities on adjacent or nearby lands can be protected.

ADDITIONAL AGRICULTURAL FINDINGS

35. A significant portion of commercial agricultural enterprise in Douglas County is conducted on farm units of 200 acres or less by part-time farmers and ranchers.

36. Based on the 1974 Census of Agriculture, 45% of Douglas County farms are less than 100 acres in size; 19% are between 100 and 200 acres; and 36% are greater than 200 acres.

37. Characteristics of commercial agricultural enterprise in Douglas County can best be established on an area by area basis rather than for the County as a whole.

38. An Agricultural Land Use Data Base Committee was established by recommendation of Phase I of the Comprehensive Plan. The Committee reported to the Board of Commissioners on April 9, 1980, and the recommendations of the Committee were used to consider further revisions to the Comprehensive Plan. On September 3, 1980, the Douglas County Board of Commissioners amended the County's Comprehensive Plan (Phase I) to incorporate suggestions of the Data Base Committee. Included in the revisions were a modification of the grazing land minimum parcel size and a formula under which to review requests for the division of agricultural lands.

39. The agricultural amendments to the Comprehensive Plan adopted in September 1980, were appealed to the Land Use Board of Appeals (LUBA) and, resulting from the appeal proceedings, Douglas County was required to conduct further work on its Agriculture Element of the Comprehensive Plan.

40. Additional work must be conducted on the Douglas County Agriculture Element. Continued study and alternative proposals will be promoted by the County to improve and refine the Agriculture Element of the Comprehensive Plan.

41. Applicable concepts proposed by the Agricultural Land Use Data Base Committee that will assist the County in the review and evaluation of divisions of Agricultural Lands will be considered in the development of, or future revision to, implementing regulations for the Comprehensive Plan.

42. The policies of the Comprehensive Plan concerning the review of divisions of agricultural land shall be considered as interim measures to implement the Agricultural Goal and fulfill case law directives. Further revision of the Agriculture Element of the County Plan is anticipated. Future modifications to the Agriculture Element and policies will be based upon supporting findings and may be scheduled for action prior to acknowledgment review, in the first annual review or during the scheduled plan update cycle.

43. On August 3, 1993, the Oregon State Legislature passed a major piece of land use legislation identified as House Bill 3661. HB3661 authorized a statewide minimum parcel size of 80 acres for divisions of land zoned for exclusive farm use and not designated rangeland. The Bill also allowed that counties may adopt minimum lot sizes lower than 80 acres after demonstrating to the Land Conservation and Development Commission (LCDC) that the lower minimum lot size continues to meet the state "Agricultural land use policy" found at ORS 215.243 and is consistent with the statewide planning goals. Because the Legislature requires LCDC review and conformance with ORS 215.243 only for minimum parcel sizes lower that 80 acres, it is presumed that an 80 acre or greater minimum parcel size does not require LCDC review and is consistent with ORS 215.243. In conformance with this new legislation, Douglas County has selected an 80 acre minimum parcel size to be applied in areas zoned Exclusive Farm Use - Grazing (EFU-G). 20 and 40 acre minimum parcel sizes, approved by LCDC under ORS 215.780, will be applied in areas zoned Exclusive Farm Use - Cropland (EFU-C). The lands subject to the twenty (20) acre minimum parcel size will be designated FC1 and the lands subject to the forty (40 acre minimum parcel size will be designated FC2. (Revised 10/19/94)

AGRICULTURE POLICIES

INTENT:

This policy resolution expresses a desire by the County to conserve good agricultural lands for farm uses. It is intended to protect such lands from nonfarm uses which conflict with and impair wise agricultural management. It also provides encouragement, incentives and requirements for activities which enhance the agricultural resources of Douglas County.

GOAL: To preserve and maintain agricultural lands.

RESOURCE MANAGEMENT

OBJECTIVE A: To protect agricultural lands from nonfarm encroachments and promote and encourage agricultural activities on designated Agriculture lands.

POLICIES:

1. Encourage the use of lands with the best agricultural soils, particularly those lands within the floodplains, for agricultural use.

2. Encourage better management of all agricultural lands - especially those which have potential as grazing lands.

3. Encourage the consolidation of parcels for the purpose of forming larger, more viable agricultural or forestry units.

4. Where feasible, Douglas County will encourage public and private storage of water for irrigating agricultural lands.

LAND USE

OBJECTIVE B: To minimize conflicts between agricultural and nonagricultural uses.

POLICIES:

1. Land division criteria, and minimum lot sizes used in areas designated as agricultural by this plan shall be appropriate for the continuation of existing commercial agricultural enterprise in the area.

2. Extension of urban facilities and services into agricultural areas shall be avoided wherever possible. No water or sewer facility shall be sized or designed to provide domestic service to agricultural areas. When regional facilities pass through designated agricultural areas to serve a documented need elsewhere, all reasonable alternatives for routing shall be explored and the route having least impacts on agricultural lands shall be encouraged.

3. Roads through designated agricultural areas shall be encouraged to locate where they have minimum effects on agricultural management and the area's established land use pattern.

4. Prevent land uses that interfere with or impair agricultural management from occurring on designated agricultural lands, excepting those specified in ORS 215. (Revised 2/16/94)

5. Conversion of rural land to urbanizable land shall be based on criteria set forth in Goals 3 and 14.

DESIGNATION OF EFU-C(FC) LANDS (Added 5/31/95)

OBJECTIVE C: To preserve and enhance the variety of commercial agricultural enterprises on designated Agricultural lands.

POLICIES:

FC1:

Lands designated Agricultural (AGG) by the Comprehensive Plan and zoned EFU-C (FC1) include existing, intensive commercial agricultural operations. The enactment of the FC1 zoning designation on these lands was the result of a comprehensive identification program undertaken by Douglas County. The opportunities to preserve and enhance the variety of commercial agricultural enterprises occurring on this type of land have been accommodated by the establishment of the FC1 zoning designation. Changes to the EFU-C (FC1) zoning designation may be allowed under the following circumstances:

1. Only land designated Agricultural (AGG) in the Comprehensive Plan on May 31, 1995, is eligible for the FC1 zoning designation; and

2. Changes to the FC1 zoning designation will only be approved by Douglas

County after review and approval of the proposed change by LCDC pursuant to Oregon Revised Statutes 215.780(2). A request for review will be submitted by Douglas County to LCDC provided the following standards apply to citizen initiated requests:

a. The applicant submits to the Planning Department evidence addressing all of the requirements of ORS 215.780(2); and

b. The Planning Director, after review of the application's information, finds the information to be accurate and generally consistent with the overall character of existing FC1 agricultural operations and the factors used in applying the FC1 zoning designation to other lands already designated FC1; and

c. The applicant or the applicant's representative will present the proposal to LCDC.

FC2:

Lands designated Agricultural (AGG) by the Comprehensive Plan and zoned EFU-C (FC2) include emerging commercial agricultural operations. The designation of additional FC2 lands can be used to provide an opportunity for expanding markets, commercial agricultural enterprise development and enhanced agricultural operations provided the designation is consistent with the overall character of the existing commercial agricultural operations in the area. The opportunities to preserve and enhance the variety of commercial agricultural enterprises occurring on this type of land are provided by application of the FC2 designation. Changes to the EFU-C (FC2) zoning designation may be allowed under the following circumstances:

1. The land was zoned Exclusive Farm Use - Cropland (EFU-C) prior to November 4, 1993, the effective date of House Bill 3661, and is within a one and one-half (1 ½) mile radius from the perimeter of any land already zoned FC1 or FC2; and

2. The land is predominantly composed of NRCS Class I, II or III soils or any combination of such soils; and

3. A right to use water for irrigation adequate for the commercial farm use has been established; and

4. A farm management plan, as prescribed by Douglas County in A Guide to the Resource Management Plan, has been completed; and

5. A majority of the acreage zoned EFU-C, in the parcels wholly or partially within a 1/4 mile radius from the perimeter of the subject parcel, is in parcels

of less than 50 acres; or

6. The subject parcel was zoned Exclusive Farm Use - Cropland prior to November 4, 1993, and is currently employed with emerging value added and/or specialty crops in the following acreages; 10 acres of vineyards, nursery or greenhouse crops, or 20 acres of orchards (except nuts), berries or Christmas trees. The stated crop acreage shall be established on each new parcel less than eighty (80) acres prior to its establishment through the land division process.

7. Lands not meeting the provisions of FC2 Policy 1 through 6 cannot be assigned a FC2 zoning designation unless a request is made to and approved by LCDC for a less than eighty (80) acre minimum parcel size as described under FC1 Policy 2 or a request is submitted by Douglas County as a Legislative amendment and is found by LCDC to satisfy the requirements of ORS 215.780.

POLICY IMPLEMENTATION:

1. Agricultural lands shall be preserved and maintained for farm use by adopting exclusive farm use zones pursuant to ORS 215 and applying such zones to identified agricultural lands.

2. Consider in all land division reviews the use of methods to minimize negative impacts of such development on surrounding agricultural areas.

3. Enact a legislative rezoning process for areas where existing zoning does not implement the adopted comprehensive plan.

4. Provide a process whereby a request for a new farm related dwelling located on units of land having an acreage size substandard to the minimum agricultural parcel size may be approved upon finding that such a dwelling is the primary structure on the property, is in conjunction with farm use and is consistent with commercial agricultural uses within the County and the agricultural objectives of this Plan.

5. Provide for two classifications of Exclusive Farm Use (EFU). A minimum parcel size of 80 acres shall be applied to agricultural grazing lands and a minimum parcel size of 20 or 40 acres shall be applied to agricultural crop or horticultural areas. (Revised 10/19/94)

6. Provide for the governing body or its designee to review all divisions of designated agricultural lands below the minimum parcel sizes set out in this Plan Element. (Revised 2/16/94)

    a. Divisions of agricultural land below the minimum parcel size may be allowed for the purpose of a mortgage or loan if: (Revised 2/16/94)

(1) The division is required to obtain financing for construction of housing to be occupied by persons necessary for and engaged in the operation of the farm. Such mortgage divisions are not intended to be separated from the parent parcel except for lien foreclosures pursuant to ORS 92.010(8) or;

(2) The division is necessary in order to secure a real estate loan under the Farm Storage Facility Loan Program administered by the United States Department of Agriculture Stabilization and Conservation Service. Such loan divisions are not intended to be separated from the parent parcel except for lien foreclosures pursuant to ORS 92.010(8).

b. Divisions of agricultural lands for nonfarm uses shall be consistent with all existing ordinances and the following criteria:

(1) Any residential use which might occur on a proposed parcel will not seriously interfere with usual farm practices on adjacent agricultural lands.

(2) The creation of any new parcels and subsequent development of any residential use upon them will not materially alter the stability of the area's land use pattern.

(3) The proposed division or use of the proposed parcels will not eliminate or substantially reduce the commercial agricultural potential of the area nor be inconsistent with the Agricultural Policies of this Plan.

(4) Such divisions are consistent with the provisions of ORS 215. (Revised 2/16/94)

or one or more of the following conditions apply:

(5) The parcel to be created will be sold to an adjoining farm operator and such transaction does not result in the creation of an additional parcel or building site.

(6) The proposed division will create a separate parcel for a second dwelling which exists on the property, and creation of the parcel is consistent with criteria (1) through (4) listed above.

(7) The division clearly follows a physical feature which functionally divides and thus hinders normal farming activities, and creation of the parcel is consistent with criteria (1) through (4) listed above.

RECOMMENDATIONS:

1. Encourage public awareness of agriculture practices and problems --- especially conflicts posed by rural development.

2. Designated agricultural lands should not be assessed for public facilities which pass through agricultural areas to serve needs elsewhere.

RURAL LANDS INTRODUCTORY SUMMARY

Douglas County is one of only three Oregon counties having a greater number of people living in unincorporated areas. People are attracted to Douglas County for various reasons including: lower taxes, inexpensive utility rates, recreational opportunities, moderate climate, hospital facilities and rural atmosphere.

The rural settlement pattern in Douglas County is primarily linear; most rural homesites being located along or close to public roads and clustered near major intersections. According to 1970 data, the density of unincorporated settlement on private lands along roads was approximately 8 to 16 homes per mile of road. Although this density is similar to other parts of western Oregon, topographic features separate and isolate the various valleys in the County, giving each an atmosphere of relative seclusion. The County's fine road system makes commuting from the individual valleys to employment areas relatively quick and easy.

The linear growth pattern in the County results in "rural sprawl" which is inefficient and costly in that it wastes land, discourages development infilling, and requires the costly extension and maintenance of services such as water lines, roads, etc. Many of these inefficiencies can be lessened by increased infilling of vacant lands and more concentrated development.

CONFLICTS BETWEEN RURAL DEVELOPMENT AND AGRICULTURAL ACTIVITIES

There is a growing number of people desiring a rural residential lifestyle who locate in agricultural areas. This expansion of rural and urban homesites into agricultural land is a matter of concern because it threatens the agricultural integrity of many areas, increases costs of providing community services, increases conflicts with farm activities, and threatens the loss of open space and natural beauty.

As rural residential development intensifies, conflicts, often caused by a difference in values between the rural residentialists and agriculturists increase.

Some of these common conflicts are summarized below:

Aspects of Agricultural Practices Which Interfere with Rural Living	Aspects of Rural Living Which Interfere With Agricultural Practices
* noise	* crop damage from trespass
* dust	* dogs harassing livestock
* odors	* pressure to close open ranges
* roaming livestock	* demands for roads and other services
* pesticide application	* nuisance suits against agriculturists
* slow moving machinery on roads	
* appearance and use of roadside stands	

Speculation for rural development on agricultural lands invariably causes assessments to rise, which adds cost to agricultural operations. Although special agricultural tax assessments and deferrals help to reduce the agriculturist's tax burden the impact of increased speculation can be significant. These are some factors which sometimes make it necessary to designate areas for agriculture that may not be ideally suited for resource production, so that agricultural activities on adjacent or nearby lands can be protected.

DESIGNATING RURAL LANDS

Designating land for rural residential purposes irrevocably commits such land to a nonresource use. Recognizing too large an area for rural growth reduces both the forest and agricultural land base and increases taxpayer expenditures necessary to supply services such as roads, schools, police and fire protection, and water services. There is a need to develop a greater awareness of potential impacts of rural development on soil, ground and surface water, wildlife, wildlife habitat areas, vegetation, and agriculture and forest uses.

The statewide planning goals require that lands suitable for agricultural or forestry uses must be protected unless "needed" or "committed" to nonagricultural or nonforestry uses.

The determination of rural land needs cannot be based solely upon a continuation of past growth trends nor on the existence of market demand for rural nonfarm uses. However, the projected population for rural areas can be computed from the County's population projection which was based on several population growth and economic factors.

The County has developed a formula to determine how much land is needed for future rural development needs.

RURAL LAND DESIGNATION FORMULA

The following is a brief summary of the complete formula and objectives for designating land for rural development.

Formula:

A. Obtain the number of anticipated rural homesites from the County's population projection to the year 2000 by subtracting the projected urban populations within acknowledged urban growth boundaries from total PAC area projections (then divide the projected rural population figure by the average household size to obtain homesite total).

B. Then subtract the number of potential homesites determined to be available within recognized "committed lands."

C. If additional rural development beyond that provided in II above, the remaining number of projected rural homesites will be accommodated by designating additional acreage for rural development through the use of the exceptions process as outlined in Statewide Planning Goal 2.

D. If additional acreage as determined in step III is needed, this element's rural designation objectives will be used.

RURAL DESIGNATION OBJECTIVES

Rural designation objectives are considered during the process of identifying suitable lands for rural development. The County attempts to designate areas for rural growth which meet the objectives listed below:

1. To ensure the area's rural integrity.

2. To ensure protection of the area's environment.

3. To maintain as much agricultural or forest land as possible.

4. To "infill" between existing developed or "committed" areas.

5. To locate rural development in areas where existing or future public facilities can be efficiently used.

6. To ensure, as much as possible, development at levels compatible with an area's carrying capacity; which includes consideration of surface and/or ground water supplies and healthy sanitary conditions.

7. To conserve energy.

8. To avoid the designation of rural development areas with known natural hazards or unsatisfactory soil conditions.

9. To concentrate, where possible, rural growth in the immediate vicinity of recognized rural commercial centers.

RURAL LANDS FINDINGS

RURAL MIGRATION TRENDS

1. Since 1970, non-metropolitan counties have been experiencing faster population increases than metropolitan areas.

2. People are attracted to Douglas County for various reasons including: lower taxes, inexpensive utility rates, recreational opportunities, moderate climate, hospital facilities and rural atmosphere.

3. Douglas County is one of three Oregon counties having a greater number of people living in unincorporated areas than in incorporated areas.

4. The County's percentage of population in unincorporated areas has decreased only 0.5% in the period 1975-1977. This fact acknowledges the trend toward incorporated cities from unincorporated areas which is occurring slowly in Douglas County.

5. Many incorporated cities in the County have rural characteristics; of the 12 cities, only five had 1977 populations in excess of 2,500 and only one (Roseburg) had a 1977 population greater than 5,000.

6. The rural settlement pattern in Douglas County is primarily linear; most rural homesites being located along or close to public roads and clustered near major intersections. According to 1970 data, the density of unincorporated settlement on private lands along roads was approximately 8 to 16 homes per mile of road. Although this density is similar to other parts of western Oregon,

topographic features separate and isolate the various valleys in the County, giving each an atmosphere of relative seclusion. The County's fine road system makes commuting from the individual valleys to employment areas relatively quick and easy.

7. The linear growth pattern in the County results in "rural sprawl" which is inefficient and costly in that it wastes land, discourages development infilling, and requires the costly extension and maintenance of services such as water lines and roads. Many of these inefficiencies can be lessened by increased infilling of vacant lands and more concentrated development.

8. Parcel sizes in the County vary tremendously, but statistics from a sampling of rural homesites of 20 acres or less in the North Umpqua Area reveal that 73% of the parcels are less than 5 acres, 20% between 5 and 10 acres, and 7% between 10 and 20 acres.

9. Despite the County's large size (5,100 square miles), only 15% of the land is available for nonforest uses. Agriculture, manufacturing, commercial, recreation, public, urban, and rural residential land uses are all confined primarily to 15% of the County's land area.

10. Conflicts between rural residential and agricultural uses are well documented.

STATEWIDE GOALS AND EXCEPTIONS PROCESS

11. The exceptions process, described in Statewide Planning Goal 2, provides a mechanism for excluding committed rural residential areas from the agriculture or forest goals.

12. Exceptions which would allow rural residential development on lands which would otherwise be designated for forest or agriculture may only be taken for:

    a. land no longer available for farm use; or

    b. agricultural or forest lands <u>needed</u> for future urban or rural nonfarm uses.

13. Exceptions cannot be approved unless "compelling reasons and facts justify an exception to a statewide goal."

14. There is a projected need for additional rural housing in Douglas County.

15. Designating land for rural residential purposes irrevocably commits such land to a nonresource use.

DELINEATING RURAL LANDS

16. The process of delineating rural lands involves four basic steps:

    a. Determine rural needs based on population projections;

    b. Identify committed lands and determine their capacity for future growth;

    c. Subtract the amount of rural growth which can be absorbed by committed areas from total rural needs figure; and

    d. Delineate other areas needed for rural development.

17. The determination of rural land needs cannot be based solely upon a continuation of past growth trends nor upon the existence of a market demand for rural nonfarm uses. The County's projected year 2000 population, however, was based on several factors including past trends.

18. Recognizing too large an area for rural growth reduces both the forest and agricultural land base and increases taxpayer expenditures necessary to supply services such as roads, schools, police and fire protection, and water services.

19. Citizens need to develop a greater awareness of potential impacts of rural development on soil, ground and surface water, wildlife, habitat areas, vegetation, and agriculture and forest uses.

RURAL LANDS POLICIES

GOAL: To assure that adequate areas for rural living are provided while preserving the integrity of agriculture and forestry in Douglas County.

OBJECTIVE A: To accommodate the rural land needs of the County's citizens in areas already committed to residential uses which minimize conflicts between resource-related uses while providing safe and convenient rural living. If additional lands are found to be needed for rural residential use, the exceptions process of LCDC Goal 2 will be used.

POLICIES:

1. In designated rural growth areas, encourage appropriate methods of development which conserve energy and land, and which take advantage of site features.

2. Encourage rural growth where facilities and services, such as adequate transportation networks, school bus routes, fire districts, water services, etc., already exist so as to minimize costs of providing such services to those areas.

3. Limit development in flood, mass movement or other hazard areas.

4. Encourage the consideration of energy conservation and solar energy use during the location and design stages of both individual and residential construction and subdivision development.

5. Encourage developments and land divisions in rural growth areas to be accessed by public roads while avoiding the creation of flag lot parcelizations.

6. Discourage large-lot partitionings utilizing private roads in designated residential areas.

7. Where feasible, encourage the use of public domestic water facilities for all new lots developed within designated residential areas.

8. Support reduced residential construction costs and/or reduced potential of structural damage to new residential buildings (which impedes, lowers or prohibits resale) by encouraging landowners to obtain information about soil conditions prior to actual construction.

9. Encourage residential lot development to locate within the boundaries of, or annex to, a Rural Fire District.

10. In designated residential areas, encourage the utilization and/or retention

of natural resource features and area resources within the design of a development.

11. Agricultural uses shall be permitted in committed areas located within designated resource areas. Such committed areas should not be excluded from receiving agricultural assessments if the property owners can qualify by application through the Assessor's Office.

POLICY IMPLEMENTATION:

1. Based on existing nonagricultural development, certain areas shall be designated as committed to rural residential uses and shall be excluded from designated agricultural lands.

2. Committed areas shall receive a designated minimum parcel size based on existing parcelization, suitability for further development, and the effect of future development on surrounding agriculture and forest uses.

3. Maintain standards which provide for design flexibility.

4. Continue use of floodplain regulations when reviewing building permits, partitions and subdivisions.

5. Require that septic suitability tests be performed and found adequate before approving any subdivisions or partitions.

WATER RESOURCES

INTRODUCTORY SUMMARY

THE PURPOSE OF THE WATER RESOURCES ELEMENT

Water resources are a vital part of the economy and lifestyle in Douglas County. The Water Resources Element assesses both surface and subsurface water sources in order to evaluate how an ample supply of high quality water can be obtained for present needs and future growth. This Element addresses, in part, Statewide Planning Goals 5 and 6.

WHAT DO GOALS 5 AND 6 REQUIRE?

Statewide Planning Goal 5 requires that natural resources be protected for future generations in addition to promoting healthy and visually attractive environments. This protection is extended to fish and wildlife areas and habitats as well as water areas, wetlands, watersheds, groundwater resources and scenic waterways.

Statewide Planning Goal 6 requires that water quality be maintained and improved by assuring that future development, in conjunction with existing development, does not violate state or federal water quality statutes, rules and standards.

RELATIONSHIP TO SUPPORTING DOCUMENT

The findings contained in this Element of the Comprehensive Plan have been derived from the "**Douglas County Water Resources Management Program**" which is the overall guiding document for the development, enhancement, and protection of water resources in Douglas County. That document should be consulted for specific details related to water resources management in Douglas County. The water resource findings and policies contained in this section of the Comprehensive Plan are designed to deal with land use issues related to the implementation, in part, of Statewide Planning Goals 5 and 6. (Revised 6/28/89)

WHAT IS INCLUDED IN THE WATER RESOURCES ELEMENT?

The Water Resources Element consists of: (Revised 6/28/89)

1. An introductory section describing important issues affecting the Umpqua River Basin.

2. A detailed description of the six major sub-basins with findings addressing surface water, groundwater, lakes, current and future water use, and alternatives to meet future demand.

3. Land and water use policies directed toward specific water resource issues and concerns.

4. Maps describing the various sub-basins as well as potential and existing water impoundment sites.

WATER RESOURCE ISSUES

SURFACE WATER QUANTITY

The Umpqua River Drainage Basin covers an area of approximately 4,560 square miles and the boundary of the basin is nearly coincidental with the boundary of Douglas County.

In general, future needs occurring along the North Umpqua, Mainstem Umpqua and Smith River may be met from unregulated streamflows. However, many of the Umpqua Basin streams are oversubscribed and are in need of augmented flows to satisfactorily meet the needs of all consumptive and nonconsumptive water uses. A number of municipalities and group water systems have unreliable water supplies through the summer irrigation season. Nearly every year water supplies are administered

by the Umpqua Basin Watermaster. Deficiencies are greatest in the South Umpqua, Myrtle Creek, Sutherlin Creek, Calapooya Creek and Deer Creek sub-basins. (Revised 6/28/89)

Due to the geology and topography of Douglas County, high winter rainfall average in many areas of the County is frequently lost to surface flows, and summer flows are low as they depend on groundwater discharge which varies according to the basin geology. Because of the seasonal pattern of rainfall it was determined that storage is the most feasible method for meeting the major water demands forecast for the County.

Storage

Advantages of the storage alternative include the provision of reliable water supplies, the improvement of instream water quantity and quality and the potential use of impoundments for flood control, power generation and recreation. In fact, given the magnitude of the County's water needs, storage of water in impoundments is the most feasible means of satisfying the projected needs.

The major disadvantage of this alternative is the heavy capital investment and debt financing required for construction of dams. In some of the County's sub-basins, these costs may be more than local government or private developers are willing to pay. In such instances, unless outside funds are made available, the other alternatives, such as developing groundwater, conservation and/or limiting growth could be considered.

Possible dam and reservoir sites exist in most of the sub-basins in the County. Literally hundreds of possible sites have been analyzed over the years. The factors considered in these evaluations included service area, storage volume, hydrology, economics and environmental concerns. Based on these studies, the County has compiled a map of Potential Water Impoundment Sites, indicating those sites which the County finds are potentially the most suitable for water impoundment. (Revised 6/28/89)

The County's inventory and map of potential water impoundment sites does not include sites for individual or small group water impoundments of less than 1000 acre feet. Such sites are too numerous to inventory adequately. Impoundments with less than 1000 acre feet of storage can provide water for agriculture, recreation and fish rearing for an individual or small group. Impoundments of less than 1000 acre feet are also used by the timber industry for fire control and log storage.

The decision to limit detailed water impoundment planning to impoundments of 1000 acre feet or more is also supported by the County's inventory of lakes, ponds and reservoirs. This inventory indicates that almost all existing individual or group impoundments are less than 1000 acre feet in size. Furthermore, the identified uses of these impoundments are accessory and necessary to the uses permitted in resource zones, and therefore are also considered to be permitted uses within the resource zones.

As part of the County's ongoing planning process, the quality of alternative inventoried potential water impoundment sites will be evaluated by the Douglas County Water Resources Advisory Board. The Water Resources Advisory Board will also review and provide recommendations in response to proposals to construct a particular water impoundment. As a result of such evaluations, the alternative sites found to be less suitable, not needed or otherwise not feasible, will be removed from the Potential Water Impoundment Site Inventory and map. If additional potential sites are identified by the Advisory Board to meet anticipated needs, they will be added to the potential Water Impoundment Site Inventory and map. As alternative sites are chosen as necessary and most suitable for future development as water impoundments, they will be designated as public/semipublic on the Comprehensive Plan and placed in a water impoundment zone.

Potential Water Impoundment Site Mapping

In an effort to establish the boundaries of the potential water impoundment sites and identify the impact area, these sites have been mapped using a contour map at a 1" = 1 mile scale. The dam heights were derived from various studies and from the County Engineer. The sites have been mapped using the top of dam height plus 20 feet. The top of dam height would provide the maximum pool area and the additional 20 feet would provide control access around the reservoir. An additional area has been included to provide for the dam and associated uses. This additional area is equal in width to the dam and extending downstream one half mile and has been mapped as potential impoundment site to

provide for staging area, power house, fish facilities, spillway and other associated uses. The boundaries of potential impoundment sites may be amended as specific studies are developed providing more detailed information. The accompanying maps are the best attempt with current knowledge. If questions arise regarding the exact location of a potential impoundment boundary, they shall be referred to the County Engineer for a determination.

Potential Conflicts

The statewide planning goals suggest that reservoir sites should be identified and protected against irreversible loss. Since all the identified potential impoundment sites are located entirely within designated resource areas, with the exception of the Elk Creek site (located south of Tiller), these resource designations and zones were analyzed to determine which uses would conflict with water impoundment sites and possibly make development of such resource difficult or impossible to realize. Because resource designations and zones allow a minimum of conflicting uses, they should be applied to potential impoundment sites as a primary designation until such time that a site is selected for construction or deleted from the inventory. After selection, the appropriate exceptions to the planning goals will be taken and a public/semipublic designation and water impoundment zone applied to the site limiting any conflicting use. (Revised (6/28/89)

In reviewing the various resource zones for conflicting uses, several were identified. Permitted uses which would cause conflicts with eventual water impoundment use included resource related single family dwellings, land divisions, churches, schools, and utility facilities. Several conditional uses were also identified as creating potential conflicts such as commercial activities in conjunction with agriculture, golf courses, feedlots, non resource related single family dwellings and solid waste disposal sites.

These conflicting uses can be categorized as having adverse economic, social or environmental consequences. Uses which require capital investment in a structure, or increase the density through division make the acquisition of the resource more difficult. The cost of improvements eventually becomes prohibitive and the number of owners makes negotiations more difficult. Owners are less likely to be favorable to acquisition once considerable time and capital has been invested in development improvements. There are the social costs of relocating families and perhaps disrupting a rural community. Rural housing in the vicinity may not be able to absorb those displaced who wish to remain within a certain community. Divisions eventually increase development as new owners often wish to build new houses and invest in other improvements. The increased density of ownership and capital investment will eventually destroy the value of the site for water impoundment use, as it becomes virtually impossible to acquire.

Most identified potential impoundment sites already have dwellings associated with a permitted use located on them, and some impoundment sites include undeveloped parcels for which a permit could be obtained to construct such a dwelling. To restrict dwellings on existing parcels could remove a parcel from a high level of management as the owner could not be near the resource activity. Since only a minimal number of parcels in identified potential water impoundment sites would qualify for additional dwellings, it is felt the adverse impact on the owner and resource use of land would be greater than on future use of the site for water impoundment. Therefore, the development of existing parcels in conjunction with resource use would not prohibit the site from being used for a water impoundment, although such use would be somewhat more costly. Divisions, however, would intensify development enough to have a significant impact on future acquisition for water impoundment.

Activities such as feedlots and solid waste disposal sites would have major negative environmental consequences on potential water impoundment sites which could disqualify them from future use as water impoundments because of adverse effects on water quality. There are numerous areas throughout the County which could support such activities without endangering the viability of the potential impoundment site. Because there are other alternatives which could provide such uses, these conditional uses should be restricted from potential impoundment sites.

Based on the analysis of the conflicting uses and the resource value of the identified potential impoundment site, it is apparent that both are important. Such uses should be balanced to allow some conflicting uses in a limited way that would still protect the resource site. Therefore, divisions and conditional uses which require substantial structures should be restricted from potential water impoundment sites. In addition, those activities having a major negative environmental impact should also be restricted. However, nonintensive activities not requiring major structures, and single family

dwellings in conjunction with a permitted use should be permitted.

Water Impoundment Sites

Six major water impoundment sites have been developed in Douglas County to serve the County's water needs. In their chronological order of development they are Plat I Reservoir, Cooper Creek Reservoir, Ben Irving Reservoir, Win Walker Reservoir, Yoncalla Reservoir, and Galesville Reservoir

Plat I Reservoir was constructed in 1967 to provide, as its primary purpose, flood protection to the City of Sutherlin and to the agricultural lands above and below Sutherlin. Water is also stored for irrigation purposes and distributed to an estimated 349 acres of farmland. Recreation uses were later developed including water-skiing, boating, fishing, swimming, and hunting.

Cooper Creek Reservoir was constructed in 1970 for the primary purposes of flood protection to the City of Sutherlin, recreation, and municipal and industrial water supply.

Ben Irving Reservoir was constructed in 1980 for the primary purposes of irrigation, municipal use, and stream enhancement. Recreation is a secondary use. The production of power is a potential secondary use.

Win Walker Reservoir was constructed in 1982 on the west fork of Canyon Creek. Its primary purpose is to serve municipal needs of the City of Canyonville.

Yoncalla Reservoir was built in 1982 to serve the municipal water needs of Yoncalla. It is an earthen dike reservoir and is filled by pump from Adams Creek.

The **Galesville water impoundment** was built in 1985 to serve the water needs of south Douglas County. The Galesville site for a Cow Creek Sub-Basin Water Impoundment was approved by action of the Douglas County Board of Commissioners on July 23, 1982, after quasi-judicial hearing before the Douglas County Hearings Officer. The Findings of Fact and Decision for this action provide the compelling reasons to support taking exceptions from the provisions of Goal 3 (agricultural lands) and Goal 4 (forest lands) to justify the long-term removal of 920 acres of agricultural and/or forest land from direct farm and timber production (pages 17 through 182 of Findings of Fact and Decision Cow Creek Sub-Basin Water Impoundment, July 23, 1982). The impoundment at Galesville consists of a 42,225 acre foot reservoir, a 158 foot high concrete dam, a concrete lined spillway with a capacity of 40,940 cfs (and a discharge rating of 31,750 cfs at the Probable Maximum Flood (PMF) elevation of 1906.3), multiple-level outlet works, fish capture and release facilities and hydro-electric power generation facilities. Recreation facilities have also been constructed. The impoundment's primary purposes are providing water for irrigation, municipal and industrial use, and stream enhancement for fish. Flood control, hydro-electric power generation, and recreation are secondary purposes.

SURFACE WATER QUALITY

Major water quality problems occur in those streams that have low flows and pass through areas where man's activities are concentrated. In conjunction with seasonal low flow problems, stream quality is greatly degraded by high water temperatures which are common in the mainstream Umpqua River system and tributaries from June through October.

Coliform standards are occasionally exceeded during the dry weather period in the North Umpqua River, mainstem Umpqua River, South Umpqua River, Cow Creek, and Calapooya Creek. However, the MPN coliform standards are exceeded, on a year-round basis, in the South Umpqua River near Roseburg. The South Umpqua River is identified as a state "hot spot" area for several types of nonpoint pollution problems such as streambank erosion, sedimentation, excessive water withdrawal and elevated water temperatures.

Overall, the industrial waste sources in the Umpqua Basin are currently under satisfactory treatment and control.

GROUNDWATER

Groundwater quantity and quality varies greatly throughout Douglas County. Excessive hardness and iron levels are the most common quality problems.

Groundwater in Douglas County is the primary source for rural domestic use; however, groundwater supplies in interior Douglas County will not support urbanizing areas or large amounts of agricultural irrigation. Due to the rural nature of the County, groundwater will continue to be predominantly needed for the scattered rural domestic demand from wells.

There is an excellent potential for expanding water supplies in the coastal areas due to large amounts of groundwater in the sand dunes.

WATER RESOURCES FINDINGS (Revised 6/28/89)

GOAL REQUIREMENTS

1. Statewide Planning Goal 5 requires that plans must include the location, quality and quantity of the water resources and that conflicting uses for the resources be identified.

2. The goals require the County's policies on water resource management and its land use designations to be based on the inventory of water resources and identified issues. Uses and activities should not be planned or designated unless the County's inventory indicates that necessary water will be available for the use.

3. The goals also require that municipal watersheds within County jurisdiction must be designated and managed in coordination with the County.

4. The guidelines also suggest that "reservoir" sites should be identified and protected against irreversible loss.

5. Statewide Planning Goal 6 is directed towards maintaining water quality, and directs that discharges not be planned which will exceed the "carrying capacity" of the water resource. The goal also requires that discharges from future development, when combined with discharges from existing development, not threaten to violate or violate applicable federal or state environmental quality standards.

WATER QUANTITY

General

6. The Umpqua River Drainage Basin covers an area of approximately 4,560 square miles and the boundary of the basin nearly coincides with the boundary of Douglas County.

7. A portion of the Middle Coquille River's drainage is included in the County and the area is generally referred to as Camas Valley.

8. Topographically and geologically the Basin is composed of definable segments which contribute to the broad seasonal variation of the streams.

9. A high winter rainfall average in many areas of the County is frequently lost to surface flows, and summer flows are low as they depend on ground water discharge which varies according to the basin geology.

10. There is sufficient water supply on an annual yield basis to satisfy existing and future needs; however, there is a seasonal distribution problem with insufficient water supply in many streams during the summer and early fall.

11. The value of Douglas County's water resources is immeasurable. Rivers, lakes, farm ponds, marshes, streams and groundwater provide for domestic supply, recreation, wildlife habitat, drainage control and many aesthetic benefits.

12. Standards for the water quality of the Umpqua Basin may be found in Oregon Administrative Rules,

Chapter 341, specifically OAR 341-41-282 through 285.

13. Oregon Department of Environmental Quality temperature standards for the Umpqua Basin, which allows no measurable temperature increase when water temperatures reach 58°F, are designed to protect a cold water fishery, such as for salmonid species. The desirable maximum temperature for salmonids is 18°C, about 65°F.

LOWER UMPQUA RIVER/COASTAL LAKES SUB-BASIN

AREA DESCRIPTION

14. The Lower Umpqua River/Coastal Lakes sub-basin extends from the mouth of the Umpqua River at Winchester Bay to the upstream extent of tidal influence at Scottsburg (River Mile 28), including the drainages of Smith River and Mill Creek, and, the drainage areas of the Coastal Lakes in Douglas County to the north and south of the Umpqua River.

SURFACE WATER

15. The State Water Resources Department has estimated the average annual discharge of the Umpqua River to be about 7.9 million acre feet, the largest flow into the Pacific Ocean of a stream wholly within Oregon.

16. About eighty-five percent of the annual discharge occurs between the months of November through April.

17. The Umpqua River below Scottsburg and the lower reaches of the Smith River below North Fork are subject to Pacific Ocean tidal influences.

18. The quality of water in the Mainstem Umpqua River can be categorized as adequate and generally meeting state standards.

19. The maximum upstream encroachment of salt water appears to be about river mile 24, at the point where mill creek discharges into the Umpqua River. During the late summer, water as low as river mile 16.5 has been noted as being too salty for domestic or most agricultural uses.

20. In tributary streams, water quality is generally good except for water temperature, which is elevated due to climatic conditions, a lack of riparian vegetation and small stream discharges during summer and early fall.

21. Elevated water temperature and sedimentation are moderate problems on the main river and severe problems on Mill Creek and Lake Creek.

LAKES

22. The primary use of the coastal lakes is for recreation, esthetics, and water supply for lake shore residences.

23. The waters of Clear Lake and Lake Edna have been set aside for the exclusive use of the City of Reedsport by the State Engineer's Order dated October 4, 1940.

24. Water in the lakes in western Douglas County is soft and contains small concentrations of dissolved solids.

25. Tahkenitch and Siltcoos Lakes are listed by ODEQ as having a eutrophication problem and rehabilitation activities may be eligible for funding assistance.

GROUNDWATER

26. Most, if not all, rural areas in this sub-basin have adequate supplies of groundwater for domestic use, including lawn and garden watering.

27. The quality of groundwater in this sub-basin is generally good, particularly in the dune sand aquifer. There are, however, some high levels of sulfur, hardness and iron in some wells, which are treatable.

CURRENT WATER USE

28. The average annual water use of the City of Reedsport is 598.4 million gallons per year, with the average per capita daily use of 269 gallons per person per day. This system serves Reedsport, Gardener, and Winchester Bay.

29. The community of Scottsburg obtains its water from individual wells, and has sufficient amount for domestic use.

Aquatic Life

30. The Umpqua River below Scottsburg is the passageway to the entire Umpqua Basin for anadromous species, although a relatively small portion of the total basin spawn in this sub-basin.

31. Nearly 50,000 person-days are spent in catching about 13,700 fish annually in the Umpqua and Smith River Drainage, according to ODFW estimates.

32. Anadromous species are passing through the sub-basin in all months of the year, and it is important that water quality conditions remain within limits tolerable to anadromous species during the entire year.

FUTURE WATER USE

33. The City of Reedsport has more than enough water rights to be able to meet the future needs of the water system past year 2030.

SUB-BASIN CONCERNS

34. Currently used sources of rural water supply are expected to remain adequate to meet future needs.

35. A potential has been recognized for pollution of Clear Lake resulting from an accidental spill of hazardous cargo which might be contained in vehicles traveling along US Highway 101, as it proceeds along the western shore of the lake.

36. Periodic flooding of the business district of Gardiner occurs frequently and could possibly be solved by increasing the elevation of Highway 101.

ELK CREEK/CALAPOOYA CREEK SUB-BASINS

AREA DESCRIPTION

37. The Elk Creek and Calapooya Creek sub-basins drain the northeastern portion of the Umpqua Basin. Elk Creek enters the Umpqua River at Elkton (River Mile 0) and runs eastward through Drain and on to its origin at about River Mile 47 above the community of Elkhead on the slopes of Ben More Mountain. Calapooya Creek enters the Umpqua River at the community of Umpqua (River Mile 0) and runs eastward, to the north of Oakland and on to its origin at River Mile 36 at the confluence of the North and South Forks above Hawthorne.

SURFACE WATER

Quantity

38. Stream flow data for both Elk Creek and Calapooya Creek show large variations in discharge from season to season, reflecting climatic and geologic conditions in the sub-basins.

39. Approximately 94 percent of the annual discharge measured at Elk Creek near Drain and about 91 percent of the annual discharge measured at Calapooya Creek near Oakland occurs in the six month period of November through April. Less than one percent of annual discharge occurs in each of the summer months of July, August and September, the period of peak needs for out-of-stream uses.

40. In many years both Elk Creek and Calapooya Creeks have been dry for part of the year.

Quality

41. Water quality conditions of the Elk and Calapooya Creek sub-basins limit the uses that can be made of those water resources. Water temperatures seasonally exceed the limits tolerable to anadromous fish. Nutrient levels become high during low-flow periods causing conditions that are critical for aquatic life, and the appearance of the streams become aesthetically unpleasant.

42. Mean monthly stream temperatures for Elk Creek at Drain during June through August are greater than the DEQ standard of 65°F.

43. Active waste discharge permits for the Elk Creek sub-basin have been issued to the following:

Source	Receiving Stream	Waste Type
Drain Sanitary Treatment Plant	Elk Creek	Sanitary
Ranch Motel	Yoncalla Creek	Sanitary
Rice Hill West	Yoncalla Creek	Sanitary
Yoncalla Sanitary Treatment Plant	Yoncalla Creek	Sanitary
Yoncalla Water Treatment Plant	Yoncalla Creek	Filter Backwash
Wooley Enterprises	Elk Creek	Log pond overflow
Wooley Enterprises, Plywood Mill	Pass Creek	Log pond overflow
Wooley Enterprises, Highway 38	Elk Creek	Log pond overflow
Wooley Enterprises, Smith River	Pass Creek	Log pond overflow

44. Nonpoint pollution problems in the Elk Creek sub-basin have a composite rating of severe from Drain to Elkton and moderate upstream from Drain.

45. Streambank erosion is rated as a moderate problem in Elk Creek, while sedimentation is a severe problem in Elk, Big Tom Folley, Brush, Pass and Yoncalla Creeks and in other minor tributaries.

46. The mean monthly water temperature for Calapooya Creek near Oakland annually exceeds the 65°F DEQ standard during June through September.

47. Active waste discharge permits in the Calapooya Creek sub-basin have been issued to the following:

Source	Receiving Stream	Waste Type
Oakland Sanitary Treatment Plant	Calapooya Creek	Sanitary
Oakland Water Treatment Plant	Calapooya Creek	Filter Backwash
Roseburg Lumber	Calapooya Creek	Log pond overflow

48. Nonpoint pollution problems in the Calapooya Creek sub-basin include severe high water temperatures, streambank erosion, below Bachelor Creek, and sedimentation.

FLOODING

49. Flood damage in the Elk Creek sub-basin is a frequent problem. Elk Creek has flooded portions of the City of Drain on numerous occasions. The channel capacity of Yoncalla Creek is such that flooding of riparian agricultural lands occurs frequently.

50. Flooding occurs frequently in the Calapooya Creek sub-basin, although most damage is limited to flooding of riparian agricultural lands.

LAKES

51. Sutherlin Log Pond (in the Calapooya Creek sub-basin) is a private log pond with a surface area of 130 acres and the owner normally allows fishing during non-working hours. There are no lakes available for public use in the Elk Creek sub-basin.

GROUND WATER

Quantity

52. A majority of the Elk Creek and Calapooya Creek sub-basins are underlaid by formations composed of Tertiary marine sedimentary rocks of low permeability. In general, permeabilities may be sufficient to supply wells for domestic use, but are too low for irrigated agriculture, large scale industrial or municipal use.

Quality

53. Mercury has been mined in the upper portions of both the Elk Creek and Calapooya Creek sub-basins. Water was sampled from wells in the areas and mercury content was found to be less than the standard of 0.005 mg/l.

CURRENT WATER USE

Municipal and Industrial

54. The City of Drain averages an annual water use of 168 MG drawn from Elk Creek (averaging a daily per capita use of 361 GPCD).

55. The City of Yoncalla averages an annual water use of 70 MG drawn from Adams Creek (a tributary of Elk Creek) and averages a daily per capita use of 214 GPCD. Flow measurements in Adams Creek, near the City's diversion, have shown values as low as 0.28 CFS (about 125 GPM) in recent years, and periods of no flow have been reported. The City pumps water from Adams Creek into a 100 acre foot reservoir. Adams Creek is not a reliable supply for the City.

56. Industrial water use from Elk Creek is limited to two rights for log ponds, totaling 1.02 CFS.

57. The City of Oakland averages an annual water use of 46 MG drawn from Calapooya Creek (averaging a daily per capita use of 149 GPCD).

58. The City of Sutherlin averages an annual water use of 311 MG drawn from Calapooya Creek, Cooper Creek (a tributary of Sutherlin Creek), the North Umpqua River, and from Cooper Creek Reservoir (averaging a daily per capita use of 149 GPCD).

Irrigation

59. Approximately 1,570 acres in the Elk Creek sub-basin are irrigated under water rights of record. About 1,490 acres are irrigated with rights having priority dates preceding the first establishment of minimum flows in 1974.

60. Approximately 2,450 acres are irrigated in the Calapooya Creek sub-basin. Of these, almost 1,330 are irrigated under rights predating the 1958 minimum flow.

61. Annual irrigation diversions are conservatively calculated at 2.5 acre feet per acre, the ceiling allowed under Oregon water law. Given basin climatic conditions, only alfalfa would require diversion of this amount, while other crops would require less.

Aquatic Life

62. Fall chinook spawn in the lower 10 miles of mainstem Elk Creek, with most spawning occurring from the mouth to about two miles upstream of Big Tom Folley Creek.

63. Approximately 95% of the coho spawning in Elk Creek do so in tributaries upstream of Big Tom Folley Creek.

64. About 92% of the winter steelhead spawning in Elk Creek do so in its tributaries. Big Tom Folley Creek, Brush Creek, Billy Creek and Yoncalla Creek provide habitat for the largest number of spawners.

65. In the Calapooya Creek sub-basin, about 85% of coho salmon spawn in tributaries, while 35% of winter steelhead spawn in Calapooya Creek itself. Hinkle Creek, Coon Creek and South Fork Calapooya Creek are host to the largest numbers of spawners. Other resident species include cutthroat and rainbow trout.

66. There are no natural barriers affecting fish passage in either Elk or Calapooya Creeks, but pool areas are sparse in both streams. A greater number of pools in Elk and Calapooya Creeks would improve the survival of fry and juvenile salmonids.

67. Low summer and fall stream flow, high water temperature and the lack of spawning and rearing habitat are the main factors affecting fish in Elk and Calapooya Creeks.

Recreation

68. There are no recreational sites with boat launching facilities in the Elk Creek or the Calapooya Creek sub-basins.

69. Water based recreation is limited to trout fishing, rafting and swimming.

Hydro-Power

70. There is no hydro-development on either Elk Creek or Calapooya Creek as of 1988.

FUTURE WATER USE

Municipal

71. Future needs of the city of Drain is estimated at a peak day diversion rate of about 1,588 GPM. While the amount is within the city's water rights, it is doubtful that the current supply from Bear Creek, including storage, will be adequate to meet projected needs. A total annual need of about 859 acre feet, from sources other than current supplies will be needed by the city in the future.

72. The current supply of water for the city of Yoncalla from Adams Creek is unreliable. The total annual need in relation to the City's projected population is 722 acre feet. This estimate is considered a demand on future storage in the Elk Creek sub-basin.

73. In the Calapooya Creek sub-basin, the projected needs of the city of Oakland are within the amounts authorized for diversion under current water rights. Since the rights are of such seniority (1909), the supply from Calapooya Creek is considered reliable, and will suffice for meeting the city's long term needs.

74. The city of Sutherlin's future water needs are estimated to be an additional annual total of 641 acre feet, over and above current supplies from Calapooya Creek, Cooper Creek and Cooper Creek Reservoir (excluding the 1,346 GPM the city could divert from the North Umpqua).

Industrial

75. Future industrial water use in the Elk Creek and Calapooya Creek sub-basins is expected to increase by 150 acre feet per year in each sub-basin to allow for sand and gravel production.

Rural Domestic

76. The annual estimated future need for rural domestic uses (based on 270 gallons per capita per day, and including lawn and garden irrigation) in the Elk Creek sub-basin is estimated to be about 1,164 acre feet and 1,154 acre feet in the Calapooya Creek Sub-Basin.

Irrigation

77. Douglas County and the US Bureau of Reclamation have been formulating a multipurpose water project in the upper Elk Creek sub-basin. The potential irrigable lands are situated in the Yoncalla and Scotts Valleys.

SUB-BASIN CONCERNS

78. Unregulated flows in Elk Creek and tributary streams frequently reach zero in the low-flow season.

79. Flooding frequently recurs in portions of the city of Drain and on agricultural lands along Yoncalla Creek.

80. During the low flow period water quality conditions are adverse to aquatic life, recreational use, and are aesthetically not pleasing.

81. Even with existing storage, Adams Creek is not a reliable supply for the City of Yoncalla.

82. Population increases expected at Yoncalla and the Rice Hill area cannot be adequately served with existing supplies, and storage will be necessary to meet these growth needs.

83. There is no opportunity for expanded irrigation development in the sub-basin without storage.

84. Without augmentation from stored water and instream or riparian enhancement, aquatic habitat will not support additional anadromous fish populations, nor will in-stream recreational opportunities be increased.

85. During the low flow season, water quality conditions in Calapooya Creek are adverse to aquatic life, in-stream recreation, and are aesthetically not pleasing.

86. The expected increase in population at Sutherlin will require that additional water supplies be made available to provide a reliable water supply. Alternatives include storage sites in the Calapooya Creek sub-basin, or development of a diversion from the North Umpqua River.

87. There is no opportunity for expanded irrigation development without storage.

88. Without augmentation from stored water and instream or riparian enhancement, aquatic habitat will not support additional anadromous fish populations, nor will opportunities for in-stream recreational uses be increased.

89. Water temperatures during low flow periods are intolerable to anadromous species in both the Elk and Calapooya Creek sub-basins.

90. Surface flooding occurs frequently in the City of Drain. The channel capacity of Yoncalla Creek is such that flooding of riparian agricultural lands occurs frequently.

ALTERNATIVES TO ADDRESS CONCERNS

Structural

91. Development of storage on both Elk Creek and Calapooya Creek is needed to meet current and future needs. For Elk Creek, storage should also include provision for reducing flood flows in the vicinity of Drain. Based on preliminary reviews, flood control capability in Calapooya Creek storage may not be economically justified.

Non-structural

92. Given the limitations on availability of water resources, population growth may be curtailed without the advent of additional structural measures.

93. Aquatic habitat conditions in both the Elk Creek and Calapooya Creek sub-basins can be improved through projects providing increased bank protection and riparian vegetation.

UMPQUA RIVER/NORTH UMPQUA RIVER SUB-BASINS

AREA DESCRIPTION

94. The Umpqua River/North Umpqua River sub-basins cover portions of Douglas County from the Umpqua River at Scottsburg (RM 19) upstream to the confluence of the North and South Umpqua Rivers, at about river mile 112, and the entire drainage of the North Umpqua River, from its confluence with the South Umpqua upstream over 106 river miles to its origin at Maidu Lake on the crest of the Cascade Range.

SURFACE WATER

Quantity

95. The monthly stream-flow data show large variations in discharge, reflecting climatic and geologic conditions in the sub-basin.

96. About 85% of the annual discharge of the Umpqua River near Elkton occurs during the October through April period. For the North Umpqua at Winchester, about 78% occurs for the same period, while near Glide, about 75% is measured. In Sutherlin Creek, 96% of the annual discharge is measured during October through April.

97. There is no flow in Sutherlin Creek during August and September. The flow regime in Sutherlin Creek is typical of the lower elevation tributaries in the North Umpqua and Umpqua Rivers.

98. About one-half (49.6%) the annual discharge of the Umpqua River near Elkton is supplied by the North Umpqua, measured at Winchester.

99. In January, the contribution of the North and South Umpqua Rivers is nearly equal, while during August and September the contribution of the North Umpqua is over 80% of the flow in the Umpqua River near Elkton.

Quality

100. On the Umpqua River at Elkton the mean, or average, monthly water temperatures during June, July, August and September have exceeded the 65°F desirable maximum. During the 1980-1985 period used, maximum daily temperatures have also been greater than 65°F in May through October. The minimum daily temperature measured during the period also was over 65°F in August.

101. Average monthly temperatures for the North Umpqua River at Winchester exceeded the 65°F mark in July and August, and daily maxima of over 65°F have been recorded in June through September.

102. The average monthly temperature in the North Umpqua River just below Steamboat Creek over the 1981-1987 period reaches slightly over 58°F in July and August. The highest daily temperature recorded has been 64.5°F in June. All other readings have been lower.

103. In Canton Creek, the average temperature for July is 64.4°F and for August is 65°F. Maximum daily temperatures have reach 66°F in May, 67°F in September and have reached 72°F in June, July, and August. In Rock Creek, monthly average temperature in August is 65.1°F, while maximum daily values are 65°F in May, 68°F in September, and June, July and August daily maxima have reach 70°F.

104. On the North Umpqua, temperature measuring stations are located upstream of nearly all major diversions, and therefore represent "natural" conditions in the North Umpqua sub-basin. Such would indicate that water temperatures are marginal for anadromous fish in the Umpqua basin.

105. There are no point source discharges into the Umpqua River between Scottsburg and the confluence of the North and South Umpqua Rivers.

106. Water quality within the North Umpqua Basin can be characterized as being good with the basin demonstrating a minimal amount of point and nonpoint problems. The waters serve as a high quality source of municipal water for the Roseburg and Glide areas. It also serves as a nationally renowned steelhead and salmon fishery.

107. Summer flows in Little River are low and water withdrawal has been identified as a moderate problem. Water temperatures are considered to be moderately high.

108. Nonpoint source problems in the North Umpqua River are minor. Streambank erosion is rated as moderate in Rock Creek, Canton Creek, Steamboat Creek, Copeland Creek, and Sutherlin Creek.

109. Water withdrawal is a severe problem in Sutherlin Creek although there are two water impoundments within the drainage. In conjunction, elevated water temperature is a severe problem and algae growth is a moderate problem.

Flooding

110. Flood damage has occurred in the Umpqua River/North Umpqua River sub-basins in the last generation.

111. During the 1964 flood, the City of Elkton was evacuated, and damage was widespread throughout the Umpqua Basin. Preliminary flood damage estimates prepared by United States Corp of Engineers totaled $31,200,000, in 1964 dollars for the County as a whole.

112. Total damages from the January, 1974 flood in the Umpqua River sub-basin were $444,700, in 1974 dollars. High flows inundated 224 acres of prime agricultural lands in the Garden Valley area. USCE reported that the levee system in the City of Reedsport prevented damages of $1,208,000, again in 1974 dollars.

LAKES

Quantity

113. More than half the lakes with surface areas greater than ten acres occurring in the North Umpqua sub-basin are those that result from dams constructed for multiple purpose uses. Natural lakes are found on Federal lands within the Umpqua National forest.

114. There are no lakes available for public use in the Umpqua River sub-basin.

115. Although the Plat I and Cooper Creek Reservoirs are small in size they have had a significant impact on the Sutherlin area, both in the business and agricultural community. Construction of the reservoirs has almost completely eliminated the nearly annual flooding of the City of Sutherlin and surrounding agricultural lands.

116. The Plat I Reservoir has 2,050 acre feet of active storage, of which 880 acre feet is used for irrigation and 1,170 acre feet are used for flood control.

117. Cooper Creek Reservoir has 4,385 acre feet of active storage. Of that total approximately 3,400 acre feet are used for recreation, 500 acre feet provides additional water supply to the City of Sutherlin for municipal and industrial water use and 485 acre feet are for flood control.

118. There are a number of natural lakes on Federal lands within the sub-basin with surface areas less than ten acres that are used for public recreation purposes.

Quality

119. Water quality in the higher elevation lakes of the sub-basin is excellent.

120. In the past, Diamond Lake has experienced fertilization by septic and pit toilet drainage, but the wastes have since been diverted by sewer lines to treatment ponds outside the lake drainage basin.

121. Once identified, programs for reducing further nutrient enrichment of Diamond Lake should be designed and implemented.

122. Algal blooms occur in summer months in the lower elevation lakes. Cooper Creek and Plat I Reservoirs both have excessive aquatic weed growth which hampers recreation use.

GROUND WATER

Quantity

123. Fluvial deposits occur along the Umpqua River and major tributaries. Permeability and recharge are relatively high in these deposits.

124. The area of the basin north of the City of Roseburg and west of the mouth of Little River has been identified by the United States Geologic Survey as the Marine Sedimentary aquifer unit, comprised of Tertiary rocks. From Little River upstream to about the mouth of Clearwater River, Tertiary Volcanic Rocks of the Western Cascade Range define groundwater conditions. In both these aquifers, permeability and recharge are generally low, with well yields being less than 20 gpm.

125. Well yields may be adequate for supplying rural domestic needs to the uplands areas, including small garden irrigation, however, USGS reports cite an incidence of "dry holes" (22 out of 479), that should be noted in regulation of future development.

Quality

126. The quality of ground water resources in the sub-basin is generally acceptable for all uses. Some wells provide water with high hydrogen-sulfide content (rotten-egg odor), and with high iron bacteria (rust). While unpleasant, the levels of either constituent generally are not at harmful concentrations.

CURRENT WATER USE

Municipal and Rural Residential

127. Residents of Umpqua and Scottsburg obtain water from individual wells, while the majority of the population of Wells Creek are provided water from springs.

128. The City of Elkton obtains its water supply from the Umpqua River, under a water right dated 1971, senior to minimum flows established in 1974.

129. The lower ten miles of the North Umpqua River is the location of two diversions that provide water to a major portion of the population of Douglas County. Both diversions constitute "inter-basin transfers", in that water is diverted from one stream system, the North Umpqua, while return flows enter another stream system, the South Umpqua.

130. The major diversion for municipal/industrial use in the sub-basin is for the City of Roseburg and the community of Dixonville. In 1980, the estimated service area population was 24,731 persons, and the number of services was 8,316.

131. Umpqua Basin Water Association's (UBWA) service area comprises about 80 square miles and extends into the northern portions of Lookingglass Valley, along the South Umpqua River and areas on both banks of the North Umpqua River. UBWA believes it has the greatest length of pipeline per service of any delivery system in the state.

132. Communities upstream from Glide include Idleyld Park, using springs and individual wells as the water supply; Steamboat Springs, diverting water from the North Umpqua; Dry Creek, served by springs; and, Toketee Falls, obtaining water from the North Umpqua.

133. The City of Sutherlin obtains a major portion of its water supply from the Sutherlin Creek drainage. The City of Sutherlin also has water rights on Cooper Creek and the North Umpqua.

Irrigation

134. With the exception of Garden Valley, irrigation use along the Umpqua River and North Umpqua River is confined to narrow shoestring valley lands adjacent to the streambeds.

135. In the Sutherlin Creek reach, irrigation is served by releases from Cooper Creek and Plat I Reservoirs.

Fish Passage

136. Adult anadromous fish use the Umpqua River as a passageway enroute to upstream sub-basins for spawning, although some Coho and Winter Steelhead spawn in the Umpqua River.

137. About 41% of anadromous fish spawning in the Umpqua Basin do so in the North Umpqua exclusive of the ODFW hatchery on Rock Creek, a North Umpqua tributary.

138. Anadromous species are passing through the Umpqua sub-basin in all months of the year, therefore it is important that water quality conditions remain within limits tolerable to anadromous species during the entire year.

139. The only fish counting station in the Umpqua Basin is located at Winchester Dam. This facility is essential to management of the fishery resource in the North Umpqua sub-basin, and in operation of the Rock Creek Hatchery.

140. The Rock Creek Hatchery produces chinook, steelhead, and coho salmon along with rainbow, brook, and cutthroat trout for release into the North Umpqua River.

Recreation

141. The North Umpqua River is nationally renown for its recreational quality. The river is one of the few in Oregon designated for fly-fishing only. Rafting, canoeing, and drift-boating are "world-class" experiences on the North Umpqua River.

142. Recreation use of Cooper Creek and Plat I Reservoirs also is intensive. During 1980, an estimated 210,000 visits took place for boating, water skiing, reservoir fishing, and other water based recreation.

143. Total catch and recreation data for 1985 show the Umpqua Basin ranks first in Oregon, exclusive of Columbia Basin streams, with about 30% of the statewide catch of Summer Steelhead.

Hydro-Power

144. There is no hydro-power development on the Umpqua River above Scottsburg, nor on Sutherlin Creek.

145. On the North Umpqua, a small plant, less than 1,500 kW was built at the time of construction of Winchester Dam in the 1890's, but was taken out of service in the 1960's.

146. In 1983, a 1.5 mW capacity plant was installed in the north bank at the dam. Operation of the new plant has been curtailed since December, 1985, due to environmental issues.

147. Above river mile 68 on the North Umpqua River, Pacific Power and Light Company's Hydro Project #23 encompasses a number of hydraulic structures and eight hydro plants with a total installed capacity of 185 mW, the largest hydro complex in the Umpqua Basin.

FUTURE WATER USE

148. Based on the City of Elkton's current estimated peak daily use of 388 Gallons Per Capita Day (GPCD) and the average monthly distribution of 1980-1986 water use, the peak diversion requirement to meet future needs will be 128 Gallons Per Minute (GPM). The city has rights with a priority date of 1971, allowing diversion of up to 224 GPM, which appear adequate to meet future needs.

149. Nearly 39% of the 1980 population of Douglas County is served by water systems that divert supplies from the North Umpqua River.

150. The Umpqua Basin Water Association has water rights allowing a total maximum diversion of 4,084 GPM from the North Umpqua River near Brown's Bridge. Of that total 1,391 GPM has a priority date of 1966, 449 GPM was obtained in 1971 and 2,244 GPM has a priority date of 1978. Estimated future needs are based on 270 GPCD with a maximum diversion estimated at 2,327 GPM, (this is less than the total rights now held by the Association). However, the future need is greater than the Association's rights that are senior to 1974 minimum flows (1,840 GPM).

151. The City of Roseburg's water system serves the largest population of any water system in the County. The service area includes the area within the city limits, the urban growth boundary, the Dixonville Water Association, and the rural population in surrounding areas. Peak daily use is estimated to be 408 GPCD above the county wide average of 354 GPCD. Assuming no change in that value, with the future population the peak water need of the system will be 23,013 GPM.

    The City diverts water under rights totaling 15,260 GPM. Of that total, 11,221 GPM predate the 1958 minimum flow. The Dixonville Water Association has a right to 1,346 GPM with a priority of 1977, and the city has a further right of 2,693 GPM with a priority date of 1979.

    The future need exceeds the current allowable maximum diversion, and when needs are compared with the allowable, an additional 2,583 acre feet per year will be needed (assuming flow in the North Umpqua remains at levels above 1974 minimum flow requirements).

152. The Glide Water Association serves water to an estimated 689 persons. The peak daily need is 271 GPCD. The future population will require a peak diversion of 335 GPM. The Association has rights totaling 987 GPM, all of which predate the 1974 minimum flow. The future peak need is about one-third of the Association's rights, and no additional water sources are felt necessary to meet estimated future needs.

153. It appears that all lands considered irrigable on the North Umpqua are being irrigated under existing rights. Consequently, no expansion of irrigation is foreseen from the North Umpqua River.

SUB-BASIN CONCERNS

154. Unregulated water supplies in the Umpqua River may not be adequate to meet expanded future irrigation needs.

155. Unregulated discharge in the North Umpqua River may become inadequate as a reliable municipal and industrial surface water source for the increasing population.

156. Surface water supplies are inadequate to meet future irrigation needs in Sutherlin Creek.

157. Surface water supplies in Little River are inadequate to supply irrigation expansion.

158. Water temperatures have been shown to frequently exceed standards in the Umpqua River and in the North Umpqua below Idleyld Park.

159. Rock Creek temperature and turbidity conditions are a problem with regard to operation of the Rock Creek Hatchery.

160. During periods when flows in the North Umpqua River exceed the 2% probability, or 50 year recurrence, flood damage occurs in communities and residences.

161. In the North Umpqua, below Glide, there is increasing seasonal algae growth, as evidence of the increasing water temperatures in the low flow season.

162. Coliform bacteria counts in the North Umpqua River below Idleyld Park are increasing and may soon consistently exceed standards. Additionally, the lack of riparian cover downstream of this community exacerbates high water temperature conditions.

ALTERNATIVES TO ADDRESS CONCERNS

163. An impoundment on the mainstem North Umpqua, or on a tributary that is a major producer of anadromous fish, is an unacceptable alternative for meeting future municipal and industrial or limited irrigation needs, or for providing flood control in the North Umpqua sub-basin.

164. An acceptable impoundment site exists above Cavitt Falls on Cavitt Creek, a tributary of Little River, that would provide storage for meeting future municipal-industrial needs in the lower North Umpqua sub-basin. Very little, if any, flood control storage would be obtainable at this site.

165. Expansion of sewerage facilities, such as those installed at Glide, downstream along the North Umpqua River to serve more populated areas such as Whistlers Bend, would improve water quality conditions in the North Umpqua River.

166. Future needs for out-of-stream use in the Umpqua River sub-basin could be met from storage releases in the South Umpqua sub-basin.

167. The increase in potential flood damages may be minimized by regulation of land use.

168. Water quality conditions, with regard to turbidity and high temperatures in the North Umpqua, may be improved by continued protection and enhancement of the riparian canopy. Tree growth will provide bank stabilization and shade. Such a program also should be implemented on all tributary streams in the sub-basin.

169. Federal lands comprising the corridor along the North Umpqua River should continue to be managed for preservation of scenic and recreation values, which also will assist in maintenance of good water quality conditions downstream.

170. In all upper watershed areas, continued rigorous adherence to Forest Practices Act criteria will continue to minimize siltation of streams. Additionally, preservation of riparian vegetation in buffer zones along streams will continue to provide shade for maintenance of water temperatures.

SOUTH UMPQUA TRIBUTARIES/LOOKINGGLASS CREEK SUB-BASINS

AREA DESCRIPTION

171. The South Umpqua tributaries, including the Sub-Basins of Lookingglass and Olalla Creeks, Deer Creek, North and South Myrtle Creeks, Canyon Creek, Days Creek, Salt Creek, and Elk Creek drain 160 square miles of the central and southern portions of the Umpqua Basin.

SURFACE WATER

Quantity

172. The average annual flow of tributaries of the South Umpqua (not including Cow Creek) total 478,000 acre feet. Flow from Lookingglass Creek comprises 43% of the total output from the tributaries.

173. Wide seasonal variations in flow reflect climatic and geologic conditions in the sub-basins. Approximately 88 to 95 percent of the annual discharge of Deer Creek, Olalla Creek, North and South Myrtle Creeks, and Days Creek occur in the November through April period. About 97% of the annual discharge of Lookingglass Creek occurs during the same period.

174. All tributary streams of the South Umpqua River discharge less than one percent of the annual total in each of the three summer months, July, August and September.

175. During many summers there is no flow in either Deer Creek or Days Creek.

Quality

Lookingglass Creek Sub-Basin

176. No point source discharges are located within the Lookingglass sub-basin.

177. Operation of Berry Creek Dam will reduce water temperatures by release of colder water during the summer months. These flows should also provide minor augmentation of stream flows in the South Umpqua River.

178. Streambank erosion along Lookingglass Creek is most severe in the upper reaches.

South Umpqua Tributaries

179. Industrial point sources from log ponds owned by Champion Building Products, Nordic Veneer, Inc. and Roseburg Lumber overflow into Deer Creek.

180. During the low flow season high water temperature in Deer Creek is a severe problem downstream from Dixonville and a moderate problem in the upper reaches.

181. Streambank erosion along Deer Creek occurs from the confluence of the South Fork downstream and to a lesser degree on other upstream reaches.

182. Sedimentation severely affects aquatic habitat downstream from Dixonville.

183. A point source discharge in the North and South Myrtle Creek Sub-basin is the Myrtle Creek Sewage Treatment Plant (serving Tri-City and Myrtle Creek).

184. During the low flow season, water temperatures in North and South Myrtle Creeks exceed state standards.

185. Streambank erosion is rated as a severe problem in the lower reaches of both North and South Myrtle Creeks and moderate in the upper reaches.

186. Sedimentation is severe in the lower reaches and moderate in both upper reaches of North and South Myrtle Creeks.

Flooding

187. Flooding of riparian agricultural lands occurs frequently in all tributary streams of the South Umpqua River eroding streambanks and contributing to siltation problems.

188. Since 1950, major flooding has occurred six times on South Umpqua tributaries.

189. Flooding of some residences is a recurring problem along Deer Creek.

LAKES

Quantity

190. Ben Irving Reservoir on Berry Creek has a surface area of 250 acres at full pool.

191. The Winn Walker Reservoir on Canyon Creek is owned by the City of Canyonville and stores 300 acre feet for the City's municipal water supply.

192. The Ben Irving Reservoir and the Winn Walker Reservoir are the only "lakes" in the South Umpqua Tributaries/Lookingglass Creek Sub-basins.

Quality

193. There is a moderate turbidity problem in Ben Irving Reservoir. Under increasingly more stringent watershed management processes, the condition is expected to gradually improve. The turbidity of the stored water is not severe enough to affect benefits obtained by release of colder water in larger volumes than would otherwise be present in Olalla and Lookingglass Creeks.

194. The quality of water stored in Canyonville's reservoir is acceptable for diversion by the City.

GROUND WATER

Quantity

195. The majority of these portions of the Umpqua Basin is underlain by formations composed of Tertiary marine sedimentary rocks of low permeability. In general, permeabilities may be sufficient to supply wells for domestic use, but are too low for irrigated agriculture, large scale industrial or municipal use.

196. There are isolated wells in the Lookingglass and Flournoy valleys that provide sufficient yields for irrigation purposes.

Quality

197. Approximately half of the wells sampled in the South Umpqua tributary sub-basins exceeded one or more representative standards for manganese and iron.

CURRENT WATER USE

Municipal and Industrial

198. Winston-Dillard Water District and Roberts Creek Water District each purchase portions of their water supplies from Berry Creek storage. There are small industrial rights as well.

199. The City of Canyonville diverts its water supply from Canyon Creek. Average water use over the 1980-1986 period, as reported by the City, was about 86 million gallons per year. The City of Canyonville owns water rights on Canyon Creek with priority dates of 1912, 1927, 1944 and 1947.

200. Industrial water rights of pre 1958, 1958-1974, and post 1974 for Lookingglass Creek sub-basin, and the other South Umpqua tributaries total 3.46, .70, and .03 cubic feet per second respectively.

Irrigation

201. Water rights for irrigation from tributaries in the South Umpqua Basin are as follows:

Stream	Acreage
Lookingglass Creek	1,356
Deer Creek	78
North Myrtle Creek	730
South Myrtle Creek	986
Day's Creek	168
TOTAL	3,318

Aquatic Life

202. A count of Coho and Winter Steelhead spawning in tributaries of the South Umpqua Basin total 600 and

988 respectively.

203. Coho spawning in the tributaries of the South Umpqua Basin occurs late November through late January. Winter steelhead spawn in these streams from late January through May.

Recreation

204. The only water-based recreation facility in this portion of Douglas County is at Ben Irving Reservoir. The Douglas County Parks Department has installed picnic tables and a boat ramp at the County Park on the reservoir.

FUTURE WATER USE

205. The City of Canyonville's existing water rights will meet future needs except for the May through September period when water will have to be drawn from Winn Walker Reservoir to meet projected needs. The capacity of the reservoir appears adequate to meet these needs.

Rural Domestic

206. The projected total annual water need for rural domestic use (peak daily need of 270 gallons per capita per day to allow for needs such as lawn and garden irrigation, etc.) in the South Umpqua sub-basins is about 1,400 acre feet.

207. Due to the dispersed nature of the rural population in the South Umpqua Tributary Sub-basins, it is expected that future water supply will come from sources of the type currently used, i.e. springs or wells.

208. The total projected acreage for irrigable lands in the South Umpqua Tributaries Sub-basins is 11,708 acres. The projected quantity of irrigation water needed is 9,590 acre feet.

SUB-BASIN CONCERNS

209. In all of the South Umpqua tributaries, stream-flows during July through October are inadequate to meet existing needs. Without augmentation from storage, potential irrigation needs will not be met.

210. In all of the South Umpqua tributaries, water quality conditions are above state temperature standards during the low-flow season.

211. Inadequate flows, elevated water temperatures, and sedimentation of spawning gravels adversely affect aquatic habitat in all South Umpqua tributary sub-basins.

ALTERNATIVES TO ADDRESS CONCERNS

Structural

212. Small storage facilities located in upper watershed areas of Deer, North and South Myrtle and Days Creeks appear capable of providing stored water to meet future needs for irrigation and rural domestic. Stored water also could become available for release for stream-flow augmentation.

Non-structural

213. Continued completion of riparian vegetation improvement projects through Douglas County's Salmon and Steelhead Habitat Improvement Program (SHIP) and similar programs by other agencies will alleviate erosion and sedimentation problems in the sub-basins.

214. Road construction and maintenance standards should be developed and implemented to satisfy the needs for: improvement of riparian vegetation, locating and constructing culverts to allow fish passage into tributary streams, and minimizing erosion of cut and fill slopes.

AREA DESCRIPTION

215. The South Umpqua River/Cow Creek Sub-basins drain over 955 square miles in the southern half of the Umpqua Basin. The South Umpqua River from its confluence with the North Umpqua (River Mile 0) stretches over 103 river miles to its origin at the confluence of Black Rock and Castle Rock Forks. This sub-basin excludes all tributaries of the South Umpqua except Cow Creek. The entire drainage of Cow Creek beginning at its confluence with the South Umpqua (South Umpqua River Mile 47) near Riddle stretches 81 river miles to its origin on the crest of the Rogue River Range between Panther Peak and Railroad Gap.

SURFACE WATER

Quantity

216. Flows have been modified on Cow Creek and on the South Umpqua below its confluence with Cow Creek since the Galesville Dam became operative. Prior to construction of the dam average monthly flows reflected wide seasonal variations.

Quality

217. On an average basis, water temperatures exceed 18°C from June through August at Canyonville, and from mid-May through September at Conn-Ford Bridge. The upper tolerance for anadromous species is 18 degrees Centigrade (65 degrees Fahrenheit). Warm water fish species can tolerate water temperatures up to 32°C (86 to 90°F) depending upon dissolved oxygen levels.

218. Bacterial contamination of the South Umpqua is of concern because of health risks to humans when the water is used. Point and non-point sources of bacterial contamination include runoff from pasture lands, runoff from urbanized areas, and discharges by waste treatment plants.

219. Mean fecal coliform values do not vary significantly from upper to lower reaches of the South Umpqua, although occasional samples have shown high counts at Melrose.

220. Waste discharge permits on the South Umpqua River and Cow Creek have been issued to the following:

Source	Receiving Stream	Waste Type
Joseph Barnes Placer Mine	Coarse Gold Creek	None
Tiller Ranger Station	South Umpqua	None
William Smith Placer Mine	Coffee Creek	None
Milo Academy	South Umpqua	None
City of Canyonville	South Umpqua	Sanitary
Winston/Green Sanitary District	South Umpqua	Filter Backwash
Winston/Green Sanitary District	South Umpqua	Sanitary
Roberts Creek Water District	South Umpqua	Filter Backwash
Roseburg Forest Products, Dillard	South Umpqua	Log pond overflow
Fiberboard Corp.	South Umpqua	Log pond overflow
Roseburg Lumber Co. #3, Green	South Umpqua	Log pond overflow
Sun Studs	South Umpqua	Log pond overflow
Roseburg Urban Sanitary Authority	South Umpqua	Sanitary
State Highway Division	Cow Creek	Sanitary
Roseburg Forest Products	Cow Creek	Log pond overflow
Glendale Sewage Treatment Plant	Cow Creek	Sanitary
Herbert Lumber Co.	Cow Creek	Log pond overflow
Superior Lumber Co.	Cow Creek	Log pond overflow
Gregory Forest Products	Cow Creek	Log pond overflow
Riddle Sewage Treatment Plant	Cow Creek	Sanitary
Riddle Water Treatment Plant	Cow Creek	Filter Backwash

221. Average monthly stream temperatures exceed state standards during July and August in Cow Creek near Azalea, reaching 68.5°F in July and 67.25°F in August, and during June, July, and August in Cow Creek near Riddle where average monthly water temperature has been recorded at 75.4°F.

222. The DEQ Statewide Assessment of Nonpoint Sources identifies streambank erosion as moderate in Cow Creek tributaries except for those entering Cow Creek between River Miles 34 to 57 where erosion problems are rated severe.

223. Sedimentation is a problem throughout Cow Creek and in the lower reaches of West Fork, Middle Creek and Windy Creek.

Flooding

224. Flooding has occurred frequently in the Cow Creek and South Umpqua sub-basins.

225. During the December 1964 flood, 400 persons were evacuated from their homes in Roseburg, and damage was widespread throughout the Umpqua Basin.

LAKES

Quantity

226. In the South Umpqua sub-basin, lakes with surface areas greater than five acres are:

Lake	Area (Acres)	Area (Acre feet)
Fish Lake	96	6,100
Buckeye Lake	11	210
Skookum Pond	16	80
Dollar Fish Pond	16	70
Triangle Lake	5	25

227. The Cow Creek sub-basin has one reservoir (Galesville), but no natural lakes over five acres in surface area.

Quality

228. Water quality of lakes in the South Umpqua sub-basin is acceptable, although late summer algae blooms at the lower elevation sites hamper some recreational uses.

229. The quality of water in Galesville Reservoir has been excellent for recreational purposes since project

completion and is not expected to deteriorate.

GROUND WATER

Quantity

230. Fluvial deposits occur along the South Umpqua River and major tributaries such as Cow Creek in its lower reaches. Permeability and recharge are relatively high in these aquifers. The water table is generally within 25 feet of the land surface, and well yields are generally less than 200 gallons per minute (gpm). Where shallow wells are located in close proximity to stream channels, ground water/surface water interference is a possibility. Along Cow Creek, such interference could result in diversion of water released from Galesville for other purposes.

231. Downstream from the mouth of Lookingglass Creek has been identified by USGS as the Marine Sedimentary aquifer unit, comprised of Tertiary rocks. Well yields in this area are generally less than 20 gpm.

232. Well yields upstream from the mouth of Lookingglass Creek to the mouth of Jackson Creek are typically less than ten gpm.

233. Wells in the South Umpqua drainage area above Jackson Creek generally yield less than 20 gpm.

Quality

234. The quality of ground water resources in the South Umpqua sub-basins is generally acceptable for all uses. Shallow wells in the Fluvial deposits, those 25 feet deep or less, may be susceptible to contamination from surface sources, and must be carefully monitored.

CURRENT WATER USE

Municipal and Industrial

235. The municipal water supply for Glendale is diverted from Cow Creek.

236. The City of Riddle, the South Umpqua Water Association, and Lawson Acres, serving rural residential areas between Riddle and Canyonville, divert water from Cow Creek.

237. The USFS headquarters at Tiller and the Milo Academy each treat water diverted from the South Umpqua.

238. The Tri-City Water District, the City of Myrtle Creek, the Winston-Dillard Water District, Roberts Creek Water District, and the Clarks Branch Water District possess rights to draw water from the South Umpqua River.

239. Water rights for commercial/industrial purposes exist along both Cow Creek and the South Umpqua River. The majority of these water rights are for the forest products industry.

Irrigation

240. Water rights on the mainstem Cow Creek permit diversion of water to irrigate over 2,900 acres. Nearly 2,100 acres are irrigated under rights acquired prior to 1958, the year of establishment of the initial minimum flows by the State of Oregon.

241. From mainstem South Umpqua, nearly 9,240 acres have irrigation water rights. Almost 4,700 acres are irrigated under rights acquired prior to 1958.

Aquatic Life

242. In 1976, the abundance of anadromous species in the South Umpqua and Cow Creek were estimated as follows:

Species	South Umpqua and Tributaries	Cow Creek

Spring Chinook	500	0
Fall Chinook	404	54
Coho	1,854	565
Winter Steelhead	3,723	1,548
TOTAL	6,481	2,167

243. Small-mouth bass were illegally introduced to the South Umpqua Basin about 20 years ago and have become an established species.

244. Fall chinook now are estimated to number between 3,000 and 4,000 fish with about 50% in the South Umpqua between Roseburg and Days Creek. The remainder are in the Cow Creek sub-basin. These increases are thought to be due to recovery of habitat conditions from siltation and to increased number of fish returning from the ocean.

245. Spring chinook averaged about 220 fish during the last 3 years. They are primarily in the upper South Umpqua above Tiller.

246. Winter steelhead were averaging about 4,000 fish of which about 40% were of hatchery origin. About 70,000 smolts are released annually into the South Umpqua. The adults use the area of the South Umpqua above Tiller and do not use the lower South Umpqua except for passage.

247. Anadromous species are passing through the South Umpqua/Cow Creek sub-basins in all months of the year.

Recreation

248. Publicly owned recreational sites along the South Umpqua River and Cow Creek are located at the Douglas County Fair Grounds, Stanton Park at Canyonville, Three C Rock on the upper Cow Creek, and Chief Miwaleta Park at Galesville Dam.

249. Seasonal low flow and water quality conditions preclude intense use of the South Umpqua for drift boating, rafting and swimming. During the low-flow season, the South Umpqua below Cow Creek becomes a series of narrow channels bounded on each side by rock outcrops. The channels connect pools of slow moving water predominantly algae covered. The lower South Umpqua River periodically has been closed to swimming due to poor water quality conditions.

Hydro-Power

250. There is no hydro development on the South Umpqua River.

251. In the Cow Creek sub-basin the only hydro development is located at Douglas County's Galesville Project. A 1.8 mW plant is located at the base of Galesville Dam. Hydro production is a secondary purpose at the project. Releases for primary project purposes, such as irrigation, municipal/industrial or fish life uses, are routed through the plant when reservoir water surface elevations and release quantities are adequate to generate energy.

Galesville Project

252. Douglas County's Galesville Project, a 167 foot high roller-compacted concrete dam, was completed in 1986. The reservoir behind the dam has 40,425 acre feet of active storage for irrigation, municipal and industrial and anadromous fish uses. The storage space also will be used to regulate floods to the extent possible, and recreation facilities are provided for.

253. Galesville Reservoir will supply up to 4,450 acre feet annually for municipal supplies and 2,400 acre feet for industrial purposes. Of these amounts, 500 acre feet is being held in reserve for future use in the Cow Creek sub-basin above the mouth of West Fork Cow Creek, as Galesville is the only site from which future supplies may be obtained for that portion of the county.

254. Space has been provided in Galesville Reservoir for irrigation diversions totaling 14,950 acre feet annually.

255. About 4,000 acre feet of reservoir space has been provided for aquatic habitat enhancement in Cow Creek.

FUTURE WATER USE

Municipal

Roberts Creek Water District

256. Roberts Creek Water District serves an estimated 1980 population of 6,065 persons and estimated peak day use is 254 gallons per capita per day (GPCD).

257. Roberts Creek Water District has a total of 2,096 GPM in water rights. A 1973 right has been curtailed by the Watermaster at various times during the months of July, August and/or September. Consequently, the 1973 right amounting to 1,795 GPM is considered unreliable in July, August and September. These rights appear adequate for meeting future needs in all other months.

258. Roberts Creek Water District purchases 500 acre feet per year from Berry Creek (Ben Irving Reservoir). Water from Berry Creek is an adequate interim supply, but it should not be considered in evaluation of long-term future needs for the District. A supply of 794 acre feet annually will need to be obtained in the future.

Winston/Dillard Water District

259. The 1980 population for the Winston/Dillard Water District is estimated to be 3,882 persons, and peak per capita use is 385 GPCD. The District's water rights total 1,867 GPM, all of which predate the 1974 minimum flow. One right, for 898 GPM, has a priority of 1969, junior to the 1958 minimum flow. This right is considered unreliable during the month of August due to flow conditions in the South Umpqua River.

260. Winston/Dillard Water District's water rights appear to constitute an adequate future supply in the months of October through April. During the remainder of the year, future demands will exceed allowable diversions from the South Umpqua, and future deficiencies will total 530 acre feet per year.

261. Winston/Dillard Water District has an agreement with the Lookingglass-Olalla Water Control District for purchase of up to 500 acre feet of water stored in Berry Creek. This supply is an interim measure only.

Clarks Branch Water Association

262. The Clarks Branch Water Association has an allocated 1980 population of 204 persons. Peak use is estimated to be 102 GPCD, the relatively small value considered to be limited by supply conditions.

263. The Clarks Branch Water Association has a right to divert 90 GPM, with a priority date of 1978. This water right is considered unreliable during the months of July through October. The future deficiency will total 31 acre feet per year.

City of Myrtle Creek

264. The City of Myrtle Creek provides water service to an allocated 1980 population of 3,799 persons and peak daily use is estimated at 308 GPCD.

265. The City of Myrtle Creek has a water right allowing diversion of 1,346 GPM, with a priority of 1947. The amount is adequate to meet future demands, except in the peak month of August, during which a future deficiency of 39 acre feet will occur.

Tri City Water District

266. The Tri City Water District serves a 1980 allocated population of 2,975 persons. The peak rate is 308 GPCD.

267. The Tri City Water District has water rights with priority dates of 1952, 1956, 1973 and 1979. Due to the flow regime in the South Umpqua River, the 1979 right (191 GPM) is considered unreliable during July through October, and the 1973 right (1,346 GPM) is unreliable during August and September. In total, the rights appear to be an adequate supply except for the months of August and September. The total annual deficit is 292 acre feet.

City of Riddle

268. In the Cow Creek sub-basin the City of Riddle provides water service to an allocated 1980 population of 1,351 persons. Estimated peak use is 559 GPCD.

269. The City of Riddle has water rights totaling 2,096 GPM, with priority dates of 1947, 1970 and 1980. Due to the flow regime in lower Cow Creek, the 1980 right (1,346 GPM) is considered unreliable during the months of July through October and the 1970 right is unreliable during August because of the 1958

minimum flow. Under these assumptions, the rights are an adequate supply except for the months of July and August and the future deficiency totals 140 acre feet per year.

City of Glendale

270. The City of Glendale diverts water from Mill and Section Creeks, small tributaries of Cow Creek, and from Cow Creek proper. The City also has developed a two acre-foot reservoir on Section Creek. In total, the city's rights amount to about 1,087 GPM, but due to the flow regimes in Mill and Section Creeks, available flows only amount to about 45 GPM, and the Cow Creek diversion is junior to state minimum flows. Thus, during the July through September period, the supply amounts to 45 GPM plus the two acre-feet of storage.

271. The 1980 population for the City of Glendale is estimated to be 760 persons and the average people per water service number is about 2.6. The peak usage is estimated to be 312 GPCD. Glendale's future deficit could be 113 acre feet annually, after adjusting for the two acre feet of storage. Given the County policy of retaining 500 acre-feet of storage in Galesville to meet municipal and industrial needs in this portion of the Cow Creek sub-basin, an adequate supply may be acquired by the city to meet its future needs.

Industrial

272. The majority of industrial water use in the basin, is for lumber and wood products processing mills, including ponds.

273. An estimated annual requirement of 300 acre feet may be needed for each of the two projected 15 Mw capacity co-generation plants that may be located on the South Umpqua. About 200 acre feet per year for each of the two proposed co-generating plants, or a total of 400 acre feet, would need to come from stored water for use in the South Umpqua sub-basin.

Flow Augmentation for Water Quality

274. In response to a mandate from the Oregon Department of Environmental Quality, the Roseburg Urban Sanitary Authority (RUSA) has entered into a long-term contract with Douglas County to purchase up to 3,500 acre feet of water stored in the Galesville Project annually for release to augment flows in the lower South Umpqua River to improve assimilation of sewer plant effluent.

275. Poor quality conditions in the South Umpqua River from Cow Creek to its confluence with the North Umpqua River indicate that quality problems exist in the entire reach.

276. The projected increases in population noted in the Comprehensive Plan implies that added sewage treatment capacity will be required at all plants from Canyonville-Riddle downstream.

277. It is considered very probable that DEQ will require augmentation of flows in the South Umpqua, below Cow Creek, as a condition of permitting the increased treatment capacity to accommodate the increased populations.

SUB-BASIN CONCERNS

278. Future population growth will create a need for 4,000 acre feet, over and above that now available from Galesville Reservoir.

279. There are potential future water needs for irrigation of 4,770 acre feet over and above Galesville reservoir capabilities in the sub-basins.

280. Water quality conditions are unacceptable in the South Umpqua River during periods of the year. It has been estimated that 600 cfs additional flow in the South Umpqua during the low flow months would be adequate to: (1 minimize the needs for tertiary treatment, 2) decrease coliform bacteria counts to levels acceptable for swimming; and, 3) provide flows for boating/rafting.

281. Flooding will continue to recur in the South Umpqua sub-basins, even with Galesville Reservoir in operation.

282. Primary factors limiting salmonid production in the South Umpqua sub-basin generally can be classed as a lack of gravel and high summer water temperatures in the mainstem South Umpqua and tributaries.

283. In the lower portions of both the Cow Creek and South Umpqua sub-basins, unregulated development on riparian lands has adversely affected water quality, particularly water temperatures.

ALTERNATIVES TO ADDRESS CONCERNS

Structural

284. The County should continue formulation studies of both the Honeysuckle site on West Fork Cow Creek and the Golden Gulch site on Elk Creek near Tiller. Such studies should include provision for coordinated water quality improvement programs for the South Umpqua.

Non-structural

285. Continue land use regulation of riparian habitat should be strengthened, particularly with regard to the South Umpqua and Cow Creek sub-basins.

286. The County should actively promote reestablishment of riparian habitat lost to previous unregulated land use development, including freeway construction, and flooding.

Enhancement Programs

287. Numerous stream enhancement projects are underway one tributary streams in the South Umpqua sub-basin. These programs are sponsored either solely or in cooperation with the Salmon Steelhead Enhancement Program of the ODFW, the Salmon Steelhead Improvement Program of Douglas County, the U.S. Forest Service, the Bureau of Land Management, or private groups.

288. The hatchery supplementation programs of the Oregon Department of Fish and Wildlife provide for production and release of chinook, steelhead, coho, rainbow trout, brook trout, and cutthroat trout in the river and its tributaries as well as the system of lakes in the Umpqua Basin.

CAMAS VALLEY SUB-BASIN

AREA DESCRIPTION

289. Camas Valley is a rural area of roughly 5,000 acres in the southwestern part of Douglas County. The sub-basin is on the western slopes of the Coast Range, outside the Umpqua River drainage, and includes the origin of the Middle Fork Coquille River. Surrounded by steep, forested mountains of the coastal range which rise to an elevation of 2,500 feet, the valley has a pastoral setting. The valley itself has an elevation of about 1,100 feet.

SURFACE WATER

Quantity

290. Current demands for water in Camas Valley are not large. However, periodic shortages of surface water are experienced during the months of July through October which particularly impacts irrigation use and fish life.

Quality

291. No point sources of discharge are identified within the sub-basin.

292. Generalized nonpoint source problems occurring at a low frequency in the Camas Valley sub-basin include: 1) a moderate amount of water withdrawal below the confluence with Twelvemile Creek; 2) severely elevated water temperature downstream from the confluence with Twelvemile Creek and moderately elevated temperatures in Twelvemile Creek and upper Middle Fork; and, 3) streambank erosion in the Middle Fork upstream from Twelvemile Creek.

293. Sedimentation is rated as a severe problem in Twelvemile Creek and moderate in the upper reach of the Middle Fork.

LAKES

294. The Camas Valley sub-basin has no natural lakes or reservoirs open to public recreation.

GROUND WATER

Quantity

295. The Camas Valley sub-basin is located in the Coast Range which consists largely of marine sediments of low permeability and water holding capacity. The transmissibility necessary for the movement of water is very low in the tight marine material. Even when saturated these sedimentary formations contribute little recharge to stream flows after the rains have stopped. Many small streams dry up completely in the absence of surface runoff because there is little or no recharge from ground and land storage.

296. Wells are the primary water source for the rural population of the Camas Valley sub-basin. The average well in Camas Valley has a median depth of 85 feet and discharges a median flow of 5 GPM.

297. The underlying aquifer is moderately productive. Additional wells could be drilled and a small group-domestic system could be established.

298. The area north and northeast of the community of Camas Valley appears to have the most productive wells.

Quality

299. The quality of the well water in Camas Valley is generally good. Minor problems affecting well water quality include: Concentrations of dissolved solids; bacteriological contamination from septic tank or feed lot infiltration; and, hydrogen sulfide concentrations.

CURRENT WATER USE

Municipal and Industrial

300. There is no municipal water system in Camas Valley, nor is there a water district or water association. All houses, farms and ranches have individual wells to meet their domestic needs.

301. There is only one industrial plant in Camas Valley and it has a minimal water requirement. Since the plant owner has already constructed an 800 acre foot reservoir, more than adequate water supply appears available for any possible future expansion.

Irrigation

302. Approximately 370 acres are irrigated under existing water rights in Camas Valley. Due to the lack of water right seniority, 60% of these lands normally do not receive enough water to meet their full seasonal needs.

FUTURE WATER USE

Municipal

303. It is anticipated that wells will continue to meet the domestic water needs and there will be no demand on surface streams and reservoirs.

Rural Domestic

304. Wells of moderate yield and acceptable quality could be drilled almost any place in the valley to provide sufficient water for future use, provided that the wells are properly located, protected, and of adequate depth. No storage should be needed to satisfy domestic requirements.

STRUCTURAL STORAGE ALTERNATIVES

305. Increased irrigation needs would most likely necessitate additional water storage. It is possible that identified irrigation needs could be met by local efforts rather than a County-sponsored project.

306. Potential storage sites include the existing 800 acre-feet reservoir located in the vicinity of Lake Creek, which could be enlarged, and a site upstream of that which could hold several hundred acre feet.

WATER RESOURCES POLICIES

GOAL: Make continuing and substantial progress toward improving the quality and quantity of our water resources.

OBJECTIVE A: To ensure all standards and regulations applicable to waters of Douglas County are enforced and coordinated.

POLICIES:

1. Douglas County shall coordinate with DEQ on specific actions which require permits such as NPDES (National Pollution Discharge Elimination System) and WPCF (Water Pollution Control Facility) permits.

2. New point sources of water pollution shall, during the planning process, obtain appropriate certification from the DEQ to ensure compliance with current discharge standards.

3. Encourage DEQ to expand their monitoring program and increase sample areas to determine critical areas. Impacts from domestic sewage outfalls should be assessed to identify any possible hazards.

OBJECTIVE B: To provide quality water for public water supplies, propagation of wildlife, fish and aquatic life and for domestic, agricultural, industrial, municipal and other beneficial uses.

POLICIES:

1. Residential, commercial and industrial development should be designed and located where it will have the least impact on water quality.

2. Promote watershed management practices which protect and enhance water quality and quantity.

3. Water resources used as municipal water supplies shall be protected from activities which would result in state and federal standards being violated.

4. Water resources used as municipal water supplies shall be protected by encouraging the strict enforcement by the State Department of Forestry of the State Forest Practices Act applicable to Class I streams and promoting agricultural practices which have the least harmful effect on water quality by encouraging agriculturists to work closely with the Natural Resource Conservation Service to determine best management practices.

5. Encourage all sewage treatment facilities to maintain or be upgraded to meet water quality requirements.

6. When municipalities have identified particular needs and methods for

protecting their watersheds, the County shall consider including such measures within the mutually adopted urban growth management agreement. (Revised 11/25/87)

7. Small watersheds which are water sources for municipalities shall be identified and protected in the cooperative urban growth boundary management agreement if the City and County determine that special protective measures are needed for the watershed.

OBJECTIVE C: To minimize negative impacts to fish and wildlife species.

POLICIES:

1. Encourage maintenance of adequate minimum flow standards to ensure a productive fish habitat and protect aquatic life.

2. Carry out cooperative water quality planning through such agencies as Water Resources, NRCS, Fish and Wildlife, Department of Forestry, BLM, Forest Service, DEQ and USGS.

3. Encourage the retention of riparian vegetation wherever possible.

OBJECTIVE D: To ensure an adequate quantity of water for beneficial uses within the County.

POLICIES:

1. Maintain a network of hydrologic data gathering stations to include water flow, water quality, precipitation, and snow pack.

2. Evaluation of demand for water shall include, but not be limited to, the following potential beneficial uses in no particular order: domestic, municipal, agriculture, streamflow augmentation, industrial, commercial, livestock, hydro-electric, mining, recreation.

3. Cooperate and coordinate with Federal, State and local agencies in assuring maximum beneficial use of all waters within the County.

4. The County shall maintain a map of potential public water impound-ment sites. The map shall be subject to occasional review and can be amended at the biannual plan amendment schedule. The Water Resources Advisory Board may recommend additions to or deletions from the potential public water impoundment sites based on the following criteria: (Revised 11/25/87)

   a. service area

   b. volume

c. economics

d. hydrology

e. environmental concerns

5. In evaluating the quality of alternative public water impoundment sites, the following criteria shall be considered:

a. conformance with the policies of this plan;

b. ability to meet needs and projected demands for water considering:

(1) the hydraulic capability of the site, considering that a reservoir should be sized to optimize the yield of the watershed;

(2) the reliability of the water supply to the site considering that the overall water impoundment program should be designed to provide a 95% reliable supply for projected domestic, municipal and industrial and commercial demands, and an 80% reliable supply for all other projected demands; and

(3) streams and reaches through which releases would be available for diversions, giving particular consideration to meeting the needs of identified "problem areas" identified by the Douglas County Water Resources Advisory Board.

c. economic consequences and benefits of using the site for a water impoundment, including but not limited to:

(1) facility costs such as construction, reservoir maintenance, road and utility relocation, land acquisition, fish passage facilities, etc.;

(2) impacts on agriculture or forest production.

d. environmental costs and benefits including but not limited to:

(1) impacts on stream flows and instream uses; and

(2) impacts on water quality.

e. social consequences;

f. energy consequences.

6. If, during the evaluation of alternative potential water impoundment sites, a particular site is identified as having major problems such as containing a

federally listed endangered species, major geologic fault, major environmental impact which cannot be mitigated or is unaccept-able to appropriate agencies, or having characteristics such that the costs of constructing an impoundment site to optimize the yield of the watershed would exceed the resources of potential developers, it may be removed from further consideration.

OBJECTIVE E: Provide management practices to minimize erosion and hazards in order to improve water quality for instream and out-of-stream uses.

POLICIES:

1. Existing riparian vegetation along streams and river banks should be maintained whenever feasible to provide fisheries and wildlife habitat, minimize erosion and scouring, retard water velocities and suppress water temperatures. Regarding forest management activities on forest land, the riparian vegetation shall be protected as required by the Oregon Forest Practices Act.

2. Encourage the use of nonstructural methods of bank stabilization in agriculture or forest areas experiencing accelerated soil loss.

3. Encourage agriculturists to cooperate with NRCS in developing management plans.

4. Residential, commercial or industrial development in unstable headwater areas will be kept at a minimum.

OBJECTIVE F: To evaluate and analyze land uses which conflict with the water resources of the County.

POLICY:

In those cases in which the proposed land uses would conflict with water resources, water quality or water quantity, as identified in this plan, the County shall weigh the value of the water resource against the economic, social, energy and environmental consequences of the proposed use. The County shall also develop programs to achieve protection of water resources in undertaking such a review.

OBJECTIVE G: To utilize the water resources of Douglas County in an efficient manner.

POLICIES:

1. Encourage individual water conservation practices to hold water demands to a minimum.

2. Encourage the efficient use of municipal water by minimizing in system water losses and support use of pricing structures which promote conservation.

3. Encourage industries to recycle processed water.

4. Encourage irrigation practices which minimize water losses and support pricing policies for irrigation water which promotes conservation.

POLICY IMPLEMENTATION:

1. Statements of compatibility on specific actions will be submitted to DEQ when required.

2. Consider in land development and road construction, actions which minimize the degradation of water quality.

3. Maintain Land Use and Development Ordinance standards which require that an adequate potable year round water supply be identified prior to final approval of subdivisions and partitionings.

4. Subdivision and partitioning of designated resource shall be prohibited in identified public water impoundment sites.

5. Upon final determination, pursuant to Policies 5 and 6 of Objective D, that the specified potential water impoundment site is the best alternative site for meeting the relevant water needs of the County, and justification of an exception from Statewide Planning Goals, if required, the plan designation of the selected site shall be changed to Public/Semi Public and the site shall be zoned Water Impoundment (WI).

6. Current water impoundments over 1,000 acre feet shall be designated Public/Semipublic and zoned Water Impoundment.

7. Develop a water impoundment overlay zone to prevent uses that conflict with potential water impoundment sites.

map 39

map 40

map 41

POTENTIAL WATER IMPOUNDMENT DATA (Revised 6/28/89)

SITE NUMBER	SITE NAME	STORAGE AT NORMAL POOL, AF	NORMAL POOL ELEV. FT.	SURFACE AREA AT NORMAL POOL, AC
1	Lower Elk Cr.	36,000	1450	554
2	May Cr.	16,000	1218	248
3	Weaver Cr.	5,700	1454	92
4	North Myrtle	10,000	1180	170
5	Gassy Cr.	9,200	928	194
6	Bachelor Cr.	9,600	614	288
7	Milltown Hill	25,000	775	681
8	S. Fork Deer Cr.	10,000	930	175

map 43

map 44

map 45

map 46

WATER IMPOUNDMENT DATA

SITE	SITE NAME	STORAGE AT NORMAL POOL, AF	EMBANK-MENT CU. YD.	SURFACE AREA AT NORMAL POOL, AC.	HEIGHT OF DAM IN FT.	DAM TYPE
1	PLAT I	2,050	130,000	247	30.5	Earthfill
2	Cooper Creek	4,385	250,220	156	95.5	Earthfill
3	Ben Irving	11,250	995,300	250	130.0	Earthfill
4	Win Walker	300	4,900	17	60.0	Concrete
5	Yoncalla	100	57,200	6	20.0	Earthen Dam
6	Galesville	42,225	1,488,000	640	167.0	Concrete

map 48

map 49

map 50

AIR, NOISE AND LAND RESOURCES QUALITY

INTRODUCTORY SUMMARY

THE PURPOSE OF THE AIR, NOISE AND LAND RESOURCES QUALITY ELEMENT

Maintaining a healthy environment with respect to air, noise and land quality is important when planning for future development within Douglas County. Future growth of industrial and residential areas will place an increasing load on the County's air sheds and land resources. Further, noise levels will also increase in and around developed areas.

Identifying areas subject to potential flooding or land slide activity is essential to ensure future development is located in areas free from the dangers of these hazards.

Statewide Planning Goals 5, 6 and 7 are addressed in this Element.

WHAT DO GOALS 5, 6 AND 7 REQUIRE?

Goal 5 requires programs that will protect desirable open space, scenic areas and natural resources for future generations and to promote healthy and visually attractive environments in harmony with the natural landscape.

Goal 6 requires that land and air resources of the State be maintained and improved by assuring future development, in conjunction with existing development, does not violate applicable state or federal quality standards. Further, such development shall not exceed the carrying capacity of air sheds, degrade land resources or threaten the availability of such resource.

Goal 7 requires potential natural disasters and hazards be inventoried in order to direct development away from these areas to prevent loss of life and property.

WHAT IS INCLUDED IN THE AIR, NOISE AND LAND RESOURCES QUALITY ELEMENT?

Air Quality - Various air pollution parameters are identified and discussed. Among the parameters evaluated are climatic conditions, air shed carrying capacities, pollution levels and pollution sources.

Noise - Sound characteristics, sound measurements as well as noise effects, sources and controls are discussed.

Land Quality - Land resource qualities, solid and industrial waste disposal, solid waste pollution problems, and alternative disposal methods are discussed. In addition, known septic sewage disposal problem areas throughout the County are described.

Flooding - The Douglas County Flood Insurance Study, floodplain determination, and the effects of development in floodplain areas are discussed. Coastal hazards and ocean flooding are also addressed.

Mass Movement Hazards - Causes of and general areas subject to land slide activity are discussed. Earthquake geology and potential for Douglas County are also cited.

AIR, NOISE AND LAND RESOURCES ISSUES

AIR QUALITY

Several factors affect air quality such as the type, amount and duration of emission or pollutant, weather, and climate. Weather and ventilation are considered the most important factors in determining the carrying capacity of an air shed. Due to the combination of low wind velocities and frequent temperature inversions (especially during fall and winter), a high potential for air pollution exists within the interior areas of Douglas County.

The Department of Environmental Quality (DEQ) is responsible for monitoring air contaminants in Douglas County. The best available information concerning air quality in Douglas County is found in the 1984 Oregon Air Quality Annual Report. This report represents DEQ's last official study of air quality in Douglas County. Although air contaminant information is outdated, the Comprehensive Plan will continue to reference the 1984 report as the best available information concerning air quality in Douglas County. (Revised 11/25/87)

NOISE QUALITY

According to data from the Department of Environmental Quality, Douglas County does not have a general noise problem. However, isolated instances of noise complaints necessitate a review of the land use permit process to assure performance for manufacturing uses to meet state noise standards. (Revised 11/25/87)

LAND QUALITY

Douglas County Engineering Department is the responsible agency for determining solid waste management for household and commercial sources within Douglas County. The County has two landfill sites which accept commercial and residential wastes. They are located near Reedsport and Roseburg. The estimated life expectancy for the Roseburg site is 16 years (from 1987) using current landfill methods. New solid waste disposal sites are difficult to establish because of basic environmental requirements and public resistance to establishment of landfills near residential areas. Identification and preservation of future landfill sites is essential to accommodate anticipated disposal needs. Because of increasing disposal demands, the County is investigating and pursuing a diversity of approaches including resource recovery, waste reduction, recycling, and landfills to provide the needed flexibility in an area where technology is still developing various solutions. (Revised 11/25/87)

Land quality in Douglas County is considered to be generally good, although there are several isolated spots which have problems related to soil capabilities such as steep slopes with unstable soils, areas with poor drainage characteristics, and areas with high clay content soils. Isolated concentrations of on-site septic sewage disposal system failures have been inventoried throughout the County and some have been identified as being potential health hazards. The inventoried health hazard and on-site septic problem areas have several common factors which include poor drainage, high water table, and concentration of small lots. (Revised 11/25/87)

FLOODING

The topography and geology of the Umpqua River Basin are conducive to runoff. Peak flows on many tributaries occur within hours of the passage of a weather front. The highest flows usually occur during the period from November through March as a result of heavy rains augmented by snowmelt. Douglas County has a history of frequent flooding. Seven major floods have been recorded in the past century. Floods since 1945 have caused damage in excess of 35 million dollars. (Revised 11/25/87)

Encroachments into floodplain areas threaten life and property and prove costly to all taxpayers in the event of flooding. Uses most compatible in floodplain areas include open space uses such as agriculture and recreation.

OCEAN FLOODING

Areas in Douglas County subject to ocean flooding are almost entirely located within the Dunes National Recreation Area. As development in the Dunes National Recreation Area is severely restricted, damage from ocean flooding will not be an issue. (Revised 11/25/87)

MASS MOVEMENT

Mass movements are hazardous to lives and properties and are problematic throughout much of the County. Improper construction activities can increase mass movement hazards by adding to a previously unstable situation. There is a need for a more detailed study of potential slide areas located within the County's interior.

AIR, NOISE AND LAND RESOURCES QUALITY FINDINGS

AIR QUALITY

1. Several factors affect air quality such as the type, amount and duration of emission or pollutant, weather, and climate.

2. Weather and ventilation are considered the most important factors in determining the carrying capacity of an air shed.

3. Douglas County coastal areas are provided excellent ventilation by frequent winds from the west.

4. The Roseburg area and interior valley is one of the lowest average annual wind velocity areas in the United States.

5. The interior Douglas County valleys are subject to frequent temperature inversions which trap air contaminants until proper ventilation returns. These temperature inversions or air stagnation predominantly occur during the fall and winter months.

6. Due to the combination of low wind velocities and frequent temperature inversions (especially during fall and winter), a high potential for air pollution exists within the interior areas of Douglas County.

7. The Department of Environmental Quality is responsible for monitoring the air quality in Douglas County. DEQ enforces state air quality standards and implements an air quality program.

8. The State Department of Environmental Quality is charged with the responsibility for maintaining air quality within Douglas County. As part of their program a permit system is used and certain permits require a local statement of compatibility.

9. Topographic features within Douglas County lend themselves to more than one easily identifiable homogeneous air shed.

10. The major point sources for particulate emissions within the County are associated with the wood products industry.

11. The Roseburg area and Douglas County are classified as a Class II PSD according to DEQ, and the Roseburg area is identified as having 0 to 100% of its "TSP increment" available and 100% of its "SO_2 increment" available.

12. Douglas County's air quality carrying capacity, due to the lack of detailed data and carrying capacity studies, is that level of economic growth and development which can occur without violation of federal or state air quality standards.

13. The industrialized areas of Douglas County receive the majority of the identified point source emissions. These areas are identified as the Central Valley and South Umpqua airsheds. No individual monitoring exists in industrialized areas such as Dillard and Riddle, making assessment of air quality and carrying capacity for such areas incomplete and subjective.

14. The Coastal subairshed is assumed to have additional available carrying capacity due to consistent westerly winds which provide excellent ventilation. Air quality is currently considered above average.

15. The Upper Cow Creek subairshed does not have any air quality standards violations which are identified by DEQ and the subairshed is assumed to have additional capacity to absorb more emissions without violating any air quality standards.

16. The Elk Creek subairshed does not have any air quality standards violations identified by DEQ and the subairshed is assumed to have additional capacity to absorb more emissions without violating air quality standards.

17. The Central Valley subairshed has a high concentration of industrial and point source emissions. The area is assumed to have additional carrying capacity; however, such new sources must be assessed as to amount of emission and location with respect to existing sources.

18. The South Umpqua subairshed is assumed to meet air quality standards. Due to the lack of monitoring stations and the large amount of emission sources located in the area, the area should be considered to have a potential for exceeding air quality standards. Current emission sources and new sources should be assessed as to their effect on air quality.

19. Air contaminants in Douglas County have not been monitored by DEQ since 1984. (Revised 11/25/87)

20. DEQ estimates that the wood products industry is the leading contributor to point source pollution in Douglas County. Other leading non-point source contributors include: slash burning, residential space heating and forest fires. (Revised 11/25/87)

NOISE QUALITY

21. According to data from the Department of Environmental Quality, Douglas County does not have a general noise problem. However, isolated instances of noise complaints necessitates review of the land use permit process to assure performance for manufacturing uses to meet state noise standards. (Revised 11/25/87)

LAND QUALITY

22. Douglas County Engineering Department is the responsible agency for determining solid waste management for household and commercial sources within Douglas County. (Revised 11/25/87)

23. Recommendations and direction to solid waste problems are developed by the Douglas County Solid Waste Advisory Committee.

24. Douglas County owns and operates two landfill sites at Roseburg and Reedsport. Using current landfill methods, the estimated life expectancy (from 1987) is 16 years for the Roseburg site and 12 years for the Reedsport Site. (Revised 11/25/87)

25. The Roseburg landfill receives half of its total annual solid waste through the transfer site system. At present, there are eleven drop box transfer stations owned and operated by Douglas County. All wastes deposited at the drop box transfer stations are transported to the central landfill at Roseburg for disposal. (Revised 11/25/87)

26. The County has ten commercial franchised areas and franchised collectors using the County maintained disposal site to dispose of their collected refuse.

27. A geotechnical study of the Roseburg landfill was completed in January 1987. The study determined that: (Revised 11/25/87)

    a. The Roseburg landfill is leaking small quantities of leachate into the ground water system. Leachate is a concentrated solution resulting from liquid that has percolated through the landfill material.

    b. The direction of migration of the leachate is downward and towards the South Umpqua River, to the east of the landfill.

    c. The existing leachate holding pond does not have sufficient surface area for evaporation.

    d. Leachate from the holding pond is leaking into an underground culvert.

    e. Leachate collected in the holding pond is spray irrigated onto the upper portions of the landfill.

    f. The irrigation method allows the leachate to evaporate and re-enter the system. This method aggravates the tendency of leachate being leaked into groundwater.

    g. The landfill site is as manageable as any within the area and its continued use should not be precluded. Any leachate plume that is currently generated will remain in place for the foreseeable future. The local ground water flow patterns will restrict the plume to fairly well defined boundaries.

    h. The use of septage holding pits at the central (Roseburg) landfill has been determined to be an undesirable practice.

28. Abandoned cars present a problem and have been picked up in the past. However, due to market factors and sparse nature of cars this practice has been terminated. Residents must now provide their own means for transfer of junked autos.

29. DEQ is the responsible agency for issuing permits and monitoring all solid waste sites within Douglas County.

30. The majority of industrial waste sites within the County are for the disposal of cinders, ashes, mill yard cleanup, wood, boiler flash, log pond dredgings, and small wood chunks.

31. Disposal of wood products industrial wastes such as glue sump clean out, paint solvent and vinyl plastic is permitted at the Roseburg Lumber Dillard site.

32. There are no hazardous waste disposal sites located within the County.

33. The annual per capita generated solid waste is increasing rapidly adding to the burden of solid waste management.

34. Solid waste can damage the environment in several ways and different types of disposal may lead to additional sources of pollution such as leachates or air pollution.

35. New solid waste disposal sites are difficult to establish because of basic environmental requirements

and public resistance to establishment of landfills near residential areas. The identification and preservation of future landfill sites is essential to accommodate anticipated disposal needs. (Revised 11/25/87)

36. Mechanical reduction by shredding, compacting or a combination of both could double the remaining capacity of the existing landfill sites.

37. Source separation and recycling can reduce the amount of solid waste which needs disposal, while reusing valuable materials.

38. "Resource recovery" systems are heavily dependent on source material and a consumer demand for generated energy. Such systems may be technically and economically feasible as demonstrated by a study done for the South Coast. (Revised 11/25/87)

39. The County is investigating and pursuing a diversity of approaches including resource recovery, waste reduction, recycling, and landfills to provide the needed flexibility in an area where technology is still developing various solutions. (Revised 11/25/87)

40. To reduce Douglas County's dependence upon landfills, the Board of Commissioners recently adopted an ordinance which provides for the opportunity to recycle (Ordinance No. 85-7-3).

41. Land Quality in Douglas County is considered to be generally good, although there are several isolated spots which have problems.

42. Land Quality problems in Douglas County are related to soil capabilities and those problem areas include steep slopes with unstable soils, areas with poor drainage characteristics, and areas with high clay content soils.

43. The misuse of soil and mineral resources results in the degradation of land quality and often destroys the use of land for other purposes.

44. Isolated concentrations of on-site septic system failures have been inventoried throughout the County and some have been identified as being potential health hazards. (Revised 11/25/87)

45. DEQ regulations govern the installation and siting criteria for on-site septic systems. (Revised 11/25/87)

46. Prior to development, land use clearance and evidence of suitable sewage disposal is required before any building permits are issued.

47. Approval rates for on-site septic systems are estimated to be 95% for Douglas County. (Revised 11/25/87)

48. NRCS soils classification can be utilized to determine the probabilities of the capability of the area in question to accommodate an on-site septic system. (Revised 11/25/87)

49. The inventoried health hazard and on-site septic problem areas have several common factors which include poor drainage, high water table, and concentration of small lots. (Revised 11/25/87)

50. Soils capability to absorb effluent from on-site septic systems should be a prime consideration prior to approving divisions of land for residential use or designating lands for future rural residential use. (Revised 11/25/87)

STREAM FLOODING

51. Significant areas of the County are subject to flooding from the north, south and main stems of the Umpqua River and their tributaries.

52. The topography and geology of the Umpqua River Basin are conducive to runoff. Peak flows on many tributaries occur within hours of the passage of a weather front. The highest flows usually occur during the period from November through March as a result of heavy rains augmented by snowmelt.

53. Douglas County has a history of frequent flooding. Seven major floods have been recorded in the past century. Floods since 1945 have caused damage in excess of 35 million dollars.

54. The most significant flood protection structure in the Umpqua Basin is a levee surrounding downtown Reedsport, built by the U.S. Army Corps of Engineers to protect against a 200 year flood.

55. Reducing and modifying development in flood hazard areas is the preferred method of reducing potential flood damages in terms of both cost and effectiveness.

56. The 100 year floodplain and floodway have been identified for the majority of the County in the Federal Insurance Administration's Flood Insurance Study for Douglas County.

57. Encroachments into floodplain areas threaten life and property and prove costly to all taxpayers in the event of flooding.

58. Uses most compatible in floodplain areas include open space uses such as agriculture and recreation.

59. Oregon State Statute (ORS 541.615(1)) does not allow the removal of any material from the bed or banks, or the filling of, any waters of this state without a permit issued under authority of the Director of the Division of State Lands (DSL). However, Subsection 4 of ORS 541.615 waives this requirement during an emergency. The Land Conservation and Development Commission has found the requirements of ORS 541.615 to be consistent with the statewide planning goals. (Revised 11/25/87)

OCEAN FLOODING

60. Ocean flooding occurs in three major forms: tidal flooding, storm surge and tsunami.

61. Ocean flooding hazards are confined to coastal dunes, marshes and beaches.

62. Occurrences of tsunamis in coastal Douglas County are small and rare.

63. Ocean flooding hazards are greatest to unwary beachcombers and tourists in low-lying coastal areas.

64. According to the Oregon Department of Geology and Mineral Industries (DOGAMI), coastal flooding as a result of a tsunami is a real and apparent risk. While most of the coastal area in Douglas County is within the Dunes National Recreation Area (NRA), some developed areas are identified within the Department of Geology and Mineral Industries (DOGAMI's) tsunami inundation zone. (Revised 5/29/96)

MASS MOVEMENT

65. Mass movements are hazardous to lives and properties and are problematic throughout much of the County.

66. Improper construction activities can increase mass movement hazards, adding to a previously unstable situation.

67. Geologic hazard information for the interior County is unavailable, while a more detailed study has been performed for the coastal area. There is a need for a higher level of detailed data for the interior County. (Revised 11/25/87)

68. The San Souci area has been identified as a significant hazard area, due to the instability of the soils. The topography of the entire area (San Souci) exhibits nearly all types of mass movement from soil creep, to mass flow, to rock fall at the rear of the escarpment. Slow to rapid earth flow has occurred over the recent past as is evidenced by the sharp escarpment along the crest of the ridge and the jumbled up topography downslope. Rock fragments are detaching from time to time along the escarpment at the ridge crest. This has resulted in rock debris downslope. The rock strata are inclined to the west or southwest. Past large scale slumping appears to have occurred over areas of less than ten acres, and generally less than five acres. Recent slumping has occurred along roads, and where landings have been cut into the slope. These are generally of a few acres in extent. Large scale slumping could be expected to occur if the vegetation were removed such as by fire, or the surface were disturbed by widespread development of roads or homesites on the slopes. Damage could be expected to be localized to roads and foundations of structures in the vicinity of recent surface disturbance. Such damage has occurred from the valley floor by San Souci Road upslope to above Black Oak Drive. Extensive destruction of the vegetation or extensive disturbance of the surface by road construction and housing construction could result in large scale and rapid earth flow. This would result in far more extensive damage to roads and structures in the area from the valley floor upslope. Good site evaluation, and careful construction under the supervision of a qualified engineer can reduce the amount of slumping and eliminate any damage.

69. Unstable geologic conditions may be further aggravated by road construction, septic tank placement and use, water runoff, building construction, and other man-made activities.

70. 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. (Revised 11/25/87)

71. The danger of serious earthquakes and their attendant damage appears relatively remote in Douglas County, based on the historic record and the limited studies available. (Revised 11/25/87)

72. The potential for volcanic eruption is limited to the eastern edge of the County in the High Cascades geomorphic province. The old volcanic centers appear to be dormant and, for the present, the risk of eruption should be considered low. (Revised 11/25/87)

NATURAL HAZARD MITIGATION PLAN (NHMP)

73. Douglas County has a FEMA approved Natural Hazard Mitigation Plan (NHMP), adopted by resolution by The Board of Commissioners. The NHMP lists nine hazard specific mitigation plans for all areas in Douglas County. The natural hazards addressed include Flood, Severe Winter Storms, Earthquake, Tsunami, Windstorm, Wildfire, Landslide, and Multi-hazard mitigation and “Acts of God”

74. Each hazard-specific mitigation plan includes information on hazard identification, a vulnerability assessment and risk analysis for communities located in a hazard area, lists recommended mitigation strategies to reduce natural hazard damages to communities, seek to identify funding, monitoring and staffing mitigation activities for hazard mitigation projects.

75. The NHMP recommends outreach and education programs on each hazard, and seeks to protect life and property through public awareness.

76. The NHMP recognizes the improvement of emergency service response as important to all hazard specific mitigation plans and will seek technical and financial assistance to meet this goal.

77. The 2009 Douglas County Natural Hazard Mitigation Plan is adopted as a support document to the Comprehensive Plan and is recognized by reference.

AIR, NOISE AND LAND RESOURCES QUALITY POLICIES

AIR QUALITY

GOAL: Maintain and improve the quality of air in Douglas County

OBJECTIVE A: To guard against the degradation of air quality.

POLICIES:

1. Participate in DEQ actions such as Notice of Construction, Air Containment Discharge Permit and Indirect Source Construction Permit.

2. Agriculture and forestry burning operations shall continue to be regulated by Oregon's Smoke Management Program as administered by the State Department of Forestry, Douglas Forest Protective Association, the DEQ, and other appropriate agencies to prevent overloading of the airshed during unfavorable conditions. (Revised 11/25/87)

3. New major point sources of air pollution in the form of industrial or commercial land uses shall, during the planning process, obtain appropriate certification from the DEQ to ensure compliance with current emissions standards.

4. Encourage DEQ to expand their monitoring program and increase sample areas to determine critical local areas. Current air quality levels within subairsheds should be identified so that level may be maintained or improved.

OBJECTIVE B: To locate new business and industries so that the impact on air quality is minimized.

POLICIES:

1. All land uses, including shopping centers, which attract or generate large volumes of auto traffic shall meet state and federal air pollution standards.

2. Air pollution impacts shall be partial consideration in choosing new sites for industry, business and other developments.

3. Buffer and separate those land uses which create or lead to conflicting requirements and impacts on air quality.

OBJECTIVE C: To initiate specific measures to minimize or eliminate air pollution from the following sources: open burning, dust, smoke stacks, automotive exhaust, industrial and commercial operations.

POLICIES:

1. Support the enforcement of current state and federal air quality regulations.

2. Encourage pathways for nonmotorized travel to be provided within urban areas.

3. Support the initiation or continuation of mass transit programs within the County. (Revised 11/25/87)

4. Support car pools.

5. Continue reviewing CO emissions during plan updates.

NOISE QUALITY

GOAL: Maintain and improve the noise quality in Douglas County.

OBJECTIVE D: To guard against the degradation of noise quality.

POLICY:

1. Coordinate noise control programs with state, local and federal agencies.

LAND QUALITY

GOAL: Maintain and improve the land quality in Douglas County.

OBJECTIVE E: To guard against the degradation of land quality.

POLICIES:

1. The County shall encourage programs which enhance the aesthetic quality of the area, such as roadside litter collection and overall cleanup programs.

2. The County shall continue to implement the Countywide solid waste disposal program.

3. The County shall only encourage rural development in areas suitable for septic tank sewage disposal systems.

4. Lands not suited for development shall be used for open space, agriculture, forestry, recreation or other suitable uses.

5. Coordinate closely with DEQ to assure that State standards are not violated. (Revised 11/25/87)

6. The County should continue, through its Solid Waste Management Program, to develop methods to reduce the flow of landfill leachate into the ground water system; and, to investigate alternatives to reduce the need for septage holding pits at the Roseburg Solid Waste Site. (Revised 11/25/87)

OBJECTIVE F: To manage solid waste in Douglas County in the most efficient manner.

POLICIES:

1. Continue to update the Solid Waste Management Plan and consider a variety of solutions to meet anticipated long range needs. Have the plan reflect current volumes, practices and direction. (Revised 11/25/87)

2. Encourage private enterprise to participate in solid waste programs.

3. The County should continue to investigate and pursue a diversity of approaches to solid waste management including resource recovery, waste reduction, recycling and landfilling. (Revised 11/25/87)

4. The County should continue to provide for and promote recycling

activities. (Revised 11/25/87)

OBJECTIVE G: Protect land quality from erosion and other soil related natural hazards.

POLICIES:

1. Coordinate with resource agencies, such as NRCS, to protect land quality. (Revised 11/25/87)

2. Consider drainage plans, soil capabilities, slope characteristics, and vegetative cover when reviewing development projects. (Revised 11/25/87)

3. Encourage the most appropriate use of land based on the physical capabilities and environmental characteristics of the land. (Revised 11/25/87)

FLOODING AND MASS MOVEMENT HAZARDS

GOAL: To protect life and property from natural disasters and hazards.

OBJECTIVE H: To reduce the economic and social costs created by flood-caused damages.

POLICIES:

1. Discourage residential development in identified floodplain areas.

2. Agriculture, recreation and other similar open space uses shall be given highest priority in identified floodplain areas.

3. Any new development within the floodplain shall be designed to avoid damage from flooding and to minimize the damage potential to other developments or properties.

4. New residential subdivisions in the designated 100 year floodplain should be encouraged to use lands outside of the floodplain for building sites by

employing "PUD" or cluster-type development.

5. Encourage the retention and restoration of natural or other suitable vegetation adjacent to waterways.

6. Promote increased public awareness of flood hazards and how to deal with them.

7. Promote flood control measures which help minimize flood hazards and that are environmentally sound.

8. Emergency repairs involving roads and bridges subject to floodplain, estuarine, or shoreland requirements of the Douglas County Land Use and Development Ordinance shall be allowed providing the repairs do not extend beyond the original bank line. Such emergency repairs shall be subject to the requirements outlined in Oregon Administrative Rule 141-85-280. Upon receipt of an approved emergency permit by DSL, the County shall notify the local Planning Advisory Committee of the action undertaken.

POLICY IMPLEMENTATION:

1. Encourage the continued enforcement of floodplain regulations throughout the County.

2. Discourage the granting of variances to floodplain regulations, except in extreme cases where flood hazard is relatively minor.

OBJECTIVE I: To protect life and property from mass movement hazards.

POLICIES:

1. Any proposed development shall be reviewed when located on slopes greater than 25%. The review within identified hazard areas should include the study of soils, surface water drainage and bedrock geology.

2. A written report by an engineering geologist or an engineer who certifies he is qualified to evaluate soils for stability shall be required in identified mass movement hazard areas prior to any excavation or change in topography for development such as home construction and associated roads, driveways, septic tank disposal fields, wells and water tanks.

3. Encourage the retention of as much vegetative ground cover as possible in critical mass movement areas, areas above 25% slope and in other slide or erosion prone areas.

4. New residential subdivisions in areas identified as having limitations due to soil characteristics or excessive slope should maximize the use of the most suitable building sites by employing "PUD" or cluster-type development.

5. Douglas County will continue its efforts to evaluate potential hazard problems and will apply remedial procedures such as those actions listed in Policies 1 through 4.

6. Douglas County shall regularly update the NHMP as needed to address community changes and natural resource/natural hazard issues.

NATURAL FEATURES

INTRODUCTORY SUMMARY

THE PURPOSE OF THE NATURAL FEATURES ELEMENT

This Element of the Comprehensive Plan is composed of a variety of topics concerning the natural environment of Douglas County. Addressing only a portion of Statewide Planning Goal 5, the purpose of this Element is to protect the natural resources of Douglas County.

WHAT DOES GOAL 5 REQUIRE?

Goal 5 requires local jurisdictions to develop programs that will: 1) ensure open space; 2) protect scenic and historic areas and natural resources for future generations; and 3) promote healthy and visually attractive environments in harmony with natural landscape character. In developing these programs, Goal 5 encourages and/or requires an inventory of the location, quality and quantity of natural and scenic resources. In addition, Goal 5 states the following:

> Where no conflicting uses for such resources have been identified, such resources shall be managed so as to preserve their original character. Where conflicting uses have been identified the economic, social, environmental and energy consequences of the conflicting uses shall be determined and programs developed to achieve the goal.

The standard Goal 5 process, consists of procedures and requirements to guide local planning for all Goal 5 resource categories. Goal 5 also has specific rules for each of the fifteen Goal 5 resource categories. In some cases, the specific rule supersedes all or a part of the standard rule. In case of conflict, the specific rule supersedes the standard rule. There is a third option available in Goal 5 which is called a "safe harbor." The "safe harbor" consists of an optional course of action that satisfies certain requirements under the standard process.

WHAT IS INCLUDED IN THE NATURAL FEATURES ELEMENT?

The Natural Features Element addresses only a portion of Goal 5. Contained in this document are sections concerning riparian corridors, wetlands, wildlife habitat, federal wild and scenic rivers, state scenic waterways, natural areas, wilderness areas, mineral and aggregate resources, energy sources, and open spaces. Each section identifies several key issues important to consider when planning the County's natural resources.

Statewide Planning Goal 5 addresses the issue of conserving open space and protecting the state's scenic and natural resources. Besides conserving open space and protecting natural and scenic resources, Goal 5 requires an inventory of riparian corridors, wetlands, wildlife habitat, federal wild and scenic rivers, state scenic waterways, natural areas, wilderness areas, mineral and aggregate resources, and energy sources. Goal 5 also encourages maintaining an inventory of open spaces. If an area identified as habitat does not conflict with other uses, the resources must be managed "so as to preserve their original character."

The location, quality and quantity of Douglas County's riparian corridors, wetlands, wildlife habitat, federal wild and scenic rivers, state scenic waterways, natural areas, wilderness areas, mineral and aggregate resources, energy sources, and open space resources are inventoried in the Natural Features Element.

WHAT IS IN EACH SECTION? (* Revised 11/12/97 under new Goal 5 rule)

***Approved Oregon Recreation Trails:** Recreation Trails adopted by the Oregon Parks and Recreation Commission are discussed in this section. The three identified trails in Douglas County are the North Umpqua River Trail, the Upper Rogue River Trail and the Pacific Crest Trail.

***Wilderness Areas:** The areas listed by the United States Forest Service as wilderness areas are discussed. The three federally listed wilderness areas in Douglas County are the Boulder Creek Wilderness, the Rogue-Umpqua Divide Wilderness and the Mt. Thielsen Wilderness.

***Oregon Scenic Waterways:** State criteria and regulations pertaining to designating and preserving scenic waterways are discussed in this section. The North Umpqua Scenic Waterway is illustrated on maps. State Scenic Waterway Corridors and federal Wild and Scenic Rivers are discussed under separate heading in this Element.

***Federal Wild and Scenic Rivers:** This section covers federal regulation of federal Wild and Scenic rivers in Douglas County. State Scenic Waterway Corridors and federal Wild and Scenic Rivers are discussed under separate heading in this Element.

***Scenic Views and Sites:** This section gives an overview of scenic views and sites in Douglas County and shares inventories of these areas which have been compiled by state and federal agencies.

***Open Space:** This section discusses open space in Douglas County. Douglas County is predominantly forest and agricultural land which also has the dual value of functioning as open space.

***Natural Areas:** Ecologically and scientifically significant natural areas identified by the Oregon Natural Heritage Program are discussed.

***Energy Sources:** In addition to traditional energy sources discussed under the Mineral Resources section, geothermal, hydroelectric, biomass, wind, and solar energy potentials for Douglas County are described.

Historic and Cultural Resources: See the Cultural and Historic Resources Element.

Groundwater Resources: See the Water Resources Element.

Wildlife: The Wildlife section contains discussions of wildlife groups, habitat types, endangered species, threatened and protected species, habitats of special concern, specific sensitive areas, general land use conflicts, big game, upland game, waterfowl, furbearers and nongame. In addition, statistical information has been provided to help understand the economical importance of wildlife as a natural resource. (Note: **riparian corridors** and **wetlands** are addressed within the wildlife section)

Fish: The Fish section is very similar to the Wildlife section. Numerous fish species and their sensitive habitat areas are inventoried. Statistics have also been provided that show the importance of fisheries in Douglas County.

Mineral Resources: General County geology, past and present mining activity, aggregate rock production and usage, and mineral fuels are investigated in this section of the Element. Maps are used to illustrate aggregate and mineral sources in the County.

NATURAL FEATURES ISSUES (SECTION SUMMARIES)

APPROVED OREGON RECREATION TRAILS

This section discusses Approved Oregon Recreation Trails, which are those trails within Douglas County that are designated by rule and adopted by the Oregon Parks and Recreation Commission (OPRC). Douglas County designates all recreation trails designated by the Oregon Parks and Recreation Commission as significant Goal 5 resources.

WILDERNESS AREAS

This section discusses the wilderness areas within Douglas County which have been identified by the United States Forest Service as wilderness. In Douglas County, there is one federally listed wilderness and a portion of two other wildernesses. The federally listed wilderness areas within Douglas County are identified by the United States Forest Service as totaling 67,043 acres. The one wilderness area completely within Douglas County is the Boulder Creek Wilderness. Portions of the Rogue-Umpqua Divide Wilderness and the Mt. Thielsen Wilderness are also in Douglas County.

SCENIC WATERWAYS

There are three designated state scenic waterways in Douglas County listed by the Oregon State Parks and Recreation Department. The North Umpqua State Scenic Waterway is a 33.8 mile area located on the North Umpqua River, stretching from the Soda Springs powerhouse to the river's confluence at Rock Creek, with an additional six miles of State Scenic River stretching along the North Umpqua River from the Mt. Thielsen Wilderness boundary to Lemolo Reservoir, and another 12 miles of State Scenic River found along the Upper Rogue River from Crater Lake National Park to Jackson County. The Oregon River's Initiative (1988) designated the three areas as an Oregon Scenic Waterway, following the federal recreational river designation the areas received from the Omnibus Oregon Wild and Scenic Rivers Act of 1988.

FEDERAL WILD AND SCENIC RIVERS

There are two river segments that have a federal Wild and Scenic River designation in Douglas County. They are the North Umpqua River from Soda Springs powerhouse to Rock Creek and that portion of the Rogue River located in Douglas County. Both river segments carry a dual designation as both an Oregon Scenic Waterway and a Federal Wild and Scenic River.

SCENIC VIEWS AND SITES

The County can be generally said to be scenic overall as each valley, stream or hillside possesses some interesting and scenic quality. The County does not have a detailed inventory of its scenic views and or sites. The following scenic view and site inventory has been compiled from various sources such as the Bureau of Land Management, Department of Transportation Scenic Routes, Oregon Natural Areas - Douglas County, and Department of Transportation Potential Scenic Waterways studies.

OPEN SPACE

*

NATURAL AREAS

Sixteen natural areas have been identified in Douglas County that have been (reviewed) identified under Goal 5. There are thirteen sites that were originally found to be insignificant (1A) and were subsequently not included in the updated (November 88) inventory. There are five sites with a classification of 1B. Until more information is available these sites will remain in this category. Eight sites were identified as having no conflicting uses surrounding them due to their federal ownership. These sites have the designation of 2A. Only one site was found to require any level of protection, the White Camas Area, which has the 3C designation. (Revised 11-12-97)

ENERGY SOURCES

Based on current information, geothermal resources of the County are limited and do not represent a viable energy source.

Hydroelectric power generation in Douglas County occurs on the upper North Umpqua River in the Toketee area. Two river reaches meriting further investigation of low head hydroelectric power potential are Elk Creek and Calapooya Creek.

Biomass (especially wood and wood residue), currently represents a minor energy source in the County and should be further investigated.

Windpower is a viable alternative energy source in some parts of Oregon, but the lack of adequate wind data for Douglas County makes it impossible to accurately assess the potential usefulness of wind as an energy alternative for Douglas County.

Due to the County's climatic conditions, total solar systems, as an alternative energy source, have limited potential in Douglas County. However, proper home construction and orientation can maximize solar energy as a source of winter heat.

HISTORIC AND CULTURAL RESOURCES

See the Cultural and Historic Resources Element.

GROUNDWATER RESOURCES

See the Water Resources Element.

WILDLIFE

Douglas County serves as the home or part-time shelter for more than 350 animal species. These species include 66 mammals, 254 resident and migratory birds and 38 amphibian and reptile species as listed and discussed in the general wildlife overview found in the wildlife section of the Natural Features Supporting Element. The importance of these various species can be seen through the analysis of annual recreation and hunting expenditures. In 1976, the wildlife resource of Douglas County contributed to an annual recreation and hunting expenditure of almost 5.6 million dollars.

Endangered Species

Several Endangered species (meaning that the species has been included on the Federal Endangered Species List) are found in Douglas County. The endangered gray wolf is found in Douglas County, in addition to endangered birds. Endangered birds include the American peregrine, the California brown pelican and the Aleutian Canada goose. These bird species can be found in Douglas County during various times of the year.

General Land Use Conflict

Wildlife habitat competes with several other land uses. Uses or activities, such as rural residential development or some industrial uses, could impact a habitat to a degree that it precludes its use as habitat. Other uses such as logging and water impoundments may eliminate or alter specific habitat for some species while providing new habitat for other animals. An understanding of animal habitats is important for decision makers in order to satisfy both the needs of man and animals.

FISH

The Umpqua River Basin, one of the largest in Oregon, provides a diversity of fish species. All fish species, including game and nongame, are extremely important to both man and the various ecological systems. The two most abundant fish species in Douglas County are salmon and trout.

Sensitive habitat areas for fish production in Douglas County are lakes, rivers, reservoirs, streams, and headwater areas. Each water body, depending on the location, acts as a life supporting habitat for fish.

Three major problems associated with the fishery resource of Douglas County are sedimentation, streamside or stream corridor manipulation, and excessive water withdrawals. These problems have combined to limit fish production in several areas. The major problem area in Douglas County is the South Umpqua River Basin. Land use activities in Douglas County that cause the above mentioned major problems are agricultural practices, logging, road building, aggregate removal, and urban and rural development.

MINERAL RESOURCES

Mining activity in Douglas County is generally limited to the mining of nickel, aggregates, building stone, and silica. Other minerals in the County are not concentrated in quantities sufficient for large scale commercial production based on current demand, prices and processing costs. No commercial quantities of coal, oil or gas have been discovered in the County.

NATURAL FEATURES ELEMENT FINDINGS

WILDLIFE

l. Like man, animals need food, water, and cover to survive.

2. The wildlife resource of Douglas County contributed to an annual recreation and hunting expenditure of almost 5.6 million dollars as of 1976.

3. Douglas County serves as the home or part-time shelter for more than 360 animal species: 66 mammals; 254 resident and migratory birds; and 38 amphibian and reptile species.

4. Douglas County recognizes wildlife production as a beneficial use of the land.

5. The Oregon Forest Practices Act is recognized as the controlling mechanism for forest management operations on forest lands by the Oregon Department of Fish and Wildlife and Douglas County. Wildlife habitat protection measures are intended to apply to uses other than agricultural and forest activities.

Wildlife Groups

6. Big game is the most important group of game animals within the Umpqua Basin. Blacktail deer are the most popular big game animal found in the County.

7. Mountain quail lead nine other upland game species in numbers found within Douglas County.

8. Coot, scamp, duck and the common merganser are the most common waterfowl in Douglas County.

9. Skunk and beaver are the most plentiful furbearers in the County.

10. A wide variety of nongame species of all types are found in Douglas County.

Habitat Types

11. There are numerous habitat types in Douglas County, Oregon's most diverse county.

12. Habitat types range from the unique estuarine areas to riparian areas, to Douglas fir, the hardwoods, the grasslands and orchards, urban areas, and the high Cascade region.

13. Big Game

    a. Urban sprawl, commercial development, new roads, clearing for pasture and recreational development affect big game.

14. Upland Game - uses which involve conversion of habitat present the biggest threat and conflict to upland game. Weather can influence this group of animals.

15. Waterfowl - Lack of water adversely affects waterfowl in the county. Loss of marshland and riparian area will translate into a loss of waterfowl. Additional impoundments, private and public, would alter that possibility.

16. Furbearers

    a. Furbearer populations are relatively static and will remain so unless land and water use practices are substantially altered. Furbearers thrive near water, but will not tolerate heavily polluted areas. Maintaining desirable summer stream flows and building small water impoundments would be beneficial.

    b. Beavers present the biggest land use conflict with their damning of streams and culverts.

17. Nongame

    a. Conversion of habitat to other uses affects nongame species in a similar fashion as other species.

    b. Water requirements for nongame animals are modest and amply fulfilled by existing supplies. Preservation of existing water quality and quantity will help ensure healthy populations.

Endangered Species

18. The gray wolf is found on the Federal Endangered Species List.

19. The American peregrine, the California brown pelican and the Aleutian Canada goose are three endangered bird species that are expected to be found in Douglas County during various times of the year.

Threatened and Protected Species

20. The "Northern bald eagle" is classified as a threatened species by the Oregon Department of Fish and Wildlife.

21. There exist several protected mammal, bird, amphibian and reptile species found common to Douglas County including the harbor seal, California Sea Lion, all nongame birds and the tailed frog.

Sensitive, Peripheral, and Impacted Big Game Habitats:

22. Lands identified by the big game habitat map describe those habitat areas deemed "sensitive" or that area which supports the majority of big game; "peripheral" or those which support large quantities of big game but where existing land uses do not allow management options favorable to big game; and "impacted" or developed areas no longer considered to be viable big game habitat.

APPLICATION OF THE GOAL 5 PROCESS FOR BIG GAME HABITATS:

a. **Location, quality and quantity of the resource:**

(1) Location - Refer to the following map titled "Big Game Habitat."

(2) Quality - Generally good as forest practices allow for vegetation diversity and cover and the climate is mild, thus leaving an abundance of year-round food sources.

(3) Quantity

Acres of Sensitive:	2,049,820
Acres of Peripheral:	604,170
Acres of Impacted:	518,950

b. **Potentially Conflicting Uses in Big Game Habitat Areas:** For a majority of those lands in Douglas County delineated as big game habitat by the Oregon Department of Fish and Wildlife, Douglas County employs 3 resource zones: TR (Timberland Resource), FF (Farm Forest) and EFU-G (Exclusive Farm Use - Grazing). The major issue regarding big game habitat is the loss of habitat due to increased residential densities beyond the preferred density of 1 dwelling per 40 acres in peripheral areas and 1 dwelling per 80 acres in sensitive big game habitats.

Many nonresource uses, if approved, could permanently alter big game habitat areas. Some generally common characteristics among these uses include: 1) the introduction of people to habitat areas on a year-round basis; 2) the permanent introduction of groups of people on a seasonal or weekly basis; or 3) the use of land in a manner which necessitates the removal of large amounts of vegetative cover. Specific potentially conflicting uses contained within the TR, FF and EFU zones are as follows:

ZONE	PERMITTED USES	CONDITIONALLY PERMITTED
TR		-Single family dwelling -Lodges
FF	-Single family dwelling in conjunction with farm use -Second DU in conjunction with farm use -Churches -Public and private schools	-Accessory DUs -Commercial activities in conjunction with EFU -Community center -215.213(3) nonfarm DU -Kennels
EFU-G -	Same as FF	-Same as FF

c. **Economic, Social, Environmental and Energy Consequences of Conserving Big Game Habitats**

(1) Economic consequences: Each year the Department of Fish and Wildlife spends a substantial amount of money and staff time attempting to resolve perennial conflicts between big game and rural residents. Attempting to minimize future conflicts between big game and residential development and other nonresource uses certainly will prove to be a cost saving measure for ODFW.

The hunting of big game species is a major form of recreation in this state. Annually hunters become significant contributors to numerous local economies as well as substantial financiers of the Oregon Department of Fish and Wildlife. Because hunting and hunters are dependent on the survival of the species, the economic consequences of not insuring adequate quantities of habitat would be very costly both locally and statewide. The general economic benefits associated with land use planning also can be considered as an economic consequence of limiting development in rural areas. Other resources besides wildlife benefit from a minimization of development. Also, facility and other potential development costs to taxpayers are reduced.

The negative economic consequences of applying regulations are generally borne by individuals prevented from doing an activity such as building a home on a specific site. In some instances, this can become an extreme financial hardship to an individual. However, for most individuals, the economic consequences of not receiving an approval become a short term inconvenience, eventually resolved by building elsewhere.

(2) Social Consequences: Only a small portion of the actual conflicts associated with rural living and big game are documented by the Oregon Department of Fish and Wildlife. Browsing by deer and elk on ornamental vegetation is a most common nuisance. This potential conflict can be minimized by limiting uses in designated habitat areas. The negative social consequences of limiting residential densities in habitat areas means the desire to live in rural areas for many people will remain unsatisfied. Also, as mentioned under economic consequences, personal financial hardship may be a social as well as economic by-product of strict adherence to a prescribed regulation.

(3) Environmental Consequences: Opportunities for big game to flourish in a habitat without repeated interference or disturbances from man should be a positive environmental consequence. Also, other animal species who require a large open space environment shall benefit from low density requirements.

(4) Energy Consequences: The energy consequences of limiting development should be entirely positive. Trip generation associated with development located in remote parts of the County will be minimized by density and development restrictions. As a result, development will occur closer to cities and services for which specific trips are often made and thus energy is often used.

(5) Conclusion: The consequences of establishing requirements which limit development and residential density in specified big game habitat areas should prove generally to be an overall benefit not only to big game and the ODFW but also to

the environment, the economy, and to the goal of conserving energy. Provided a provision for extenuating circumstances in conjunction with review by ODFW is included, the benefits of limiting development and residential density in specified habitat areas is warranted.

d. **A Program to Conserve Big Game Habitat**

(1) Sensitive Big Game Habitat: All lands deemed sensitive big game habitat have been designated as timberlands in the Comprehensive Plan. The TR zone is applied to timberland areas which are almost entirely managed by Federal agencies or private timber companies. The Timberlands plan designation and the TR zone are guided by the plan policies in the Forest Element of the Douglas County Plan. The following policies from the Forest Element provide the basis for not only managing the forest resource but also managing sensitive big game habitat areas: Objective A, Policies 5 and 6; and , Objective B, Policies 5, 6, 7, 8 and 9.

The following policies from the Forest Element provide specific guidance for the designation and implementation of the Timberlands designation: Objective B, Policy Implementation No. 1 A (1), (2) & (3); Objective C; Objective C, Policies 1, 2 and 3; and Objective C, Policy Implementation 1 and 2.

The Timberland Resource or TR zone (3.2.000 of the Land Use and Development Ordinance) was designed to implement the requirements of the Forest Element. Douglas County holds the position that the TR zone in conjunction with the policies of the Comprehensive Plan does conserve the County's forest resources and therefore all "sensitive big game habitat areas." Uses identified as possibly conflicting found within the TR zone are single-family dwellings and recreational lodges. Some of the significant TR zone requirements which will conserve sensitive habitats are as follows:

§3.2.100(3)(a)© and (e), and
§3.2.100(4)(d)(e)(f) and (g)

With the preceding Forest Element plan policies and Land Use and Development Ordinance provisions and those provided for wildlife, Douglas County will easily satisfy the Oregon Department of Fish and Wildlife's suggested density guideline for sensitive big game habitat areas of 1 dwelling unit per 80 acres. In order to coordinate planning activities and assure compliance with the sensitive big game guideline, Douglas County has a policy (Natural Features Policies, Objective A, Policy 3) to provide notice to ODFW of any land use application for a potential conflicting use.

(2) Peripheral Big Game Habitat: Peripheral big game habitat areas consist of lands primarily zoned EFU-G and FF. The exception to this rule are those few committed sites located in peripheral habitat areas which are zoned primarily RR-5 and the nonexception area identified. The adverse impact of these committed lands have already been introduced due to their existence. The County cannot go back and retroactively apply density standards to such sites. There are very few sites and their cumulative impact is very minimal. Therefore, the density standards

applicable to identified peripheral areas should not be applied to those committed lands identified in the Plan.

The nonexception area is in a fringe habitat area and adjacent to the Roseburg UGB. The impact on big game habitat is minimal.

The prescribed densities in the EFU-G and FF zones are 200 acres without review (§3.3.200(1)(a) and 3.5.200(1)(a)), 199 to 75 acres upon satisfying administrative procedures (§3.3.200(1)(b) and §3.5.200(1)(b)), and below 75 acres subject to special review criteria (Article 42) and Planning Commission review (2.600). Nonfarm dwellings and second single-family dwellings may be conditionally permitted.

To conserve peripheral big game habitat, Douglas County provides (in Article 32 of the Land Use and Development Ordinance entitled Supplementary Provisions for Natural Resource Areas) specific density provisions to assure general conformance with the peripheral big game management guideline of 1 dwelling per 40 acres. Also, Natural Features Objective A, Policy 3, was adopted to provide ODFW with the opportunity to participate in quasi-judicial reviews for the establishment of a conflicting use.

The dwelling density standard is to be applied and calculated on an "areawide" basis. The LU&DO states in 3.32.300 that the BGHO "is designed to preserve identified peripheral habitat areas by providing supplementary development standards which promote an *areawide* dwelling density . . ." The Comprehensive Plan (CP, p.6-8) states that the issue of concern is "the loss of habitat due to increased residential densities beyond the preferred density of one dwelling per 40 acres *in peripheral areas* . . ."

The Comprehensive Plan phrase "in peripheral areas" modifies the LU&DO term "areawide." Therefore, the term "areawide" means a certain geographic area that is also within identified peripheral habitat (as mapped in the Comprehensive Plan). The Comprehensive Plan never implies that the term "areawide" should mean "only the one parcel being evaluated" -- otherwise, the dwelling density standard would exclude legitimate dwelling opportunities from parcels less than 40 acres in size. Clearly, the dwelling density standard is not intended to be applied on a parcel specific basis. But neither can "areawide" mean all lands within Douglas County that are designated as peripheral habitat (because this would make the dwelling density test meaningless -- i.e. in such a large county, the dwelling density would never be exceeded).

The Comprehensive Plan further states that peripheral areas "consist of lands primarily zoned FG and FF" (CP, p.6-10). Using Comprehensive Plan guidance, the dwelling density standard should be applied on an "areawide" basis, but only to peripheral areas where the zoning is FG or FF. The next step in defining the term "areawide" is to determine it's geographic limits.

Justification for use of PAC Area boundaries to define habitat regions: There is a need for guidance as to the limits, or boundaries, of the term "areawide." Defined areas in common use by the County are Planning Advisory Committee areas (PACs), which are clearly defined geographic areas where appointed advisory committees (PACs) are authorized to give land use advice to the County. There are nine PAC

areas in Douglas County. PAC areas generally define watersheds and are therefore reasonable to use as geographic boundaries for the term “areawide” in the BGHO.

Regional big game populations are dependant on local sources of water: Big game animals, such as deer and elk, range throughout Douglas County. One of the factors that maintain relatively large populations of these animals is the presence of water -- primarily in the form of rivers, lakes and streams. Deer and Elk roam and forage for subsistence, but their roaming is generally confined to the same watersheds in which they are born. Because big game generally roam and live out their lives within specific watersheds, the boundaries of these watersheds become an important determinant in defining big game habitat areas.

The Umpqua River and it’s Sub-basin components: The political boundary of Douglas County contains the entire drainage basin for the Umpqua River. Aside from a few minor deviations, the Umpqua drainage basin, from its various head waters to the point where it drains into the Pacific Ocean, is generally the same boundary as that for Douglas County. This situation, though unique among counties, is an essential factor in consideration of Douglas County’s natural environment. Sub-basins within the Umpqua River system consist of a number of major tributaries including: the North Umpqua River, the South Umpqua River, Cow Creek, Lookingglass Creek, Myrtle Creek, Deer Creek, Little River, Sutherlin Creek, Calapooya Creek, Elk Creek, and Smith River. These sub-basins are fully documented in the Water Resources Element of the Comprehensive Plan and are the local regions within which big game forage and roam.

PAC Boundaries encompass regional watersheds: PAC Area boundaries in Douglas County are closely correlated with the boundaries of the various sub-basins, or watersheds. Creek and river drainage areas were one of the primary considerations when PAC area boundaries were drawn in the mid-1970's. Originally, there were 17 PAC areas. Proving to be unmanageable in terms of County staffing support, the number of PAC areas were reduced to nine in the early 1980's. The reduction was accomplished by combining PAC areas, yet still maintaining a strong relationship with watershed boundaries. As evidenced by their names, many of the PAC areas are named after the stream or creek they encompass. PAC boundaries generally define watershed areas within which big game roam and forage, and are therefore reasonable geographic regions to rely on as a basis for land use standards that attempt to maintain big game habitat. The current PAC areas and the watersheds they contain are as follows:

Coastal PAC	Lower Umpqua River from head of tidal influence to the river mouth ---- most of the Smith River drainage basin ---- coastal lakes.
Elk Creek PAC	The Elk Creek watershed ---- and, the main stem of the Umpqua River.
Calapooya PAC	The Calapooya Creek watershed.

Callahan PAC	Though it contains portions of the Lower South Umpqua, the main stem of the Umpqua River, and the upper reaches of Lookingglass Creek, this PAC area is predominately within “impacted” areas where the Peripheral Big Game Habitat Overlay does not apply.
Rsbg-Green PAC	Largely consists of impacted habitat.
North Umpqua PAC	Contains the North Umpqua River, Little River, and Deer Creek watersheds.
Douglas PAC	This small PAC area contains the Lookingglass Creek watershed. Camas Valley, at the western edge of the Douglas PAC is one of the few areas in Douglas County that drains into another river system, the Coquille.
South Umpqua PAC	Contains the Myrtle Creek watershed and the upper South Umpqua River drainage.
Cow Creek PAC	Contains most of the Cow Creek watershed.

What about land extensive PACs: Though some PAC areas are very large, the actual size of any given PAC will not skew the results of the dwelling density calculation prescribed in the Peripheral Big Game Habitat Overlay. The reason is that Douglas County has a central corridor, generally defined as a swath of land approximately 20 miles wide, that follows the course of I-5 and contains most of the County population. *Most of the impacted and peripheral big game habitat is within this central corridor.* The larger PAC areas contain extensive amounts of “sensitive” big game habitat that is generally located to the east or west of the central corridor. These “sensitive” habitat areas are generally zoned (TR) Timberland Resource, where dwelling density is severely limited by zoning requirements. The dwelling density standard, as proposed, cannot use these “sensitive” lands as part of the PAC acreage. Only a subset of the PAC area can be considered in the dwelling density calculation. That is, the calculation only uses the number of acres that are both peripheral habitat and zoned FF and FG. This confines the denominator used in the dwelling density calculation to a relatively small part of each PAC area.

Dwelling density standard: Calculation of the “areawide” dwelling density of “1 dwelling unit per 40 acres” is accomplished by 1) determining the number of acres within the appropriate PAC area that are both mapped as peripheral habitat and zoned either FG or FF, then 2) determine the number of dwellings within the defined area, including the proposed new dwellings, then 3) divide the result of step 1 by the result of step 2. The result is the areawide dwelling density with the proposed new dwellings included. If the density exceeds 1 dwelling per 40 acres, the proposal would need to be reviewed by ODFW, or a variance applied for.

No special provisions for conserving big game habitat are necessary for the EFU-C, AW and RR zones as they are almost entirely located within designated "impacted" areas of Douglas County.

Big Game habitat map

24. **Riparian Vegetation Corridors Along Rivers and Streams**

APPLICATION OF THE GOAL 5 PROCESS FOR RIPARIAN VEGETATION ALONG RIVERS AND STREAMS:

a. **Location, quality and quantity of the resource:**

(1) Location: At the present time a map of specific riparian vegetation corridors in Douglas County is not available. Upon consulting with the Oregon Department of Fish and Wildlife, all riparian vegetation located within 50' of the streambank adjacent to identified perennial and intermittent streams has been classified as important. The location of important perennial and intermittent streams in Douglas County is shown in the State Water Resource Maps for the Umpqua, South Coast, Rogue, Klammath, Willamette and Mid Coast drainage basins.

(2) Quality: The quality of riparian vegetation is generally good. Such areas enhance shoreline stability and water quality and provide an excellent habitat for fish and wildlife.

(3) Quantity: The quantity of riparian vegetation in Douglas County has been determined to include all lands within 50 feet of the bankline of perennial water courses. Although the riparian vegetation varies in width, depending on location, it has been determined that 50 feet adequately represents the average width of riparian vegetation found in Douglas County.

b. **Potentially Conflicting Uses in Riparian Vegetation Corridors:** For those areas classified as important riparian vegetation corridors, Douglas County employs most, if not all, of its present land use classifications. Within these land use classifications certain activities, if allowed, could permanently alter riparian vegetation. Such activities include structural development such as single-family dwellings, commercial and industrial buildings, churches, public and private schools, community centers, kennels, roadside stands, and accessory buildings.

c. **Economic, Social, Environmental and Energy Consequences of Conserving Riparian Vegetation Corridors**

(1) Economic Consequences: Although dollar figures are not available, it is estimated that a substantial amount of money is spent each year attempting to resolve conflicts from locating structural development in riparian vegetation corridors. The major conflict centers on the removal of riparian vegetation which reduces fish and wildlife habitat and endangers adjacent development through streambank erosion and flooding. In many areas, loss of riparian vegetation has caused excessive erosion depleting agricultural land and damaging residential structures. This loss is incurred by the property owner as well as local jurisdictions involved.

Given the importance of the riparian vegetation, it would appear that regulating structural development in such areas would be economically beneficial.

(2) Social Consequences: Although the benefits of conserving riparian vegetation appear to be great, as shown in the economic consequences, a conflict arises when attempting to regulate riparian vegetation in nonresource areas. In many designated residential, industrial and commercial areas, existing development is located well within the riparian vegetation corridor. Land in such areas is at a high demand and is usually purchased at a good price due to river frontage and view. Although regulating development would conserve riparian vegetation, a hardship may be incurred by a property owner desiring to build in the riparian corridor. If construction is prohibited on prime river frontage, the property owner could experience a substantial decrease in property value, not to mention a significant change in personal desires. This hardship would be magnified if adjacent development had already occurred within the riparian corridor. In many cases, regulating the development in such areas would not conform to existing land use patterns.

A positive social consequence of conserving riparian vegetation would include the protection of property from flood hazards. Given that most riparian vegetation corridors are located well within designated floodplain areas, regulating development would help reduce hazards associated with flooding.

(3) Environmental Consequences: The environmental consequences of limiting structural development in riparian vegetation corridors is positive. By limiting development, erosion is reduced which increases habitat protection and helps to maintain water quality.

(4) Energy Consequences: The energy consequences of limiting structural development in riparian vegetation corridors is also positive. By protecting riparian vegetation, less energy will be spent trying to rectify erosion problems.

(5) Conclusion: Excluding some areas presently designated for future development in the County's Comprehensive Plan, it appears that regulating structural development in riparian vegetation corridors would have a positive effect on conserving fish and wildlife habitat and maintaining streambank stability.

d. **A Program to Conserve Riparian Vegetation Corridors:** Riparian vegetation corridors in Douglas County were identified with the assistance of the Oregon Department of Fish and Wildlife (ODFW). The ODFW has specified that a building setback of fifty (50) feet from the bank of all identified perennial and intermittent water courses shall be adequate to protect riparian vegetation corridors. For those areas presently developed and designated for future growth, the ODFW has recommended that a reduction in setback requirements be allowed if the development is shown to be consistent with the area's natural resources.

The following Plan policies provide the basis for conserving riparian vegetation corridors:

Water Resources Element
Objective C, Policy 3
Objective E, Policies 1 and 2

Air, Noise and Land Quality Element
Objective E, Policy 4
Objective H, Policies 3, 5 and 6

Natural Features Element
General Policies, Policy 5
Objective A, Policy 3
Objective B, Policy 1

Coastal Shorelands Element
General Policies, Policies 4, 5 and 7

To help implement policies addressing riparian vegetation, the County has adopted a Riparian Vegetation Corridor Overlay Zone which applies to lands located 50 feet from the bank of all identified perennial and intermittent water courses. This Overlay Zone requires all structural development to be set back 50 feet from the streambank unless, after consultation with the Oregon Department of Fish and Wildlife, it is found that such a setback is unnecessary, and that reduction of the setback will not jeopardize streambank stability, water quality, etc. See Section 3.32.200 of Douglas County's Land Use and Development Ordinance for additional implementation requirements.

The map entitled: UMPQUA DRAINAGE BASIN, OREGON, State Water Resources Board, (Salem, Oregon, 1974) is hereby adopted as the official map showing the streams and rivers to which the overlay zone shall be applied. Due to its size, the map is not included within this Plan document. Copies of the map are available at the Planning Department Office.

25. **Significant Wetlands**

APPLICATION OF THE GOAL 5 PROCESS FOR SIGNIFICANT WETLANDS

a. **Location, quality and quantity of the resource.**

(1) Location: Significant wetlands in Douglas County were identified by the Oregon Department of Fish and Wildlife (ODFW). Identified in 17 locations, the ODFW recognized only those wetlands considered to have a good to excellent wetland quality. Under the Goal 5 process, these areas are classified as 1C sites. See the following maps for location of significant wetlands.

(2) Quality: Significant wetlands in Douglas County were identified by the Oregon Department of Fish and Wildlife (ODFW). They include only those wetlands classified by the ODFW as having a good to excellent quality.

(3) Quantity: Acres of Significant Wetlands - 138 acres

b. **Potentially Conflicting Uses in Significant Wetlands:** For those lands in Douglas County delineated as significant wetlands by the ODFW, the County employs 10 land use zones: TR (Timberland Resource), FF (Farm Forest), EFU-G (Exclusive Farm Use-Grazing), EFU-C (Exclusive Farm Use - Cropland), AW (Agriculture and Woodlot), RR-2 (Rural Residential -2 Acre), M-2 (Medium Industrial), M-3 (Heavy Industrial), RR-5 (Rural Residential - 5 Acre), and PR (Public Reserve).

An analysis of these zones indicate that residential and industrial development are two uses which could potentially conflict with the maintenance of significant wetlands. Specific potentially conflicting uses contained within the identified zones are as follows:

ZONE	PERMITTED USES	CONDITIONALLY PERMITTED
TR	-Mining and quarrying of rock	-A facility for the primary processing of forest products -Solid waste disposal sites -Single-family dwelling -Lodges
FF	-Single-family dwelling in conjunction with farm use -Second DU in conjunction with farm use -Churches -Public and private schools	-Accessory DU's -Commercial activities in conjunction with EFU -Operations conducted for the mining and processing of geothermal resources -Exploration, mining and processing of aggregate and other mineral resources or other subsurface resources -Commercial activities in conjunction with farm use -Operations conducted for the mining and processing of geothermal resources -Community centers -Nonfarm DU (215.213(3)) -Facility for primary processing of forest products -Solid waste disposal site -Kennels -Log scaling and weigh stations, sorting yards and log storage areas -Feedlots
EFU-C/G	-Same as FF	-Same as FF

ZONE	PERMITTED USES	CONDITIONALLY PERMITTED
AW	-Single family dwelling in conjunction with farm use -Accessory buildings	-Additional DU in conjunction with farm use -Public and Semipublic buildings -Kennels -Feedlots -Aggregate and mineral extraction
RR-2	-Single-family dwelling -Accessory buildings to a single-family dwelling -Second single-family dwelling -Forest uses, including the propagation and harvesting of forest products	-Additional single-family DU -Public and semipublic buildings -Kennels -Aggregate and mineral extraction
RR-5	-Same as RR-2	-Same as RR-2
M-2	-Industrial uses	-Industrial uses
M-3	-Industrial uses	-Industrial uses
PR	-Public and semipublic buildings -Churches -Lodges -Assembly halls -Fairgrounds -Cemeteries -Fire prevention facilities -Hospitals and nursing homes -Orphanages -Schools	-Public or private airports, heliports, and landing strips -Solid waste transfer disposal sites -Single-family dwelling in conjunction with a permitted use

c. **Economic, Social, Environmental and Energy Consequences of Conserving Significant Wetlands.**

(1) Economic Consequences: The positive economic consequences of conserving significant wetlands is directed toward the County's recreational industry. Providing secondary benefits each wetland supports recreation through the propagation of fish and waterfowl. Through such activities as fishing and hunting, businesses receive revenue which benefits the local economy. Due to the economic benefits of conserving significant wetlands, every possible attempt should be made to minimize future land use conflicts. By regulating possible conflicts, the County would be assured of maintaining wetland values as well as providing economic diversification.

The negative economic consequences of applying regulations to significant wetlands are borne by the property owner prevented from doing a specific land use activity. In Douglas County, this applies particularly to lands zoned for residential and industrial expansion. In some instances, applying strict land use regulations to such areas would become an extreme financial hardship (see social consequences for statistics regarding wood products industry).

(2) Social Consequences: Although strict land use regulations in significant wetlands would benefit Douglas County's recreational industry, the opposite may hold true for the County's housing and wood products industries. For those wetlands presently designated for residential and industrial development, prohibiting such uses to continue may cause significant adverse impacts to the County's economy. This can be seen when analyzing the County's wood products industry. It is estimated that approximately 70% of the County's work force, including primary and secondary jobs, is dependent upon the wood products industry.

(3) Environmental Consequences: The environmental consequences of regulating development in significant wetlands is positive. Opportunities for fish and wildlife as well as plant life to flourish without repeated interference or disturbances from man should be a positive environmental consequence.

(4) Energy Consequences: With the exception of those areas presently designated for future development in the County's Comprehensive Plan, the energy consequences of regulating development in significant wetland areas should be positive. By regulating development in wetland areas, development is encouraged to locate in urban areas, therefore conserving energy through the reduction of transportation costs.

(5) Conclusion: With the exception of those areas presently designated for residential and industrial development in the County's Comprehensive Plan, the consequences of regulating development in significant wetland areas would be positive. The significant wetlands identified for industrial use are log ponds which have developed wetlands as a result of industrial uses. These industrial sites include Sites 3, 4, 5, 9, 11, 12, 14, 15 and 16. The wetlands have coexisted with current industrial practices and as stated are a result of such practices. To prohibit or limit those practices would be both economically detrimental and unnecessary to protect the resource.

d. **A Program to Conserve Significant Wetlands:**

The program is designed to protect significant wetlands. With the assistance of the ODFW, Douglas County has developed several maps which identify significant wetlands. They include only those wetlands classified as having a good to excellent quality. An overlay zone shall be applied to these areas entitled Significant Wetlands of Douglas County. Within this overlay zone, wetlands surrounded by resource lands shall be protected, whereas wetlands presently designated for future expansion shall be allowed to develop in accordance with existing uses.

To ensure that significant wetlands are adequately protected, the County will apply, with modifications, the 50' setback standard established in the program to conserve riparian vegetation corridors. The ODFW concurs that this standard will provide adequate protection to significant wetlands. See Section 3.32.700 of Douglas County's Land Use and Development Ordinance for implementation requirements.

TABLE 6-1. SIGNIFICANT WETLANDS.

Site No.	Name	Location	Acres
1	Henderer Road	T22S, R8W, Sec. 22	5
2	Iversons Square	T25S, R7W, Sec. 25, 36	20
3	Fords Pond	T25S, R6W, Sec. 13, 14, 23	2
4	Del Rio Ponds	T26S, R6W, Sec. 23, 25	3
~~* 5~~	~~Evans Ponds~~	~~T26S, R6W, Sec. 24~~	~~1~~
6	Sutherlin Creek	T25S, R5W, Sec. 6, 7, 29, 30, 32	10
7	Cooper Creek Reservoir	T25S, R5W, Sec. 26	10
8	Plat I Reservoir	T25S, R5W, Sec. 13, 14, 23	40
9	North Wilbur Pond	T26S, R5W, Sec. 7	2
10	Whistlers Bend Pond	T26S, R4W, Sec. 17-20	1
11	Little River Pond	T26S, R3W, Sec. 29, 30	2
12	Dixonville Log Pond	T27S, R4W, Sec. 17-20	1
13	Ben Irving Reservoir	T29S, R7W, Sec. 18	3
14	Riddle Two Ponds	T30S, R6W, Sec. 26, 27	1
15	Herbert Pond	T30S, R5W, Sec. 26	8
16	Hanna Nickel	T30S, R6W, Sec. 29, 32	25
17	Butler Reservoir	T26S, R2W, Sec. 13	2

* Footnote: Site 5 was removed in 2012 as part of the I-5, Del Rio Rd./Winchester Interchange, Exit 129 IAMP relocation project.

wet 1

wet 2

wet 3

wet 4

wet 5

wet 6

wet 7

wet 8

wet 9

26. **National Wetlands Inventory** (Revised 11-30-88)

New information about wetlands is available to Douglas County. This information is roughly depicted on the face of 35 maps and identifies the general location of possible wetlands throughout most of the County. At present the County can only approximate the number of possible wetland sites at 5,400.

The "Draft" maps are entitled "National Wetlands Inventory" and are composed from high altitude photographs at scales of 1:24,000 or 1:62,500. Locational information on the face of these maps is not error free as explained in the "special note" on the face of each map. The note explains both, that some sites shown on the map will not prove to be wetlands and that not all wetlands were included on the map due to possible procedural errors.

In the coastal area the new information is lined on maps labeled Tahkenitch Creek, Winchester Bay, Lakeside, Five Mile Creek, Reedsport, and Trail Butte. This area reaches from the northern to southern border of the County and from the ocean to about ten miles inland. These are at a scale of 1:24,000.

Most of the central area of Douglas County is covered from the northern border to just south of the city of Myrtle Creek by maps entitled Drain (NE, NW, SW and SE), Anlauf (NW, SW and SE), Goodwin Peak (NE, SW and SE), Roman Nose Mountain (NW, SW and SE), Cottage Grove SW, Scottsburg NW, Elkton (NE, NW, SW and SE), and Crow SE. These are at scale of 1:24,000. Wetlands in the balance of this central area are illustrated on maps entitled Glide, Dixonville, Roseburg, Camas Valley, Tyee, and Sutherlin. These latter maps are at a scale of 1:62,500.

The quality of <u>locational information</u> relative to detailed locational needs of the County's mapping system is poor. The exact location of wetland sites are not clearly defined nor capable of being mapped at a large enough scale to delineate parcel boundaries. Without exact wetland boundary information the County can not determine the significance of these possible Goal 5 resources. Without consistent locational information the County can not determine the <u>quantity</u> of wetland resources.

The <u>quality</u> of these wetlands is also not available to Douglas County. Without information about the resources' quality the County can not determine the ecologic and scientific significance of the resource nor the relative value of each site as compared to other examples of the same resource.

Procedures for complying with the statewide goals permits the County to delay the goal 5 process (OAR 660-16-000 (5)(b)). Granted, some information about possible wetlands sites is available. This information is however, not adequate to identify with particularity the location and quality of the resource.

Because the USF&W Wetland inventory maps indicate the possible existence of resource sites; and, because the exact location and quality of "wetlands" shown on the National Wetlands Inventory maps is insufficient to evaluate whether the wetlands are ecologically and scientifically significant natural resources, the County finds the site's to be most appropriately classified as 1b goal 5 resources.

27. **Special Bird Habitats** (Revised 11-30-88)

Statewide Planning Goal 5 requires the conservation of open space and protection of natural and scenic resources. Included as a Goal 5 resource are special bird habitats. Douglas County's natural setting provides a wide range of bird habitats, four of which require special consideration if they are to coexist

with other desirable uses. These special bird habitat types include eagle nesting sites, great blue heron rookeries, osprey nest sites, and pigeon mineral springs.

Federal and State laws already provide several layers of protection for special bird habitat areas. Federal regulations provide protection for bald and golden eagles through the Act for Protection of Bald and Golden Eagles, Migratory Bird Treaty Act and the Endangered Species Act. The State Department of Forestry, through the Forest Practices Act (FPA), and State Department of Fish and Wildlife add another layer of protection for these species. In addition, these state agencies also manage and protect osprey nesting sites, great blue heron rookeries, and pigeon mineral springs.

It has always been Douglas County's position that bird habitat protection in forest areas should be solely governed by the FPA, as managed by the State Department of Forestry. With the passage of HB3396, counties are now prohibited from regulating forest operations covered by the FPA. However, it has become apparent that existing State regulations (through the FPA) do not effectively protect bird habitat areas from non-FPA regulated activities. The FPA is designed to regulate activities directly associated with commercial forest management. The FPA does not specify protection criteria if a certain use or activity is not directly associated with forest management activities.

Present zoning districts surrounding bird habitat areas in Douglas County provide for several uses with the potential of being exempt from FPA regulations. Uses that fall in this category (either permitted outright or conditionally) include mining and quarrying of rock, landing strips and heliports, recreational facilities, airports, water impoundments, single family dwellings, churches, schools, utility facilities, solid waste disposal sites, and log scaling and weigh stations.

To ensure adequate protection for bird habitat areas, and to meet the requirements of Goal 5, the County has developed a special review program. The Oregon Department of Fish and Wildlife (ODFW) will be consulted and relied on to ensure that certain developments will not degrade or adversely affect special bird habitat areas. ODFW is relied on due to their expertise in bird habitat management. Such expertise is not available at the local level.

APPLICATION OF THE GOAL 5 PROCESS FOR **HERON, EAGLE, AND PIGEON SPRING** SPECIAL BIRD HABITATS

Inventory

The inventory of special bird habitat sites was compiled by ODFW in cooperation with the Forest Service and BLM. Federal sites included in the inventory were not analyzed further as they are given proper consideration through the management and planning process associated with federal lands. It is the responsibility of the federal government to resolve conflicts and establish a conflict resolution process for federal sites.

a. **Location, quality and quantity of the resource:**

(1) Location

Although site specific locations would have been more desirable, the inventory provided by ODFW is very general in that it specifies habitat location only to the quarter section. Because of the relative sensitivity of bald eagle, golden eagle, heron, and pigeon spring sites, in relation to man's activities, the County has accepted this "general locational information" (quarter section detail) as being adequate to complete the goal 5 process. When requested to comment on proposed land use activities affecting eagle, heron, and pigeon habitats, the ODFW will specifically locate the appropriate site. The following is a listing of 3C Eagle, Heron, and Pigeon spring sites and their general locations as identified by the Oregon Department of Fish and Wildlife:

3C Special Bird Habitats for Heron, Eagle, and Pigeon Springs (Revised 10/19/94)

Species	Township	Range	Section	1/4Section
Bald Eagle	20S	10W	36	Center
Nest Sites	20S	11W	31	NE of SE - SE of NE
			32	NW of SW - SW of NW
	20S	11W	35	SE
	20S	12W	11	SE
	21S	11W	02	SW
	21S	12W	21	Center
	21S	12W	25	SE of NE - NE of SE
				NW of SE - SW of NE
	22S	12W	06	SE
	22S	09W	16	SE of SW - SW of SE
			21	NE of NW - NW of NE
	22S	08W	20	SE of SW - SW of SE
			29	NE of NW/NW of NE
	21S	11W	31	NW of SW - SW of NW
		12W	36	NE of SE - SE of NE
	21S	11W	32	NE OF SE - SE OF NE
			33	NW OF SW - SW OF NW
	23S	07W	07	SW of SW
			18	NW of NW
		08W	12	SE of SE
			13	NE of NE
	23S	07W	14	SW OF NW - NW OF SW
			15	SE OF NE - NE OF SE
	23S	08W	02	SW OF SW
			03	SE OF SE
			10	NE OF NE
			11	NW OF NW
	24S	07W	21	SE
	24S	07W	21	NE OF SE - SE OF NE

22 NW OF SW - SW OF NW

Species	Township	Range	Section	1/4Section
Bald Eagle	25S	04W	25	NW OF SW - SW OF NW
(cont)			26	NE OF SE - SE OF NE
	25S	07W	09	SW
	25S	08W	12	SW
	26S	06W	07	SW
	26S	06W	07	SW of SW - NW of SW
		07W	12	NE of SE - SE of SE
Golden Eagle Nest Sites	23S	08W	13	NW of SW
				SW of SW
			14	NE of SE
				SE of SE
	24S	05W	29	SW OF SW
			30	SE OF SE
			31	NE OF NE
			32	NW OF NW
	24S	06W	34	SE
	27S	05W	33	SE
	29S	05W	30	SW
	29S	05W	30	SW OF SW
			31	NW OF NW
		06W	25	SE OF SE
			36	NE OF NE
Blue Heron Rookery Sites	22S	12W	31	NE
	23S	07W	10	NW
	24S	07W	11	SW of NE
				NW of SE
				NE of SW
				SE of NW
	26S	04W	14	SW of NW
				NW of SW
			15	SE of NE
				NE of SE
	26S	06W	18	NW
	27S	06W	04	NE of SW
				NW of SE
				SW of NE
				SE of NW
	27S	06W	22	NW
	30S	05W	18	SE
	30S	05W	22	NE

Species	Township	Range	Section	1/4Section
Pigeon Springs	22S	04W	08	SW
	25S	01W	36	NE
	26S	04W	14	SE
	24S	05W	36	SW
	32S	05W	21	NE of SE
				SE of NE
			22	NW of SW
				SW of NW

(2) Quality

The quality of these sites is good as they are currently being used for nesting purposes (this indicates the acceptable quality of the habitat).

(3) Quantity

Each inventoried area contains at least one nesting site and, for inventory purposes, all sites are contained within specific identified quarter sections. Some inventoried eagle sites may contain more than one nest. Heron rookeries often consist of 5-100 nests located in close proximity to one another. Though they are not nesting sites, pigeon springs are biologically important to the rearing of juvenile pigeons. However, individual nesting sites will not require the entire quarter section to be protected. The actual impact area will vary depending on the type of bird and characteristics of the site but shall not exceed 1300 feet for eagle sites, 600 feet for heron rookeries, and 150 feet for pigeon springs. This type of protection requires individual management plans for any potentially conflicting permitted or conditionally permitted land use activity proposed on or within the sites impact area. Therefore, an exact determination of acres needed to protect nesting habitat areas cannot be made. (Revised 6/28/89)

b. **Potentially conflicting Uses in HERON, EAGLE, AND PIGEON SPRING Special Bird Habitat Areas**

In reviewing the zoning designations of the identified habitat areas, three resource zones were found to be applied. These were Exclusive Farm Use - Grazing (EFU-G), Timberland Resource (TR) and Farm Forest (FF).

Some resource uses, as well as nonresource uses, were identified as having potential conflicts with these habitat areas. In many cases, mitigation could be provided to allow the use and still preserve the habitat. The major areas of conflict center on recreation, residential development, mining and quarrying of rock, landing strips and heliports, and water impoundments. Potentially conflicting uses allowed within the TR, EFU-G and FF zones are as follows:

Potentially Conflicting Uses in Resource Zones (Revised 6/28/89)

ZONE	PERMITTED	CONDITIONALLY PERMITTED
TR	-Mining and quarrying of rock -Landing strips and heliports -Public recreational facilities	-Wood processing facility -Single family dwellings -Solid waste disposal site -Private recreational facilities -Log scaling and weigh stations, sorting yards and log storage areas -Construction of additional travel lanes on public roads where new right-of-way is required -Improvement of public roads
and		highway related facilities where new right-of-way is required
FF	-Landing strips and heliports -Single family DU's and other buildings -Utility facilities -Operations for the exploration of geothermal resources -Exploration for aggregate and other mineral resources -Mining and quarrying of rock	-Same as TR -Commercial activities in conjunction with farm use -Operations conducted for mining and processing of geothermal resources -Mining and mineral processing -Parks, playgrounds or community centers -Commercial utility facilities -Personal use airports -Generation facilities and communication facilities -Feedlots -Kennels -Churches and schools -Construction of additional travel lanes on public roads where new right-of-way is required -Improvement of public roads
and		highway related facilities where new right-of-way is required

ZONE	PERMITTED	CONDITIONALLY PERMITTED
EFU-G	-Single family DU's and other buildings -Utility facilities -Operations for the exploration of geothermal resources -DEQ ordered solid waste sites	-Single family dwellings -Commercial activities in conjunction with farm use -Mining and processing of geothermal and mineral resources -Parks, playgrounds or community centers -Commercial utility facilities -Personal use airports -Wood processing facility -Solid waste disposal site -Feedlots -Kennels -Churches and schools -Construction of additional travel lanes on public roads where new right-of-way is required -Improvement of public roads and highway related facilities where new right-of-way is required

c. **Economic, Social, Environmental and Energy Consequences of Conserving HERON, EAGLE, AND PIGEON SPRING Special Bird Habitats.**

(1) Economic consequences:

Good quality rock and other minerals are often difficult to locate. Road construction costs could be greatly increased if rock removal were not allowed, forcing rock to be transported from other areas (transportation is a major factor in the cost of rock). This could cause an increase in the cost of rock and a decline in employment within this sector.

Recreational facilities are abundant throughout the County. There may be a small loss in facilities but generally there would be no loss to the tourist industry due to lack of facilities. There would be economic loss to the particular owner of a parcel if his intentions were for commercial recreational use.

A negative economic consequence would result from applying special regulations to single-family residences or similar development which is generally borne by individuals. In some instances, this can become an extreme financial hardship.

Minimal economic impact would result if the discussed uses were permitted and the nesting sites not preserved. If Eagles and Heron were to decrease, then their natural prey (rats, mice and other rodents) would increase causing minor loss to farm and forest land owners.

(2) Social consequences:

The negative social consequences of limiting residential development in habitat areas means the desire to live in rural areas for owners of affected parcels may remain unsatisfied.

Recreational opportunities such as camping, hunting, off-road vehicles, etc., would be channeled to other areas. However, by limiting such conflicting uses, naturalists and bird watchers would have enhanced opportunities. Actions limiting or allowing specific uses often serve as a catalyst for conflict (over type of management practice) and causes community polarization.

(3) Environmental consequences:

The environmental consequences of limiting development in nesting habitat areas are positive. Opportunities for birds to nest in a habitat without repeated interference or disturbances from man should be a positive consequence of conservation. Some development could destroy nesting sites and roosting trees and generally bring about disturbance which would cause birds to leave an area. These impacts can be mitigated by requiring individual management plans.

The limitation on nonresource development such as single family dwellings would limit disturbances and not introduce a use which may have a negative effect on a nesting site. The limiting of recreation would not encourage human intrusion, again minimizing those types of conflicts.

(4) Energy consequences:

The energy consequences of not allowing conflicting uses are minimal.

(5) Conclusion:

This analysis concludes that it would be unreasonable to not allow potentially conflicting uses within a habitat impact area. Most bird habitat sites are sensitive to the intensity of a land use, and then usually on a seasonal basis. The economic and social consequences of not allowing potentially conflicting uses within a habitat impact area could be reduced by allowing those uses through a review process where development permits are conditioned by mitigation and buffering techniques designed, on a case by case basis, to protect individual sites.

d. A Program to Protect HERON, EAGLE, AND PIGEON SPRING Special Bird Habitats

Special bird habitats in Douglas County were identified by the Oregon Department of Fish and Wildlife (ODFW). The ODFW identified eagle and heron habitats by quarter sections, rather than individual nesting sites, to lessen the possibility of vandalism. Pigeon spring sites have been specifically located by ODFW and will be subject to a reduced overlay application even though, for inventory purposes, they are identified by quarter section.

To assist in the protection of eagle and heron special bird habitats, for non-FPA regulated activities, Douglas County will apply a Special Bird Habitat Overlay Zone (BH) to each identified quarter section. Overlay application for pigeon spring sites will be more site specific. The intent of the overlay is to limit uses conflicting with those habitats (3C Goal 5 site). Within this overlay zone, special bird habitats will be managed by Douglas County through consultation with ODFW. For non-FPA regulated activities, the ODFW will be responsible for ensuring that development is initiated in a manner consistent with the need to protect special bird habitats. (Revised 10/19/94)

APPLICATION OF THE GOAL 5 PROCESS FOR **OSPREY** SPECIAL BIRD HABITATS

Inventory

In 1987, ODFW, with the help of the BLM, prepared a list of 71 quarter sections containing an osprey nest site. Because of the greater numbers of osprey and because of that bird's lesser sensitivity to man's activities (in comparison to the sensitivity of eagles and heron to man's activities), the County requested that ODFW provide more detailed locational information. ODFW now provides the County with plat maps upon which they have pinpointed the osprey nest location. To date, ODFW has provided the County with the exact location of ninety-nine osprey nests; these sites are classified as 3C sites. ODFW has been unable to provide the exact location of two osprey nest sites; these two sites have been classified as 1B sites. (Revised 10/19/94)

e. **Location, quality and quantity of the resource:**

(1) Location

(a) 1B Osprey Nest Sites (Goal 5 process delayed)

The quarter section information given to the County is not adequate enough to identify with particularity (see OAR 660-16-000(5)(b)) the location of 2 nesting sites identified by ODFW. Therefore, lacking site specific location information (660-16-000(2)), Douglas County is delaying the goal 5 process (1B) for these 2 osprey nest sites. The general (1/4 section) location of the two 1B osprey sites is as follows: (Revised 6/28/89)

* T22-R10-S31-NW1/4
* T20-R12-S22-SW1/4

(b) 3C Osprey Nest Sites (Goal 5 process applied)

Through coordination with the ODFW and BLM, the exact location of one hundred osprey nest sites has been determined. As 3C sites, these sites are subject to a protection program that limits conflicting uses. (Revised 11/29/95)

Inventory of 3C Osprey sites in Douglas County (Revised 11/29/95), (Revised 12/5/01)

Species	Township	Range	Section	1/4 Section
Osprey	20S	12W	01	SE
	20S	12W	01	SE
	20S	12W	02	SE
	20S	12W	04	SW
	20S	12W	10	NW
	20S	12W	15	NE
	20S	12W	15	SE
	20S	12W	22	NW
	20S	12W	22	NE
	20S	12W	22	SE
	20S	12W	25	NW
	20S	12W	25	SE
	20S	12W	27	NW
	20S	12W	27	NW
	20S	12W	27	SE
	20S	12W	28	NE
	20S	12W	28	SE
	20S	12W	28	SE
	20S	12W	28	SW
	20S	12W	33	SE
	21S	12W	03	NE
	21S	12W	03	SW
	21S	12W	03	SW
	21S	12W	04	NE
	21S	12W	04	NW
	22S	08W	26	NW
	22S	08W	35	SW
	22S	09W	16	SE
	22S	12W	01	NW
	22S	12W	19	NW
	22S	12W	19	NW
	22S	12W	19	NW
	22S	12W	19	NE
	22S	12W	19	SW
	22S	12W	19	SW
	22S	12W	19	SW
	22S	12W	30	NW
	22S	12W	31	NE
	22S	12W	31	NE
	22S	12W	31	SE
	22S	12W	31	SE
	22S	12W	32	NW
	22S	12W	32	NW
	22S	12W	32	SW

Species	Township	Range	Section	1/4 Section
Osprey	22S	13W	24	NE
(cont)	22S	13W	24	NE
	22S	13W	24	SE
	23S	07W	04	NW
	23S	07W	08	NE
	23S	07W	09	NE
	23S	07W	36	SE
	24S	07W	14	SW
	24S	07W	20	NE
	24S	07W	21	NW
	24S	07W	28	NW
	25S	05W	22	SE
	25S	06W	31	NW
	25S	07W	06	NE
	25S	07W	22	SW
	25S	07W	22	SW
	25S	07W	25	NE
	26S	02W	21	NE
	26S	02W	22	NW
	26S	03W	09	SW
	26S	03W	12	NE
	26S	03W	19	NE
	26S	03W	19	SW
	26S	03W	30	NE
	26S	05W	15	NW
	26S	05W	19	NE
	26S	05W	20	SW
	26S	06W	07	SW
	26S	06W	23	SE
	26S	06W	25	NW
	26S	06W	26	NE
	26S	06W	30	SE
	26S	07W	24	NE
	27S	06W	04	SE
	27S	06W	05	NW
	27S	06W	06	NE
	27S	06W	09	NE
	27S	06W	16	SE
	28S	06W	03	SW
	28S	06W	32	NW
	29S	08W	13	NE
	30S	02W	32	NE
	30S	02W	33	NW
	30S	03W	30	SW
	30S	03W	34	NW
	30S	04W	26	NE
	30S	05W	19	NE
	30S	05W	29	NW

Species	Township	Range	Section	1/4 Section
Osprey	30S	06W	32	SW
(cont)	31S	07W	08	SW
	32S	08W	02	SE
	32S	08W	12	NW
	33S	07W	01	NE

(2) Quality

As noted in the following section, Osprey nests were discovered throughout the County. The nests themselves are located next to homes, highways, the freeway, and resorts, as well as in the open space setting. The quality of these Osprey nesting sites is good. These sites are nests which have recently been used or are currently being used for nesting purposes, showing the adaptability of this species of bird to greater levels of human presence.

(3) Quantity

Each inventoried area contains one Osprey nesting site. (Revised 2/16/94)

f. **Potentially Conflicting Uses in Zone Categories Applicable to 3C OSPREY Special Bird Habitat Areas.**

In reviewing the zoning designations of the 3C Osprey habitat areas, seven zones were found to be applied. These were Exclusive Farm Use - Grazing (EFU-G), Timberland Resource (TR), Farm Forest (FF), Agriculture and Woodlot (AW), Rural Residential-2 Acre (RR), Public Reserve (PR), and Rural Residential-5 acre (5R).

Some resource uses, as well as nonresource uses, were identified as having potential conflicts with osprey habitat sites. The major areas of conflict center on recreation, residential development, mining and quarrying of rock, landing strips, and heliports. Potentially conflicting uses allowed within the PR, RR, 5R, TR, EFU-G, AW, and FF zones are as follows:

Potentially Conflicting Uses in Nonresource Zones

ZONE	PERMITTED	CONDITIONALLY PERMITTED
PR	-Public and semipublic buildings -Churches -Clubs, fraternal lodges and assembly halls -Fire facilities -Hospitals and nursing homes -Orphanages and charitable institutions -Parks, playgrounds and other recreational facilities -Schools	-Public or private airports -Solid waste transfer and disposal sites -Generation facilities and communication facilities -Single Family dwellings and other buildings

5R	-Single family DU's and other buildings	-Single Family dwellings and other buildings -Park or playground -Public or semipublic buildings -Nursery -Kennels -Aggregate and mineral extraction
RR	-Same as 5R	-Same as 5R

Potentially Conflicting Uses in <u>Resource</u> Zones (Revised 6/28/89)

ZONE	PERMITTED	CONDITIONALLY PERMITTED
TR	-Mining and quarrying of rock -Landing strips and heliports -Public recreational facilities	-Wood processing facility -Single family dwellings -Solid Waste disposal site -Private Recreational Facility -Log scaling and weigh stations, sorting yards and log storage areas -Construction of additional travel lanes on public roads where new right-of-way is required -Improvement of public roads and highway related facilities where new right-of-way is required
FF	-Landing strips and heliports -Single family DU's and other buildings -Utility facilities -Operations for the exploration of geothermal resources -Exploration for aggregate and other mineral resources -Mining and quarrying of rock	-Same as TR -Commercial activities in conjunction with farm use -Operations conducted for mining and processing of geothermal resources -Mining and mineral processing -Parks, playgrounds or community centers -Commercial utility facilities -Personal use airports -Generation facilities and communication facilities -Feedlots -Kennels -Churches and schools -Construction of additional travel

lanes on public roads where new right-of-way is required
-Improvement of public roads and highway related facilities where new right-of-way is required

ZONE	PERMITTED	CONDITIONALLY PERMITTED
EFU-G	-Single family DU's and other buildings -Utility facilities -Operations for the exploration of geothermal resources -DEQ ordered solid waste sites	-Single family dwellings -Commercial activities in conjunction with farm use -Mining and processing of geothermal and mineral resources -Parks, playgrounds or community centers -Commercial utility facilities -Personal use airports -Wood processing facility -Solid waste disposal site -Feedlots -Kennels -Churches and schools -Construction of additional travel lanes on public roads where new right-of-way is required -Improvement of public roads and highway related facilities where new right-of-way is required
AW	-Single family DU's and other buildings -Nursery	-Single family dwellings -Public and Semipublic buildings -Parks and playgrounds -Feedlots -Kennels -Winery -Wood processing facility -Aggregate and mineral extraction -Construction of additional travel lanes on public roads where new right-of-way is required -Improvement of public roads and highway related facilities where new right-of-way is required.

g. **Economic, Social, Environmental and Energy Consequences of Conserving**
OSPREY **Special Bird Habitat sites.**

(1) Economic Consequences:

Restrictions of any commercial activity caused by the protection of an Osprey nest site could cause several negative economic impacts. Many activities within an Osprey impact area would be limited during certain periods in the year. These limitations or restrictions could have an affect on the supply of certain goods and services. If alternate sites are not available for the same activity, then the costs of those goods and services would increase due to the limited quantity available and a potential reduction in work force could also occur. Several construction costs would increase if the work schedule had to be altered to deal with the Osprey.

Recreational facilities are abundant throughout the County. There may be a very small loss in facilities but generally there would be no loss to the tourist industry due to lack of facilities. In fact there is a potential that the recreational facility could increase its occupancy rate by allowing the Osprey habitat and sightings to be an alluring affect for visitors. There would be a moderate economic loss to the particular owner of a parcel if his construction plans had to be altered to take the nesting site into consideration.

A negative economic consequence would result from applying special regulations to single-family residences or similar development. In some instances, this can become an extreme financial hardship if delays are extensive or resiting costs are excessive. In established residential areas the presence of Osprey nests could have a positive affect on the values of the surrounding parcels as well as the selling potential of the parcels. The negative economic impacts of not preserving the nesting sites would be minimal.

(2) Social Consequences:

By limiting residential development in particular habitat areas, the owners of the affected parcels may be negatively affected by the type and timing of those limits. On the other hand, there are land owners who consider the presence of Osprey a valued and cherished quality of life experience which increases the value of their property.

Recreational opportunities such as camping, hunting, off-road vehicles, etc., would be channeled to other areas. However, by limiting such conflicting uses, other types of outdoor recreational users would have enhanced opportunities. Actions limiting or allowing specific uses often serve as a catalyst for conflict (over type of management practice) and can cause community polarization.

(3) Environmental Consequences:

The environmental consequences of limiting development in nesting habitat areas are positive. Opportunities for birds to mate, nest, and fledge their young in a habitat without repeated interference or disturbances from man is a positive consequence of conservation. Some development could destroy nesting sites and

roosting trees and generally bring about disturbance which would cause birds to leave an area. These negative impacts can be mitigated by limiting the period and type of use, which is best described in an ODFW management plan for the site.

The limitation on nonresource development such as single family dwellings would limit disturbances and not introduce a use which may have a negative effect on a nesting site. The limiting of recreation would not encourage human intrusion, again minimizing those types of conflicts. The main constituent of an Osprey's diet is fish. The type of fish consumed by osprey varies but consists mainly of whatever fish is most abundant at the location of the nest site. (Revised 6/28/89)

(4) Energy consequences:

The energy consequences of not allowing conflicting uses are minimal.

(5) Conclusion:

This analysis concludes that it would be unreasonable to not allow potentially conflicting uses within a habitat impact area. Most bird habitat sites are sensitive to the intensity of a land use, and then usually on a seasonal basis. The negative economic and social consequences of not allowing potentially conflicting uses within a habitat impact area could be reduced by allowing those uses through a review process where development permits are conditioned by mitigation and buffering techniques designed, on a case by case basis, to protect individual sites.

h. **Economic, Social, Environmental, and Energy Consequences of fully allowing conflicting uses (3B goal 5 decision) in a portion of the Bird Habitat overlay that is zoned RS and associated with the osprey site in T28-R6-S3-SW1/4 adjacent to the Green urban area.** (Revised 6/28/89)

(1) Economic: The Green urban area is serviced by a full range of urban facilities including public sewer and water, paved roads, fire and police protection, schools, electricity, telephone, and natural gas. A substantial public investment has been expended on these facilities. Limiting conflicting uses would have a negative economic impact on the public investment in facilities. The economic impact of not protecting the osprey nest would be minimal.

(2) Social: Limiting residential development in the Green urban area would have a negative impact on affected property owners. The affected property owners would consider any limitation to be excessive when considering that the protected habitat is over 400 feet away and on the other side of the River.

(3) Environmental: The environmental consequences of limiting residential development are inconsequential. Intervening riparian vegetation and location within the 100 year flood boundary combined with distance from the nest site make limitations unnecessary. With the nest site across the River from the RS Zoning, the opportunity for interference or disturbance from man is greatly reduced.

(4) Energy: The energy consequences of limiting conflicting residential uses are minimal.

(5) Conclusion: Staff analysis concludes that it would be unreasonable to not fully allow conflicting uses within the RS Zoned area subject to the bird habitat overlay in T28, R6, S3, SW1/4.

I. **ESEE Analysis for the Reduction of Habitat Protection of 3C Osprey Sites located in or near Exception Areas**. (Revised 2/16/94)

(1) Economic Consequences: Reducing the protection radius of Osprey nest sites within or near exception areas will ease limitations and restrictions on development. Applying special regulations to single-family residences, or similar types of development, can cause extreme financial hardship when delays become extensive or resiting costs are excessive. Easing restrictions and limitations in areas of development pressure may also have a positive affect upon the supply of certain goods and services, as well as upon the work force. Eliminating the need to alter work schedules to deal with the Osprey could result in a decrease in construction costs.

(2) Social Consequences: Persons wanting to engage in structural development in an exception area (yet beyond the 300 foot radius) will no longer be negatively affected by the type and timing of developmental restrictions for habitat protection; this would be a positive outcome of reducing the protection radius. Conversely, some individuals consider the presence of an Osprey nest an enhancement to their property, a potential negative outcome of reducing the protection radius.

(3) Environmental Consequences: Environmental consequences of allowing the reduction of the protection radius will be minimal. The reduction will apply only to those areas already impacted by development (i.e., exception areas). Though some development could bring about a disturbance causing the Osprey to leave an area, this is not likely to occur. Osprey in developed areas have moved in and subsequently nested after accepting the noise and movement associated with human activity near the nest site. The abundance of Osprey sites in Douglas County indicates the bird adapts well to surrounding development. Seventy-four Osprey sites are currently being protected under the Comprehensive Plan. Eighty-four new sites have been located by the Oregon Department of Fish and Wildlife and will subsequently be proposed for Goal 5 Comprehensive Plan protection.

(4) Energy Consequences: The energy consequences of allowing the reduction in protection radius for sites in exception areas would be negligible.

(5) Conclusion: Staff analysis concludes that the reduction in the protection radius from 600 feet to 300 feet for Osprey sites in or near exception areas would have positive overall ESEE consequences. The amendment proposes to reduce the level of protection only in areas where conflicts already exist. There will be no change in the level of protection for sites not in or near exception areas. Of the seventy-four Osprey nest sites being protected at the time of this analysis, only five (7 percent) were located within an exception area. Adding those sites in proximity of an exception area, a total of eleven sites (15 percent) would be affected by the

proposed amendment. The Osprey population in Douglas County has reached sufficient numbers to justify a reduced level of protection for Osprey sites in or near areas already impacted by development.

j. **A program to Protect OSPREY Special Bird Habitat Sites**

Osprey habitat sites in Douglas County were identified by the Oregon Department of Fish and Wildlife (ODFW) with the assistance of the Bureau of Land Management (BLM). To date, there are one hundred sites identified to exact location (3C sites). There are still two Osprey sites generally identified to the quarter section (rather than individual nesting sites) which need further investigation (1B sites) before the goal 5 process can be completed. (Revised 11/29/95)

To assist in the protection of osprey special bird habitats, for non-FPA regulated activities, Douglas County will apply a Special Bird Habitat Overlay Zone (BH) to each identified 3C site. The intent of the overlay is to limit uses conflicting with those habitats (3C Goal 5 site). Within this overlay zone, osprey special bird habitats will be managed by Douglas County through consultation with ODFW. For non-FPA regulated activities, the ODFW will be responsible for ensuring that development is initiated in a manner consistent with the need to protect special bird habitats.

Special Bird Habitat maps (map 49)

Map 50

map 51

map 52

map 53

map 54

map 55

map 56

map 57

map 58

map 59

map 60

map 61

map 62

map 63

map 64

map 65

map 66

map 67

map 68

map 69

FISH

28. Numerous streams, lakes and rivers in Douglas County support a variety of game and nongame fish species.

29. The North Umpqua River, the Main Stem Umpqua and the Umpqua Estuary support the majority of fish populations found in Douglas County.

30. Sensitive habitat areas for fish production in Douglas County are lakes, reservoirs, rivers, streams and headwater areas.

31. The economic analysis indicates that the North Umpqua River Basin is more productive than the South Umpqua River Basin.

32. The fisheries resource in the South Umpqua River Basin is limited. Factors such as streambank erosion, sedimentation, excessive water withdrawals, elevated water temperature and aquatic plant growth have combined to limit fish production in this area.

33. The two most sought after fish species in Douglas County are salmon and trout.

34. Three major problems associated with the fishery resource of Douglas County are sedimentation, streamside or stream corridor manipulation and excessive water withdrawals.

35. Land use activities in Douglas County that cause major problems (sedimentation, streamside manipulation and excessive water withdrawals) are agricultural practices, logging, road building, aggregate removal and urban and rural development.

APPROVED OREGON RECREATION TRAILS

36. The recreation trails adopted by the Oregon Parks and Recreation Commission are managed and protected by the Oregon Parks and Recreation Department.

37. Eminent domain powers do not apply to any power or duty vested in the Oregon Parks and Recreation Department mission of establishing Oregon Approved Recreation Trails.

38. The North Umpqua River Trail has been designated as an Oregon approved recreation trail by the Oregon Parks and Recreation Commission. The North Umpqua River Trail begins approximately one mile east of Rock Creek and the North Umpqua River confluence, and extends eastward until it connects with the Pacific Crest Trail in Klammath County.

39. The portion of the Upper Rogue River Trail within Douglas County has been designated as an Oregon approved recreation trail by the Oregon Parks and Recreation Commission. The Upper Rogue River Trail extends from Crater Lake National Park across approximately fourteen miles of the Rogue River National Forest within Douglas County and into Jackson County.

40. The portion of the Pacific Crest Trail within Douglas County has been designated as an Oregon approved recreation trail by the Oregon Parks and Recreation Commission. The Pacific Crest Trail extends north and south along the eastern edge of Douglas County.

Trails Map

WILDERNESS AREAS

41. There is one federally listed wilderness completely within Douglas County, and a portion of two other wildernesses, totaling approximately 67,043 acres. The three areas are listed by the United States Forest Service as wilderness.

42. The one wilderness completely within Douglas County is the Boulder Creek Wilderness (19,100 acres).

43. Portions of the Rogue-Umpqua Divide Wilderness (26,350 acres) and the Mt.Thielsen Wilderness (21,593 acres) are in Douglas County.

44. All three wilderness areas are located in the most easterly portion of Douglas County.

45. The three wilderness areas are located completely on national forest land.

SCENIC WATERWAYS

46. In 1988, Oregon voters approved a ballot measure that added 40 new rivers to the Oregon Scenic Waterways Program. Among those added to the state system in 1988 were the following river segments found in Douglas County:

North Umpqua River Segments	miles
● Mt. Thielsen Wilderness boundary to Lemolo Reservoir	6
● Soda Springs powerhouse to Rock Creek	34

Upper Rogue River Segment	
● From Crater Lake National Park to the Jackson County boundary	12

47. The North Umpqua and Upper Rogue River segments are also identified as federal Wild and Scenic Rivers.

48. That portion of the Rogue River which lies within Douglas County contains no private property and is entirely under U.S. Forest Service management.

49. The North Umpqua Scenic Waterway Corridor includes the river and its shoreline and all land and tributaries within ¼ mile of its banks from the Soda Springs powerhouse to Rock Creek. Private land outside of this boundary is not subject to the Oregon Scenic Waterways Program.

50. The "North Umpqua River Management Plan", published in July 1992, was jointly developed by Umpqua National Forest, Roseburg District BLM, and the Oregon State Parks and Recreation Department. The Management Plan sets out guiding principles for multi-jurisdictional management of the river corridor.

51. The State Parks and Recreation Commission adopted the "North Umpqua State Scenic Waterway Management Program" on September 17, 1992. The State management program is designed to ensure that state management would be consistent and complementary with the jointly developed federal plan. Douglas County is required to comply with the North Umpqua State Scenic Waterway Management Program.

52. The North Umpqua Scenic Waterway Corridor from the Soda Springs Powerhouse to Rock Creek is the only Scenic Waterway Corridor in Douglas County that has a Recreation River Area, Scenic River Area and a River Community Area.

53. The Scenic Waterway areas in Douglas County use one of three state scenic waterway classifications. Those three classifications are:

Recreation River Area

Location: Except for the five river community areas, this area includes all land within ¼ mile of the river's north bank for the entire length of the corridor; and, all land within ¼ mile of the river's south bank between Soda Springs powerhouse and Marsters Bridge (approx. 2 miles east of Dry Creek).

Management Priorities: Recreation River Areas are managed to protect the view from the river, allow development compatible with existing land uses, and allow for a wide range of compatible river-oriented public outdoor recreation opportunities consistent with scenic values found in the corridor. As applied to the North Umpqua Scenic Waterway Corridor, this classification recognizes the presence of the existing State Highway; dispersed, multi-purpose recreation sites; developed public campgrounds; and, facilities associated with the generation and transmission of electrical power.

Scenic River Area

Location: All land within ¼ mile of the river's south bank between Marsters Bridge and the confluence of Rock Creek with the North Umpqua River, except that portion of the Steamboat river community area located on the south side of the river.

Management Priorities: Scenic River Areas are managed to maintain or enhance their high scenic quality, recreational value, and fishery and wildlife habitat, while preserving their largely undeveloped character. Agriculture is encouraged, and recreation activities compatible with existing land uses are allowed. As applied to the North Umpqua corridor, this classification acknowledges the need for protection of the minimally disturbed forest environment along the south side of the river between Marsters Bridge and Rock Creek (excluding that portion of the Steamboat River Community Area located south of the river).

River Community Areas

Location: Developed areas in the Scenic Waterway Corridor at:

Rock Creek: All properties within North Umpqua Committed Land Site 12B that are east of Rock Creek (more specifically described as tax lots 600, 700, 800, and 900 in T26S, R03W, Section 01C).

Frontier Village: All properties within North Umpqua Committed Land Site 15 (North Umpqua Village Subdivision; North Umpqua Village First Addition; tax lots 300 and 400 in T26-R2-S16; and, tax lots 500, 600, 700, 701, and 800 in T26-R2-S17).

Susan Creek Village: All land north of the river and within the NW¼ of T26-R2-S23 (including North Umpqua Committed Land Site 17, North Umpqua Tourist Commercial Exception Area 11, Susan Creek State Park, and adjacent lands).

Steamboat: All land within T25½-R1E-W½ S32, T26-R1E-NW¼ of NW¼ S5, T25½-R1E-E½ S31, and T26-R1E-N½ of NE¼ S6 (including North Umpqua Committed Land Site 34 and adjacent lands).

Dry Creek: All properties within North Umpqua Committed Land Site 15, said properties being located in T26S, R02W, Sections 16C and 17.

Management Priorities: River Community Areas are managed to allow development that is compatible with County zoning and blends into the natural character of the surrounding landscape. This also means protecting existing riparian vegetation, and encouraging resource protection activities that enhance the landscape. As applied to the North Umpqua corridor, this classification recognizes the presence, in the five areas described above, of intensive development and commitment for intensive development that includes single family dwellings, small resorts, motels, stores, auto service stations, and private recreational vehicle parks.

54. The Oregon Scenic Waterways Program is administered by the Oregon State Parks and Recreation Department in cooperation with local government through a notification and review process. State law requires that Douglas County provide notice to the State Parks and Recreation Department prior to certain changes in the existing use of land within the scenic waterway corridor.

State Scenic Waterways Assessment

The North Umpqua State Scenic Waterway Corridor from Rock Creek to the Soda Springs powerhouse, from the Mt.Thielsen Wilderness boundary to Lemolo Reservoir, and from Crater Lake National Park to Jackson County have been discussed and identified for protection. Federal and state management plans have been completed for the North Umpqua Corridor.

Douglas County's Scenic Waterways Program

Douglas County has selected the Safe Harbor methodology for achieving the requirements under Goal 5 for Oregon Scenic Waterways. The Safe Harbor for Oregon Scenic Waterways requires adopting only those plan and implementing ordinance provisions necessary to carry out the management plan adopted by the Oregon Parks and Recreation Commission. The Scenic Waterway Corridor is identified on the North Umpqua Park or Public Recreation area overlay zone maps as sheets one to four.

The North Umpqua Park or Public Recreation Area Overlay Zone, administered through the Land Use and Development Ordinance, has been applied to the North Umpqua River State Scenic Waterway Corridor to give the County an opportunity to protect and conserve recreational and scenic values in the corridor. Nothing in the overlay zone is intended to conflict with the Forest Practices Act. The Corridor overlay implements the necessary protection under Goal 5 by not allowing conflicting uses, uses which may be permitted otherwise in the underlying zones.

North Umpqua Park Recreation Area - Map 1 of 2

map 2 of 2

FEDERAL WILD AND SCENIC RIVERS

55. Steamboat Creek, for its entire length, is being evaluated by the U.S. Forest Service for its suitability for inclusion in the federal Wild and Scenic River System.

56. There are two river segments that have a federal Wild and Scenic River designation in Douglas County. They are the North Umpqua River from Soda Springs powerhouse to Rock Creek, and that portion of the Rogue River located in Douglas County.

North Umpqua River Segment	miles
● Soda Springs powerhouse to Rock Creek	34
Upper Rogue River Segment	
● From Crater Lake National Park to the Jackson County boundary	12

57. That portion of the Rogue River which lies within Douglas County contains no private property and is entirely under U.S. Forest Service management.

58. Both river segments carry a dual designation as both an Oregon Scenic Waterway and a Federal Wild and Scenic River. However, private property within the corridor is subject only to state and local land use regulations. Federal agencies can, however, influence the use of private property by participating in the land use process, or control the use of private lands through property acquisition.

Douglas County Program to Achieve the Goal

The County's program to achieve the goal consists of the Comprehensive Plan objectives and policies, the Land Use and Development Ordinance, and the Forest Practices Act. The Oregon State Scenic Waterway Corridor give the County an opportunity to protect and conserve recreational and scenic values in the corridor. Nothing in the overlay zone is intended to conflict with the Forest Practices Act.

SCENIC VIEWS AND SITES

59. Scenic quality can perhaps be basically described as the overall impression retained after driving through or walking through an area of land. Because the scenic views and or sites impression changes with each observer, it is extremely difficult to define the content of a visually pleasing landscape in the precise way that is possible with other resources. The difficulties are compounded by the fact that Douglas County encompasses a tremendous amount of scenic components within its coastal area, river valleys and forested hillsides, and Cascade mountains. The County can be generally said to be scenic overall as each valley, stream or hillside possesses some interesting and scenic quality. The County does not have a detailed inventory of its scenic views and or sites. The following scenic view and site inventory has been compiled from various sources such as the Bureau of Land Management, Department of Transportation Scenic Routes, Oregon Natural Areas - Douglas County, and Department of Transportation Potential Scenic Waterways studies.

In reviewing the various inventories, it became apparent that the goal definition of scenic views and sites (lands that are valued for their appearance) is extremely broad and often includes other Goal 5 resources. These resources include: lands used for agricultural or forest use that are defined as open space; ecologically and scientifically significant natural areas; wilderness areas; water areas and wetlands; historic structures; potential and approved federal wild and scenic rivers and state scenic waterways; and certain fish and wildlife areas and habitats. Most County parks and recreation areas could also qualify as a scenic view or site by this definition. However, the scenic views and sites inventoried herein are only those whose value is derived primarily from their aesthetic features.

Inventory of Scenic Views and Sites

The general landscapes of Douglas County can be categorized into three components; coastal area; Cascade Mountains; and river valleys and hillsides.

Within the coastal area the following types of landscapes can be found; beaches, dunes, coastal lakes, estuaries, open ocean rivers and sloughs, forested areas and farming areas. The beach and dunes area is administered by the Dunes National Recreation Area, and managed in accordance with federal guidelines. The area is subsequently zoned Conservation Shorelands which contain no conflicting uses. These factors indicate that the beach and dunes areas will be managed to preserve their original character.

Other coastal scenic views and sites have been included as part of the Coastal Shorelands goal and have been classified into various management units (see Coastal Resources document). These management units and implementing ordinances manage the resources in accordance with Goal 17 and satisfy all the Goal 5 requirements.

The Cascade Mountains have many outstanding scenic views and sites such as Mt. Thielsen, Mt. Bailey, Diamond Lake, and the North Umpqua River, to mention only a few. However, these sites are within the Umpqua National Forest and subject to federal management and guidelines. The entire area is zoned for Timber Resource with the exception of a few incidental committed areas. The Umpqua National Forest Management Plan identifies many scenic views and sites and provides for management techniques which preserve the outstanding scenic views and sites.

BLM Inventory

The BLM visual resource management inventory was reviewed to identify outstanding scenic views and sites outside of the Umpqua National Forest and coastal area. The BLM scenic class applies only to BLM lands; however, it can be used as a general indicator of scenic quality. Additional studies may be needed to determine the scenic quality of surrounding private lands. The BLM system categorizes areas under several classes of Visual Resource Management Objectives based upon a combination of three factors: scenic quality, visual sensitivity and distance zone. Several areas were rated as Class A (high) Scenic Quality, with the majority of areas rated Class B (moderate) and Class C (minimal). Each inventoried viewshed was analyzed and it was determined that Class B and C areas were common throughout the County and did not possess outstanding visual resources. The Class B scenery reflected visual quality that was appealing but not outstanding. These areas did not have unique features which could not be found frequently within the County. The Class C scenery was of a minimal visual quality and lacked variation of soils, water, rocks or vegetation. Often the Class C scenery were landscapes on which man's activities have degraded the scenic values. These Class B and C areas are not included within the

plan inventory due to the fact that the information available on location, quality and quantity did not indicate any outstanding scenic views or sites, therefore not a primary visual resource requiring special protection.

The following Class A sites were inventoried and further analyzed through the Goal 5 process (written descriptions are from the BLM inventory):

a. Coles Valley

A broad valley with some low ridges characterize this enclosed landscape. Bear Ridge forms a dramatic backdrop to the west as does Tyee Mountain to the northwest. Both are dominant features when viewed from the east. There are two large clearcuts on Bear Ridge that are restocked; however, they are clearly visible from the valley floor. The river is only visible in a few places along the roadsides; however, riparian vegetation such as bigleaf maple, cottonwood, alder and willows indicate its presence.

As one moves through the valley floor, a combination of small and large farms can be seen. Vineyards, vegetable farms and orchards characterize small farm production, whereas larger farms grow forage for cattle, produce truck farm crops and graze cattle on pasture lands.

Rural residential homes as well as farmhouses and barns dot this pastoral landscape in a most pleasant manner.

Bear Ridge is a highly scenic vantage point to view the entire valley and parts of the high Cascades (one can see as far as 60 miles in some places). Timber access roads are available and well graded. Off road vehicles are used here for trail riding and sightseeing.

b. Main Umpqua River

County Road 33 and Highway 138 traverse this region. This area is characterized by a long, sinuous, densely forested V-shaped canyon. The winding course of the Main Umpqua River cuts through these canyons, creating one of the most scenic areas within the Roseburg District.

The river is broad in most areas and in the summertime the mudstone and sandstone floor of the river becomes partially exposed. Erosional forces of the water from wave action, evaporation and deposition of fine materials have molded these rocky ledges in pleasing organic shapes. Where steep banks line the river's edge, cottonwoods, bigleaf maples, and some California incense cedars are prevalent.

The ridges are densely forested with healthy, older Douglas fir. Pacific madrone and bigleaf maple are sparsely scattered among the conifers.

Because the terrain is heavily forested, and such tight canyons are prevalent, there are few houses. Occasionally, small meadows run parallel to the river and are primarily used for cattle grazing.

The unique character and relatively untouched beauty of the Main Umpqua River is outstanding.

The river is in continuous view along the road. It moves from long, straight curves to wide curves and from deep, quiet water to shallow rapids with many long chutes.

It is one of the two white water canoe rivers in Western Oregon and is gaining increasing attention from canoeists.

c. Main Umpqua River - Hutchison Wayside to Elkton

Traveling north to Elkton, Highway 138 leaves the Umpqua River, crossing low rolling, grassy hills to Kellogg, where it crosses the Umpqua, passing farms as it winds through a small pass that is heavily timbered before again crossing the river. From here the highway follows gently rolling terrain through grassy fields to Elkton. There are excellent views of the river at each crossing. The pastoral landscapes here are outstanding with many irrigated fields. Some of the side roads here provide excellent views of the river, fields and well kept orchards.

Coos Bay Districts lands are on the west bank of the river here and are as visually sensitive as are the Roseburg Districts. Some high ridges to the west have been heavily clearcut and constitute a major intrusion.

d. Cooper Creek Reservoir

The outstanding turquoise water of the Cooper Creek Reservoir lies within a narrow V-shaped canyon. Healthy conifers on north and east facing slopes cover undulating ridgetops, as well as steep hillsides down to the water's edge. These banks are highlighted by cleared areas, exposing reddish pink soils. Also, deciduous trees and shrubs along the banks provide a contrast from the color and texture of Douglas fir. This is a County Park.

The road runs along well drained slopes dotted with groves of Oregon white oaks, Pacific madrone, with some Douglas fir and California incense cedar. Vine maple, poison oak, bracken fern, and Oregon grape provide a crimson understory in the autumn. This is an extremely pleasant area and unique in the sense that there are few reservoirs within the Roseburg District.

e. Wolf Creek Falls

Bridge - overbuilt structure - use of metal is out of character. One and one-half mile trail with some extreme gradation is difficult for older people to walk on, but it is pleasant otherwise. The trail reaches to upper falls, entering a small box canyon with a vertical headwall covered with delicate vegetation. Textures of moss ferns provide a variety of color. The upper fall is approximately 65 feet high,

flowing over smooth rock surface into the turquoise-green waters of a plunge pool. The water flows out of the plunge pool as a rippling shallow stream until it drops to the lower falls. The deciduous trees overhang the creek, framing views to the waterfall as well as providing pleasant filtered light.

f. Wolf Creek Falls - Lower Fall

Lower portion of Wolf Creek Falls is less smooth and flowing than the upper falls, because water is flowing over boulders. Again, the water flows into a plunge pool as the upper one and then into a small creek.

The place to view the falls is at a greater distance across a bowl, approximately 50 feet. Parts of it are difficult to see because of high vegetation. We suggest some of its removal for a better view. Sounds of the falls are prevalent and appealing. Vertical cliffs covered with fern and small plants like upper portion.

g. Red Pond

This small pond has potential as a wildlife or natural area. It is in a depression above Cavitt Creek. Even small bodies of water are rare on the Roseburg District and this one, in spite of the many snags in it, has potential. Access is by logging road to an old landing and a short walk to the east over a low bridge.

h. Susan Creek Falls

Because this recreation area is within a very small V-shaped canyon, it becomes a very intimate place to visit. To reach this area, we took a pleasant one-half mile hike on a trail of winding pathways and frequent grade changes. One can hear the sounds of cascading water before actually seeing a waterfall that flows over a headwall of approximately 25 feet in height. The water cascades into a small plunge pool and again into another, and flows out into a narrow creek.

Grey boulders and rocks that have fallen into this shallow creek create a rippling effect as well as pleasant sounds.

A bridge made of wood crosses the stream and is very much in character of the area. On the other hand, a chain link fence is an intrusion in this area.

Powerlines cross the trail about 500 feet south of the waterfall. They, along with the clearing of the right-of-way, are a major intrusion. If the power lines are ever relocated, they should be moved at least one-fourth mile north of the falls.

I. North Umpqua River - Rock Creek to Soda Springs powerhouse

The North Umpqua River cuts through V-shaped terrain. The river offers a variety of color due to rocks and vegetation covering them. Riparian vegetation lines the river with light green, open vegetation against dark green conifers. The

river varies from fast moving, shallow areas to deep, placid pools. The road edged with deciduous and conifer vegetation highlights the ridges in the background. This river segment is part of the federal Wild and Scenic River System and was included in the Oregon Scenic Waterway Program in 1988. (Revised 7/21/93)

j. Upper Susan Creek Falls

Attempts were made to get to this waterfall but steep, poor access and dense poison oak made it impossible. When a better route is found, it will be evaluated.

Those who have seen it say the waterfall is better than lower Susan Creek Falls. The fact that it is a waterfall of good height puts it in Class A pending evaluation.

k. Natural Bridge

Although hardly visible through forest vegetation, this natural arch (bridge) is a unique feature within the District. The arch is approximately 100 feet long, 30 feet high and 12 feet across. The total length of this outcrop is approximately 400 feet.

This feature is composed primarily of tuff, a fragmental volcanic rock formed from the consolidation of volcanic ash. It is readily eroded and water has played a major role in shaping is feature. Water runoff has steeped down through this porous rock, creating a concave area along its face. Moss grows on this rock.

A dense forest of Douglas fir and vegetation such as Pacific madrone, alder, ocean-spray, vine maple, salal, and Oregon grape tends to obscure the bridge in the summertime; however, the fall color of the deciduous trees will provide a crimson background highlighting this feature.

Archaeological finds seem unpromising in this area since streams are not present in the area. However, it should be examined more fully. This feature, because of its unique character, is classed "A"; however, the area around is classified as "B."

l. Lava Dyke

This upright, vertically shaped volcanic outcrop is an outstandingly unique feature within this district. The warm, intense colors of this rock (brown, pink, rust and grey) strongly contrast the surrounding conifers and broadleaf hardwoods. Varying hues of moss, lichen and sedum (Sedum saxifragia) subdue the warm color and jagged edges of this rock. Forceful winds on this relief have fashioned surviving fir and Pacific madrone in a wonderfully contorted manner, often creating a bonsai effect.

In wintertime, small amounts of water cascade off this outcropping down onto steep slopes. Box blueberries, salal, poison oak, vine maple, ocean spray and brachen fern offer a lush understory and a crimson fall color for Douglas fir,

California incense cedar and Pacific madrone. Due to poor access by logging roads and high elevation, this relief is seldom seen. One can see approximately 25 miles toward Glide, Mt. Scott, and the hills to the east of Roseburg from Callahan ridge. However, extensive clearcuts in this area detract from this view.

To the northwest, on another ridge nearby, is another outcropping similar in character to this lava dyke. This feature contributes to the high scenic quality of the area. There is a cave which needs exploration for possible archaeological finds.

m. Bluff Creek Bluffs

This grey sandstone bluff is rounded and has a crevice down its center. Moss and grass grow on the outcropping which is golden in the summertime and green the rest of the year providing contrast with the grey stone the entire year. Jeffrey pine as well as Douglas fir are present along an upper ridge and at the base of the outcropping. Cow Creek flows past this unique feature which adds to the scenic quality of this immediate area. Deciduous trees along the creek should highlight this background bluff with its common color during autumn.

n. Berry Creek Reservoir

This evaluation is based on existing elements before construction. The dam is not completed and the reservoir not filled, but we can make reasonable assumptions as to the final quality and appearance.

Two clearcut units on BLM lands on the south side of the lake reach from shoreline to ridgetop. They were planned before the reservoir was proposed.

In about 15 to 20 years when restocking is established, they will be mitigated. This should be a highly attractive body of water and will probably receive considerable recreational use. The County proposes day use with picnicking and a boat ramp.

o. Bushnell Rock

This unique feature is found in the near vicinity of Reston. This sandstone outcropping is unique within an area which consists primarily of low rolling hills dotted with farm houses and patterned by agricultural lands. Bjelland Vineyards and BLM Tenmile Maintenance Station abut the domeshaped feature. The latter is a major intrusion, since it degrades the quality of the area.

Grasses and moss grow on this dark grey outcropping. In the summertime, these grasses turn a golden color, and the rest of the year are green. Whatever the season, this vegetation provides a pleasant contrast to the dark surface of the rock. Douglas fir and California incense cedar are present on the upper portion of the outcropping and a few Oregon whiter oaks are found at the base.

Maps locating these areas are included in the following pages.

Scenic Views and Sites with the dual Natural Area designation.

Two sites have been identified as scenic within the Oregon Natural Areas Douglas County publication. They include Site 100 Rogue-Umpqua Divide Scenic Area (USFS Special Interest Area), and Site 109 Boundary Springs Scenic Area (USFS Special Interest Area). Both of these areas are located within the Umpqua National Forest and federal management guidelines will protect the scenic qualities of the areas. Other areas identified within the document may have scenic qualities; however, they are discussed under other Goal 5 resource topics due to the fact that visual quality was not their primary attribute. However, by protecting their primary resource value, they will also retain their scenic value.

Highway Scenic Areas

The State of Oregon has designated portions of highways as scenic areas. Under the Scenic Areas Act (ORS 377.505 - 377.545), highways so designated have restrictions on the placement of outdoor advertising signs (e.g., billboards) and junk yards are prohibited. These "scenic areas" are shown on the maps entitled Department of Transportation Designated "Scenic Areas."

Designated Scenic Areas by ODOT

Highway	Milepost to Milepost	Map
I-5	88.18 - 97.84	A
U.S. 101	129 - 137	
ORE 42	22.91 - 53.77	B
	58.36 - 63.00	C
ORE 38	2 - 16.43	D1 & D2
	28.28 - 31.31	
ORE 138	Rock Creek to Crater Lake	E
ORE 227	16.02 - 25.62	F
	26.70 - 48.45	G1 & G2

Under the County's Land Use and Development Ordinance, outdoor advertising and junk yards are not permitted in the resource zones which are adjacent to these highway areas. The purpose of the designation (to eliminate those items) would be met by current zoning. There are no conflicting uses identified. Portions of these highways are discussed in more detail under sites inventoried by BLM. These designated areas are considered 2A sites under the Goal 5 administrative rule.

Analysis of Inventory

Inventory	Goal 5 Status	Comments
Coastal Area	2A	- No conflicting uses identified - Federal ownership - Goal 17 applied for protection
Cascade UNF	2A	- No conflicting uses identified - Federal ownership

ODOT Scenic Areas	2A	- No conflicting uses identified - Some information available but inadequate to identify resource
BLM Inventory	1A	-Available information on location, quality, and quantity indicates resource not
Class B and C Sites		an outstanding scenic view as scenery common
BLM Inventory Class A Sites	Step 2 & 3	- Identify conflicting uses and determine SEE

Douglas County Program to Achieve the Goal

This section reviews scenic views and sites policy for areas in Douglas County. Local governments are encouraged to maintain current inventories under Oregon Statewide Planning Goal 5. Douglas County is predominantly resource land which functions as a protection mechanism for scenic views and sites.

Highway Scenic Areas map 80a

map 80b

map 80c

map 80d

map 81

map 82

map 83

map 84

OPEN SPACE

60. The primary economic resources and the majority of land in Douglas County (forest lands, agricultural lands and bodies of water) are considered open space lands.

NATURAL AREAS

61. Much additional research is needed to precisely define and coordinate actual natural area needs throughout the State and in Douglas County.

62. Additional coordination efforts by the County, State and both Federal services (BLM and Forest Service) will need to occur during the next update of the County's Comprehensive Plan.

63. The County officially references the general overview of Douglas County's potential natural values provided by the Nature Conservancy/Oregon Natural Heritage Program through their 1977 Data Summary.

64. Douglas County is the most diverse of all the western Oregon counties with portions of five physiographic provinces contained within its boundary.

65. The five physiographic provinces within Douglas County are the Coast, Coast Range, Western Interior Valley, Siskiyou and Western Cascade Provinces.

66. The Siskiyou province is by far the richest area for rare and endangered plant species.

Research Natural Areas and Other Special Interest Areas

67. Two Research Natural Areas have been established by the Forest Service within Douglas County. They are Abbot Creek and Limpy Rock.

68. Within the Umpqua National Forest Management Plan two geological areas (Job's Garden and Umpqua Rocks), two botanical areas (Incense Cedar Grove and Emile Big Tree), a scenic area (Rogue-Umpqua Divide) and an experimental forest (South Umpqua Experimental Forest) were also set aside for their ecological value besides the Abbot Creek and Limpy Rock RNAs.

69. The Roseburg District of the Bureau of Land Management has designated Myrtle Island as a timber preservation area and Research Natural Area.

70. Beatty Creek is a 173 acre Research Natural Area (RNA) designated by the BLM.

71. Several additional Research Natural Areas and areas of critical environmental concern have been proposed by the Roseburg District of the BLM.

Natural Area Issues

72. Like all other land uses (e.g., residential, agricultural, industrial), ecologically significant sites compete for space.

73. Competition for land is not the only problem; air, water and noise pollution can also destroy various environmentally sensitive areas.

74. The Natural Area Program attempts to ensure that a representative number of distinct ecosystems, communities, habitats and organisms found in today's world are protected for future generations. As land use needs change this can be increasingly difficult without proper planning.

75. The process for determining which sites need protection is a difficult one. Consideration of the element's rarity as well as the threat it faces from competing uses is important. Also, the following four factors need to be considered:

    a. The diversity of the site (number of different ecological elements);

    b. The naturalness of the site (relatively undisturbed by man);

    c. Viability (future of the site to continue the natural systems present in the area);

    d. Defensibility (is there an overwhelming need to use this site for other land uses).

    A determination based on the above criteria can only be made by active participation in the planning process by all interested parties.

Natural Area Protection Programs

76. There are numerous methods for conserving or protecting Natural Area values. The most practical measures for use in Douglas County at this time appear to be the following:

    -Land owner notification
    -Voluntary agreement
    -Fee acquisition
    -Designation of public lands by public agencies
    -Land use measures such as comprehensive planning, zoning and subdivision regulations

Goal 5 Inventory of Douglas County Natural Areas (Revised 11-30-88)

77. Additional time and professional assistance will be necessary to evaluate all potential natural areas candidates. Douglas County has evaluated some of the potential ecologically and scientifically significant natural areas and unique habitat areas listed in the Oregon Natural Heritage Program's (ONHP).

    The following list identifies those ONHP sites with a Goal 5 classification of 1B or greater.

TABLE 6-3. NATURAL AREA SITES.

ONHP SITE	NAME	Goal 5 Classification
6	White Camas Area	3C
13	Halo Rock	1B
18	Little River Fossil Beds	1B
24	Loon Lake Forest	2A
42	Limpy Rock RNA	2A
44	Wassen Creek	2A
80	Myrtle Island RNA	2A
81	Abbott Creek RNA	2A
99	Thielsen Geologic Area	2A
100	Rogue Umpqua Divide	2A
102	Peel Wildflower Area	1B
103	Lady Slipper Olalla	1B
104	Lady Slipper	1B

ONHP SITE	NAME	Goal 5 Classification
109	Boundary Springs, USNPS	2A
N/A	Ramp Canyon	N/A
N/A	Smith Island	N/A

1B Natural Area Sites, (Goal 5 Process Delayed).

Available information was not sufficient to determine the specific location, quality, and quantity for five of the natural area sites. A reevaluation of these sites will occur if more information becomes available at a later date.

2A Natural Area Sites, (No Conflicting Uses Found).

Eight natural area sites were found to be significant, with no conflicting uses surrounding the sites. Loon Lake Forest (Site 24) is located in the Elliot Sate Forest and has been designated "conservancy" by the Oregon Department of Forestry. Three sites are designated as Research Natural Areas by BLM or USFS. Sites 99 and 100 have been designated Wilderness in the Oregon Wilderness Act of 1984 by the US Congress. Wassen Creek (Site 44) is owned by the BLM and the Siuslaw NF and is withdrawn from timber harvesting due to a withdrawn or roadless designation. Boundary Springs (Site 109) is located within Crater Lake National Park and is protected by their management.

3C Natural Area Site, (Goal 5 Process Applied).

The White Camas natural area, was found to have potential conflicting uses as well as be significant. This site was found to be significant enough to warrant some mediation and limiting from conflicting uses. The Ramp Canyon and Smith Island Site were also required to be evaluated under the new, 1996, Goal 5 Rule.

78. APPLICATION OF THE GOAL 5 PROCESS FOR "SIGNIFICANT" ECOLOGIC AND SCIENTIFIC NATURAL AREAS (Revised 12-10-08)

a. **Location, quality and quantity of the White Camas Natural Area Site: Wilbur-Rodgers Road White Camas Site**

(1) Location: Those portions of the following tax lots within the following boundaries:

Part of tax lot 900 of T26S, R05W, Section 06A (tax account no. R16508)
Part of tax lot 300 of T26S, R05W, Section 06D (tax account no. R44890)
Tax lot 100 of T26S, R05W, Section 07 B (tax account nos. R15596 & R15604)

Boundaries:
North Boundary: A line 1200 feet south from and parallel to the south right-of-way of
Rogers Road (County Road No. 145) where Rogers Road crosses between I-5 (U.S. Interstate Hwy. No. 5) and Old Highway 99 North (County Road No. 388).

South Boundary: The line common to tax lots 100 and 2100 of T26S, R05W, Section
07B, being the southerly line of said tax lot 100 (tax account nos. R15596 & R15604) and the northerly boundary of said tax lot 2100 (tax account no. R15612).

East Boundary: The west right-of-way of Old Highway 99 North (County Road No.
388).

West Boundary: The east right-of-way of I-5 (U.S. Interstate Hwy. No. 5).

(2) Quality: This is an excellent site for growing the white camas variety endemic to the Roseburg Area (Leichtlin's white camas or Camassia Leichtlinii var. Leichtlinii)

(3) Quantity: Approximately 21 acres.

(4) Ownership: Oregon Department of Transportation.

b. **Conflicting Uses**

The Wilbur-Rodgers Road white camas area is zoned Exclusive Farm Use - Grazing (EFU-G). Because the property in question is right-of-way, most uses mentioned in the zone, including those involving structures, are eliminated automatically from consideration.

The only apparent conflicting uses would be grazing of livestock, sand and gravel stockpiling and park or wayside use. Also, highway realignment would, of course, permanently alter the site, and cutting the grass during the white camas growing season (from about February to June 1) would reduce the natural value of the site.

c. **Economic, Social, Environmental and Energy Consequences of Limiting Conflicting Uses.**

(1) Economic Consequences: The economic consequences of protecting the white camas from the conflicting uses mentioned in B. above are negligible at this time. One of the reasons the white camas flourishes here is due in part to the fact that the site has been relatively undisturbed for several years. Potential economic consequences would most likely be associated with a road project where a stockpile site was needed or realignment was envisioned. However, there appear to be alternative lands available for such activities located near this particular site. If a portion or all of this site were needed for freeway expansion, that decision should be made at the time such an action is contemplated and the value of this site as a white camas area should be a part of that assessment process.

The economic consequences of not protecting this white camas site are difficult to assess. At this time there is no known economic value associated with the white camas. Other than tourists, who enjoy viewing rare plants, no other specific economic use is known.

(2) Social Consequences: The white camas, endemic to the Umpqua Valley, used to grow in abundance throughout the valley region. Today, there exists several locations where the flower can be found but only a few sites where it really flourishes. Land where the white camas once grew is now used for housing, roads and other such uses.

Socially, there is historic significance attached to the white camas bulb as it once served as a food source for native residents. The social consequence of losing this variety of white camas to extinction can be viewed as a historic loss as well as a loss to future generations for educational and scientific purposes.

The social consequences attached to the protection of this particular site are negligible.

(3) Environmental Consequences: This white camas variety (Camassia leichtlinii var. leichtlinii) which is endemic to the Roseburg region is currently under review for listing on the U.S. Fish and Wildlife Service's Endangered and Threatened Plant Species list. The fact that this plant is under review supports the idea of conserving the plant's habitat until the issue of whether this variety is threatened or not threatened is resolved. The consequence of not protecting this plant's environment means the possible loss of another of the Umpqua Valley's few remaining viable white camas sites. There appears to be no negative environmental consequences associated with protecting this site.

(4) Energy Consequences: Very slight consequences associated with energy may occur if the Department of Transportation (ODOT) desired the use of this site for stockpiling sand and gravel and as a result of this action were forced to use another site.

(5) Conclusion: The rarity of sites as suitable for growing white camas as the Wilbur-Rodgers Road site presents a strong finding supporting the designation of this site as a white camas natural area site. The fact that there are no other uses contemplated for the site at this time by ODOT and the availability of other lands in close proximity provide viable options which also support the protection of this site.

In assessing the ESEE consequences of protecting this site when compared to no action, protection of this site should present only a minor inconvenience to ODOT. Establishing this site for the growing of white camas would ensure the continued presence of this species in the Umpqua Valley.

d. **A Program to Achieve the Goal**

(1) Natural Area Overlay designation (Article 32 in the Land Use and Development Ordinance) shall be employed to protect this white camas site. This overlay zone shall permit only uses which would not permanently destroy the white camas habitat. The overlay zone may allow conditionally such temporary uses as gravel stockpiling or grazing provided that these uses do not occur between February and June 1, the growing season for the white camas.

White Camas map

79. APPLICATION OF THE GOAL 5 PROCESS FOR A NATURAL AREA - RAMP CANYON.

a. Location, quality and quantity of Ramp Canyon Natural Area Site

(1) Location: T27S, R5W, Sections 19, 20, 29, & 30. Located adjacent to and southeast of the City of Roseburg.

(2) Quality: This is a fair example of a fairly depleted ecosystem, the Oregon Oak Savanna.

(3) Quantity: Approximately 652 acres.

(4) Ownership: Private (Ramp Canyon Outdoor Educational Project.)

b. Conflicting Uses

The Ramp Canyon Natural Area Site is zoned Farm Forest (FF) with a small portion of the site being zoned residentially. The residentially zoned area is a small arm shaped area on the northwest side of the site, and extends into the Roseburg City limits. Due to the property being predominantly zoned Farm Forest, many conflicting uses are not permitted. In addition Statewide Planning Goals 3 and 4 apply to the site, providing protection of open space. The northwest side of the site zoned residentially is already developed, eliminating the opportunity for introduction of new conflicting uses. The location of the site adjacent or close to an urbanized area is important to the sites usability as an educational site as well as a natural area.

The Ramp Canyon Natural Area was approved through the Douglas County Land Use and Development Ordinance Conditional Use Permit process. The Conditional Use Permit findings for the site identified no incompatibilities or detrimental effects of the proposed use to the site. The site has a fully developed residential area adjacent to the northwest side of the site, with the west, south, and east sides of the property being adjacent to large resource parcels.

c. Economic, Social, Environmental and Energy Consequences of Limiting Conflicting Uses.

(1) Economic Consequences: The economic consequences of protecting the Ramp Canyon Natural Area Site are negligible at this time. There appear to be alternative lands available for conflicting use activities located near this particular site. If a portion or all of this site were needed, the decision should be made at the time such an action is contemplated and should include the value of this site as part of that assessment process.

The economic consequences of not protecting this site are difficult to assess. The property is owned by a non-profit organization, and is comprehensively planned and zoned for resource uses. The economic value associated with the site would be based on resource related uses.

(2) Social Consequences: The social consequence of losing this site can be viewed as a loss to future generations for educational and scientific purposes.

(3) Environmental Consequences: This site provides habitat for native animal species.

(4) Energy Consequences: Energy consequences are negligible.

(5) Conclusion: The site is suitable for a natural area, has been established as a natural area, is in a non-profits ownership and is zoned to assure continued availability for its current use. The location adjacent to the City of Roseburg serves as an educational outdoor area for the areas residents.

d. A Program to Achieve the Goal

(1) The program to achieve the goal is the maintenance of the comprehensive plan designation and zoning. In addition, the conditional use permit approval, ownership, and maintenance of the surrounding resource related comprehensive plan designations all contribute to the protection of the site. Douglas County concludes based upon the program to achieve the goal, and consideration that the site is designated as "fair" by the Natural Heritage Advisory Council, that the site does not need additional protection. The sites ownership, Ramp Canyon Outdoor Educational Project, acts to substantially reduce any possibility of conflicting uses occurring on the site, thus protecting it for future generations.

80. APPLICATION OF THE GOAL 5 PROCESS FOR SMITH ISLAND NATURAL AREA.

a. Location, quality and quantity of the Smith Island Natural Area Site.

(1) Location: T21S, R12W, Section 25, in the Smith River north-east of the City of Reedsport. This site is also known as Duck Island.

(2) Quality: This is a valuable site because the upper bay salt marshes at this location have been disturbed at a minimum, leaving them in a pristine state.

(3) Quantity: Approximately 13 acres.

(4) Ownership: The State of Oregon, Division of State Lands, (The Nature Conservancy)

b. Conflicting Uses

The Smith Island Natural Area Site has a comprehensive plan designation of Estuarine Conservation. This designation prohibits any conflicting uses. The site is also surrounded by the Smith River, thus eliminating conflicting uses from off-site.

c. Economic, Social, Environmental and Energy Consequences of Limiting Conflicting Uses.

(1) Economic Consequences: There are no negative economic consequences of protecting the site. The state ownership and comprehensive plan designation combine to prevent conflicting uses on the site. If a portion or all of this site were needed for future development, the decision should be made at the time such an action is contemplated and should include the value of this site as part of that assessment process.

The economic consequences of not protecting this site are difficult to assess. To replace the site with similar habitat would be costly, when considering the quality of the site and isolated location. The site quality is rated as "valuable" by the Natural Heritage Advisory Council. The site is surrounded by the Smith River which helps maintain its pristine character. The economic consequences of not protecting the site would include loss of public access to the site.

(2) Social Consequences: The social consequence of losing this site can be viewed as a loss to future generations for educational and scientific purposes.

(3) Environmental Consequences: This area does not provide habitat for endangered or threatened species. However, the location of this site in a coastal river, can only be seen as an enhancement to the protection of fish habitat.

(4) Energy Consequences: Energy consequences are negligible do to the location of the site.

(5) Conclusion: The site is suitable for a natural area and can also serve as a "pristine" outdoor educational area.

d. A Program to Achieve the Goal

(1) The program to achieve the goal is the maintenance of the comprehensive plan designation and zoning. This, in conjunction with the ownership and Smith River island location combine to protect the site. Based upon the program to achieve the goal no additional protection measures are needed. The program to achieve the goal in conjunction with the sites ownership, State of Oregon, and location combine to substantially reduce any possibility of conflicting uses occurring on the site, thus protecting it for future generations.

ENERGY SOURCES

81. Based on current information, geothermal resources of the County are limited and exist primarily in the High Cascade Range, which is far from a potential market. Reference "Geothermal Resources of Oregon Map, 1982" and "0-84-4 Heatflow Map of the Cascade Range." (Revised 11/25/87)

82. Hydroelectric power generation in Douglas County occurs on the upper North Umpqua River in the Toketee area.

83. Two river reaches meriting further investigation of lowhead hydroelectric power potential in the County are located along the Umpqua basin on Elk Creek and Calapooya Creek.

84. In the publication A Resource Survey of River Energy and Lowhead Hydroelectric Power Potential in Oregon: Appendix 16 Umpqua Basin, from the Water Resource Research Institute at Oregon State University, two streams were identified as having low head hydroelectric potential. After preliminary application of such criteria as screening for archaeological site conflicts, displacement of utilities, residences or other development, nearness to existing utilities, possible impact to aquatic ecosystems, only a portion of Elk Creek in north Douglas County and a portion of Calapooya Creek in Central Douglas County continue to be considered as potential low head hydroelectric sites.

85. Biomass (especially wood and wood residue), currently represents a minor energy source in the County and should be further investigated.

86. Windpower is a viable alternative energy source in some parts of Oregon, but the lack of adequate wind data for Douglas County makes it impossible to accurately assess the potential usefulness of wind as an energy alternative for Douglas County.

87. Due to the County's climatic conditions, total solar systems as an alternative energy source have limited potential in Douglas County.

88. Proper home construction and orientation can maximize solar energy as a source of winter heat.

89. The Oregon Department of Geology and Mineral Industries indicates the possible future potential for natural gas sources in western Douglas County as warranting exploration.

MINERAL RESOURCES

90. The primary minerals found in Douglas County include chromite, copper, gold, silver, mercury, nickel, limestone, quartz, sand and gravel, and quarry rock. A brief description of each follows.

Chromite: Most chromite deposits in Douglas County are reported to be small. Some have been worked with a total known production of approximately 1,500 long tons. The largest producer in the County was the Black Boy Mine (Mineral Site 196). Chromite production occurred primarily during World War I and during the 1950's.

Copper: Copper occurrences in Douglas County are generally of low grade ore and are scattered in the south part of the County. The Silver Peak Mine was the County's largest producer (Mineral Site 221). County production of copper occurred primarily between 1926 and 1937.

Gold and Silver: Most gold and silver production has occurred in southern Douglas County. It is estimated that Douglas County has produced 64,000 ounces of gold and 50,000 ounces of silver. Most of the gold and silver prospects are concentrated in two areas, one southeast of Azalea (in the Quines and Starveout Creek drainages) and the other extending west of Glendale to a point near Canyonville. Peak production was in 1940.

Mercury: Douglas County has been the largest producer of mercury in Oregon, largely due to the Bonanza Mine in the Nonpareil area. Significant occurrences of mercury have been found in the areas of Elkhead, Nonpareil, Tiller and Upper Cow Creek. No mercury mines are currently in operation.

Nickel: By far the most important metallic mineral resource in Douglas County. Hanna Nickel is the only productive nickel mine in the United States. The mine and smelter employ over 500 people. The mine has enough reserves to last at least through 1990 (at past levels of production). However, recent price fluctuations have caused the operation to temporarily shut down. The Hanna mine is identified as a 1C site.

Limestone: Limestone occurrences in Douglas County are generally small; a few were worked in the past and none are being actively mined at present. Limestone deposits in Douglas County are suitable for a small operation to produce crushed agricultural lime for local use.

Quartz: Douglas County contains a large deposit of fairly pure silica rock at Quartz Mountain, located in the Cascades about 35 miles east of Roseburg. Hanna Mining Company is the primary user of quartz in the County. The silica rock is used to manufacture ferrosilicon metal necessary in the reduction of ferronickel. Quartz Mountain is a 1C site.

Sand and Gravel: The major reserves of sand and gravel lie within or are adjacent to the Umpqua River and its major tributaries. Due to high transportation costs, the most important deposits are within close proximity to the central part of the County (where most of the aggregate is used). Sand and gravel occurs within the channel and in bars and floodplain terraces at slightly different levels, mainly on the inside bank of large meanders of the river. The highest quality sand and gravel occurs along the South Umpqua River where the best deposits are deep with hard rock and clean sand. It is estimated that Douglas County's per capita sand and gravel need is about 6.5 tons annually.

Quarry Rock: Quarry rock increases in importance as the more desirable sand and gravel deposits become depleted. As with sand and gravel, transportation costs are high so that quarries must be located within reasonable distance of urban areas or large construction sites. While Douglas County has ample reserves of good quality crushing rock, those reserves are not always located conveniently with respect to present markets or proposed projects. The best rock for crushing is basalt (volcanic). Terrestrial basalt is generally better than marine basalt. Shale is good for fill material. Sedimentary rock generally is not suitable for crushing.

91. Commercial quantities of coal, oil and gas are currently very limited in Douglas County. However, with economic changes and improved methods of geologic exploration, commercial quantities of fossil fuels may exist in the County. Coal deposits in the Elkton area may have some commercial potential for the future. In addition, several oil companies consider Douglas County to be a prime exploration area for oil and gas. Reference DOGAMI Bulletin 75, 1972, for complete information on coal, oil and gas potential in Douglas County. (Revised 11/25/87)

92. APPLICATION OF THE GOAL 5 PROCESS FOR MINERAL RESOURCES (Revised 11-30-88)

a. **Inventory the Resource**

Available information was sufficient to identify 329 mineral resource sites in Douglas County. Removal permits issued through the Division of State Lands (DSL) and the Department of Geology and Mineral Industries (DOGAMI) were the primary source of information for these mineral sites. However, permit information received by the County seldom revealed site-specific location and never indicated quality of the material. Location and quality information was augmented through other sources (a 1972 DOGAMI publication titled "Geology and Mineral Resources of Douglas County", and a personal interview with a local gravel operator). (Revised 7/21/93)

During 1987 and 1988 a computerized database of all mineral resources was compiled. The use of this database has allowed the County to keep a more thorough and accurate record of all mineral sites in the County. An up-to-date copy of the database can be obtained from the County Planning Department (Refer to document titled "Douglas County Mineral Resources Inventory, November 1988).

1A Mineral Resource Sites (Insignificant Site)

There are 97 mineral sites in Douglas County that were found to be insignificant. These sites are insignificant because of their size, mineral type, or quantity of mineral remaining.

1B Mineral Resource Sites (Goal 5 Process Delayed)

Available information was not sufficient to determine the specific location, quality, and quantity for 130 of the 329 mineral sites identified. Every source contained only general locational information. While quantity information was sometimes available, quality information was nearly always lacking. A reevaluation of these sites will occur if more information becomes available at a later date. (Revised 7/21/93)

2A Mineral Resource Sites (No Conflicting Uses Found)

Thirty-nine mineral sites were found to be significant, with non-conflicting uses surrounding the sites. All 39 sites are located on lands managed by either the Bureau of Land Management, the United States Forest Service, or the Oregon Department of Transportation. The County will allow these agencies to manage and protect these sites according to state and federal guidelines and regulations.

3B Mineral Resource Sites (Allow Conflicting Uses Fully)

Thirty-five mineral sites were designated as 3B. This designation will fully allow any conflicting uses. The sites are existing quarry or aggregate sites, many operating with Division of State Lands (DSL) or Department of Geology and Mineral Industries (DOGAMI) permits. These sites currently exist with conflicting uses, and are regulated by DEQ and other agencies for noise, dust, and other abatement measures.

3C Mineral Resource Sites (Goal 5 Process Applied)

Available information was sufficient to determine the specific location, quality and quantity for 28 of the 329 mineral sites identified. These 28 mineral sites were found to be significant enough to warrant some mediation and limiting from conflicting uses. As mentioned later in this finding, these sites are identified with an overlay. (Revised 7/21/93)

b. **Potentially Conflicting Uses in Zone Categories Applicable to 3B and 3C Mineral Resource Sites.**

All mineral resource sites identified as 3B and 3C fall into five resource zones employed by the County: EC (Estuarine Conservation), TR (Timberland Resource), EFU-C (Exclusive Farm Use - Cropland), EFU-G (Exclusive Farm Use - Grazing), and FF (Farm Forest). Conflicting uses are generally those which, if allowed to locate within the specific site identified, would render the resource unrecoverable. Most of the conflicting uses are structural improvements which commit the site to another use. Other less intensive uses (such as parks and golf courses) conflict because, once established, they tend to diminish the value of the resource. Some competing uses, such as water impoundments or power generation facilities, may be determined to be of sufficient importance as to preempt the mineral resource value.

There are no conflicting permitted or conditional uses in the EC zone. Specific potentially conflicting uses contained within the TR, EFU and FF zones are:

ZONE	PERMITTED	CONDITIONALLY PERMITTED
TR	-Public recreation facilities -Water Impoundments	-Single-family dwelling -Private recreation facilities
EFU-C & EFU-G	-Farm Dwelling -Second Farm Dwelling -Utility facilities (public) -Solid waste site (DEQ ordered) -Water impoundments	-Additional farm dwellings -Nonfarm dwelling -Commercial activities in conjunction with farm use -Private recreation facilities -Churches -Schools -Public parks and playgrounds -Golf courses -Utility facilities (commercial) -Personal use airport -Home occupations -Boarding horses for profit -Solid waste disposal site

FF	-Other than solid waste sites (DEQ ordered), conflicting uses in the FF zone are the same as EFU, except for the following addition: -Home occupation	-Other than home occupations, conflicting uses in the FF zone are the same as EFU, except for the following additions: -Placement of power generation facilities -Kennels

c. **Economic, Social, Environmental and Energy Consequences of Allowing Conflicting Uses Fully at specified 3B Mineral Resource Sites.**

(1) Economic Consequences: Sand and gravel is a crucial resource for nearly all types of structural development. As a basic building material, its relative abundance can exert either a positive or negative influence on the development of a local economy. Not only does sand and gravel provide the building blocks for development, but its removal, transport and use provides jobs upon which a substantial part of the economy depends. These dredging sites have been operating for several years under the permit process of the Oregon Division of State Lands.

Douglas County, in the past, was the largest producer of mercury in Oregon. At present there are no active mercury mines in the County. Copper mines were once plentiful during the 1920's, but they too are no longer active. These mines have little, if no economic benefit to the County at this time.

The positive economic consequences of allowing conflicting uses near these mineral sites would be to allow further development of surrounding areas and potentially improve the local economy. These mining operations will continue to dredge as long as the aggregate material continues to be present.

The negative economic consequences of applying regulations generally places a burden on individuals or firms who are prevented from undertaking structural development on a specific site. While this may be a short term financial hardship for some, most individuals or firms eventually resolve their dilemma by building elsewhere, perhaps even out of the County.

(2) Social Consequences: The positive consequence of allowing conflicting uses fully near mineral resource sites is to allow citizens to have a way of life that they wish to obtain while utilizing the resources available. Sewer systems, buildings, bridges, streets and highways all require sand and gravel or crushed rock. In order for the construction industry to build our environment, it is necessary that dredges, rock quarries and rock crushers exist. These sites already exist and the people locating near these sites will accommodate to the nuisance characteristics of sand and gravel operations. They contribute very little to localized noise, dust and visual blight due to their dredging operations. However, without them, the advancement of our society would be quite limited.

The negative social consequence of applying regulations is similar to the negative economic consequences above in that some individuals may be inconvenienced in their building plans.

(3) Environmental Consequences: The importance of any mining activity lies within its economic value (affected by its site specific location) and the relative scarcity of the resource. Realizing the above constraints, state agencies regulate mining activities and require that reclamation plans be submitted prior to permit approval. Reclamation plans provide for productive uses of property following a mining operation and often include recreational features such as lakes and wildlife habitats.

Because the natural environment will, of necessity, be disturbed by mining, the protection of mineral resource sites may not result in positive environmental consequences. Mineral extraction is temporary in nature and in most cases affects only the subsurface of the land. Farming, forestry and recreation can and do occur before and after a mining operation. In case of important mineral resource sites, the positive economic and social benefits often outweigh the environmental consequences.

(4) Energy Consequences: Because sand, gravel and crushed rock are bulky and heavy, the deposits nearest to developing areas are, of necessity, the best ones. In order to remain economically viable, only a small increase in hauling costs can be tolerated. Energy costs increase dramatically for every mile that the material is transported from a supply source. As a result, the energy consequence of fully allowing conflicting uses near these mineral resource sites (3B) is entirely positive.

(5) Conclusion: The consequences of allowing conflicting uses fully near certain mineral resource sites is positive. These mineral resources are located in areas with conflicting uses that would insignificantly affect these operations. By allowing both uses to co-exist there is a substantial benefit to the economic, social and energy systems within which we live.

d. **Economic, Social, Environmental and Energy Consequences of Conserving specified 3C Mineral Resource Sites.**

(1) Economic Consequences: Sand and gravel is a crucial resource for nearly all types of structural development. As a basic building material, its relative abundance can exert either a positive or negative influence on the development of a local economy. Not only does sand and gravel provide the building blocks for development, but its removal, transport and use provides jobs upon which a substantial part of the economy depends.

The mining of nickel and quartz provides economic benefits to both the U.S. and Douglas County economies. Nickel mining and associated quartz mining in Douglas County have the potential of providing America with a national source of nickel.

To protect mineral resource sites through the resolution of conflicts between mineral extraction and other competing uses (as identified) will certainly help to ensure a strong economic future. The economic consequences of not protecting mineral sites could be costly to the local economy through the loss of jobs and increased costs for basic building materials.

The negative economic consequences of applying regulations generally places a burden on individuals or firms who are prevented from undertaking structural development on a specific site. While this may be a short term financial hardship for some, most individuals or firms eventually resolve their dilemma by building elsewhere.

(2) Social Consequences: The consequence of protecting mineral resource sites is to preserve a way of life that all citizens have become accustomed to. Sewer systems, buildings, bridges, streets and highways all require sand and gravel or crushed rock. In order for the construction industry to build our environment, it is necessary that dredges, rock quarries and rock crushers exist. There is no denying the nuisance characteristics of sand and gravel operations. They do contribute to localized noise, dust and visual blight. However, without them, the advancement of our society would be quite limited.

The negative social consequence of applying regulations is similar to the negative economic consequences above in that some individuals may be inconvenienced in their building plans.

(3) Environmental Consequences: The importance of any mining activity lies within its economic value (affected by its site specific location) and the relative scarcity of the resource. Realizing the above constraints, state agencies regulate mining activities and require that reclamation plans be submitted prior to permit approval. Reclamation plans provide for productive uses of property following a mining operation and often include recreational features such as lakes and wildlife habitats.

Because the natural environment will, of necessity, be disturbed by mining, the protection of mineral resource sites may not result in positive environmental consequences. Mineral extraction is temporary in nature and in most cases affects only the subsurface of the land. Farming, forestry and recreation can and do occur before and after a mining operation. In case of important mineral resource sites, the positive economic and social benefits often outweigh the environmental consequences.

(4) Energy Consequences: Because sand, gravel and crushed rock are bulky and heavy, the deposits nearest to developing areas are, of necessity, the best ones. In order to remain economically viable, only a small increase in hauling costs can be tolerated. Energy costs increase dramatically for every mile that the material is transported from a supply source. As a result, the energy consequence of protecting the best mineral resource sites (those close to construction areas) is entirely positive.

(5) Conclusion: The consequences of establishing requirements which limit conflicting uses in identified mineral resource sites (3C only) should prove to be of substantial benefit to the economic, social and energy systems within which we live. As long as a provision for reviewing extenuating circumstances is included, the limitation of conflicting uses within identified mineral resource sites is warranted.

e. **A Program to Conserve 3C Mineral Resource Sites.**

The program to conserve prime mineral resource sites (3C sites) is designed to limit some conflicting uses and prohibit others through the use of an overlay zone. The overlay zone will ensure that most structural development will not preempt the use of a needed mineral resource. For all 3C mineral resource sites, the County has specific maps detailing the exact location of the resource. Those maps were derived from removal permits issued by the State. The mineral resource overlay zone and regulations apply only to the 3C resource sites listed in Table 6-2 (this may or may not include the entire parcel or parcels within which the resource is located). Once a site becomes depleted, or through other findings is determined to be insignificant, then the overlay zone will be withdrawn. Any use not mentioned below will be allowed as specified in the Land Use and Development Ordinance.

Under the mineral resource overlay, the following uses, by zone, will be prohibited:

Zone	Prohibited Use
TR	-Single-family dwelling
EFU-C & EFU-G	-Churches -Farm Dwelling -Second farm dwelling -Schools -Additional farm dwellings -Nonfarm dwelling -Home occupation
FF	-Churches -Farm dwelling -Second farm dwelling -Schools -Home occupation -Additional farm dwellings -Nonfarm dwelling

Under the mineral resource overlay, the following uses, by zone, will require a conditional use permit. The conditional use process will evaluate the application to determine if: 1) the use can be placed on an alternative site; and if 2) there are extenuating circumstances that make the proposed use more valuable than the resource. If there is no alternative site for the proposed use, and the extenuating circumstances are valid, then the proposed use should be allowed if it conforms to all other requirements of the Land Use and Development Ordinance.

Zone	Conditional Use
TR	-Public recreational facilities -Water impoundments -Private recreation facilities
EFU-C and EFU-G	-Public utility facilities -Solid waste disposal site -Water impoundments -Commercial activities in conjunction with farm use -Private recreation facilities -Public parks and playgrounds -Golf courses -Commercial utility facilities -Personal use airport -Boarding horses for profit
FF	-Placement of power generation facilities -Kennels -Public utility facilities -Water impoundments -Commercial activities in conjunction with farm use -Public parks and playgrounds -Golf courses -Commercial utility facilities -Personal use airport -Boarding horses for profit -Private recreation facilities -Solid waste disposal sites

The following 3C mineral resource table (TABLE 6-2) indicates the site number (referring to the inventory map), type of mineral, location (the table indicates township, section and range only; specific site location can be obtained through the Planning Department), quality of the material, quantity (in cubic yards), and current zoning.

TABLE 6-2. 3C MINERAL RESOURCE SITES. (Revised 12-5-90), (Revised 2-9-11)

Site Number	Mineral Type	Location	Quality	Quantity	Current Zone
1	Sand & Gravel	22-7-19	Good	7,500 c.y. annually	EFU-C
3	Sand & Gravel	22-10-6,7,8,13,14 15,16,17,23,24	Good	400,000 c.y. annually	EC
4	Sand & Gravel	23-7-9	Good	20,000 c.y. annually	EFU-G
5	Sand & Gravel	23-7-9,10	Good	30,000 c.y. annually	EFU-G
6	Sand & Gravel	24-7-14	Good	10,000 c.y. annually	FF
9	Sand & Gravel	25-7-16	Good	30,000 c.y. annually	EFU-C
14	Sand & Gravel	26-6-18	Good	50,000 c.y. annually	EFU-C

15	Sand & Gravel	27-6-5	Good	35,000 c.y. annually	EFU-C
16	Sand & Gravel	27-6-5	Good	20,000 c.y. annually	EFU-C
17	Sand & Gravel	27-6-4,9	Good	50,000 c.y. annually	EFU-C
19	Sand & Gravel	27-6-34	Good	10,000 c.y. annually	EFU-G
23	Sand & Gravel	28-6-3	Good	54,000 c.y. annually	EFU-G
24	Sand & Gravel	28-6-9	Good	20,000 c.y. annually	EFU-C
25	Sand & Gravel	28-6-29	Good	30,000 c.y. annually	EFU-G

Site Number	Mineral Type	Location	Quality	Quantity	Current Zone
–					
27	Sand & Gravel	28-6-35	Good	50,000 c.y. annually	EFU-G
29	Sand & Gravel	29-6-11,12	Good	30,000 c.y. annually	EFU-G
31	Sand & Gravel	30-5-19	Good	10,000 c.y. annually	EFU-G
32	Sand & Gravel	30-5-19, 20	Good	105,000 c.y. annually	EFU-C & G
33	Sand & Gravel	30-4-21	Good	50,000 c.y. annually	EFU-C
65	Quartz	28-1E-2	Good	Large Deposit	TR
71	Nickel	30-6-17	Good	Large Deposit	FF
84	Sand & Gravel	25-4-2	Good	10K-100K CY	EFU-G
86	Basalt	26-3-9	Good	100,000 CY	EFU-G
95	Sand & Gravel	28-5-28	Riprap	10K-100K CY	FF
98	Sand & Gravel	29-7-4	Good	over 100,000 CY	FF
320	Aggregate	23-7-9	Good	large deposit w/lease	FF
337	Sand & Gravel	26-6-5	Fair/Good	100,000 CY	EFU-C
351	Aggregate	26-6-13	Good	2,000,000 tons	EFU-G
352	Sand & Gravel	27-6-9&10	Good	12,000 tons	EFU-C
353	Aggregate	30-5-21A	Good	92 million tons	EFU-G&FF

Toward the protection of off-site economic, social, environmental and energy values, the Comprehensive Plan includes the following policies. As written, these policies provide an adequate mechanism with which to safeguard adjacent lands from adverse impacts that may be caused by the mining activity.

* Natural Features Element, Objective H, Policies 3 and 4; and

* Natural Features Element, Objective H, Policy Implementation 2

The following map indicates the general location of 3C mineral resource sites which have been singled out for protection through the Goal 5 process. A complete inventory, referencing all 323 mineral sites, can be obtained at the County Planning Department (see Douglas County Mineral Resources Inventory). (Revised 2-9-11)

map 98

NATURAL FEATURES POLICIES

WILDLIFE

GOAL: Provide for the optimum number of game and nongame animals by protecting through management those resource and open space land and water areas that serve as habitat for a variety of wildlife species.

GENERAL POLICIES:

1. Development in designated natural resource and wildlife habitat areas shall occur at densities that will minimize impacts on wildlife.

2. New roads should be planned to avoid sensitive habitat areas.

3. Dog control laws shall continue to be enforced to minimize the harassment of wildlife and domestic farm animals.

4. Where conflicts are possible, consideration shall be given to wildlife habitat in quasi-judicial and administrative land and water use matters outside of designated urban or rural growth areas.

5. A building setback of 50 feet from all identified perennial and intermittent watercourses shall be maintained in areas outside of adopted urban growth boundaries, unless the County finds, after consultation with the Oregon Department of Fish and Wildlife, that such setback is unnecessary as a mitigation measure for the protection of wildlife, and reduction of the setback will not jeopardize streambank stability or water quality.

Big and Upland Game

OBJECTIVE A: To minimize conflicts between big and upland game habitat areas and other land uses.

POLICIES:

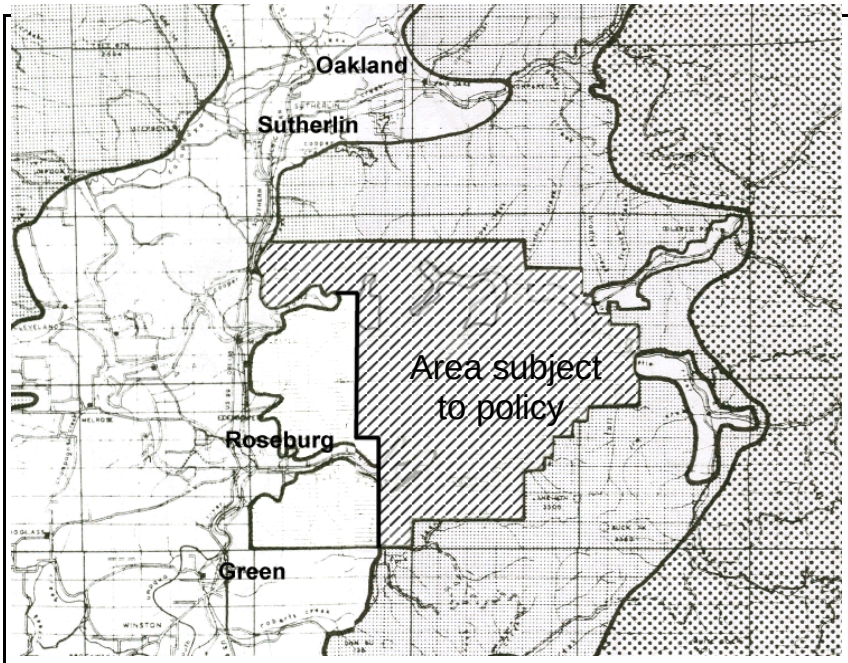
1. Sustained yield management and harvest practices that utilize moderate sized clearcuts are encouraged on forest lands where such practices can provide consistent food sources for wildlife.

2. Land usage should maintain the vegetation along the stream banks, in fence rows and woodlots; where possible, developers are encouraged to provide deer-proof fencing in areas where such conflicts exist.

3. Douglas County shall notify the Department of Fish and Wildlife of any quasi-judicial request for permission to engage in activities which may conflict with sensitive or peripheral big game habitats.

4. The Big Game Habitat Map designates sensitive, peripheral and impacted habitat areas. Areas which are identified as committed or exception areas within the Plan shall not have the peripheral density requirements applied as such areas already exceed specified densities.

5. The County shall, during the monitoring period for the delisted Columbian Whitetail Deer (CWTD), implement an enhanced habitat protection program with a 100 foot riparian corridor area if the Oregon Department of Fish and Wildlife (ODF&W) in coordination with the United States Fish and Wildlife Service (USF&WS) advise the County of a significant decline in Columbian Whitetail Deer population. Protection will continue for the period of significant decline. The area subject to the additional protection is represented in the following boundary. Such protection would occur during the County's annual legislative amendment process.



(Area map may slightly be adjusted)

Waterfowl

OBJECTIVE B: To prevent the further destruction to waterfowl habitat, by retaining wetlands and lands adjacent to water areas, and by providing needed recreational opportunities, both consumptive and nonconsumptive.

POLICIES:

1. Encourage the retention and protection of existing ponds, wetlands and riparian vegetation especially inside urban growth boundaries.

2. Where feasible, leave nonhazardous snags along streams and sloughs.

Nongame

OBJECTIVE C: To protect habitat so that it will provide optimum numbers of nongame wildlife for recreational and aesthetic opportunities, and still keep land use conflicts at a minimum.

POLICIES:

1. Native or other suitable plant species for habitat use should be left in open space areas whenever possible.

2. Protect existing parks and encourage acquisition of land for new parks, especially in urban and suburban areas as parks provide most of the non-game wildlife habitat in urban areas of Douglas County.

3. Parks should be planned to include natural or other suitable vegetation whenever possible.

Habitats of Special Concern

OBJECTIVE D: To identify and protect special habitat areas.

POLICIES:

1. Douglas County shall continue to add to or delete from its list of identified "habitats of special concern" contained in the comprehensive plan upon verification of new information by the Oregon Department of Fish and Wildlife.

2. Within designated habitats of special concern, measures that reduce impacts from development such as visual or noise buffers, setbacks, and retention of natural vegetation, may be employed as a condition to nonresource development approval.

3. Prior to the approval of any nonresource land use change in "habitats of special concern", Douglas County shall request assistance from the Department of Fish and Wildlife to resolve any identified conflicts and provide suggestions to reduce negative impacts.

4. Douglas County shall notify the Oregon Department of Fish and Wildlife of any quasi-judicial request for permission to engage in activities which may conflict with habitats of special concern.

5. The North Roseburg (or Winchester) Nonexception Area (east of I-5) and any future expansion of that area shall be limited to the western slope of the range of hills between Newton Creek and the North Umpqua River. The site is identified in the Exceptions and Nonexceptions Document of the Comprehensive Plan.

Special Bird Habitat

6. Douglas County will coordinate with the Department of Land Conservation and Development, Department of Forestry and Department of Fish and Wildlife to ensure that the programs of the State agencies responsible for bird habitat management are compatible with the local planning process.

7. Development requests, not governed by the FPA, in special bird habitat areas shall be regulated by Douglas County. (Revised 11-30-88)

8. When a request for development of a potentially conflicting use (see Finding No. 27) within a Special Bird Habitat Overlay area is received, the County will notify the Oregon Department of Fish and Wildlife (ODFW). The exact location of the nest site will be determined by ODFW and, if the proposed development is within the identified impact area (see policy 9), ODFW will consult with the property owner to mitigate habitat impacts. Prior to issuance of any development permits the County must receive written authorization from ODFW indicating that the project, with or without conditions, will not adversely affect the habitat. (Revised 11-30-88)

9. A special bird habitat will be considered impacted by a potentially conflicting use if that use is proposed within 1300 feet of an eagle site, within 600 feet of a heron rookery, or within 150 feet of a pigeon mineral spring. (Revised 2/16/94)

10. Osprey nest sites will be considered impacted when the proposed conflicting use is either: 1) in an acknowledged exception area and within 300 feet of the nest tree; or 2) outside of an acknowledged exception area and within 600 feet of the nest tree. (Revised 2/16/94)

11. When reviewing development requests within the impact area of eagle nest sites, ODFW may suggest management techniques affecting land beyond the 1300 foot impact area, up to a maximum of 2600 feet, to address other critical issues which ODFW demonstrates will cause irreparable harm to the nest site. The County will consider measures in individual management plans to address these additional issues raised by ODFW. (Revised 6/28/89)

12. As site specific information becomes available, the County shall address 1B osprey nest sites and proceed, where appropriate, through the goal 5 process as required by OAR 660-16-000. (Revised 11-30-88)

13. Documented new eagle, heron, and osprey nest sites will be included within the Comprehensive Plan, as appropriate, during the County's regular plan amendment cycle. (Revised 6/28/89)

14. New Bird habitat sites which are established near or adjacent to a pre-existing permitted use or a conflicting use, are presumed to not require additional protection. Location of a bird habitat site in these situations would indicate that protection is not necessary. An ESEE will be prepared as an update to the Comprehensive Plan to implement this policy. (Revised 1/12/04)

FISHERIES PROTECTION

GOAL: To conserve and protect the fisheries resource of Douglas County.

OBJECTIVE E: To protect and enhance fish habitat which includes water and adjacent riparian areas.

POLICIES:

1. Support the development of programs which diversify the number of areas suitable for fish production.

2. Douglas County supports the fish management practices established by state and federal agencies.

3. All Forest Practices Act rules and regulations regarding the protection of fish resources shall be followed.

4. Farming operations that utilize irrigation (withdrawal water for irrigation) are encouraged to develop farm practices that conserve water.

5. Resource and developmental activities in unstable headwater areas shall be kept to a minimum.

6. All roads should be located to avoid unstable headwater areas.

7. Developments or land uses that require channelization, excessive removal of streamside vegetation, alteration of stream banks, or filling in stream channels shall be discouraged in order to maintain stream integrity.

8. New roads, bridges and access rights-of-way should be designed to avoid restriction of channel capacity and minimize removal of shoreline vegetation.

APPROVED OREGON RECREATION TRAILS

OBJECTIVE F: To coordinate designation of recreation trails with the Oregon Parks and Recreation Commission under Goal 5.

POLICY:

1. Douglas County shall designate all recreation trails designated by the Oregon parks and Recreation Commission as significant Goal 5 resources.

WILDERNESS AREAS

OBJECTIVE G: To coordinate the listing of federally designated wilderness areas as significant under Goal 5.

POLICY:

1. Douglas County shall designate all federally listed wilderness areas within Douglas County as significant Goal 5 resources.

SCENIC WATERWAYS

OBJECTIVE H: To participate in the implementation of the State scenic waterways program.

POLICY:

1. Douglas County will coordinate with the appropriate agencies and participate in the Goal 5 scenic waterways program.

2. Douglas County will coordinate with the Oregon State Parks and Recreation Department on applications for development within the Scenic Waterway Corridor's.

FEDERAL WILD AND SCENIC RIVERS

OBJECTIVE H: To protect federal wild and scenic river segments in Douglas County.

POLICY:

1. Douglas County will coordinate with the appropriate agencies and participate in the wild and scenic rivers program.

2. Douglas County will coordinate with the Oregon State Parks and Recreation Department on applications for development within the identified river segments.

SCENIC VIEWS AND SITES

OBJECTIVE I: Encourage the maintenance of current inventories of scenic views and sites.

POLICIES:

1. Encourage the maintenance of scenic views and sites on publicly managed lands.

2. Encourage the use of private and not-for-profit organizations as a means of securing scenic views and sites for community uses.

OPEN SPACE RESOURCES

OBJECTIVE J: Promote the retention of open space within recognized growth and committed areas.

POLICIES:

1. Natural drainage courses in rural residential areas should be retained for open space values.

2. Encourage the orderly and efficient development of residential and commercial uses in order to maximize open space resources.

3. Encourage the inclusion of open space in all land developments.

4. Encourage the maintenance of scenic views and sites on publicly managed lands.

5. Encourage the use of private and not-for-profit organizations as a means of securing scenic views and sites for community uses.

NATURAL AREAS

OBJECTIVE K: To conserve and protect ecologically significant and scientific natural areas.

POLICIES:

1. Encourage the protection of the best and most representative natural area sites which are recognized for unique, significant, viable or threatened status after evaluating the cost effectiveness of such protection.

2. Once such a site is deemed significant, Douglas County shall assist in the notification of the land owner concerning the status of the ecologically significant site.

3. Encourage private land owners to take advantage of available incentive programs which protect ecologically sensitive areas such as conservation easements, open space taxation and acquisition by the Nature Conservancy.

4. Where possible, encourage the search for and retention of representative natural areas on public lands over private lands with generally equal ecological value.

5. As the search for representative natural areas is an ongoing process, Douglas County will cooperate with agencies or private organizations involved in future identification ventures.

6. Additional sites of natural significance discovered after the adoption of the Comprehensive Plan can be officially designated through the plan amendment process.

7. Subject to budgetary considerations, Douglas County shall continue the review of potential (i.e., 1B) ecologically and scientifically significant natural areas under Goal 5.

ENERGY SOURCES

OBJECTIVE L: To coordinate with the Oregon Energy Facility Siting Council and Federal Energy Regulatory Commission.

POLICIES:

1. Douglas County shall require the Goal 5 analysis for energy sources not under the jurisdiction of the EFSC and FERC to be done concurrent with the land use application for an individual energy source site.

2. For energy sources under the jurisdiction of the EFSC or the FERC, Douglas County shall amend the Douglas County Comprehensive Plan to identify the EFSC and/or FERC approved site as significant.

3. Amendments in response to EFSC and/or FERC decisions shall be done at the next regularly scheduled legislative amendment and shall not delay implementation of the project authorized by the EFSC and/or FERC.

4. Douglas County should coordinate with the Oregon Department of Energy and the U.S. Department of Energy on proposals for energy sources in Douglas County.

MINERAL AND ENERGY RESOURCES

OBJECTIVE M: To promote the efficient utilization of the County's mineral and energy resources while protecting such resources by minimizing conflicts from competing land uses.

POLICIES:

1. Aggregate and mineral extraction shall be conditionally permitted within designated agricultural areas, farm forest transitional areas, committed areas, rural growth areas and within service boundaries.

2. Aggregate and mineral extraction shall be permitted outright in designated forest resource areas as provided by the Forest Practices Act, OAR 629-24-111.

3. Adverse impacts from aggregate and mineral extraction on surrounding land uses shall be minimized.

4. Lands designated for agriculture or residential development used for aggregate or mineral extraction shall be restored to a state compatible with the surrounding environment. In all other cases restoration shall be accomplished as required by state law.

5. Encourage further development of hydroelectric and biomass energy sources in the County.

6. Encourage additional oil, coal and gas explorations.

7. Encourage nonpolluting energy sources.

POLICY IMPLEMENTATION:

1. As new information becomes available, the County shall address the remaining 1B mineral resource sites and proceed, where possible, through the Goal 5 process as required by OAR 660-16-000.

2. Where required, review of applications for the development of aggregate resources shall consider the impact of such an operation on:

    a. Surrounding land uses in terms of noise, dust, visual impact as well as impacts on traffic created as a result of the operation. (Revised 12-5-90)

    b. Streams and rivers where it could affect water flow, fish habitats and overall water quality.

    c. Land and soil resources if aggregate removal would lead to problems such as erosion or destruction of wildlife habitats, vegetation and overall land stability.

3. As a condition of approval for permits to establish new aggregate or mineral extraction operations, the County may require the applicant to meet all applicable regulations of the Division of State Lands, the Department of Environmental Quality, and the State Department of Geology and Mineral Industries. (Revised 12-5-90)

4. In the review of mineral extraction applications, the County may consider such factors as air, water, noise, erosion, aesthetic qualities, fish and wildlife habitats, access requirements and site restoration.

RECOMMENDATIONS:

1. Encourage further detailed studies of the County's mineral resources to be undertaken to assure an adequate quantity of aggregate resources is available to meet local and regional needs.

2. Douglas County shall require consideration of the feasibility for hydro-electric power generation for all dam development projects in the County.

3. Encourage additional investigations into the feasibility of geothermal and wind energy resources in the County.

4. Consider the development of criteria for more efficient solar orientation in new development.

SIGNIFICANT WETLANDS

OBJECTIVE N: To promote the conservation of Significant Wetlands in Douglas County.

POLICIES:

1. The County shall encourage practices which protect and enhance significant wetlands.

2. Development in wetlands presently surrounded by or designated as resource land shall be prohibited.

3. Development in wetlands presently designated for residential and industrial expansion shall be allowed when shown to be consistent with existing use.

4. Development and timber practices in and adjacent to significant wetlands shall be allowed only when such practices are in accordance with the rules and regulations of the Forest Practices Act.

5. Wetland sites shown on the "National Wetlands Inventory" maps (USFW),

but not already listed in the Douglas County Comprehensive Plan, are here classified as "1B" wetland sites until adequate locational, quantitative and qualitative information becomes available and an evaluation of each site's significance is completed. (Revised 11-30-88)

POLICY IMPLEMENTATION:

1. Before Douglas County's next periodic review, the County shall study "1B" wetland sites that are shown on the "National Wetlands Inventory" maps to better determine the sites' location, quality, and quantity and to evaluate the wetland significance of these sites as required by Goal 5 and OAR 660-16-000. (Revised 11-30-88)

CULTURAL AND HISTORIC RESOURCES

INTRODUCTORY SUMMARY

THE PURPOSE OF THE CULTURAL AND HISTORIC RESOURCES ELEMENT

Cultural resources, including historic resources, archaeological resources and cultural areas, provide a link to the past which allows us and future generations to relate to past ways of thinking, acting and believing. For this reason cultural resource protection is included in comprehensive plans. Conservation of these resources, many of which are fragile and nonrenewable, is needed to fulfill recreation and research needs; to give a sense of place and continuity to our communities and regions; to improve the housing and commercial structure stock; to provide educational opportunities; and to diversify the County's economy through increased tourism. The objectives of the Element are to 1) move a step closer to fulfilling these needs by developing a comprehensive program to conserve cultural resources; and 2) address that section of Goal 5 dealing with cultural and historic resources.

WHAT DOES GOAL 5 REQUIRE?

Statewide Planning Goal 5 requires the conservation of open space and the protection of natural and scenic resources. In regard to historic resources, Goal 5 requires that programs be provided that will protect scenic and historic areas for future generations. Toward protecting historic resources, Goal 5 requires that the location, quality and quantity of cultural and historic areas, sites, structures and objects be inventoried. Where no conflicting uses for such resources have been identified, such resources shall be managed so as to preserve their original character. Where conflicting uses have been identified the economic, social, environmental and energy consequences of the conflicting uses shall be determined and programs developed to achieve the goal.

Goal 5 defines cultural area as "an area characterized by evidence of an ethnic, religious or social group with distinctive traits, beliefs and social forms." Historic areas are defined as "lands with sites, structures and objects that have local, regional, statewide or national historical significance.

WHAT IS INCLUDED IN THE CULTURAL AND HISTORIC RESOURCES ELEMENT?

As an initial reference point, this Element presents an overview, highlights and chronology of Douglas County's history. Secondly, criteria, inventory methods and sources of historic and cultural resources are discussed in order to establish a credible inventory. Finally, practical methods of conserving significant resources are examined as a basis for a sound conservation program.

CULTURAL AND HISTORIC RESOURCES ISSUES

Douglas County has developed and is currently implementing a systematic procedure to identify historic and cultural resources as required by Statewide Planning Goal 5. An evaluation process for historic resources requires a standardized process and criteria. Douglas County's criteria assesses the significance of historic events, persons and architectural design and the relative scarcity of these resources. Currently surveyed sites in Douglas County are under evaluation for their historic significance. An assessment of the historic resources in accordance with OAR 660-16-000 should be completed by the end of 1982.

Protection for significant resources can be offered in different forms. Scenic easements, tax incentives and low interest loans or grants are financial incentives for historic conservation. Buffer areas around historic areas are another protection method to separate a conflicting land use from a resource.

Cultural areas are also offered protection. A cultural area, by definition, is characterized by evidence of

an ethnic, religious or social group with distinctive traits, beliefs and social forms. Evidence from such a group can be fragile such as evidence typical of an archaeological site or nonsensitive such as an historic structure. Protection offered cultural areas is tailored to the fragility of the area's evidence.

CULTURAL AND HISTORIC RESOURCES FINDINGS

1. Douglas County is using a systematic procedure to identify and protect cultural resources.

2. The National Register of Historic Places contains the following cultural resources which are located in unincorporated Douglas County:

   The Charles Applegate House, Susan Creek Indian Mounds Site, Umpqua River Lighthouse, Henry G. Brown House, Harry Winston House, Winchester Dam, Nathaniel Curry House and Barn, Moses Parrott House, George M. Marsh (James Winter) Barn, Henry Clay Smith House, Roberts Mountain House, C.E. Moyer Nursery, Bernard Pitzer Smith House, Peter Weaver House and Barn, Glide Ranger Station Office, Milo Academy Bridge, Stephens Community Historic District, and the Gardiner Historic District.

3. Resources listed in the Statewide Inventory of Historic Sites and Buildings, are evaluated by the Historic Resource Review Committee.

4. Statewide Planning Goal 5 does not include criteria for historic significance, but rather leaves that determination to local decision makers.

5. Both the Bureau of Land Management and U.S. Forest Service have active historic and archaeological site identification programs.

6. Over 100 archaeological sites on private lands in Douglas County are registered with the Oregon State Historic Preservation Office. These resources are identified at the Section or 1 square mile level, and thus are considered by Douglas County as needing further research under the provisions of OAR 660-16-100(1B).

7. Over 100 archaeological sites on Federal lands located in Douglas County are registered with the Oregon State Historic Preservation Office and are adequately protected by the Federal government.

8. A buffer area around a historic district or isolated resource is a method of protecting the resource from new conflicting land uses.

9. Scenic easements, tax incentives and low interest loans or grants are financial incentives for conservation of historic resources.

10. APPLICATION OF OAR 660-16-000 TO THE EVALUATION PROCESS FOR CULTURAL AND HISTORIC RESOURCES

    The Douglas County Historic Resource Review Committee (HRRC) is charged, under Chapter 9 of the Douglas County Land Use and Development Ordinance, with the responsibility of determining which resources are significant, of special interest, or of general interest historically to Douglas County. Prior to the assessment of historic significance, a completed inventory delineating the location, quality and quantity of the potential resource is conducted and included by reference in the Comprehensive Plan. Once potential cultural and historic resources have been evaluated by the HRRC, Douglas County will include them in the Historic Resource Register or the Cultural and Historic Resources Inventory. Of those sites listed in the Historic Resource Register, only those deemed significant by Douglas County shall obtain protection under §3.35.400 and Chapter 9 of the Douglas County Land Use and Development Ordinance, and thus meet the Goal 5 standard of protecting historic areas which have local, regional,

statewide or national historical significance. Other sites deemed of special or general historic interest, as listed in the Douglas County Historic Resource Register, are not considered significant by Douglas County and thus no further application of the Goal 5 process is necessary.

For archaeological sites listed by the State Historic Preservation Office located on private lands, additional information on location and site quality will be necessary to complete the inventory. When and if funding is available, Douglas County will consider the pursuit of an archaeological inventory and associated implementation programs to achieve Goal 5.

a. **Conflicting Uses**

Activities or uses which may conflict with the conservation or protection of significant cultural and historic resources are addressed in §9.070 and §9.080 of the Douglas County Land Use and Development Ordinance. Specific uses are as follows:

(1) An exterior modification which would alter the historic significance of a structure.
(2) New construction on a public or private significant historic site or in a Historic District which would alter the historic significance of the site or district.
(3) Demolition of a significant historic resource.

b. **Economic, Social, Environmental and Energy (ESEE) consequences of conserving Cultural and Historic Resources**. The following ESEE analysis applies only to those uses specified in a.(1) and a.(2). Demolitions (a.(3)) are not included because a decision to raze a significant historic structure will be made on a site specific basis under the provisions of §9.080. The ESEE analysis is included as part of the decision process of §9.080.

(1) Economic Consequences: The economic benefits of conserving cultural and historic resources are numerous. The opportunity to view places and structures associated with the past attracts tourists from both outside and inside the County. Because one-third of the I-5 corridor bisects Douglas County, we have a great opportunity to capitalize economically from historic preservation in a manner similar to the communities of Jacksonville, Brownsville and, locally, Oakland, Oregon.

Because Douglas County citizens take pride in their past through annual historic theme celebrations held in several communities from Scottsburg to Canyonville, historic preservation certainly supports such ventures both economically and socially. Also, historic preservation attracts outside capital for the purposes of restoring structures for commercial ventures. The prime example of such an activity in Southern Oregon is the Wolf Creek Tavern in Josephine County. One similar venture is anticipated in Douglas County in the near future.

Economically, historic preservation increases the number of available structures to be used for residential and commercial purposes. Such rehabilitation efforts also provide some employment opportunity for the local building trade.

The economic consequences of not preserving historic resources can be viewed from two perspectives. In a specific case, pre preemption of a new industrial or commercial venture in favor of the preservation of a historic resource may prevent establishment of a particular economic venture. However, Douglas County has and will continue to recognize in its Comprehensive Plan ample land suitable for economic enterprise and, therefore, the possibility of this scenario occurring is remote.

Also, one can take the view that restoration as a cost saving measure is not as economically beneficial in the short term to a community as new construction. However, the additional jobs associated with restoration and the potential long-term tourism benefits accruing annually from historic preservation far exceed the minor short-term concerns.

(2) Social Consequences: Socially, historic and cultural resource preservation is a positive attribute to a community. Historic resources retain a sense of "place" for a community as well as provide a wealth of educational opportunities for generations to come.

(3) Environmental Consequences: Environmental consequences would be negligible overall and oriented to a specific site and issue.

(4) Energy Consequences: Energy consequences are minor but positive in that restoration of historic buildings often includes the insulation of non-insulated structures. Also, historic preservation attracts local tourists who might otherwise travel a greater distance to recreate.

(5) Conclusion: Based on the preceding findings, it is apparent to Douglas County that the overall long- and short-term benefits derived from preserving the cultural and historic resources of the County will in most cases far exceed the negative consequences associated with preserving such a resource.

c. **Programs to Achieve the Goal**

Douglas County provides through §3.35.400, §9.070 and §9.080 of the Douglas County Land Use and Development Ordinance a program to conserve significant cultural and historic resources.

Section 3.35.400 is the Cultural, Historic and Archaeological Resource Overlay Zone which shall be employed for those resources deemed significant by the Historic Resource Review Committee and upon completion of the Goal 5 process evaluation and adoption by the Douglas County Commissioners. This overlay zone will require review of building permits or other land use actions by the Historic Resource Review Committee upon determination by the Planning Director that a developmental activity pertains to or is within a resource site.

Section 9.070 will require review by the Director or Historic Resource Review Committee of proposed alterations of, or exterior remodeling of a cultural or historic resource. The Historic Resource Review Committee is authorized to approve an application or permit if a finding can be made that the proposal is "harmonious and compatible with the character of the resource or historic district." The Historic Resource Review Committee shall find the alteration harmonious and compatible with the resource or historic district with respect to style, scale texture and construction materials and/or find that the alteration will enhance the historical value of the resource. It must "disapprove the request if the proposal will prove to be unsightly, grotesque or otherwise reduce the resource's historic value and/or significance."

Section 9.080 provides for a review by the Historic Resource Review Committee proposed to raze or demolish a significant historic resource. The Committee will review demolition applications and construct findings addressing the following:

- Structure's state of repair
- The reasonable of repair
- Restoration costs
- The uniqueness of the resource
- The ESEE consequences of approving or denying the application

Based on the findings, the HRRC may approve, deny or attach conditions to an approval for the purpose of conserving the historic value or a portion of the cultural value of the resource.

11. **Historic Bridges** (Revised 11-30-88).

The Douglas County Historic Resource Review Committee (HRRC) evaluated six bridges together with other potential resources that were listed in the Douglas County Cultural and Historic Inventory, 1983, the Statewide Inventory of Historic Sites and Buildings, Douglas County, 1976, and in the Historical and

Archaeological Resources of the Oregon Coast, 1974. The HRRC found that four bridges were historically significant and that the other three bridges did not meet the County's test for historic significance. The Douglas County Board of Commissioners heard the HRRC's recommendation for the seven bridges and other historic and cultural resources. The Commission adopted the Committee's findings and applied the Historic Resources Overlay on February 2, 1984. The six bridges subject to the overlay are:

Bridge Name

Calapooya Creek
(Rochester) Bridge

South Myrtle Creek
(Neal Lane) Bridge

South Umpqua River
(Myrtle Creek) Bridge

North Umpqua River
(Winchester) Bridge

Umpqua River
(Reedsport) Bridge

Little River
(Cavitt Creek) Bridge

The Oregon Department of Transportation identified ten additional bridges in Douglas County in the Historic Highway Bridges of Oregon, 1986. The bridges are: South Umpqua River (Worthington) Bridge, Calapooya Creek (Oakland) Bridge, Umpqua River (Scottsburg) Bridge, Elk Creek (First Crossing) Bridge, Elk Creek (Second Crossing) Bridge, Elk Creek (Third Crossing) Bridge, Elk Creek (Fourth Crossing) Bridge, South Umpqua River (Winston) Bridge, South Umpqua River (Milo) Bridge and North Umpqua River (Mott) Bridge.

The location and quantity of these bridges are known. Information about these bridges are listed in the Historic Highway Bridges of Oregon.

CULTURAL AND HISTORIC RESOURCE POLICIES

GOAL: To conserve and maintain the cultural and historic resources of Douglas County.

OBJECTIVE A: To conserve historic resources and nonsensitive cultural areas in Douglas County as a way of preserving our history and heritage for future generations.

POLICIES:

1. Evaluate all areas, districts, sites, structures and objects listed on the County's historic resource inventory for their historic significance.

2. Douglas County shall compile and maintain an official Historic Resource Register listing all nonsensitive cultural areas and all historic resources determined to possess significant characteristics worthy of conservation.

3. All historic resources listed in the National Register of Historic Places shall be evaluated for historic significance.

4. Encourage the preservation, restoration or rehabilitation, maintenance and monumenting of all significant historic resources and nonsensitive cultural areas.

5. Develop and support programs that conserve historic resources and nonsensitive cultural areas to increase awareness of the County's history and heritage.

6. Support and maintain an Historic Resource Management Program which promotes conservation of significant historic sites and districts in Douglas County.

7. When necessary, establish a buffer area to separate new land uses that would create or lead to conflicts with historic resources or nonsensitive cultural areas listed in Douglas County's Historic Resource Register.

8. Encourage private land owners to participate in available incentive programs (e.g., conservation easements and tax incentives) which provide incentive for conserving historic resources or nonsensitive cultural areas.

9. Encourage the commercial use of historic resources when found compatible with surrounding land uses and consistent with conservation or restoration of the historic structure.

10. Provide and maintain markers of historic resources and nonsensitive cultural areas throughout the County.

11. Use of County-owned land in the vicinity of historic structures or sites shall be compatible with such structures or sites.

POLICY IMPLEMENTATION:

1. Actively maintain an inventory of potential historic resources.

2. Establish criteria for determining whether a potential historic resource:

    a. Possesses significant historic characteristics worthy of conservation;

    b. Possesses qualities of special historic interest, meriting only a monument;

    c. Possesses historic characteristics of general public interest; or

    d. No longer possesses significant historic characteristics due to such actions as alteration or demolition and therefore should be removed from the County's inventory.

3. Maintain a Historic Resource Register which lists:

    a. Significant historic resources;

    b. Resources of special interest; and

    c. Resources of general public interest.

4. When and where appropriate and when funds are available, provide and maintain monuments which identify resources that have been determined to either have historic significance or are of special historic interest.

5. Assist the Historic Resource Review Committee in facilitating the conservation of historic resources by:

a. Developing criteria for evaluating historic resources;

b. Evaluating the historic significance of potential historic resources and recommending approval for inclusion in the Historic Resource Register or the Cultural and Historic Resources Inventory;

c. Coordinating historic resource identification and conservation efforts with other public agencies;

d. Advising appropriate bodies concerning applications for permits to demolish or alter significant historic resources listed in the Historic Resource Register;

e. Developing and supporting programs that conserve historic resources and increase awareness of the County's historic heritage; and

f. Recommending removal of a resource from the register or inventory if its historic value has decreased significantly due to addition of a similar resource or authorized demolition.

OBJECTIVE B: To support protection of archeological resources in Douglas County.

POLICIES:

1. Douglas County defers protection for archaeological resources to the Federal Government (strict Federal regulations are already in effect on Federal Lands). Inventory data should be obtained through the Oregon State Historic Preservation Office and other reliable sources.

ENERGY

INTRODUCTORY SUMMARY

THE PURPOSE OF THE ENERGY ELEMENT

The purpose of the Energy Element is to address Statewide Planning Goal 13 and examine energy consumption and prudent conservation methods in order to decrease Douglas County's reliance on imported energy. This Element, along with several other elements, will comprise the Douglas County Comprehensive Plan.

WHAT DOES GOAL 13 REQUIRE?

Statewide Planning Goal 13 requires that counties and cities conserve all forms of energy through sound economical use of land and land uses developed on the land. Good management of all forms of energy are required by Goal 13 and made reference to in approximately 14 other Statewide Planning Goals.

WHAT IS INCLUDED IN THE ENERGY ELEMENT?

The Energy Element identifies areas of energy consumption which have the greatest potential for conservation and identifies practical methods to effectuate that conservation.

Also identified are Douglas County's renewable energy resources and an indication of their potential and location. Lastly, the Energy Element identifies those areas of consumption and resource potential that have little or no data available and therefore need additional study.

ENERGY ISSUES

ENERGY CONSUMPTION PATTERNS

Energy consumed for transportation in Douglas County requires approximately 40 percent of the total energy consumed in the County. Total energy consumed for transportation is greater than for other individual sectors (i.e., industrial, commercial or residential). Private autos require over 50 percent of the energy a person uses directly.

FIGURE 8-1. DIRECT ENERGY USE IN OREGON.

Residential needs for energy require approximately 20 percent of the total amount of energy consumed in Douglas County. Space heating and water heating require approximately 60 percent and 16 percent respectively, of the energy consumed within a residence (chart not shown).

Energy consumption in all sectors (i.e., industrial, commercial, transportation and residential) is projected to increase as the economy and population grow. This increase in energy consumption can be reduced, somewhat, with the use of conservation methods and use of renewable resources.

RENEWABLE RESOURCES

Geothermal potential for power production is not proven and needs further study. Areas with adequate potential for power production from the wind are not mapped and need further study. Suitable sites for power production from small dams are identified but additional study will possibly identify sites with unique characteristics for production.

ENERGY ELEMENT FINDINGS

ENERGY CONSERVATION

Residential

1. Personal energy consumption for residential and transportation use comprises 50 percent of Douglas County's total energy consumption.

2. Eighty percent of personal consumption is used for space heating and transportation.

3. Sixty-two percent of the energy consumed in residences is used for space heating and 16 percent is used for water heating.

4. Total energy consumption for residential use has increased and is projected to continue increasing as a function of an increasing population (conservation will slow the rise in the amount of energy consumed).

5. Per capita energy consumption for residential use will decrease in response to increasing fuel costs.

6. Conventional fuels (electricity, natural gas and petroleum) are consumed for 80 to 90 percent of Douglas County's residential energy requirements.

7. Cord wood is being substituted for conventional energy for residential space heating more rapidly in Douglas County than the majority of the state.

Commercial

8. The commercial sector in Douglas County consumes approximately nine percent of all energy consumed in Douglas County.

9. Total energy consumption by the commercial sector has increased as per capita consumption decreased because the number of employees increased more rapidly (i.e., the sector increased "more rapidly").

10. Consumption of electricity has increased as percent of total for commercial uses while consumption of natural gas and petroleum has and is projected to decrease The latter decreasing at the greatest rate.

Transportation

11. The Transportation sector in Douglas County consumes 30 percent or more of all energy consumed in Douglas County

12. Total energy consumed for transportation is projected to increase as per capita consumption decreases, and population increases at a greater rate.

13. The relative importance of Douglas County's timber industries, which requires a large amount of trucking,

means that a greater percent of energy is consumed for transportation in Douglas County than in the rest of Oregon.

14. Per capita consumption of energy is greater for Douglas County than Oregon due to the fewer number of persons residing in urban places, which increases the average trip length.

Industrial

15. The majority of Douglas County's industries (lumber) are energy intensive.

16. Douglas County's industries will probably continue to need a high ratio of energy consumed to the amount of labor used for manufactured products.

17. Douglas County's industries will probably continue to be dependent on imported, refined energy.

Methods of Conservation

18. Increasing land use densities and mixes within urban growth boundaries for new development combined with increased heat retention of structures and use of renewable resources is a sound conservation strategy.

19. Increasing densities of land uses by infilling, zero lot lines and with small lot subdivision and planned unit developments within urban growth boundaries are effective means of energy conservation.

20. Mixing land uses decreases work and trip lengths and are effective means of energy conservation.

21. Mixing uses provides opportunities for cogeneration and use of spent, low grade steam and waste heat.

22. Proper landscaping can decrease heat gain and loss by shading and screening.

23. Solar energy can be passively captured if the building is properly oriented towards the south and adequately insulated.

24. East-west streets versus north-south streets provide greater opportunities for properly orienting dwellings to the warming winter sun.

25. Decreasing noncollector street widths to safe minimums decreases energy consumption in construction and increases density.

RENEWABLE AND ALTERNATIVE ENERGY RESOURCES

Solar

26. Fifty percent of a new dwelling's space heating load can be supplied by an integrated passive solar system.

27. Fifty percent of a dwelling's water heating load can be supplied by an active solar system.

28. Adapting the existing housing stock for solar energy use and increasing efficiencies of heat storage systems are obstacles to common use of solar energy for space and water heating in Douglas County.

Geothermal

29. There is very little empirical data indicating the geothermal power potential in Douglas County.

30. Theoretically, areas in Douglas County having the greatest geothermal potential for electrical production lie along the high Cascade ridge.

31. Theoretically, geothermal potential decreases rapidly west of the high Cascade ridge and is very low west of 122° 45' Longitude.

32. Low energy loss transmission of hot water up to 100 km is possible and becomes feasible with the presence of a market.

Municipal Waste

33. The Douglas County Public Works Department will complete a detailed study of municipal waste in 1981.

All further findings will be generated from the study. This study will address the use of waste materials as a possible energy source.

"LOW HEAD" Hydro-Power (Power Generation from Small Dams)

34. Of 114 segments of rivers and streams in Douglas County, only a portion of Calapooya Creek and Elk Creek have sufficient theoretical potential for power production and are suitable for water impoundment.

35. There is little empirical data for low head potential in Douglas County.

"MICRO" Hydro-Power ("Back yard" power generation from small streams)

36. Microhydro power production is a method of producing energy from Douglas County's streams on a small scale for private use.

37. There is little empirical data for microhydro power in Douglas County.

Wind

38. There is very little empirical data indicating the wind power potential in Douglas County.

39. Theoretically, areas in Douglas County having the greatest wind power potential are along mountain ridges, at narrowing valley gaps and along the lee of smooth flat surfaces such as the coastline.

40. Electricity generated from wind power complements generation from hydro-power.

Wood Waste

41. Wood is Douglas County's most plentiful resource that is readily recoverable.

42. Recovery of wood waste for power production is possible but a competitive market and collection and transportation cost of woods inhibit the use of wood as a common source of fuel.

43. Power production from wood waste, with efficiencies up to 75 percent, is possible with known technology.

ENERGY POLICIES

GOAL: To conserve energy.

ENERGY CONSERVATION

OBJECTIVE A: Reduce the need for energy through sound planning and economic principles.

POLICIES:

General

1. Sound energy conservation principles, including the economical use of insulation, should be considered in the placement of new structures, improvement of existing structures or other energy consumptive land uses.

2. Encourage growth within urban growth boundaries and committed lands designated for growth rather than other rural areas.

3. Promote the economical conservation of older and historic structures to conserve energy.

Residential

4. Planning and design of subdivisions and planned unit developments should reflect the principles of energy conservation and incorporate the best available technology for efficient use or recovery of energy.

5. Encourage multifamily dwellings for infilling and new development clustered around commercial and work centers.

6. Ensure that residential lot sizes within urban growth boundaries, developable committed land areas and urban service boundaries are appropriate to conserve developable areas for urban and rural uses.

7. Promote the use of zero lot line zoning for new development to provide opportunities for increasing density and heat retention of dwellings.

8. To take advantage of natural sun, shade and wind buffering by:

    a. Promoting the use of sun shading and wind screening by utilizing appropriate vegetation and other materials;

    b. Promoting new development in areas having winter sun access; and

    c. Discouraging new development in areas shaded by topographic land

features.

9. Encourage redevelopment of large lots in urbanizable areas.

10. Encourage infilling and development of undersized lots in urbanizable areas.

Commercial

11. Discourage inefficient land use configurations which promote strip development.

12. Promote clustering of commercial land uses near residential land uses.

13. Promote the use of vegetation and other material for sun shading and wind screening of commercial uses.

Transportation

14. Encourage residential development on noncollector streets.

15. Encourage access and development of bike and walkways in densely developed areas.

16. Encourage the placement of bike and pedestrian equipment (e.g., bike racks and covers) along routes of heavy traffic and at termini (e.g., shopping centers, governmental buildings and schools).

17. Encourage the location of industrial, commercial and residential uses in such a manner as to facilitate the use of public transit.

Industrial

18. Encourage a more complete utilization of the County's forest resources.

19. Encourage the establishment of industries that provide secondary processing of forest product materials.

20. Encourage the use of cogeneration to produce electricity, process steam and low grade steam or hot water for space heating.

21. Encourage industries to use renewable energy for applicable uses.

RENEWABLE AND ALTERNATIVE ENERGY RESOURCES

OBJECTIVE B: Reduce the need for nonrenewable energy through the economical use of renewable energy.

POLICIES:

General

1. Encourage the diverse consumption of economical renewable energy forms.

2. Encourage the consumption of low grade energy for applicable uses.

3. Encourage development of cogeneration and economical consumption of spent energy.

4. Encourage recycling of waste materials.

Wind

5. Encourage development and power production from wind energy.

6. Permit power production of wind energy in all resource oriented zones as an outright use except where prohibited by Oregon Revised Statutes.

Geothermal

7. Encourage exploration and development of geothermal energy.

8. Permit geothermal exploration, development and power production as an outright use in resource oriented zones except where prohibited by the Oregon Revised Statutes.

9. Encourage development of economical hot water and steam transmission systems.

10. Study geothermal potential in Douglas County.

Wood Waste

11. Encourage the economical consumption of Douglas County's wood waste for power and fuel production.

Low Head and Micro Hydro

12. Study Douglas County's low head hydro potential.
13. Encourage low head hydro electric development and production near areas of potential use and transmission lines.

14. Permit low head and micro hydro development and power production as an outright or conditional use in all resource oriented zones except where prohibited by the Oregon Revised Statutes. (Revised 7/21/93)

15. Promote micro hydro development and power production.

Solar

16. Encourage the economical use of solar energy for all land uses.

PARK AND RECREATION

INTRODUCTORY SUMMARY

THE PURPOSE OF THE PARK AND RECREATION ELEMENT

The overall purpose of the Park and Recreation Element is to meet the existing and projected recreational needs of the citizens and visitors of Douglas County. The Park and Recreation Element addresses Statewide Planning Goal 8 - Recreational Needs. The County Parks Department shall, as a part of its mission, take an active role in promoting water safety and waterway etiquette in order to minimize conflicts with landowners.

WHAT DOES GOAL 8 REQUIRE?

Goal 8 requires that:

1. The County satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities including destination resorts. (Revised 11-12-86)

2. The meeting of recreational needs, now and in the future, shall be planned for by governmental agencies having responsibility for recreation areas, facilities and opportunities:

    a. in coordination with private enterprises;

    b. in appropriate proportions; and,

    c. in such quantity, quality and location as is consistent with the availability of the resources to meet such requirements. (Revised 11-12-86)

3. State and federal agency recreation plans shall be coordinated with local and regional recreational needs and plans.

4. Plans should provide for recreational areas, facilities, and opportunities. (Revised 11-12-86)

5. Comprehensive Plans may provide for the siting of destination resorts on rural lands subject to the provisions of Goal 8 and without a Goal 2 exception to Goals 3, 4, 11, or 14. (Revised 11-12-86)

WHAT IS INCLUDED IN THE PARK AND RECREATION ELEMENT?

Douglas County citizens played an important role in the update of the Park and Recreation Element. Douglas County Planning Department and Park and Recreation Department representatives visited each of the nine Planning Advisory Committees (PACs) in Douglas County. The visits offered valuable local perspective of the recreation needs in each area. These needs have been incorporated into this Plan.

The Park and Recreation Element incorporates data from the Statewide Outdoor Recreation Plan (SCORP) for 2003-2007. The SCORP is Oregon's basic five-year plan for outdoor recreation. It includes a statewide public input survey conducted to determine where the state is meeting and not meeting recreational needs. The SCORP identifies goals and objectives at both state and region-wide levels designed to meet the existing and projected recreational needs for citizens and visitors alike. The SCPORP has provided much of the inventory data for this Comprehensive Plan.

The SCORP divided the State of Oregon into 11 planning regions, two of which include Douglas County. For the purposes of this Plan the first region will be referred to as the Coastal Region and the second region will be referred to as the Inland Region. The Coastal Region also includes Coos and Curry Counties and the Inland Region also includes Josephine and Jackson Counties. While this is not ideal, the data from the SCORP is a valuable resource that must be used to enhance this Parks and Recreation Element. Data from the SCORP has been cross refferenced with public input at the local level from each PAC in Douglas County.

PARK AND RECREATION ISSUES

Today there are 256 identified park areas in Douglas County. Various federal and state agencies have done an exceptional job in providing many recreational areas and related facilities throughout Douglas County. Also, many communities throughout the County have shown an interest and a concern for their respective residents by planning for, and providing, "local-type" parks and related facilities.

PARK NEEDS

According to the SCORP the following top three issues have been identified as funding priorities in the Coastal Region:

1. Major rehabilitation of existing outdoor recreation facilities due to rapid deterioration of facilities in the coastal climate.
2. Park improvements on historic sites.
3. Preserve or acquire coastal access and view sheds for public recreation use, specifically areas to provide public beach access and to maintain a natural experience for beach users.

Also according to SCORP the following top three issues have been identified as funding priorities in the Inland Region:

1. Major rehabilitation of existing outdoor recreation facilities, including utilities, buildings, campground sites, trails, and upgrading facilities to meet current ADA accessibility requirements.
2. Environmental/Interpretive Centers in parks to be located in a metropolitan region and to provide information for local residents and visitors from outside the region. A website should also be developed containing similar information.
3. Motorized and non-motorized trail connectivity to provide for such uses as: walking, hiking, bimodal both non-motorized and motorized. Priority to be given to projects connecting communities.

RECREATIONAL ACTIVITIES

Camping - Overnight camping is one of the most popular recreational pursuits in Douglas County. There are 3,344 RV/trailer campsites in the County, the private sector operates 61% of these sites. Additionally, there are 809 tent campsites with the private sector operating 15% of these sites.

Picnicking - Picnicking remains a popular passive recreational activity. There are 909 public owned picnic tables available in Douglas County.

Water Access - The most popular water-based activities in Douglas County are fishing and boating.–With 12,985 acres of outdoor recreational water resources, opportunities to recreate are plentiful. Douglas County has access to the Pacific Ocean, three reservoirs, several lakes and miles of river courses. The County has 2,401 linear feet of publicly owned fishing piers and 45 lanes of publicly owned boat ramps.

Golfing - In Douglas County there are 5 golf courses, offering 90 holes of play.

Off-Road Vehicles – Motorized recreation related to trail activities is continuing to grow in popularity**,**

the dunes area along the coast is an active region for motorized recreation. In addition to the dunes areas, Douglas County has 16 miles of designated 4X4 motorized trails and 18 miles of designated motorized trials for ATV's and motorcycles.

Bicycling (Bike Trails) - Approximately 30% of Oregon residents and visitors participated in bicycling (both trail and road). Douglas County has a well developed County road system that provides miles for road bike riding. It also has 32 miles of designated and surfaced bicycle trails along with at least 62 miles of designated and un-surfaced bicycle trails. The 79 mile North Umpqua Trail along the North Umpqua River provides prime mountain biking.

Recreation Trails - Three types of trails are recognized in Douglas County. These are scenic, recreation and connector trails. The most widely used modes of recreation travel are hiking, bicycle touring and horseback riding. The North Umpqua Trail along the North Umpqua River also provides 79 miles of prime trails for hiking and running. Numerous other trails wind through the forest lands of Douglas County.

Cross Country Skiing – Cross-country skiing in Douglas County is confined to the Diamond Lake - Lemolo Lake recreation areas. The County has 45 miles of designated federally owned cross-country ski trails.

Snow Skiing (downhill) - Snowcat skiing is available at Mt. Bailey; it serves 1600-2000 skiers/boarders per season.

PARK AND RECREATION FINDINGS

Recreation provides a recognized experience that improves both physical fitness and mental health of those who participate. Recreational areas, facilities and opportunities, as set forth in this goal, are to be of such quality and quantity as to provide for human development and enrichment. Avenues to provide this development and enrichment include, but are not limited to: open space and scenic landscapes; recreational lands; history, archaeology, and natural science resources; scenic roads and travel ways; sports and cultural events; camping, picnicking, and recreational lodging; tourist facilities and accommodations; trails; waterway use facilities; hunting; angling; winter sports; mineral resources; and active and passive games and activities. Open space, historic areas, cultural areas and mineral resources are addressed in the other elements of the Comprehensive Plan for Douglas County. The avenues listed above are addressed in the Park and Recreation Element.

GENERAL

1. The use of recreational facilities in Douglas County is increasing. Data from the SCORP shows that 73% of Oregon households had participated in outdoor recreation activities within the past 12 months.

2. Today there are 256 identified park areas in Douglas County. These areas are administered by federal, state and local agencies and also by private and quasi-private firms and organizations. Various federal and state agencies have done an exceptional job in providing many recreational opportunities and facilities throughout Douglas County. These agencies are to be complimented for their fine efforts. Many communities throughout Douglas County have shown an interest and concern for their respective residents by planning for, and providing, "local-type" parks and related facilities. These communities are to be recognized for their achievements.

3. Douglas County is abundant with natural resources, from coast to mountains, there are many recreational opportunities that should be both protected and available for future generations.

NEIGHBORHOOD AND COMMUNITY-TYPE PARKS

4. There is a recognized need for additional neighborhood and community-type parks in Douglas County. These park-types are mostly associated with the urbanized areas in the County. Many of the needs for additional parks will be satisfied upon completion of existing park expansion projects by various communities throughout the County.

PARK FACILITIES

5. There is a need for additional park facilities in Douglas County. Several of the projected needs for additional park facilities will be met upon completion of existing park development projects by various communities throughout the County.

VISITORS

6. There are 256 inventoried individual park areas in Douglas County. Included in this inventory 3,344 RV/trailer campsites and 809 tent campsites and 909 day use picnic tables. Major concentrations of campgrounds are in the Coastal PAC and in the Umpqua National Forest.

7. Most of the day-users to River Forks Park are residents of Douglas County.

8. There is an apparent need for greater cooperation between all groups or persons with regard to recreation-tourism.

9. Regional developments should be considered with respect to promoting recreation-tourism.

10. There appears to be a need for more convention-type facilities in the immediate Coos-Curry-Douglas County area.

11. The "Preservation of the Scenic Landscape" has been recognized as an important factor in the tourism industry.

12. The need to encourage visitors to come to Oregon the year-round has been demonstrated by various tourist-related organizations.

13. A more current plan relating to tourism potential and promotion in the Douglas County area should be formulated. It would seem logical that this plan be developed by CCD (the Coos-Curry-Douglas Economic Improvement Association).

CAMPING

14. Overnight camping is one of the most popular recreational pursuits in Douglas County.

15. There are 3,344 RV/trailer campsites and 809 tent campsites in Douglas County. Campgrounds in the County are concentrated along the coast and in the Umpqua National Forest.

16. The private sector operates about 52 percent of the available campsites in Douglas County.

17. The SCORP has identified a need for 529.3 tent campsites in the Coastal region and 717.1 tent campsites in the Inland region by 2007. These two regions contain a significant amount of land outside of Douglas County. A need for an increased number of facilities should be recognized but these numbers do not reflect the exact number of tent campsites to be achieved. The recreational providers in Douglas County should continue to make available a quality camping experience for Douglas County residents and visitors. The development of additional campgrounds by various governmental agencies should be limited to providing camping as a support facility to a more primary development. (Ex. - if a major downhill skiing area were to be developed, maybe overnight camping facilities should be considered in this immediate area in anticipation of the needs of the users in this area.) The private sector is encouraged to continue to play a major role in providing facilities for camping, most particularly for overnight sites with full service hookups. As it is generally recognized that private campground owners are primarily in the business to make a profit on their investment, a careful analysis of the market should be considered before additional campgrounds are developed.

PICNICKING

18. Picnicking is a favorite recreation activity for many Oregon residents. SCORT has inventoried 909 day use picnic tables available in Douglas County. The County provides 580, Federal entities provide 169, the State provides 14, Municipalities provide 136, and other public agencies provide 10 picnic tables.

19. SCORP has indicated a deficit of 1083.2 picnic tables in the Coastal Region and 1947.9 picnic tables in the Inland Region by 2007. This plan does not relate to SCORP's analysis concerning picnic sites for several reasons. First, it is not felt as being realistic that the number of picnic tables in a particular area is a reliable indicator of the number of picnic sites available. (If this is the case, then one could go out and purchase several picnic tables, put them in a particular park or area, and confidently say that "we have met our needs for additional picnic sites**.** Secondly, there is no way of analyzing the many areas in Douglas County which provide prime areas for having a picnic, but contain no tables - just a tree stump, an old rotten log, or perhaps some pine needles to sit on. Finally, the data presented in SCORP does not appear to be accurate. The existing supply column indicates that there are 909 picnic tables in Douglas County; yet data from the 1980 Comprehensive Plan cited 1,209 picnic tables from the SCORP at that time and refuted that number as low. The number of recreation sites, and consequently the number of picnic tables, has only increased. The development of additional picnic sites throughout the County should be considered when planning for other recreational developments, as picnicking is most generally associated with other recreational pursuits. In other words, additional picnic sites are not needed just to meet a specific number, as is indicated in SCORP.

WATER ACCESS

20. The most popular water based activities in Douglas County are fishing and boating.

21. There are 45 boat launch lanes in Douglas County.

22. Water skiing is limited in the most part to reservoirs. Waterbased activities and appropriate access areas will increase if additional reservoirs are constructed.

GOLFING

23. In Douglas County there are 5 golf courses offering 90 holes of play.

OFF ROAD VEHICLES (ORV's)

24. Motorized recreation related to trail activities is continuing to grow in popularity

25. There are two primary areas in Douglas County which provide areas for ORV use. These are the Oregon Dunes National Recreation Area and parts of the Umpqua National Forest. Three large dune areas, along with most of the beaches, are presently open to ORV use in the Dunes NRA.. In addition to the dunes areas, Douglas County has 16 miles of designated 4X4 motorized trails and 18 miles of designated motorized trials for ATV's and motorcycles. The Umpqua National Forest should be contacted to determine areas open for ORV use.

26. Douglas County has over 200 miles of groomed snowmobile trails in the Diamond Lake and Crater Lake areas. This number is higher than that listed in the SCORP.

27. Ongoing planning and coordination efforts between the Douglas County Planning and Parks and Recreation Departments and several Federal and State agencies are enhancing the ORV experience along the dunes at the Coast. A new staging area for the ORVs is in the construction phase. This will move the ORV users further south and will leave the dune area under the lighthouse unused by ORV users. The staging area is planned to offer camping and an ORV specific area. The dunes to the south of the staging area will remain open to ORV users.

BICYCLING (BIKE TRAILS)

28. Whether biking for recreation or functional purposes, it remains a popular form of transportation. Douglas County offers prime mountain biking on forest lands and road biking on county roads.

29. In order to promote safe alternate forms of transportation, biking lanes and wide shoulders should be encouraged.

30. A bicycle safety education plan, centering on adults as well as children, should be developed and should include bike operating skills, bike safety advice and information about the legal aspects of bike riding.

RECREATION TRAILS

31. Three types of trails are recognized in Douglas County. These are the scenic, recreation and connector trails. Three modes of recreation travel are also recognized as hiking, bicycle touring and horseback riding. The Oregon Coast Trail is a 370 mile hiking trail between the Columbia River and the California border. The Coast Range Trail is designed for both hikers and horses. This trail passes through Douglas County following the Cascade Mountain Range on its route from the border of Mexico north to the border of Canada. The Pacific Crest Trail, now designated a National Scenic Trail, is designed for both hikers and horses. The Rogue-Umpqua Divide Trail is a 31.4 mile trail along the crest separating the Umpqua and Rogue drainage basins. The North Umpqua Trail is a 79 mile trail that parallels the North Umpqua River. This trail is designed for hikers, mountain bikers and horses. The Umpqua National Forest and the Bureau of Land Management are two Federal agencies within Douglas County that provide and maintain an extensive and impressive trails system through the eastern portion of Douglas County. Various hiking opportunities are provided in the Oregon Dunes National Recreation Area. This Plan recognizes that additional equestrian facilities, such as an equestrian park and trail with parking facilities at the trail head, are needed. This plan recognizes that Douglas County is in a unique position to realize an almost perfect trail system within its borders. With this in mind, the maintenance of the existing trails and the development of the proposed trails throughout the County are encouraged.

CROSS COUNTRY SKIING

32. Cross country skiing in Douglas County is limited to higher elevations in the Cascades. There are 45 miles of designated Federally owned cross country ski trails in Douglas County. Further study of existing cross country ski trails is necessary in order to determine if projected needs will be met.

SNOW SKIING (DOWNHILL)

33. Approximately ten percent of Oregon's population participates in skiing activities. Projections forecast a 30 percent increase in skiing by 1990.

34. Snowcat Skiing is available at Mt. Bailey. It serves 1600-2000 skiers/boarders per season and numbers of users is on the rise. Snowcat Skiing at Mt. Bailey has been recognized nationally as a prime ski spot.

DISTRICT PARKS

35. There are 9 existing park areas in Douglas County which are classified as district parks. These park areas encompass approximately 605 acres.

36. SCORP has indicated that there should be provided by statewide standards 15 acres of district parks per every 1,000 population. Projected shortages in district park acres are 685 acres in 1980, 940 acres by 1990, and 1,150 acres by 2000. Potential expansion of existing district park acreage in the County is limited to two park areas: River Forks and Stanton.

37. Additional district park areas should be located in the population corridor of the County. (This area is shown on Plate Number 19.) Four units have been identified in the population corridor as planning areas for additional district parks. These areas are the Coastal, North, Central and South. The acreage allocated for district parks by 2000 throughout these units are: 130 additional acres in the Coastal area; 106 additional acres in the North area; 686 additional acres in the Central area, and 228 additional acres in the South area. Criteria regarding site selection of additional district park areas have been established. Optional methods to be

considered in acquiring additional park sites have been identified. By definition, the County assumes a major responsibility in obtaining and developing additional district park areas throughout the County.

REGIONAL PARKS

38. SCORP indicates that there is a need for 2,005 acres of this park type within the County. There is only one park area classified as a regional park in Douglas County (Swiftwater Park). This park encompasses 129 acres. In analyzing this indicated need, the void in this particular park classification is presently being met by park areas serving a greater magnitude than the regional park area, as defined by SCORP. Additional regional parks should be acquired if they are a unique area in itself, not just to meet this indicated need.

PUBLIC SCHOOLS

39. Potentially, public schools can contribute many valuable recreation resources. Increased cooperation between schools and various agencies in utilizing existing recreation facilities and in planning for additional facilities can greatly enhance the local supply of recreation resources.

SPECIALIZED ACTIVITIES

40. Archery ranges and other specialized activities will be considered on an individual basis in the context of this plan. A definite need by individuals or organizations must be expressed before needs can be identified.

PLAYGROUND EQUIPMENT

41. The planning for playgrounds and playground equipment is primarily influenced by both park types and local needs. Standards have not been established regarding playground(s)/equipment, nor is it suggested that such standards be established.

SCENIC AREAS IN DOUGLAS COUNTY

42. Two of the major tourist attractions in Douglas County are the Oregon Coast and the Umpqua National Forest. Sightseeing enroute is a major activity of tourists and the management of visual resources along travel routes can have a positive or negative effect on tourist income.

43. The Bureau of Land Management and the U.S. Forest Service have identified areas in Douglas County with outstanding scenic qualities. The County recognizes the importance of scenic areas in Douglas County, both for their tangible and intangible benefits, and encourages that these areas classified as outstanding be managed with these values in mind. The County recognizes the efforts of both the Bureau of Land Management and the U.S. Forest Service in the development of visual management plans for their respective lands and encourages these agencies to continue to place a positive value in the process of reviewing and updating these visual plans.

44. With respect to designated scenic areas, nonresource oriented land uses often conflict with the scenic quality. A "weighing and balancing" of economic, social, environmental and energy consequences of scenic areas versus conflicting land uses must be accomplished before a course of action can proceed with regards to the disposition of scenic areas.

HUNTING AND FISHING

45. Hunting and fishing opportunities in Douglas County provide many thousands of hours of recreational enjoyment. In addition, these two activities provide a significant contribution to the area's economy.

AGENCY COORDINATION

46. Coordination among agencies supplying recreation in Douglas County becomes more important as increasing costs and more limited funds make it more necessary than ever to maximize the benefit of each recreation dollar spent. Coordination of plans and programs of all agencies is necessary to avoid a duplication of facilities and services. Coordination of maintenance, police protection and fire protection among various agencies could save substantial sums of money.

47. The SCORP document, prepared by the Oregon Parks and Recreation Department, contains valuable information to help assess Douglas County's Park and Recreation needs. As assessment was on a regional basis when creating the SCORP, the projected needs are not Douglas County specific. To complicate matters, the County was divided into two large regions. The supply database proved to be helpful and can be used to determine park and recreation needs at a local level.

48. There is a need to improve the data base used and to reexamine and refine standards used to evaluate the recreation system.

49. The need for a statewide recreation coordination system has been recognized. Three alternative systems were discussed in this plan. More review and other potential solutions to this coordination system appear warranted. Local input is essential before a statewide system is implemented.

ADMINISTRATION

50. Inherent within the implementation of this plan is the fact that the workload for the Douglas County Park Department will increase and that additional personnel may be required as the process of plan implementation continues.

DESTINATION RESORTS

51. In October, 1984 a Goal 8 amendment was adopted which provided, at the county's choosing, for the siting of destination resorts. The 1987 Oregon Legislature adopted changes and additional criteria for the siting of destination resorts. (Revised 11/25/87)

52. Oregon Revised Statutes 197.455 contains exclusionary criteria to identify areas where Destination Resorts are not allowed. Those criteria are applied in the map titled "Areas Excluded From Destination Resort Siting Process": (Revised 11/29/95)

53. Oregon Revised Statutes 197.455 provides that a Destination Resort shall not be located in the following areas:

    (1) On a site with fifty or more contiguous acres of unique or prime farm land identified and mapped by the Natural Resource Conservation Service, or within three miles of a high value crop area unless the resort complies with the requirements of Finding 62 in which case the resort shall not be closer to a high value crop area than one-half mile for each 25 units of overnight lodging or fraction thereof.

    (2) On predominantly cubic foot site class 1 or 2 forest lands as determined by the State Forestry Department, which are not subject to an approved goal exception.

    (3) In any area designated as an Especially Sensitive Big game Habitat.

    (4) Within twenty-four air miles of an urban growth boundary with an existing population of one hundred thousand or more, unless residential uses are limited to those necessary for the staff and management of the resort.

54. Destination resorts may be developed as either large scale destination resorts or small scale destination resorts, as allowed by Oregon law. (Amended 11/29/95)

55. A complete NRCS soil survey of Unique and Prime Soils in Douglas County has not been performed. (Revised 11-12-86.)

56. High Value Crop farmlands are located near the communities of Umpqua, Melrose, Garden Valley, Winston, Green, Dillard, Tri-City, and Riddle. (Revised 11/12/86)

57. A total of two hundred and thirty square miles has been identified as high value crop farmland and buffer zone. (Revised 11-12-86.)

58. Douglas County has not identified any Goal 5, 3A protection sites which are sites where conflicting uses are prohibited on any resource site. (Revised 11-12-86.)

59. There are three sites in the County that have been designated by the ODFW as Especially Sensitive Big Game Habitat. These three sites total 8580 acres and are essential wintering sites for deer and elk. (Revised 11-12-86.)

60. A twenty-four mile perimeter around the Eugene-Springfield UGB infringes into the northern section of the County. (Revised 11/25/87)

PARK AND RECREATION POLICIES

INTENT

These policies are directed toward meeting the recreational needs of Douglas County. The intent is to provide recreation areas, facilities, and opportunities which will help to better human development and enrichment.

GOAL: To satisfy the recreational needs of the citizens of Douglas County and visitors, and to fulfill requirements set forth in Statewide Planning Goals 5 and 8.

POLICIES:

1. The County shall continue to provide cooperation with other appropriate agencies regarding the planning, acquisition and development of new recreation areas and facilities.

2. Inherent within this plan, the County shall attempt to satisfy existing and projected needs for additional park areas and related facilities throughout Douglas County.

3. The County shall evaluate lands located in flood plains and lands generally unsuitable for other purposes for possible recreational potential.

4. The County shall place a high priority on preserving prime recreation sites inside urban growth boundaries until such time as the sites are developed.

5. The County shall acquire additional appropriate lands to be held as open space and manage these lands in a manner that will allow park development as demand necessitates.

6. The County shall take an active role in promoting new recreation developments in specific areas provided in this plan and in supporting materials.

7. The County shall encourage active recreational programs in the County and cooperate with appropriate agencies in the establishment of such programs.

8. The County shall continue to evaluate existing facilities for possible modification of these facilities for handicapped persons and senior citizens. Also, the County shall continue to design all new facilities with appropriate standards which will meet the needs of handicapped persons and senior citizens.

9. The County shall continue to provide and maintain safe standards in their park and other recreational lands.

10. The County shall continue to show appropriate concern to adjacent land use when planning a park or recreational area. (Ex. - lighting, noise, traffic in developed residential neighborhoods.) Buffer areas or other modifications may be required in the planning process. Such buffer areas or other modifications as required shall be located on the land being proposed as the recreational area.

11. The County shall consider environmental quality with regard to recreation. Areas shall be developed to ensure a minimum damage to the environment, while still providing a recreational experience to the user.

12. The County shall not take an active role in the development of land set aside for park purposes in subdivisions. These park lands shall remain in public ownership until such time as a local improvement district or similar organization or governmental agency is formed or takes jurisdiction over such land, so as to administer the development and maintenance of such areas. Criteria for development of these parks shall relate directly to the needs of those living within the subdivision and the area immediately surrounding the same.

13. The County shall encourage the development of recreational facilities via private enterprise. In particular, tourist facilities and those facilities involving spectator and participant sporting events and those activities requiring a high level of supporting services and supplies are especially encouraged.

14. The County shall take an active role in promoting both the public and private recreation industry in Douglas County.

15. The County shall continue to provide Heritage Conservation and Recreation Service Funds and State Grant-In-Aid Funds to communities for their park department programs, when appropriate.

16. The County shall consider appropriate assistance to cities for development and maintenance of park areas and facilities.
17. The County shall encourage the implementation of a County wide bike trail system.

18. The County shall encourage points of public access to the County's rivers and streams. Assistance in the planning and developing of those access points shall be provided by the County, as necessary.

19. The County shall encourage the development of recreational facilities on public school lands and shall cooperate in the planning and developing of these school facilities with the appropriate agency involved in implementation.

20. The County shall continue to plan for and provide, if feasible, water based recreation on future impoundment projects developed in the County.

21. Whether developed by the private or public sector, Douglas County shall encourage and cooperate in the establishment of facilities and trails which satisfy identified equestrian needs.

22. The "County" encourages both public and private land owners to cooperate in their management plans in addressing scenic quality.

23. The County shall encourage the implementation of a mass transit system throughout the County, where feasible. This system should be designed to transport citizens of various population centers to particular recreation areas and facilities.

24. The County shall encourage the residents of Douglas County to form "car pools" when visiting various recreational areas within the County.

25. The County shall provide adequate information for the residents of Douglas County and the visitors to the County in order that they can more fully utilize the existing recreational areas and facilities.

26. The County shall conduct a usage survey of their park lands as necessary. Data obtained from this survey will be incorporated in this Element of the Comprehensive Plan. The results of this survey will be made available for public comment.

27. The County shall continue to encourage and seek public ideas and comments through the news media, public informational meetings, surveys, etc.

28. The County shall continue to evaluate the needs and suggestions of visitors to the County Park System, along with requests for recreational areas and facilities by various organizations and special interest groups.

29. Douglas County recognizes the efforts of the Oregon Recreation Trails Council through the Department of Transportation and will coordinate with the Trails Council or appropriate agencies in the evaluation, selection, and designation process of all recreation trails in Douglas County.

30. Douglas County will cooperate in the Goal 5 process with the State Department of Transportation in the assessment when a specific route has been prepared by the Oregon Recreation trails Council for the Coast Range Trails.

31. The Salmon Harbor Management Committee should evaluate the need for, and benefits of, adding additional RV dumping and marine pumping stations at Salmon Harbor.

32. The Douglas County Parks Department should consider the benefits of a relocated staging area, primitive campground, full service campground and day use areas on the recently stabilized dune area west of Salmon Harbor Drive and south of Half Moon Bay. This effort should incorporate a design concept that minimizes conflicts.

33. The Oregon Parks and Recreation Commission and Department have prepared a master plan for Umpqua Lighthouse State Park. That plan proposes land uses and management options for coastal recreation. The Umpqua Lighthouse State Parks Master Plan is adopted by reference as part of the Douglas County Comprehensive Plan and Coastal Resources Plan.

POLICY IMPLEMENTATION:

1. Inherent in the goal and related policies in this plan is that the Douglas County Park Department will be available to review and comment on all recreational plans developed by federal, state and local agencies in Douglas County for conformity with this plan.

2. The County shall as a part of the implementation process analyze all existing

County-owned park lands (both developed and undeveloped) to determine if

these lands can be further developed to meet existing and projected recreational needs in the County.

3. The County shall cooperate and encourage other governmental agencies with respect to this plan to study and evaluate, in their planning process, their existing recreational opportunities that they might be further developed in order to meet the needs stated herein.

4. A summary of the evaluating process current ly used regarding facilities for handicapped persons is in the Appendix to the Park and Recreation Element.

5. The provision of available funds and other appropriate assistance by the County shall be contingent on local plans conforming to the needs expressed in this plan.

6. The County shall provide assistance in formulating a bike trail system, where appropriate.

7. Provision of information concerning recreational areas and facilities can be a Countywide brochure or publication depicting the location of all recreational areas, etc., located in the County.

DESTINATION RESORTS

OBJECTIVE: To Provide, as appropriate, for the siting of necessary recreational facilities including destination resorts. (Revised 11-12-86)

POLICY:

1. Douglas County shall encourage and allow the development of destination resorts meeting the standards outlined in Oregon Revised Statutes 197.435 through 197.467. (Revised 11/29/95)

POLICY IMPLEMENTATION:

1. In conformance with the Destination Resort Siting process, Douglas County shall map and identify areas where destination resorts will be excluded. The official map identifying those areas is titled "Areas Excluded from Destination

Resort Siting Process" and is adopted as part of the Comprehensive Plan. (Revised 11/25/87)

2. Destination resorts shall be allowed in any unincorporated site that is not excluded by map or by ordinance. (Revised 11/12/86)

3. The Destination Resort Overlay (DR) shall apply to all areas not excluded from Destination Resort siting in the Comprehensive Plan. (Revised 11-29-95)

4. The Destination Resort overlay as applied by Policy Implementation 3 shall allow, as additional uses in the underlying zone, large scale destination resorts and small scale destination resorts according to the standards specified in the Land Use and Development Ordinance. (Added 11/29/95)

POPULATION

INTRODUCTORY SUMMARY

INTRODUCTION

Several factors influence population growth and settlement patterns. Among these factors are public services, natural resources, technology, attitudes, economy and physical development. Attitudes about housing types, recreation, transportation and quality of life, influence the type and amount of growth. In certain areas, attitudes may actually outweigh economic considerations in determining growth patterns.

Some of the County's population growth is due to the attitude of people wishing to take advantage of the perceived quality of life. This perceived quality of life, along with lower taxes, health services, recreation opportunities, makes Douglas County an attractive place to retire or pursue a less metropolitan way of life.

IMMIGRATION

The percentage of the County's growth due to immigration largely from metropolitan areas implies a changing attitude toward those more cosmopolitan values, possible increase in educational attainment, and outside the County sources of revenue. Also, this growth may encourage direct conflict with traditional agriculture and forestry lifestyles due to competition for land and indirectly through attitudes concerning recreation, wilderness, herbicides and common forest or agricultural practices.

Natural resources, such as the availability of water, have influenced settlement patterns in the past and will be a greater determinant in the future. Even today, County reports concerning water consumption indicate a deficit of water in many of the communities. Those most dramatically affected are located in the South Umpqua Basin. Without a method of meeting those demands, traditional settlement patterns may be altered.

PLANNING FOR THE FUTURE

More important for planning than the number of new people which will reside in the County is where they will live and how much land they will require. To ensure the enhancement of the quality of life in Douglas County, a rational "balanced growth" policy needs to be developed during the planning process. This balanced growth policy would encourage more efficient location of new development. This means directing development into areas where services, facilities and utilities already exist or can supply "cost effective" services. Growth needs to be directed away from natural hazard areas, away from valuable agricultural and forest lands or other open space use areas where such development would present adverse impacts or require the wasteful expenditure of public tax dollars.

Population increases and accompanying development must be anticipated and planned. If growth is not planned, problems may result such as: an over-allocation of resources (such as water); increased dependence on fossil fuels, especially for transportation (including school buses); and increased pressure to convert resource land to nonresource use.

In short, Douglas County can continue to expect a steady growth in population. If the growth is anticipated and completely planned, the increased needs of more people can be met in a positive fashion. It is more important to consider the implications of an increase in population than the population increase itself. By the year 2030 the population of Douglas County can be expected to total between 132,016 and 139,626 persons. Tables 10-1 and 10-2 summarize this projected growth.

TABLE 10-1. SUMMARY OF PROJECTION RESULTS (Growth Rate)

Table 10-1 Summary of Projections Results (Growth Rate)

Area	2000	1990-00 Annual Growth Rate	2010 *	2000-10 Annual Growth Rate	2030	2000-2030 Annual Growth Rate
COUNTY HIGH	100,399	0.61%	108,223	0.78%	139,626	1.30%
COUNTY LOW	100,399	0.61%	107,025	0.66%	132,016	1.05%
1990 Census	94,649	0.61%				
2000 Census	100,399					

* Note: The Center for Population Research and Census reported a population estimate for Douglas County for 2008 of 105,240 people.

TABLE 10-2. POPULATION PROJECTIONS BY SUB AREA.

	2000	2010		2030	
Subarea	Census	Low	High	Low	High
Coastal	6413	6836	6913	8433	8919
North	6178	6586	6659	8124	8592
Central	60806	64819	65545	79955	84564
South	27002	28784	29106	35505	37552
Total	100399	107025	108223	132016	139626

TABLE 10-3. 2000 POPULATION AND YEAR 2030 POPULATION PROJECTIONS.

Total Population Using County Projections

Sub Area	Class	2000 Pop	2030 Total	2000-2030	
Coastal	City	4,370	5,359	989	
	UGB (2)	67	88	21	
	UUA	385	565	180	
	Rural	1,591	2,910	1,319	
	Subtotal	**6,413**	**8,922**	**2,509**	**1.30%**
North	City	2,220	3,238	1,018	
	UGB (2)	224	326	102	
	UUA	0	0	0	
	Rural	3,734	5,442	1,708	
	Subtotal	**6,178**	**9,006**	**2,828**	**1.53%**
Central	City	32,440	52,994	20,554	
	UGB (2)	6,357	8,992	2,635	
	UUA	5,885	12,336	6,451	
	Rural(1)	16,124	10,236	(5,888)	
	Subtotal	**60,806**	**84,558**	**23,752**	**1.30%**
South	City	6,600	10,109	3,509	
	UGB (2)	3,532	5,067	1,535	
	UUA	0	0	0	
	Rural	16,870	22,369	5,499	
	Subtotal	**27,002**	**37,545**	**10,543**	**1.30%**
County Wide	City	45,630	71,700	26,070	1.90%
	UGB	10,180	14,473	4,293	1.41%
	UUA	6,270	12,901	6,631	3.53%
	Rural	38,319	40,552	2,233	0.19%
	Total	**100,399**	**139,626**	**39,227**	

(1) The Central Area contains the UUA of Glide, Green, Shady and Dillard. In addition it has the UGB of Oakland, Roseburg, Sutherlin and Winston. The Comprehensive Plan findings recognize that over time, growth will shift from rural to urban densities. The reduction in rural growth in the Central subarea is one example of that rural to urban shift.

(2) Urban Growth Boundaries (UGB) - The County has adopted an updated coordinated forecast for the Comprehensive Plan of each city. The coordinated forecast was applied to extend the 20 year forecast within city limits. The County high rate (1.29%) was applied to extend the 20 year forecast within in the urban growth area (outside city limits but inside UGB) and update each jurisdiction's 20 year forecast. A summary of this analysis is shown in Table 10-4. This process is consistent with the safe harbor found in OAR 660-024-0030(4)(a).

TABLE 10-4 City Population Forecast for incorporated area and urban growth area

City		2000	2010	2020	2030
Canyonville	City	1295	1791	2130	2534
	UGA	173	237	270	306
	UGB (Total)	1468	2028	2400	2840
Drain	City	1020	1102	1217	1344
	UGA	184	200	227	259
	UGB (Total)	1204	1302	1444	1603
Elkton	City	145	258	299	347
	UGA	13	23	26	30
	UGB (Total)	158	281	325	377
Glendale	City	860	974	1076	1189
	UGA	72	82	93	106
	UGB (Total)	932	1056	1169	1295
Myrtle Creek	City	3430	3720	4382	5085
	UGA	3272	3587	4077	4636
	UGB (Total)	6702	7307	8459	9721
Oakland	City	955	964	1065	1176
	UGA	150	152	173	197
	UGB (Total)	1105	1116	1238	1373
Reedsport	City	4370	4392	4851	5359
	UGA	67	67	77	87
	UGB (Total)	4437	4459	4928	5446
Riddle	City	1015	1066	1178	1301
	UGA	15	16	18	20
	UGB (Total)	1030	1082	1196	1321
Roseburg	City	20125	22093	26931	32829
	UGA	5676	6144	6985	7940
	UGB (Total)	25801	28237	33916	40769
Sutherlin	City	6720	8031	9320	10816
	UGA	264	314	357	406
	UGB (Total)	6984	8345	9677	11222
Winston	City	4640	6068	7042	8173
	UGA	267	348	395	449
	UGB (Total)	4907	6416	7437	8622

TABLE 10-4 City Population Forecast for incorporated area and urban growth area					
City		**2000**	**2010**	**2020**	**2030**
Yoncalla	City	1055	1149	1333	1547
	UGA	27	29	33	38
	UGB (Total)	1082	1178	1366	1585
Grand Totals	All Cities	45630	51608	60824	71700
	All UGA's	10180	11199	12731	14474
	All UGB's	55810	62807	73555	86174
County Total		100399	108223	119180	139626

CPRC Estimates used for each City during years 2001 to 2008. City coordinated rate used from 2009 to 2030
Some numbers reported in this summary table may differ slightly due to rounding.

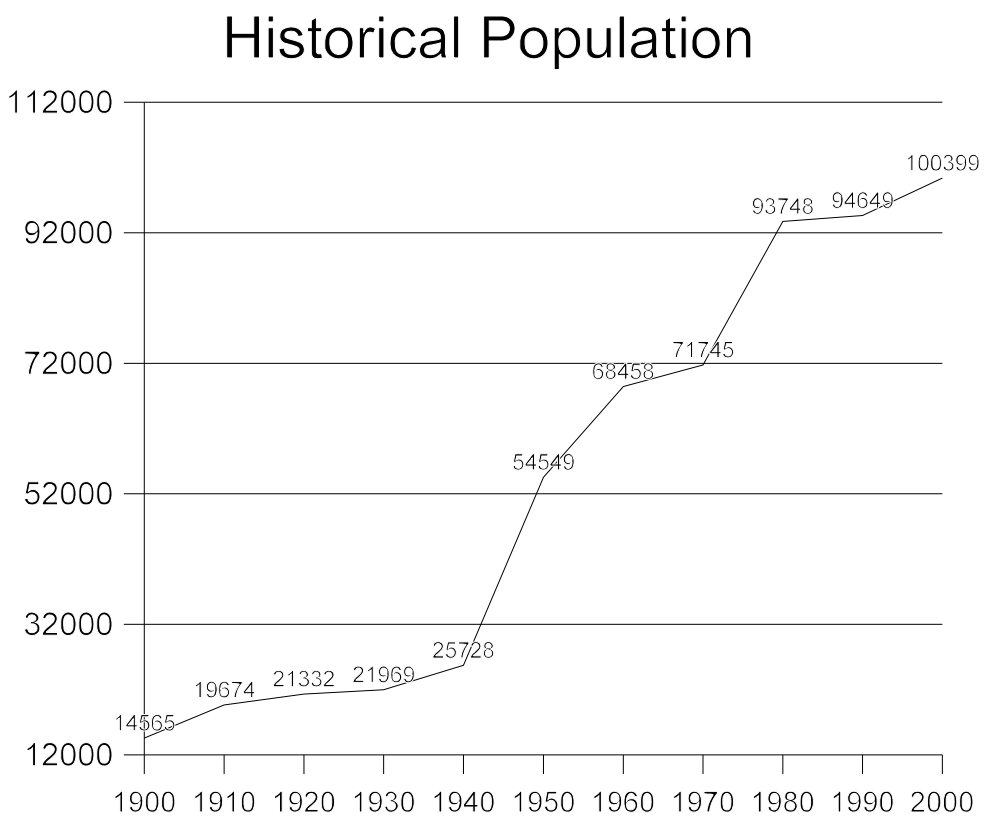
Information contained in the 1980 Census and information contained in city comprehensive plans regarding unincorporated housing within city urban growth boundaries (UGBs) indicate that the number of persons residing within city UGBs in 1980 was less than estimated by those plans. The cumulative total of the projections or estimates developed by the cities for their respective 1980 UGB populations was 48,565 persons. This figure is 5.9% higher than the 45,859 persons indicated by the 1980 census to be residing in these areas.

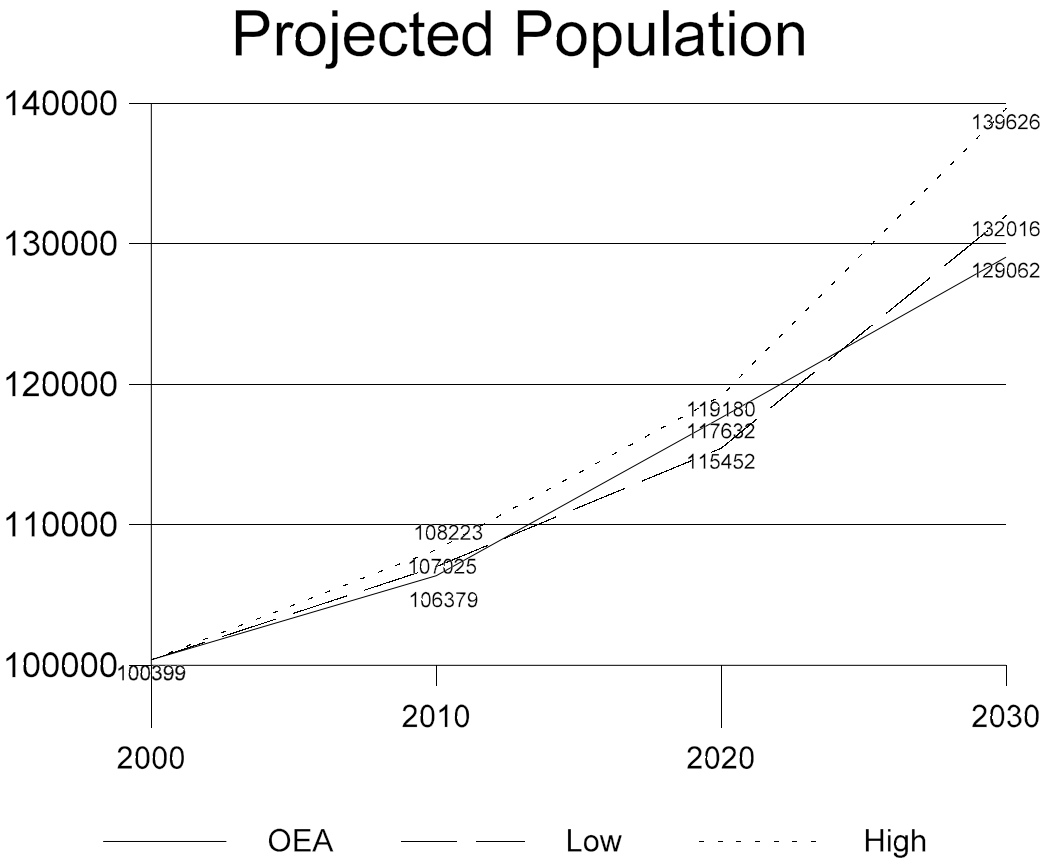
The 1990 Census indicated that the population of the cities was 39,811. The 2000 Census indicates that the population of the cities was 45,630. This relates to a county wide annual growth rate for cities of 1.9 percent from 2000 to 2030. The county wide annual growth rate for cities is above both the County forecasted high rate (1.3%) and low rate (1.05%) listed in prior versions (Table 1) of this element.

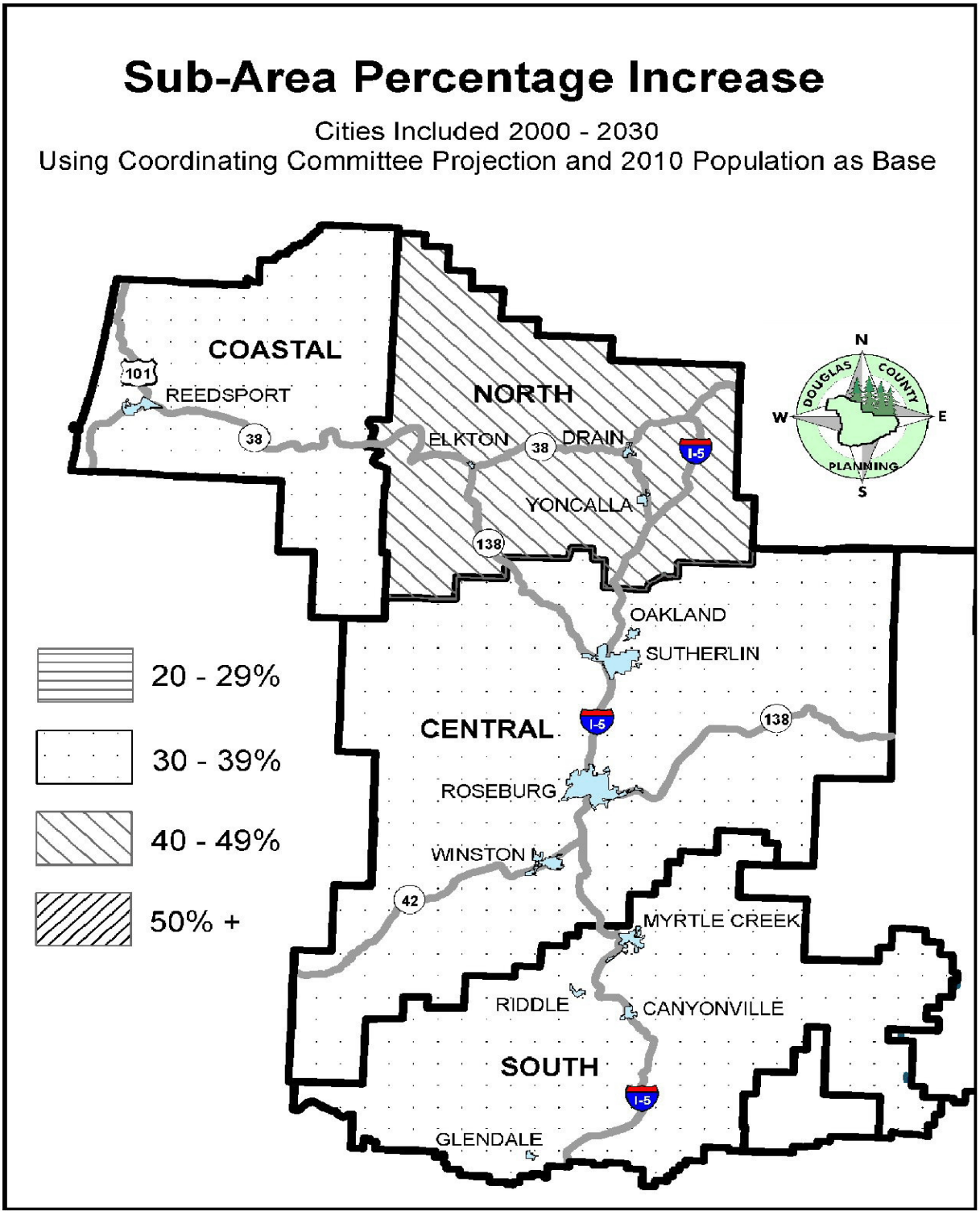
The high County projection for rural population in 1980 was 28,440 persons. This figure is 36% lower than the 38,559 persons indicated by the 1980 Census. The rural population for the 2000 census was 38,319 persons.

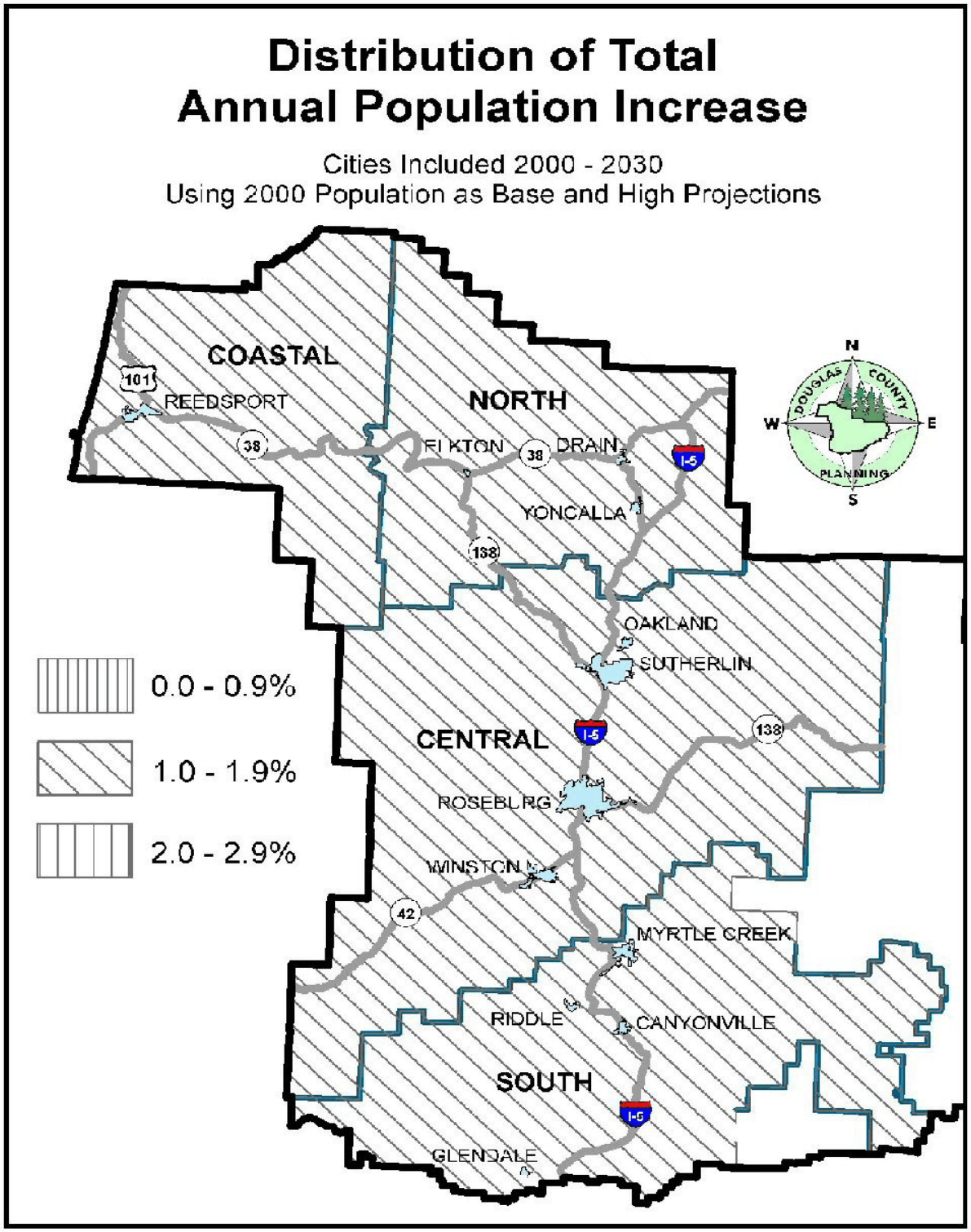
This overestimation of 1980 city UGB population and underestimate of 1980 rural population resulted in a overestimation of city UGB population and conversely underestimation of rural population in the same year.

The County formed a population coordination committee with the twelve cities in 1995. This committee was reformed in 2009 to update coordination efforts for the population forecast. The population figures in this plan were jointly adopted by the cities and County in advance of the Census publication and can only be modified by joint City-County plan amendment. Table 10-3 indicates that there has been a slow shift from rural areas to incorporated cities. In 1980, 41.6% of the population lived in cities. In 2030, it is projected that 52.1% of the population will reside in incorporated cities. This table also includes more realistic projections of rural housing growth based upon assumptions used in the County overall population projections.


Historical Population
112000
92000
72000
52000
32000
12000
1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000
14565
19674
21332
21969
25728
54549
68458
71745
93748
94649
100399


Projected Population
140000
130000
120000
110000
100000
2000
2010
2020
2030
100399
108223
107025
106379
119180
117632
115452
139626
132016
129062
OEA
Low
High


Sub-Area Percentage Increase
Cities Included 2000 - 2030
Using Coordinating Committee Projection and 2010 Population as Base
COASTAL
NORTH
CENTRAL
SOUTH
REEDSPORT
ELKTON
DRAIN
YONCALLA
OAKLAND
SUTHERLIN
ROSEBURG
WINSTON
MYRTLE CREEK
RIDDLE
CANYONVILLE
GLENDALE
101
38
138
42
I-5
N
W
E
S
DOUGLAS COUNTY PLANNING
20 - 29%
30 - 39%
40 - 49%
50% +


Distribution of Total
Annual Population Increase
Cities Included 2000 - 2030
Using 2000 Population as Base and High Projections
COASTAL
NORTH
CENTRAL
SOUTH
REEDSPORT
ELKTON
DRAIN
YONCALLA
OAKLAND
SUTHERLIN
ROSEBURG
WINSTON
MYRTLE CREEK
RIDDLE
CANYONVILLE
GLENDALE
101
38
138
42
I-5
N
W
E
S
DOUGLAS COUNTY PLANNING
0.0 - 0.9%
1.0 - 1.9%
2.0 - 2.9%

POPULATION ELEMENT FINDINGS

POPULATION GROWTH

1. Although somewhat erratic, the County and cities have experienced population growth during the period of 1950 through 2005. Overall the County population increased by 89 percent over this period.

2. Recent population growth has increased at a more rapid rate than economic growth in the County's basic industrial sector.

3. Historically, the unincorporated areas of the County have had a larger proportion of the population than the incorporated areas. However, this situation is anticipated to reverse over the next 20 years, with areas within city urban growth boundaries receiving up to 60% of the future County growth.

POPULATION CHARACTERISTICS

4. There has been an increase during the years of 1960 through 2000 in the upper (older) age categories of the population. During that period the percentage of the County population 65 years of age and older increased by 101% as compared with 65% for the state, overall.

5. The County has a lower percentage of population in the under 15 years category than the state (19% as compared with 20%).

6. The County population can basically be considered racially homogeneous with 97.3 percent of the population being classified in one race. The demographic of the County is the majority 93.9 percent, which is white. The largest minority population is Hispanic at 3.3 percent.

7. The County's residents have a lower percentage of college graduates than the state and nation as a whole (13.3 % versus 25.1%).

MIGRATION

8. Job opportunities are a prime factor in growth although other factors such as environment and perceived living quality can stimulate growth.

9. The County has had a high rate of in-migration during the period of 1970 to 1980 which accounted for 61 percent of the population growth. This trend was reversed during the period of 1980-1990 as shown by the lower population growth and an out-migration of 45%.

10. There has been a continued out-migration of young adults especially in the 20-24 year age group. In the period of 1970 to 1988 there was a 9.6% population reduction within this age group.

11. There has been a substantial in-migration of older adults increasing the over 65 years category. The county population increased by 2,451 people in the period of 1990-94. The

    over 65 age category accounted for 53.4% this population growth. This in-migration rate also includes other older adults and is not equally distributed in the age categories above 50 years of age.

GEOGRAPHICAL DISTRIBUTION

12. The major population concentration is located in the Sutherlin, Roseburg, Winston, Myrtle Creek corridor of the County.

13. The majority of the population is concentrated in areas with public water and/or sewer.

14. The County contains several urban unincorporated areas which currently have high growth rates.

15. Over 30% of the population is concentrated in the South Umpqua Basin and dependent on water from the South Umpqua River. If present trends continue, population growth pressure will persist in the Umpqua Basin.

16. Based on building permit activity during the years of 1974 to 1978 and the 1990 Census (Year structure built), the cities with the largest growth within the County are Roseburg, Winston, Sutherlin, and Myrtle Creek and the south county areas of Green, and Tri City.

17. The County projection anticipates an increase in population between 2000 and 2030 of 31,617 to 39,227 people based on the Douglas County projection and the projections of all 12 incorporated cities in Douglas County.

18. The trend of city urban growth boundaries receiving most of the new growth will continue.

19. If present trends continue, population growth pressure will persist in the South Umpqua Basin.

CITY COUNTY COORDINATION AND ANALYSIS

20. The 1995 Oregon Legislature adopted HB 2709. Section 7 of this bill codified as ORS 195.036 requires the County to establish and maintain "a population forecast for the entire area within its boundary for use in maintaining and updating comprehensive plans." Section 7 also requires the County "to coordinate the forecast with the local governments within its boundary."

21. In an effort to update the 1995 Population Element a Population Coordination Committee consisting of all 12 incorporated cities, Douglas County and URCOG was convened.

22. During the period of April 1996 and August 1996, the committee reviewed Douglas County Planning Department analysis of the existing model as updated from the 1990 census data. Following the acceptance of this analysis, the historical growth of each city was reviewed and a comparison to each Comprehensive Plan projection completed. A similar process was completed to update the forecast using 2000 census data.

23. This current update is based upon the 2000 census. Between 1995 and 2000 a lengthy process was conducted and included the coordinated input of Douglas County and each incorporated city as required by ORS 197.063, as well as that of the Department of Land Conservation and Development (DLCD) and the Office of Economic Analysis, as required by Statewide Planning Goal 2.

24. In 2005, the DLCD adopted a “safe harbor” (OAR 660-24-0030(4) for cities to use, if there is not a reasonably current county coordinated forecast to use, when considering updates

to their urban growth boundary. Pursuant to the rule, the coordinated forecast must be adopted by each city.

DEFINITIONS

1. "Labor force" is defined as people aged 16 and over that are currently working or actively seeking work and those not defined as "Not in the labor force."

2. "Not in the labor force" is defined as all persons in the civilian non institutional population who are neither employed or unemployed. This group includes discouraged workers, defined as persons not in the labor force who want and are available for a job and who have looked for work sometime in the past 12 months, but are not currently looking, because they believe there are no jobs available or there are none for which they would qualify.

MODEL FINDINGS

1. No data exist for Douglas County (or Oregon) that specifies how seniors are attached to the labor force.

2. The fastest growing segment of the aging population is the "old old" - people 85 years and older. These seniors are often frail or sick and in need of supportive services, such as home and community based health care.

3. Retired Seniors (over age 65 and not part of the work force: remaining 80% in this age group) are a growing portion of the population. This group requires increased services such as recreation, medical support and specialized housing.

4. The median household size for families under 55 is 2.6. The medium household size assumed by the model for families over 55 is 1.5 This recognizes that seniors typically have smaller households than younger age cohorts.

5. Douglas County does not have a large high technology industry. The improved economic conditions in other areas of the country (most notably California) will slow in-migration to Oregon. In-migration to Douglas County will not be impacted by the change in the high-tech industry. Lower cost of living and lifestyle choices will attract retiree's and families to Douglas County.

6. The wood products industry provides 63% of the support for local employment. The rate exceeds all counties in Oregon and is higher than the state. The industry has survived the economic recession of the 1980's and the environmental challenges of the 1990's. The industry has a clear view of the hurdles they face in the future, but are also counting on comparative advantages to help overcome them: highly productive timberland and a critical mass of knowledge, ability, technical support, and infrastructure. Oregon Timberlands could support a sustainable annual harvest of at least 5 billion board feet. The potential annual harvest will likely be below sustainable levels, probable not to exceed 4.5 billion board feet.

7. Employment in the wood products industry has declined since the late 1970's. Despite these reductions, employment is growing for the state as a whole as new companies in new industries are diversifying manufacturing and services. The wood products industry is also diversifying. New wood processing innovations are creating markets for species, grades and sizes of trees that were considered non commercial in the past. A host of wood products can now be engineered to desired strength and size specifications by laminating, finger jointing, and edge-gluing small pieces of wood. The change in the basic wood product industry creates new job opportunities in the manufacturing sector. This portion of

the County economy will continue to expand.

8. The forest is managed by differing National Forest Districts, Bureau of Land Management, Forest Industry and non-industrial private timber holdings. This creates overlapping regulations. Federal regulations address forest planning and management. State regulations (Forest Practices Act) regulates forest practices on non-federal lands.

9. Transportation Firms will increase as trucking companies look to Douglas County's central location along the I-5 corridor. Generally, employment growth in the I-5 corridor area will remain strong.

10. Tourism will play an expanding role in Douglas County's future, specifically hotel/motel, restaurant and bar, retail store sales, and recreation and amusement related businesses.

11. Douglas County specialty horticulture (greenhouse and nursery crops, including Christmas trees) will increase agricultural employment. With new trade opportunities opening on the pacific rim, the potential exists for further increases.

12. Other trends such as more out-sourcing by businesses, increased consumption of health and personal services by households in general, and the increased number of retirement aged persons in the county are also pushing employment up in the service sector.

13. Business and professional, health and social services will lead non-manufacturing job creation.

14. Increased population should also lead to increased demand for education and general government services. Political and fiscal pressures may limit job growth in the public sector.

15. The OEA population projection is not policy neutral, objective or scientific. Rather, it is a reasoned inference based upon limited data, debatable policy premises, and debatable methodological premises. The same is true of the county's projection. The main difference is that Douglas County's projection adds a level of specificity to the information used by the State. It also recognizes that the state land use policy is not evenhanded. It can enhance growth in one part of the state by constraining in others.

MODEL ASSUMPTIONS

NOTE: Due to the changes in assumptions between the OEA model and the Douglas County model, no relationship exists between the OEA results and Douglas County results. This comment does not address the quality of the results, only that the differences result from changes in basic policy assumptions.

1. The aging of the "Baby Boomer" generation will cause a growth spurt of this age group (between 2010 and 2020.) By 2020, the state of Oregon will have experienced a 70% or more increase in their numbers of elderly. The numbers of elderly in Douglas County's is expected to increase at a rate significantly higher than the rate experienced by the state.

2. Services, retail trade and construction industries will continue to grow. Transfers from the ranks of unemployed and new entrants into the work force will reduce this number by 10%.

3. In Oregon, 72% of families are dual income (both parents work). This trend is similar in Douglas County (70%).

4. School enrollment has been low growth in years 1995 to 2009, low to moderate growth in years 2005 to 2030. This projection is based on the growth experienced in the school districts, the growth in service industries and continued stabilization in the wood products industry.

5. The environmental regulatory setting at the federal, state and local level will create an expanding need for a government presence in Douglas County. Moderate growth in the government sector is anticipated.

6. In Douglas County, between 1985 and 1990, employment increased at an average rate of 2.9% per year. Between 1992 and 1994, employment increased at an average rate of 2.3%. The forecasted rate for Douglas County is a 1.1 percent average annual increase from 2008 to 2015. The assumed rate of employment between 2016 and 2030, will over time increase toward the State average annual increase in employment.

7. Douglas County ranks twelfth of all counties in Oregon in terms of total farm sales. This ranking is not expected to change.

POPULATION POLICIES

GOAL: To accommodate the County's anticipated growth while promoting wise land use and conservation of natural resources.

OBJECTIVE A: Develop a land use plan that provides for orderly growth which reduces the cost of essential services while preserving the basic elements of our environment.

POLICIES:

1. Promote population growth to locate in established service areas.

2. Promote the accommodation of growth within areas where it will have minimal negative impacts on the County's environment and natural resources.

3. Utilize current vacant land found between developments or within committed lands.

4. Direct new urban growth within Douglas County to existing urban areas where underutilized public or semipublic facilities exist or utility service investments have already been made.

5. Promote alternatives to Douglas County's present linear sprawling development patterns, and also encourage development of land with less resource value.

6. Coordinate planning efforts of local governments and special districts to maximize efficiency of public facilities, and have land use actions reflect the goals of the plan.

7. The County shall periodically, and in cooperation with each city in Douglas County, reassess population projections and make appropriate adjustments. (Revised 11-30-88)

SIGNIFICANCE OF THE POPULATION ELEMENT

The adoption of the population element formally establishes a target population as a basis for comprehensive planning in Douglas County. This target population will be used to establish public needs for housing, rural lands, urban growth boundaries, transportation, public facilities and other key elements of the plan. The County has adopted and is maintaining a coordinated 20 year population forecast for the county and for each urban area within the county consistent with statutory requirements for such forecasts under ORS 195.025 and 195.036 (and as specified in OAR 660-24-0030.) Also, the subarea projections will anchor the process for planning to satisfy needs based on the anticipated geographical distribution of the population.

Future projects and development must be consistent with the target population and policies set forth in the population element.

Inconsistent proposals will require substantial justification through the plan amendment process to identify and establish comprehensive planning needs beyond those recognized through the use of the target population projection.

ECONOMIC

INTRODUCTORY SUMMARY

THE PURPOSE OF THE ECONOMIC ELEMENT

Economy of the State, Statewide Planning Goal 9, requires consideration of the economy by all cities and counties in the development of their comprehensive plans. The overall purpose of Goal 9 is to diversify and improve the local economy and ultimately the economy of the State. In addressing Goal 9, local jurisdictions are made aware of their region's economic problems and are then required to initiate actions, where possible, directed at resolving those problems.

WHAT DOES GOAL 9 REQUIRE?

Oregon Statewide Planning Goal 9 requires consideration of the economy by all cities and counties in the development of their comprehensive plans. The overall purpose of Goal 9 is to diversify and improve the local economy and ultimately the economy of the State. In addressing Goal 9, local jurisdictions are made aware of their region's economic problems and are then required to initiate actions, where possible, directed at resolving those problems.

GOAL 9
OAR 660-015-0000(9) - "To provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon's citizens."

Comprehensive plans and policies shall contribute to a stable and healthy economy in all regions of the state. Such plans shall be based on inventories of areas suitable for increased economic growth and activity after taking into consideration the health of the current economic base; materials and energy availability and cost; labor market factors; educational and technical training programs; availability of key public facilities; necessary support facilities; current market forces; location relative to markets; availability of renewable and non-renewable resources; availability of land; and pollution control requirements.

Comprehensive plans for urban areas shall:

1. Include an analysis of the community's economic patterns, potentialities, strengths, and deficiencies as they relate to state and national trends;

2. Contain policies concerning the economic development opportunities in the community;

3. Provide for at least an adequate supply of sites of suitable sizes, types, locations, and service levels for a variety of industrial and commercial uses consistent with plan policies;

4. Limit uses on or near sites zoned for specific industrial and commercial uses to those which are compatible with proposed uses.

In accordance with ORS 197.180 and Goal 2, state agencies that issue permits affecting land use shall identify in their coordination programs how they will coordinate permit issuance with other state agencies, cities and counties.

GUIDELINES
A. PLANNING

1. A principal determinant in planning for major industrial and commercial developments should be the comparative advantage of the region within which the developments would be located. Comparative advantage industries are those economic activities which represent the most efficient use of resources, relative to other geographic areas.

2. The economic development projections and the comprehensive plan which is drawn from the projections should take into account the availability of the necessary natural resources to support the expanded industrial development and associated populations. The plan should also take into account the social, environmental, energy, and economic impacts upon the resident population.

3. Plans should designate the type and level of public facilities and services appropriate to

support the degree of economic development being proposed.

4. Plans should strongly emphasize the expansion of and increased productivity from existing industries and firms as a means to strengthen local and regional economic development.

5. Plans directed toward diversification and improvement of the economy of the planning area should consider as a major determinant, the carrying capacity of the air, land and water resources of the planning area. The land conservation and development actions provided for by such plans
should not exceed the carrying capacity of such resources.

B. IMPLEMENTATION

1. Plans should take into account methods and devices for overcoming certain regional conditions and deficiencies for implementing this goal, including but not limited to

   (1) tax incentives and disincentives;

   (2) land use controls and ordinances;

   (3) preferential assessments;

   (4) capital improvement programming; and

   (5) fee and less-than-fee acquisition techniques.

2. Plans should provide for a detailed management program to assign respective implementation roles and responsibilities to those private and governmental bodies which operate in the planning area and have interests in carrying out this goal and in supporting and coordinating regional and local economic plans and programs.

These criteria are addressed in this "Economic Element" update (September 2008), in Douglas County's Industrial Sites Inventories, in the State of Oregon Industrial Site Certifications for sites in Douglas County, in Douglas County's Commercial Lands Inventories and in the Land Use and Development Ordinance for Douglas County. The adopted findings, policies and supporting document of the Economic Element describes the County's economy as it relates to local, state, and national trends. Policies of the Element address economic opportunities present in the County. Douglas County's Industrial Sites Inventories, the State of Oregon Industrial Site Certifications for sites in Douglas County, and Douglas County's Commercial Lands Inventories identify a supply of available industrial and commercial sites. The Land Use and Development Ordinance for Douglas County and the County's Zoning Atlas provide for protection from incompatible uses near specific designated commercial and industrial sites.

The Economic Element together with the Commercial and Industrial Sites Inventories, the Douglas County Zoning Atlas, the Land Use and Development Ordinance and the Douglas County Comprehensive Plan fulfill the requirements of ORS 197.712.

WHAT IS INCLUDED IN THE ECONOMIC ELEMENT?

The Economic Element is a part of the Douglas County Comprehensive Plan. It is designed to both meet the needs of Douglas County residents and to address the Statewide Planning Goal 9 - Economic Development.

The following are the three parts to this Economic Element.

1.) DESCRIPTION OF DOUGLAS COUNTY'S ECONOMY

The first part of this element describes Douglas County's economy, and compares it to state and national trends. The description includes Douglas County's unique economic environment and location. The description leads to the identification of specific issues or problems that are currently affecting our economy or may affect our economy in the future.

2.) FINDINGS FOR THE COMPREHENSIVE PLAN

Economic qualities, information, issues, opportunities, and problems facing the County are summarized and presented as a series of statements.

3.) POLICIES FOR THE COMPREHENSIVE PLAN

Policies are presented which define the County's Public Policy on economic issues and indicate a course of action that is intended to help the local economy. Economic polices directly affect land use (i.e. commercial and industrial lands) and are also written into the Douglas County Comprehensive Plan.

DESCRIPTION OF DOUGLAS COUNTY'S ECONOMY

This Economic Element begins by describing the Basic and Non-basic Industries of the County. It continues with an analysis of and a discussion about other Economic Indicators including the County's Population and Labor Force. Finally, Industrial Lands are described as growth opportunities for the economy.

BASIC SECTOR INDUSTRIES IN DOUGLAS COUNTY

LUMBER AND WOOD PRODUCTS INDUSTRY

"In 2007, over 25% of the work force worked in the Lumber and Wood Products Industry".

Dominating Douglas County's economy is the lumber and wood products industry which employs over 25 percent of the work force. The lumber and wood products industry is the main engine of Douglas County's economy. Douglas County is one of the leading suppliers of timber in the state. Fir, pine, and hemlock forests cover 81 percent (4,120 square miles) of the County's mountains, hills and valleys. This area is roughly equal to that of the state of Connecticut. County forested lands contain a greater amount of timber than that found in 44 of the 50 states. The largest stands of old growth timber in the world are located in the Umpqua Valley. The County, Oregon, and the Nation depend on these forests for jobs and building materials.

The majority of forested and commercial timber lands in Douglas County are publicly owned. The Bureau of Land Management (BLM) and the U.S. Forest Service manage 63 percent of the County's commercial sawtimber (timber suitable for cutting into lumber). Private timber companies account for 30 percent of the commercial sawtimber inventory in the County. The remaining commercial sawtimber (seven percent) is owned by the State of Oregon and numerous small woodlot owners.

The County's vast Douglas fir, pine, and hemlock forests are the backbone of the local lumber and wood products industry. Processing of lumber and specialty wood products are a basic part of the County's economy. The lumber and wood products industry employs more workers, produces a greater payroll, and supports a greater number of businesses than any other single industry in the County. Most of the Industry's products are exported to markets in the United States, Europe, Asia, and Latin America. This draws income to the County and sustains industry workers, as well as many of the County's other businesses.

Roseburg Forest Products, located in Douglas County, employs roughly 3,100 people. Of the approximately 100 Oregon manufacturers employing 250-499 people, several are located in Douglas County: All Native Hardwoods, C&D Lumber, D. R. Johnson Lumber, Douglas County Forest Products, Glide Lumber, Herbert Lumber, Keller Lumber, Murphy Plywood, Nordic Veneer, Roseburg Forest Products, Sun Studs, and the Swanson Group. These companies typically have sales over $5 million, and all are lumber and wood products related.

Both Roseburg Forest Products and D.R. Johnson Lumber rank within the State's top 100 largest, privately-held companies in terms of revenue. Roseburg Forest Products is the number one, privately-held revenue producer in the State.

When taking into account all other parts of the economy that operate in conjunction with, or because of the lumber and wood products industry, nearly 70 percent of the County's economy is dependent on this basic industry.

AGRICULTURE

"In 2007, agricultural sales in Douglas County totaled $ 81 million".

Agriculture has always been an important part of Douglas County's economy. Hillside pastures and cultivated valleys of the Umpqua support cattle and sheep ranching, hay and grain production, and orchard and vegetable farming. Grazing activities occupy nine percent of the County's land area. Orchards, grains, and row crops are grown on another two percent. Douglas County is the second leading sheep producer in Oregon, and is the leading cattle producer in western Oregon. Overall livestock and field crops remain the most important agricultural products in the County's economy. Livestock sold in Douglas County in 2006 grossed $23.2 million. The gross income for sheep in Douglas County was 2.29 million dollars and 20.9

million dollars for cattle. The market for agricultural products fluctuates considerably resulting in wide variations in market prices received for locally grown products. County agricultural production (based on gross farm sales) accounts for approximately two percent of the total state output.

The first pioneers settling in Douglas County were predominantly ranchers and farmers. Trails and crude wagon roads were their only routes to market. Their primary products were cattle that could be driven to market, and grains or cured meats that could be sacked and hauled by pack animal or wagon.

The orchard industry blossomed in the 1890's. Prune, apple, and pear orchards were planted in the valley bottoms. Initially, fruit was sold fresh in nearby areas. Later, many orchardists constructed their own fruit driers, as did enterprising shippers. Prunes, the major crop, were dried, sacked and shipped in bulk. Douglas County was a major supplier of dried prunes to regional, national and international markets until the mid 1930's.

Today, wine grapes are the largest fruit crop in Douglas County. Wine grapes have quadrupled in the State since 1989. The soil and gentle climate of the interior Umpqua Valley help to produce some of the finest wine grapes in Oregon. In 1965 the first commercial vineyard in Oregon, Hillcrest Vineyard, was planted west of Roseburg. Many other vineyards have since been planted in the interior valley. Nine local wineries, including Abacela Winery, Champagne Creek Cellars, De Nino Umpqua River Estate Winery, Girardet Wine Cellar, Henry Estate Winery, Hillcrest Vineyard, La Garza Cellars & Gourmet Kitchen Winery, Melrose Vineyards , and Reustle Vineyards and Winery, produce award winning varietal wines. Each winery has a tasting room that is open to the public. As of 2008, there were sixteen wineries in Douglas County.

TOURISM

Tourism brings wealth to the County from visitors who vacation in Douglas County and from visitors who are "just passing through" on the major highways. Millions of dollars are brought to and spent in Douglas County each year. It is estimated that visitors spend over $40 million dollars each year in Douglas County. Tourism plays a significant role in the coastal economy and tourism is increasing each year. Tourism has economic potential in Douglas County because of its clean air, clean water, and the preponderance of natural, scenic and unspoiled settings. The Cow Creek Band of the Umpqua Tribe of Indians own and operate the Seven Feathers Casino in Canyonville, which is also a major tourist attraction.

Interstate-5 stretches across Douglas County for 100 miles, north to south through the center of Douglas County. This is nearly one-third of I-5's total mileage in the State. I-5 and its connecting routes (State Highways 38, 42 and 138; and, County Road 1) provide ample access and exposure to the Umpqua Valley's tourist areas. Destination points such as the Oregon Dunes National Recreation Area, Salmon Harbor, Wildlife Safari, Crater Lake National Park, and the many points in between, are natural attractions for tourists. Tourism in the State of Oregon is considered the third largest industry. It is a growing industry in the Umpqua Valley.

COMMERCIAL FISHERIES

The fishing industry of coastal Douglas County has always played an important role in the local economy. A recent decline in the fishing industry, due to government regulations has resulted in a decrease of coastal tourism. The closure of nearly all ocean salmon fishing in 2008, is the biggest hit to Oregon's coastal fishing in at least 15 years. Salmon are largely off limits for charter operators, and for sport anglers who bring their boats to the coast by the thousands, pumping millions into local businesses, from motels to taverns to tackle shops. All told, the state projects $22 million in losses to businesses that support recreational fishing, most in coastal towns like Winchester Bay. And that's on top of the statewide $23 million in projected commercial fishing losses.

AGGREGATE AND MINERAL PRODUCTION

"Mining employs about one percent of the County's wage and salary workers."

Aggregate and mineral production are a major basic industry in Douglas County due to the Interstate 5 highway corridor running north to south in central Douglas County, as well as the east west highway system. Mining employs about one percent of the County's wage and salary workers.

Minerals of the Umpqua Valley are abundant and provide ample amounts of ore and building materials. The abundance of minerals is due primarily to the close proximity and convergence of the four geologic provinces within the County. Mining and mineral processing provide a number of job opportunities for the people of Douglas County.

Gold was the first important mineral found in the Umpqua Valley. Its discovery in southern Oregon in 1852

drew newly settled pioneers away from their land claims. The prospect of gold encouraged men to push deep into the valleys of the Umpqua. Gold was at first panned from streams; later it was blasted from placer deposits with high pressure jets of water. Placer mining exposed gold-bearing gravel which was then washed into sluice boxes and trapped. Amateur gold miners still search gravels for nuggets and dust in Cow Creek and other small streams.

Hard rock mining of silver, copper, mercury and nickel have also been important to the County's economy. Depending upon the world ferronickel market, nickel mining and smelting have played a role in industrial employment in Douglas County.

Sand and gravel is dredged or scooped from major rivers and streams in the Umpqua Valley. The most important deposits are located in the central valley. A continuing supply of sand and gravel is necessary to accommodate present and future construction demands.

The Klamath Mountains geologic province underlies the south central portion of the County. Of the four provinces it possesses the greatest variety of minerals including chromite, copper, gold, nickel, platinum, silver and zinc.

Other industrial and nonmetallic ores such as asbestos, barite, building stone, clay, crushed rock, gravel, limestone, mica, olivine, sand, semiprecious gemstones, and talc are tucked in the folds of the Klamath Mountains Province. However, not all of these ores are currently mined. The relatively low market price of refined metals is the factor most limiting to production.

From the mid 1950's, the Hanna Nickel Company operated a mine and smelter capable of producing over 12,500 tons of ferronickel annually. This nickel operation, located in Riddle, was a major employer in southern Douglas County. Hanna closed its operations in 1986, due to unfavorable world market conditions. In 1989, the Glenbrook Nickel Company was formed to rebuild the nickel smelter. The Glenbrook Nickel Company continued operating for an additional ten years closing its operations in April 1998. Use of low-grade stockpile of coarse ore or importing high-grade ore from the South Pacific are options for future operations. Business choices and the world nickel market will be major factors in any decisions to reactivate mining.

The Coast Range Province has a lesser variety of minerals but has been important in mercury mining. Douglas County leads Oregon in the total amount of mercury mined. The most abundant deposits of mercury ore are found along the eastern edge of the Coast Range Province near Sutherlin. The Bonanza mine, closed in 1961, was the most productive in the state and produced about 97 percent of the total mercury output in the County.

The Coast Range Province also yields small amounts of sandstone and gold. However, sand and gravel, dredged from the Lower Umpqua River, is now the most valued mineral in the Province.

The Western Cascades Province possesses a few deposits of antimony, cinnabar, copper, gold, silica, and silver. The mineral of greatest economic importance in the province has been silica, due to its use in the production of ferronickel. Quartz Mountain is the principal source of silica.

The High Cascade Province contains the least variety of important minerals. Volcanic minerals are prominent in the High Cascades and are used mainly for road construction.

NON-BASIC INDUSTRIES IN DOUGLAS COUNTY

TRADE AND SERVICE INDUSTRIES

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. It is also the sector that sells to or provides services to tourists. Trade and service industries are centered in Roseburg with secondary centers in the smaller cities. Roseburg's trade area encompasses a buying population of about 60,000 people. The retail trade sector employs the second largest number of workers, produces the third largest annual payroll, and fosters the greatest number of businesses in Douglas County. The Services Industry is the third greatest employer and fosters the second largest number of businesses in the County. Retail trade and service businesses benefit a large hinterland and provide direct support to the tourist industry.

CONSTRUCTION INDUSTRY

"In 2005, the average home sales price was approximately $195,000 in the Umpqua Valley".

Not unlike other parts of the nation, housing construction in Douglas County is strongly influenced by population trends, national money markets, and prevailing interest rates. Other local conditions such as the increasing use of manufactured housing also has an effect in the construction industry. In 2000, there were 43,284 dwellings in the Umpqua Valley. Homes built between 1990 and 2000 make up 11.5 percent of that total. A major increase in local housing construction occurred between 1950 and 1960. This corresponds to the post World War II boom in the lumber and wood products industry. About 71.7 percent of the dwellings in Douglas County were occupied by owners in 2000. Renters resided in 28 percent of the dwellings. The vacancy rate was about 7.6 percent.

Over 50 percent of all dwellings in the Umpqua Valley are located outside of cities. A majority of the County's future housing, however, is expected to be built in urbanized areas. An additional 19,378 dwellings will be needed from 2001 to the year 2020 to house Douglas County's projected population.

A wide range of housing opportunity exists in Douglas County. The sale and rental markets offer a choice of housing ranging from antique cottages to new mansions. In 2002, the average selling price of a single family home in the Umpqua Valley was estimated at $104,800 with the national average being $156, 200.

TRANSPORTATION

The employment levels in this sector have been relatively stable in comparison to other services. Future employment should keep pace with population increases; although, losses in basic employment adversely affect this sector. Douglas County has a fine network of public highways and roads. This road system is maintained by federal, state and local governments. Roads reach into the deep forests, to the beaches, and to communities and regions beyond the Umpqua Valley. Roads parallel the rivers and streams in narrow valleys and branch out in the wide interior valleys.

The heaviest traveled routes are Interstate-5 and the state highways. Interstate-5, part of the nationwide interstate freeway system, runs north and south through the Umpqua Valley's interior. In 2002, the average daily traffic on I-5 at Mile Post 129.75 was 31, 532. Interstate-5 runs the full length of the West Coast from Canada to Mexico. It is a four lane, high-speed route through Douglas County. By freeway, Portland is a 3.5 hour trip from the center of Douglas County. Seattle is a comfortable seven hour ride from Roseburg and San Francisco is about nine hours away.

State Highway 38 and 138 run from the ocean beaches to the 7,000 foot elevation at the Umpqua Valley's eastern divide which are entirely within Douglas County. Other State highways parallel the Intestate or the east-west route. Running parallel to the coast, U.S. Highway 101 goes north and south through Gardiner, Reedsport, and Winchester Bay.

Intersecting the Interstate and State Highways are paved County roads. Douglas County has one of the finest county road systems in Oregon. Many of the roads were constructed to haul logs from the mountains to the mill. County roads access thousands of acres of forested federal and state lands open to the public. The roads also provide

comfortable access to rural communities throughout the County. Revenues derived from federal timber lands have helped pay for much of the County road system.

Bus Service to the major cities of Douglas County are served by Greyhound Bus Line providing both express and local service four times a day to cities north and south.

Umpqua Transit serves Central Douglas County (Oakland, Roseburg, Sutherlin, Winston, and Umpqua Community College) weekdays.
Air Service is via two airports in Douglas County. Neither are serviced by commercial air carriers at this time. Connections for commercial flights are made in Eugene, Medford, and North Bend. The Roseburg Regional Airport is the most central. It is a general use airfield with a fixed base operator, major repair facilities, fuels, charter service and plane rentals. The 4,600 foot paved runway is lighted and has instrument landing facilities. About 120 aircraft are based at the airport.

Myrtle Creek Municipal Airport is located along Interstate-5 about in Myrtle Creek. The paved runway spans 2,600 feet. About 22 aircraft are based at the site; hangars are available.

There are numerous other landing strips in the Umpqua Valley. These private strips are near Dillard, Roseburg, Wilbur, and Yoncalla. At the eastern edge of the County is the Toketee Airstrip which is located on U.S. Forest Service land.

Rail Transportation is provided via the Central Oregon & Pacific Railroad (CORP). The Central Oregon & Pacific Railroad operates a total of 448 miles in southwestern Oregon and northern California, and is headquartered in Roseburg, OR, with crew points at Medford, Roseburg, Eugene and Coos Bay, OR. The railroad also owns and operates a locomotive repair facility in Eugene, OR.

The Central Oregon & Pacific Railroad operates seven days a week, providing service to over 70 customers at more than 100 locations. Forest products of all types are the major commodities handled by the railroad. From its conception, the Central Oregon & Pacific Railroad's goal has been to provide a flexibility of service that is necessary to enhance its customers' business success.

The Central Oregon & Pacific Railroad interchanges freight with Union Pacific Railroad at Eugene and Springfield Jct., OR, and Black Butte, CA; the White City Terminal Railway at White City, OR; and the Yreka Western Railroad at Montague, CA.

Water Transportation is also available on the lower 27 miles of the Umpqua River where the water is commercially navigable. The Port of Umpqua ships the third largest tonnage of all Oregon Coast ports. Most of the tonnage is sand and gravel. Port facilities include Salmon Harbor at Winchester Bay and docking facilities at Reedsport, Gardiner, and Bolon Island. Salmon Harbor is an excellent small-boat basin consisting of public docks, commercial docks, and small-boat repair and service facilities. Salmon Harbor's new state of the art marine fuel dock is located in the west boat basin and on the recently constructed Port Dock. The sheltered harbor is situated within two miles of the mouth of the Umpqua River.

UTILITIES

Electrical power in the Douglas County is provided by Central Lincoln Peoples Utility District, Douglas Electric Co-Operative Incorporated, and Pacific Power and Light.

Telephone service is provided to the most remote communities of the Umpqua Valley. Aerial and underground service can be obtained from five telephone companies. These companies are AT&T, Cascade Utilities, Century Tel, Frontier-A Citizens Communications, and Qwest.

A major natural gas line runs north and south through the interior valley of Douglas County. The Northwest Pipeline Corporation operates the ten-inch line. The Avista Company services nine of twelve cities in the Umpqua Valley.

All of the cities and many of the unincorporated communities have public water systems. All cities and five unincorporated communities are served by municipal or special district sewer systems.

COMMUNICATION

Citizens of the Umpqua Valley are kept informed by local and regional newspapers, radio stations, and television stations. Six newspapers are printed in the Umpqua Valley. The News Review goes to press six days a week. The six newspapers are the Beacon, Glide Weekly, North County Newspaper, Roseburg News Review, Umpqua Free Press, and the Umpqua Post. Several regional newspapers are available in newsstands on a daily basis. One of these, the Oregonian, is also delivered "to the door" in many parts of the County. Newspapers available in news stands are the Eugene Register Guard, the Grants Pass Courier, the Oregonian (Portland), U.S.A. Today, the Wall Street Journal, the Coos Bay World.

Local radio stations broadcast to all parts of the Umpqua Valley; six are located in the central valley, and one transmits from Reedsport on the coast. A public radio station broadcasts from Ashland and is retransmitted to the central valley. Stations KDUN (AM), KGRV, KPNW, KQEN, KRNR, KRSB (FM), KSOR (FM), KTBR (AM), KAVJ (FM), KKMX (FM) are available in Douglas County.

There are three television stations (KEZI #9, KPIC (CBS) #4, KMTR (NBC) #46) currently broadcasting within Douglas County. Several other television stations can by received, by antenna or cable, in various parts of the County. Those other stations would include: KOBI (NBC) in Medford, KCBY (CBS) in Coos Bay, KVAL (CBS) in Eugene, KMTX News Source 16 in Springfield, and KSYS (PBS) in Medford.

Cable television is available in eight cities and three unincorporated urban areas. Regular television programming from west coast stations and, at an additional fee, Home Box Office, Showtime, and the Movie Channel are available from Charter Cable Company.

GOVERNMENT

Government employment in Douglas County has increased less than one percent over the past decade. The Umpqua Valley contains one county government and twelve incorporated cities. Douglas County was established in 1852 and operates under the Oregon Constitution and the laws of the State. The County is

governed by three commissioners who are elected at large and serve four-year terms. The twelve cities in Douglas County operate under a variety of governmental forms depending on city size and complexity. Populations of the cities range from about 147 in Elkton to nearly 20,017 in Roseburg. The twelve cities are Canyonville, Drain, Elkton, Glendale, Myrtle Creek, Oakland, Reedsport, Riddle, Roseburg, Sutherlin, Winston, and Yoncalla.

The Cow Creek Band of the Umpqua Tribe of Indians are also a government entity within Douglas County.

Another local governing body is the Port of Umpqua which encourages development along the lower reaches of the Umpqua River. The Port of Umpqua owns land along the river for industrial development, ship repair facilities, docking, and dredge spoil deposits. The Port of Umpqua promotes the shipping and exporting of raw materials and manufactured goods and also fosters tourism in and around the Lower Umpqua River. The Port has industrial revenue bonding authority and is governed by elected Commissioners.

Douglas County operated on a $86 million annual budget during fiscal year (FY) 2000-01. Revenue is received from a variety of sources. Major County expenditures include public services, safety, road systems, and health services.

In FY 2000-01, Douglas County received over 33 percent of its total revenue from timber receipts. Timber revenue is derived through the sale and harvesting of trees located on former Oregon and California (O&C) railroad lands and on National Forest lands. The O&C lands were granted to the Oregon and California Railway Company in the mid-1860's. The lands were revested to the federal government and are now managed by the Bureau of Land Management. A portion of the timber revenue from these lands is paid to the County. Lands in the National Forest also produce income for Douglas County. Historically, the O&C revenues and the revenues from National Forest lands form a major portion of the County's budget. However, O&C and Forest Service replacement funds, commonly referred to as "safety net" were instituted in November 2001 in response to changes in federal forest management practices. The revenues are allocated for road construction and maintenance, general County operations, and for schools. The County also receives grants for special projects.

The majority of County expenses are for road maintenance and engineering, and for general operations. In FY 2000-01, 75 percent of the County's share of these revenues is retained by the County for maintenance and construction of roads and 25 percent is allocated to the various schools within the County.

Oregon Law requires the County to tax all privately owned real property (e.g., land, buildings, manufactured structures, and fixed machinery and equipment) and personal property used in a business. There is no property tax on household furnishings, personal belongings and automobiles, crops, orchards, or business inventories. Tax rates in Douglas County range from $6 to $19 per $1,000 of taxable assessed value. Multiple city, school, fire and special districts cause the rates to vary throughout the County. Measure 50 (established in 1997-98) places a three percent limitation on the annual increase of a properties Assessed Value, with the exception of new construction and/or changed property. Douglas County receives about six percent of its revenue from property taxes.

Neither the State of Oregon nor the County has a Business Inventory Tax; or Sales Tax.
Corporate and personal incomes are taxed at a relatively low rate. The Oregon Corporation Tax rate is 6.6 percent on net Oregon income. The Oregon Personal Income Tax rate ranges from five to nine percent of personal and non-corporate income.

ECONOMIC INDICATORS

Economic indicators often used to describe an economy are Population and Labor Force.

POPULATION

"In 2007, approximately 103,000 people lived in Douglas County".

Historically, people have lived in the Umpqua Valley as natural resources and jobs were available. They lived near their place of employment thus creating many small rural communities. Now, recreational opportunities and other amenities are adding to the reasons for residing in the Umpqua Valley.

The rural population in Douglas County is now dispersed over the countryside on small acreages. Douglas County is a relaxed place to live, but is also comfortably close to metropolitan areas with a faster pace of life.

The number of people living in Douglas County increased from 94,649 in 1990 to 100,399 in 2000, an increase

of 6.1 percent for the decade. By comparison, Oregon's population increased 20 percent over the same period. Low population growth in the 1980's can be attributed to the recession of 1980-1983. The projected Douglas County population for the year 2020 is anticipated to be 145,348. Residents of the Umpqua Valley are distributed unevenly. Unlike most Oregon counties, over 50 percent of Douglas County's population resides outside incorporated cities. The densest populations for combined urban and rural residents occur in the central valley from the areas of Riddle to Roseburg to Sutherlin. The least populated areas are in eastern and parts of northwestern Douglas County. It is estimated that the coastal area of the Umpqua Valley will have a slight population increase between the years 1990 and 2010. The northern part of the County is projected to incur the least percent increase for the same number of years. The central and southern areas are expected to experience a population increase of between one and two percent annually.

In 2000, there were 39,821 households in Douglas County with an average of 2.5 people in each. The average household income in Douglas County was $33,223. The average household income for Oregon during the same period was $40,916.

LABOR FORCE

"In 2007, employment in Douglas County totaled 47,689".

The lumber and wood products industry dominates Douglas County's economy with 26 percent of the total employment. From 2006 to 2016, employment in Douglas County is expected to add 4,957 new jobs, for a growth rate of about 12%. Growth in the farming, forestry, and fishing is anticipated to be the slowest category of job growth.

Another important point to consider is that the trade and services sector in Douglas County is relatively undeveloped when compared with the state. Although recent improvements have been made, Douglas County employment in trade and services has historically lagged behind statewide employment in this sector. This situation has, in the past, caused a considerable amount of consumer dollars to be spent in adjacent counties.

Unemployment in Douglas County is consistently higher than state and federal unemployment by several percentage points. However the overall unemployment rate has been several percentage points lower than in years prior to 1994. A large amount of this unemployment is caused by seasonality in the forest products, fisheries, tourist and agricultural industries, all of which have their lowest employment during the winter. Each winter the unemployment rate increases, reaching a peak in January. In the spring, employment opportunities cause the unemployment rate to decline. The rate decline continues until fall when it begins to rise again.

INDUSTRIAL DIVERSIFICATION

EMPLOYMENT

"The medium household income in Douglas County is $33,233.00".

Industrial diversification literally means to increase the variety and types of products or services produced in the basic sector of an economy. Diversification can be attained by either expanding the processing capability of existing industry or by attracting new industry. The need to diversify is founded on the County's dependence on the declining forest products industry and on chronic and severe unemployment. Prospects for reductions in the available timber supply, both from public and private industry lands and the resulting socioeconomic impacts, have been well documented. A reduced market for the County's wood products and a reduced timber supply can only lead to a worsening of countywide unemployment.

Without diversification of the County's industrial base to create new employment opportunities, total employment will decline. A loss of jobs in the timber industry will directly contribute to a greater loss of jobs in other parts of the economy. This can lead to population emigration of wage earners. The conclusion is firm - in order to avoid severe economic problems, it is necessary that basic industry be expanded in Douglas County.

Natural resources of Douglas County provide the basis for economic well-being and employment. This means that jobs in the Umpqua Valley have traditionally pivoted around primary industries such as lumber and wood products. Though County employment trends follow the ups and downs of the lumber and wood products industry, the economy remains strong and capable of rebounding.

The United States Census Bureau reports the 2000 population as 100,399. Douglas County's labor force is about 45,000 strong. The labor force growth rate has averaged 1.2 percent per year for the period of 1992 to 2002. Increased participation of women in the labor force has been a major factor in this increased growth rate. Currently, about 40 percent of all women age sixteen or older are participants in Douglas County's labor

force.

The total number of wage and salary workers in Douglas County as of December 2001, was 44,327. Three main sectors in the County employ almost 66 percent of all wage and salary workers. In 2000, the lumber and wood products industry employed 17 percent; retail and wholesale trade employed 23 percent; and government employment totaled about 22 percent.

Employment in trade and in government increased significantly between 1988 and 2000. Most of the increase in government employment can be attributed to special districts and school districts. The Wholesale & Retail Trade sector, Finance, Insurance, and Real Estate Services, employed 32 percent more in 2000 than in 1988. Government employment increased 24 percent during the same period. On the other hand, employment in the lumber and wood products industry has remained virtually unchanged.

UNEMPLOYMENT

"In 2007 unemployment in Douglas County was 7.8%".

Unemployment in Douglas County is seasonal and cyclical. It is greatest in the winter months when logging and building activity slackens. Unemployment also increases when the Nation's building activity decreases. Since 1970, the unemployment rate has been greater for Douglas County than that for the United States and the State of Oregon. During the recession in 1982, unemployment was almost twice the rate for the United States. A year later the local economy rebounded and the County's unemployment rate dropped to about 13 percent. This was three percent more than the Oregon rate. The 2000 unemployment rate was nine percent, five percent over the national average. Over the past five years the Douglas County unemployment rate has remained almost twice the rate for the National unemployment.

DOUGLAS COUNTY'S PROJECTED GROWTH INDUSTRIES

"Technology is making the County economy more flexible".

Technological changes are making the local economy more flexible. An emerging labor pool of skilled workers is attracting new technological industries, such as Alcan Aluminum Cable, American Bridge, Bayliner Marine, Ingram Book Company and Winco Foods to the County. These industries will help diversify the economy and decrease the County's economic dependency on seasonal and cyclical industries. Industrial lands must be available for these industries to locate in Douglas County.

ECONOMIC ELEMENT FINDINGS

General

1. Basic industries in Douglas County include businesses in the lumber and wood products industry(25%), agriculture(7%), tourism(5%), mining and mineral processing(1%) and commercial fishing(1%) sectors. These industries employ 39 percent of the County's wage and salary workers.

2. Nonbasic industries (secondary and tertiary industries) in Douglas County include businesses in the trade and services(23%), construction(4%), and the transportation, communication, and utilities sectors(5%). These industries employ 32 percent of the County's wage and salary workers.

BASIC INDUSTRIES

Wood Products

3. Douglas County contains a larger timber supply than any other Oregon County and a greater supply than 44 of the 50 states. Approximately 80 percent of the County is forest land.

4. Over two-thirds of the County economy depends directly or indirectly on the wood products industry as a source of income.

5. About 12 mills and plants process wood products in the County.

6. The lumber and wood products industry employs 25 percent of the wage and salary workers in the County as compared to seven percent in Oregon, and one percent in the nation. It is a basic industry in the County and the State.

7. About eleven percent of the County is covered with oak and madrone forests. The local hardwood industry is an emerging industry.

8. A national recession and corresponding decline in the demand for softwood building materials significantly decreased the demand for local wood products and led to high unemployment which peaked at 17 percent in 1982. The unemployment rate has since declined to nine percent in 2000, and even lower in 2007.

9. The lumber and wood products industry has entered an evolutionary period where "high tech" manufacturing processes have eliminated some jobs. This has caused a phenomena known as structural unemployment where workers are laid off because existing skills no longer meet the needs of the job.

10. The local lumber and wood products industry has experienced major economic setbacks due to a decrease in national housing starts, technological changes in manufacturing, substitute building materials, obsolescence of mills, shifting markets and a declining timber supply.

11. Issues such as scenic resources, wilderness, and habitats for man, animals and vegetation place social and economic demands on forest lands. Conflicts between these demands and the pressure for sawtimber will continue to be a major issue in Douglas County.

Agriculture

12. Grazing operations occupy nine percent of the County's land area (approximately 291,600 acres).

13. Orchard, grain, and row crops are grown on about two percent of the County's land area (about 64,000 acres).

14. Douglas County is the leading sheep producer in Oregon. The estimated gross income for livestock in 2001 was $19 million, or thirty percent of total gross farm income in the County.

15. Douglas County is the leading cattle producer in western Oregon and ranks seventh statewide. Gross income from cattle and calves in 2001 was $19 million. It is the single most important agricultural product in the County's economy.

16. Gross farm sales of Douglas County agricultural products for 2001 were two percent of the State's total.

17. Markets for Douglas County's farm products and livestock have traditionally been unstable. Between 1975 and 1982, total net farm income ranged from $4,909,000 to $21,882,000.

18. Nine wineries in the County produce quality exportable varietal wines. Their tasting rooms are tourist attractions.

Tourism

19. The primary tourist product that Douglas County has to offer is its natural resources, destination places, and recurring events. Secondary tourist products are the things that tourists need to gain access (such as automobile service), stay longer (such as overnight lodging), or to increase the intensity of their touring experience (such as guide service).

20. About 45 percent of Californians surveyed in 1983 gave the reason for vacationing in Oregon as "Scenic beauty, friends and relatives, and fishing." Respondents stated that the vacation attractions important to them are the out-of-door experiences and activities that Douglas County possesses.

21. There are many recurring events in Douglas County (such as the County Fair or the Diamond Lake Dog Sled Races) that have the potential to attract greater tourist attention. There is also an opportunity to organize many more tourist attracting events.

22. Vendors of secondary tourist products, such as retail goods and various services, are the same businesses that sell goods and services to the County's residents. These businesses number about 500 (not including owner-operated businesses) of which 80 percent employ nine or fewer workers.

23. Retail and service oriented businesses perform the bulk of tourist trade. These sectors have increased an average of three and four percent annually between 1975 and 1984.

24. Total expenditures by all overnight instate and out-of-state visitors and by all day trip visitors travelling more than 100 miles from their residence spent an estimated $40,130,000 in Douglas County in 1983. This generated a payroll totalling an estimated $8,153,000 and supports about 1,170 jobs in the County.

Mining and Mineral Processing

25. Mineral deposits in Douglas County are abundant and could provide ample amounts of ore and building materials. The relative low market price for the refined metals make extraction and processing unprofitable for most minerals in the County.

26. Prime gravel deposits are protected from encroaching land uses by the County in order to ensure a continuing supply of sand and gravel necessary for future construction demands.

27. The mining and processing sector employs about one percent of the wage and salary workers in the County. It creates about one percent of the payroll of the County's wage and salary workers.

Commercial Fishing

28. The yield from the ocean fishery near Douglas County has been severely affected due to coast wide declines in salmon populations leading to emergency or early seasonal closures affecting Douglas County.

29. Salmon landings have experienced the greatest effect and albacore tuna landings the least effect from the climatic change.

30. The annual aggregate yield for all species landed at Winchester Bay decreased by an average of 15 percent annually. The value declined by an average thirteen percent annually between 1979 and 1984.

31. The decline of the fishery has directly effected the local economy as evidenced by a decrease in the number of commercial fishing boats moored at Winchester Bay. Moorages decreased from about 950 in 1979 to about 510 in 1984. The number of canneries in the Winchester Bay area has decreased from three to one.

32. The total landed weight of "ground fish" at Winchester Bay (769,000 pounds) was approximately twice the weight of the next ranked species (Dungeness crab) and about four times the weight of third ranked "other fish" (such as shad) in 1984.

33. The total value of Dungeness crab was about three times the total value of second ranked "ground fish" and about seven times the value of third ranked Chinook Salmon in 1984.

34. The decline in yields from the fishery has effected the local tourism industry. Declines in yields from the fishery at Winchester Bay correspond to sharp declines in nearby overnight camping units of County owned parks.

NONBASIC INDUSTRIES

Trade and Services

35. As a group, the wholesale, retail, services, and the finance, insurance, and real estate industries employ 11,840 wage and salary workers or 40 percent of the total Douglas County employment in 1984.

36. The retail trade sector and services sector have grown at or above the rate for (three percent and four percent respectively) most of the other economic sectors in the County since 1975.

Retail and Wholesale

37. The retail sector employs the secondmost number of wage and salary workers (4,704), produces the third largest annual payroll ($38,995,000) and fosters the greatest number of businesses (583) in Douglas County (1982).

38. Employment in the retail sector increased at an average of three percent annually between 1975 and 1984 and has increased, as a percent of total, from 15 percent in 1975 to 18 percent in 1984.

39. Retail sales have increased by an average of eight percent annually between 1975 and 1984. As a comparison, retail sales statewide increased by only four percent.

40. The wholesale sector employs about two percent (approximately 600) of the County's wage and salary workers.

41. Over half of the wholesale businesses employ four or less workers and about 75 percent employ nine or less (1984).

Services

42. The services sector employs the third greatest number of wage and salary workers (4,055), fosters the secondmost number of businesses (550) and produces the second largest payroll ($42,300) in the County (1982).

43. Employment in the service sector increased at an average of four percent annually between 1975 and 1984. Service employment has increased from twelve percent of the total wage and salary workers to 16 percent for the same period.

44. In 1982 there were 550 service businesses in Douglas County. About two-thirds of these employed four or fewer workers and about 90 percent employed nine or fewer.

45. About 50 percent of the payroll in the services sector (14 percent of the County total) is created by health care businesses.

Finance, Insurance, and Real Estate

46. The finance, insurance and real estate sector employs about three percent of the County's wage and salary workers. The sector has increased at an average annual rate of four percent for the last decade.

Construction

47. The number of building permits issued by the County declined by an average annual rate of two percent from 1975 to 1984.

48. The total value of building permits issued by the County increased in value by an average annual change of four percent between 1975 and 1984.

49. The number of wage and salary workers employed in the construction sector in Douglas County declined by an average annual rate of three percent between 1975 and 1984.

50. Construction workers are 770 in number and equal three percent of the wage and salary workers.

Transportation and Utilities

51. In 1982, the last year of the business census, 101 businesses comprised the transportation, communications, and utilities sectors in Douglas County. About 75 percent of these businesses employed nine or fewer workers.

52. In 1982 the transportation, communications, and utilities sectors created 860 jobs in Douglas County and produced $16,754,000 in payroll (1982 business census).

53. The number of wage and salary workers in the transportation, communications, and utilities sectors increased at an average of one percent annually from 1975 to 1984. The percent of total wage and salary workers remained at four percent for the combined sector.

Government

54. Government agencies and districts in Douglas County employ approximately 25 percent of the County's wage and salary workers.

55. The Federal Government employs 25 percent of the government workers in Douglas County versus 15 percent statewide.

56. Employment in the government sector increased by less than one percent between 1975 and 1984.

ECONOMIC SUPPORT SYSTEMS

57. In Douglas County there are four transportation modes used to move raw materials, finished goods, and the populace. These are the highway system, rail, air, and waterways. The highway system and nonscheduled private air traffic are the only major means of movement for the local populace and visitors.

58. The heaviest travelled routes are Interstate-5 and the State Highways. Interstate-5, a part of the nationwide interstate network runs about 100 miles north and south through the County's interior. It has an annual count of 4,726,750 vehicles (1983).

ECONOMIC INDICATORS

Population

59. Trends in Douglas County's population, since the beginning of census enumeration, have followed the presence of economic opportunities.

60. Recent cyclical trends in the County's population have swung from a high of 94,649(1990) to an estimated 100,537(2000).

61. The County's population increased by an average annual change of one percent from 83,074 (1975) to 90,400 (1984). As a comparison the statewide population increased by an average annual change of 1.5 percent for the same period.

62. Projections of the County's population place the 1990 population between 100,300 and 116,200 for a seven percent and a 7.4 percent increase, respectively.

63. Over 58 percent of the County's population resides outside incorporated cities.

64. The densest populated areas are in the central valley from Riddle to Roseburg to Sutherlin.

65. Population in the coastal area is projected to grow between two and three percent per year between 1980 and 2000. The north area is projected to incur less than a one percent per year increase for the same years. The central and southern areas of the County are projected to increase at an estimated one to two percent per year.

66. Over 26 percent of the population is under the age of 16. This is two points greater than the statewide average.

67. The number of persons over 65 years of age is over twenty percent of the County's total population. This is approximately the same as the statewide average.

68. The "working age" group (16 years of age to 65 years of age) comprises about 62 percent of the County's population or two points more than the statewide average.

69. Males and females of "working age" each comprise about 31 percent of the total County population as compared to 30 percent male and 32 percent female for the state.

Income

70. Commercial bank deposits, an indicator of the County's economic well-being, increased between 1975 and 1983. The average annual increase was 8.5 percent for the period. Douglas County ranked seventh in total population in the State but thirteenth in total commercial bank deposits. The statewide figure increased at an average annual of 12.5 percent for the period.

71. Total personal income of County residents increased (between 1975 and 1983) at an average of ten percent whereas the statewide figure increased at a point above.

72. Per capita income in 1980 was $8,675. This is 85 percent of the Oregon figure and 78 percent of the national figure.

73. Median family income increased at an average of nine percent annually, beginning in 1975, to $23,600 in 1983. This is about $2,500 less than the statewide median family income.

74. An estimated 18,000 residents of Douglas County will be "economically disadvantaged" in 1986.

Education

75. In 1980 about 68 percent of the County's population over the age of 25 years had finished four years of high school and 27 percent had finished three years of college. At the State level the figures were 76 and 38 percent respectively.

76. About ten percent of the County's residents versus about 20 percent of the State's residents over the age of 25 had completed four years of college in 1980.

Labor Force

77. The civilian labor force in Douglas County increased by an average of two percent annually (versus three percent statewide) from 38,800 in 1975 to 41,540 in 1984. It is estimated that 47,689 workers are in the County's labor force in 2007.

78. In 1980, 42 percent of women in Douglas County participated in the labor force. This was an increase of seven percent between 1970 and 1980. The rate for men declined by two percent at the same time.

79. Much of the decline in the labor force is attributed to emigration since 1980.

Employment

80. Beginning in 1975 employment increased at a decreasing rate for an average increase of about two percent annually between 1975 and 1984. The statewide average was three percent annually.

81. There are four major employment sectors in Douglas County (1984): lumber and wood products, 26 percent; government, 22 percent; retail trade, 18 percent; and services, 16 percent.

82. Employment in the lumber and wood products sector, a basic industry in Douglas County, decreased from 30 percent of the total wage and salary workers in 1975 to 26 percent in 1984.

83. Employment in the government sector decreased from 23 percent of the total wage and salary workers in 1975 to 22 percent in 1984.

84. Employment in the retail trade sector increased from 16 percent of the total wage and salary workers in 1975 to 18 percent in 1984. Retailing is a nonbasic sector when doing business with locals, and a basic industry when selling to tourists.

85. Employment in the service sector increased from 12 percent of the total wage and salary workers in 1975 to 16 percent in 1984. This sector is a tertiary industry and portions are a basic industry when serving tourists.

Unemployment

86. The unemployment rate in Douglas County has continually been greater than the statewide rate. In 1984 unemployment in the County was at twelve percent which was about three points above the statewide rate. The projected rate for the County is between ten and eleven percent for 1985 and 1986.

87. Between 1975 and 1984, the unemployment rate in Douglas County was at its lowest (6.0 percent) in 1978 and at its highest (17.3 percent) in 1982. This trough and peak corresponds with highs and lows in demand for lumber and wood products manufactured in the County.

88. Since 1970, seasonal unemployment (weather related) in Douglas County has varied from a low of eight percent to a high of about 14 percent. Douglas County's unemployment rates are characteristically greater than the statewide level because of the County's greater dependency on the sensitive lumber and wood products industry.

89. Cyclical unemployment in 1975-1976 and again in 1980-1982 in the County was induced by a decrease in demand for materials manufactured in Douglas County's lumber and wood products industry. Cyclical unemployment in the last major recession jumped to twelve, 15, and then 17 percent in 1980, 1981, and 1982 respectively.

90. Structural unemployment has effected the local economy. It is a long term condition in which the occupational skills of workers become obsolete leaving workers the option of finding lower paying jobs in other sectors, retraining for a new career, or using their old skills in a new career. The lumber and wood products industry, the County's most important basic industry, has been greatly effected by this type of unemployment as evidenced by the decline of the percent of lumber and wood products employment from 30 percent of the total wage and salary workers in 1975 to 26 percent in 1984.

INDUSTRIAL LANDS

91. Approximately 3,130 acres are designated for industrial use in the rural unincorporated areas of Douglas County. About 2,700 or 86 percent of the total designated acreage is now developed.

92. A majority of the designated industrial land in Douglas County is situated in the central valley from the Sutherlin/Roseburg area to the Riddle area.

INDUSTRIAL SECTORS IN DOUGLAS COUNTY WITH HIGH GROWTH POTENTIAL

93. A majority of the businesses in industrial sectors identified as having a high growth potential, together employ a large number of the County's wage and salary workers. Most of these businesses employ nine or fewer workers.

94. Many of the industrial sectors identified as having a high growth potential either sell products to or provide services for tourists visiting or traveling through Douglas County.

ECONOMIC POLICIES

INTENT:

The intent of this policy statement is to promote the economical use of the County's natural, human, and capital resources; to promote the development of new industries; and to strengthen existing industries.

GOAL:

To diversify and improve the economy.

RESOURCE MANAGEMENT

OBJECTIVE A:

To maintain and enhance the natural resources from which present and future industries extract raw materials, manufacture products, or attract tourists.

POLICIES:

1. Promote activities that enhance Douglas County's natural resources.

2. Encourage measures that protect Douglas County's economic resources from encroachment of incompatible land uses.

3. Encourage the protection and enhancement of Douglas County's water resources in order to ensure year round water quantity and quality for municipal, industrial, agricultural, and fish and wildlife habitat uses.

4. Promote the preservation of natural resources that are found to attract tourists.

EXISTING ECONOMY

OBJECTIVE B:

To support the County's economy through policies that encourage the maintenance and expansion of existing industries.

POLICIES:

Lumber and Wood Products Industry

1. Promote private and public forest management policies that enhance the timber land base.

2. Encourage the development of businesses that utilize the County's hardwood resources.

3. Encourage the establishment of businesses that provide secondary processing of forest products.

4. Promote the local processing of timber harvested in Douglas County.

Agriculture

5. Encourage the expansion or development of food processing businesses in the County.

6. Encourage and promote the development of a wool products and leather products industry in Douglas County.

7. Encourage further development of the wine industry in Douglas County.

Commercial Fisheries

8. Encourage the improvement of boat repair and marine service facilities in coastal Douglas County.

9. Support public policies that enhance the commercial fishing industry.

10. Discourage land use practices that endanger spawning beds or fish habitat.

11. Encourage aquacultural practices that are compatible with other resources.

Tourism

12. Promote the development and improvement of tourist facilities that are compatible with land use objectives of the Comprehensive Plan. Such facilities include: major tourist attractions, destination resorts, convention centers, overnight accommodations, sport fishing facilities, major water impoundments, downhill skiing, and cross-country skiing facilities.

13. Coordinate tourism planning with state and local jurisdictions and with tourist oriented businesses and organizations.

14. Create a tourism marketing plan that develops a means to: increase the number of tourists vacationing in Douglas County; increase the duration of tourist visits; increase the number of overnight stays of motorists traveling through the County; create additional jobs in the tourism industry; and increase tourist related income to the County.

Trade and Service Industries

15. Encourage an increase and diversity of small businesses in Douglas County.

ECONOMIC DIVERSIFICATION

OBJECTIVE C:

To economically increase the number, variety and types of products manufactured and services rendered in the basic sectors of the County's economy.

POLICIES:

1. Support and coordinate with public and private agencies, in their efforts to attract new industries to the County.

2. Facilitate the expansion of existing industries.

3. Encourage research leading to the development of new products from the County's resource base.

4. Facilitate the expansion and development of alternative energy sources in the County.

HUMAN RESOURCE DEVELOPMENT

OBJECTIVE D:

To reduce existing unemployment and create employment opportunities to promote growth of the County's labor force.

POLICIES:

1. Encourage the recruitment and development of businesses that hire female employees, minority groups and handicapped persons.

2. Promote the expansion of training programs in the County.

3. Encourage the development of programs to teach and assist people in the management of small businesses.

PUBLIC UTILITIES, FACILITIES AND SERVICES

OBJECTIVE E:

To provide for facilities, utilities and services that ensure a strong foundation for the County economy.

POLICIES:

1. Any expansion of an urban growth boundary to provide sewer and water service to an industrial site shall be consistent with requirements specified under the statewide urbanization goal (Goal #14).

2. Encourage the improvement of east-west highway access between interior Douglas County and the coast. This includes Highways 38, 138 and 42.

3. Encourage the improvement of commercial air transportation facilities in Douglas County.

4. Encourage the provision of navigation and channel system improvements at the Port of Umpqua.

ECONOMIC JURISDICTIONS

OBJECTIVE F:

To coordinate the planning activities of the County with the activities of other economic planning agencies.

POLICY:

1. Coordinate with the activities of the Coos-Curry-Douglas Business Development Corporation, the Umpqua Economic Development Partnership, the Port of Umpqua, the Douglas County Industrial Development Board, and other public and private economic jurisdictions in their efforts to increase the economic viability of Douglas County.

HOUSING

INTRODUCTORY SUMMARY

THE PURPOSE OF THE HOUSING ELEMENT

The Housing Element addresses Statewide Planning Goal 10. It is intended to serve as Douglas County's regional housing coordination mechanism. It will be used to evaluate housing needs through time as social and economic conditions change. In order to effectively evaluate future housing needs, it is imperative that the Housing Element be updated as new information becomes available. The Housing Element is designed to help the housing market operate more efficiently by providing the most up to date information on housing supply, demand and need in Douglas County. The Element also proposes policies that are intended to stimulate the housing market toward the provision of a variety of housing types affordable by all Oregonians. Finally, the Housing Element projects the number of housing units that will need to be supplied by the year 2000 in order to balance all social and economic factors. The housing projection establishes the basis for infilling of committed lands and designation of rural development areas.

WHAT DOES GOAL 10 REQUIRE?

As part of the Statewide Planning Goals and Guidelines, the housing goal (Goal 10) seeks to ensure that all jurisdictions provide for the housing needs of citizens of the state.

Goal 10, Housing, requires that:

Buildable lands for residential use shall be inventoried and plans shall encourage the availability of adequate numbers of housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type and density. Household refers to one or more persons occupying a single housing unit.

WHAT IS INCLUDED IN THE HOUSING ELEMENT?

The Housing Element is designed to lead the reader through the three fundamental concepts in housing: housing supply, housing demand and housing need. Four major variables are constantly in play with supply, demand and need. Those variables are population, employment, income and household structure. The Element also contains the housing projection and the implications of that projection. The following list explains the various parts of the supporting Element.

Introduction - Describes the purpose and intent of the Element. This section also contains discussions concerning buildable lands and administrative interpretations of Goal 10.

Background on Housing - This section summarizes both the Oregon and Douglas County housing situations with respect to changes in population, employment, household structure and family income. Also contained in this chapter is a description of the housing market subareas, a discussion of County building permit activity and consideration of the rural nature of Douglas County's housing.

Housing Supply - This section considers the amount, condition and tenancy of the entire County's existing housing stock. Also examined are vacancy rates and average unit size.

Housing Demand - This chapter provides the basis for estimating the number of new housing units that will be demanded in the future. Included are discussions of household formation, household size, crowding, household income and employment.

Housing Need - This section compares income and housing cost distributions in the County; determines the number of households paying excessive rent; discusses low-cost and least-cost housing; and assesses the needs of special households (such as the elderly and handicapped).

Projected Housing Units - This section culminates the Housing Element by focusing attention on future housing in terms of the number of units needed to balance all social and economic factors by the year 2000. The housing projection, based on the Population Element, provides the foundation for determining the amount of residential land to be designated on the County's future land use maps. Implications of the projection are also discussed.

Definitions - This section defines housing terminology as used within the context of the Housing Element.

HOUSING ISSUES

Issues related to housing will be among the most critical faced by Douglas County, state and national citizens in the 1980's and 1990's. A major problem is the increasing difficulty that the market is experiencing toward providing adequate housing for all citizens. A sound housing strategy can guide land use planning, zoning and subdivision ordinance changes, sewer and water development, code revisions and school development. A working plan for future housing provides the basis from which the County is able to choose the direction and kind of future development it wants. By operating from a clearly defined base, Douglas County can then work toward meeting both present and projected housing needs.

HOUSING MARKET SUBAREAS

Douglas County is considered to be a housing market area within which persons affect the housing market. Because the County is quite large, a further breakdown into housing market subareas was necessary. The subareas are defined by certain planning area boundary lines while also taking into consideration geographic features separating populated areas (such as ridgelines or areas of remoteness), transportation corridors, employment centers and statistical geographic units used by the U.S. Bureau of Census. Figure 12-1 depicts each subarea as used throughout the Housing Element.

HOUSING SUPPLY

As of 1980, there were 35,644 housing units in Douglas County. Of those units, approximately 49% are located outside of city urban growth boundaries. As a percentage of the total units, single family homes are decreasing and mobile homes are increasing. Other points related to housing supply are the facts that: 1) 35% of the County's current housing supply was built during the "timber boom" years of 1940 to 1960; and 2) owner occupancy is a dominant tenure pattern in the County (72% of all occupied units are owner occupied). In the future, it is anticipated that the percentage of owner occupied units will continue to grow but at a slower rate due to the increasing costs of single-family housing.

HOUSING DEMAND

The County's population is projected to increase by more than 42,000 persons over the next 20 years. It is anticipated that current and future economic diversification efforts, as well as existing industries, will support the projected population. The average household size in Douglas County has been declining and in 1980 was 2.77 persons per household. However, average household size has been consistently larger in Douglas County than is normal for the state. It is projected that the trend toward smaller families will reduce average household size to approximately 2.54 by the year 2000.

Figure 12-1 sub areas map

HOUSING NEED

Due to the rising cost of housing and increasing interest rates, less than 10% of first time home buyers can afford to purchase the average conventionally financed home (at 13% interest) in Douglas County. As a result, many families are being forced to remain in their present housing. In sharp contrast, 64% of all families in Douglas County can afford to purchase a mobile home. Mobile homes are increasingly becoming the only type of ownership housing that most Douglas County families can afford. Another major problem centered around the topic of housing need is that persons aged 65 and above in Douglas County are increasing at a faster rate than the state average. Due to a variety of physical and monetary problems, the elderly are the largest group in need of housing assistance in Douglas County.

HOUSING PROJECTION

By the year 2000, Douglas County will need approximately 57,000 dwelling units in order to both house the projected population and balance all social and economic factors including supply and demand. The following chart depicts the number of future housing units needed within each subarea's incorporated (UGB), urban unincorporated and rural unincorporated parts. Specific localities are not identified so as to encourage regional flexibility in the provision of housing. Due to discrepancies between the population and housing projections adopted jointly by the County and each of the cities within its boundaries and the results of the 1980 Census, two sets of figures are given for future housing units in rural areas. The rural figures under the heading Total Housing Using Adopted City Projections for the year 2000 represent the remainder after subtraction of city UGB and urban unincorporated projections from the applicable subarea total projection. The rural figures under the heading Rural Housing Using County Projections represents rural projections using the assumptions contained within the overall population projections developed for the County.

TABLE 12-1. 1980 HOUSING UNITS AND YEAR 2000 HOUSING PROJECTIONS.

SUB AREA	CLASS	1980 HOUSING UNITS	TOTAL HOUSING USING ADOPTED CITY PROJECTIONS: YEAR 2000 TOTAL	TOTAL HOUSING USING ADOPTED CITY PROJECTIONS: ADDITIONAL[1] UNITS 1980-2000	RURAL HOUSING USING COUNTY PROJECTIONS: YEAR 2000 TOTAL	RURAL HOUSING USING COUNTY PROJECTIONS: ADDITIONAL[1] UNITS 1980-2000
Coastal	City UGB	2,000	3,893	1,893	-	-
	Urban Unincorporated	387	660	273	-	-
	Rural	775	1,059	284	1,059	284
	Sub-Total	3,162	5,612	2,450	-	-
North	City UGBs	935	1,677	742	-	-
	Urban Unincorporated	0	0	0	-	-
	Rural	1,455	1,563	108	1,910	455
	Sub-Total	2,390	3,240	850	-	-
Central	City UGBs	12,532	26,062	13,530	-	-
	Urban Unincorporated	1,877	3,752	1,875	-	-
	Rural	8,692	7,709	-983	11,889	3,197
	Sub-Total	23,101	37,523	14,422	-	-
South	City UGBs	2,615	4,646	2,031	-	-
	Urban Unincorporated	1,087	2,203	1,116	-	-
	Rural	3,289	3,763	474	5,090	1,801
	Sub-Total	6,991	10,612	3,621	-	-
County-Wide	City UGBs	18,082	36,278	18,196	-	-
	Urban Unincorporated	3,351	6,615	3,264	-	-
	Rural	14,211	14,094	-117	19,948	5,737
	TOTAL	35,644	56,987	21,343		

1 Does not include units needed as replacement for dilapidated units.

HOUSING ELEMENT FINDINGS

The following is a summarization of issues and trends identified in the supporting text of the Housing Element. All of the issues revolve around housing supply, demand and need problems that are unique to Douglas County. Following each series of issues is a forecast which reasonably depicts what Douglas County can expect over the next 20 years. The final section summarizes the housing projection.

HOUSING SUPPLY

Number of Housing Units

1. As of 1980, there were an estimated 35,644 housing units in Douglas County.

2. Approximately 51% of the County's total housing stock is located inside of city urban growth boundaries.

3. The 49% of the County's housing stock which is located outside of city urban growth boundaries consists of 9% within urban unincorporated areas and 40% in rural areas.

4. The mixture of housing types has been changing. As a percentage of the County's total housing inventory, single family units are decreasing (from approximately 86% in 1960 to 70% in 1980), mobile homes are on the increase (from approximately 5% in 1960 to 16% in 1980)and multi-family units have increased (10% in 1960 to 13% in 1980).

Housing Condition

5. It is estimated that 75% of the County's total housing stock is in standard condition; 23% is substandard with potential for rehabilitation; and 2% is dilapidated.

6. The age of housing in the County is related primarily to periods of economic expansion. Approximately 35% of the County's current housing stock was built during the "timber boom" years of 1940-1960. Combined with pre 1940 housing, approximately 48% of the County's housing stock is over 20 years old.

Tenure

7. Home ownership continues to be a dominant tenure pattern in Douglas County. Since 1960, owner occupied units have increased from 69% to 72% of all occupied housing units.

Vacancy Rate

8. In 1980, the County housing market was characterized by a lower than average (for the State) vacancy rate for units which were for sale and a higher than average vacancy rate for units which were for rent.

Dwelling Unit Size

9. The average size of dwelling units in Douglas County increased slightly between 1960 and 1980 (from 4.6 to 5.0 rooms per unit).

Future Supply Forecast

10. Ownership housing will continue to be a good investment, although high costs and interest rates will reduce the rate of increase in home ownership. The percentage of owner occupied units will increase from the current 72% to approximately 74% by the year 2000.

11. Population growth trends will keep demand for ownership units strong. However, detached single family units will become less affordable due to high costs of purchase and maintenance.

12. If national economic policies do not bring inflation under control, then the optimum vacancy rate of 6% rental and 2% owner (indicating a balance of supply and demand) might not be achieved.

13. Decreasing household size (as measured by the number of persons per household) as well as increasing construction and energy costs will contribute to a decline in average housing unit size (as measured by the number of rooms). A larger percentage of one and two bedroom units will be constructed in the future.

HOUSING DEMAND

Population

14. The population in Douglas County is increasing. Year 2000 population is projected to be approximately 136,000, an increase of more than 42,000 over the 1980 population.

15. As of 1980, 49% of the County population lives inside of city urban growth boundaries. An additional 10% lives within the County's five urban unincorporated areas bringing the total percentage of the population living in urban or urbanizable areas to 59%.

16. Historically, the majority of growth has occurred in the central and southern parts of Douglas County. The northern subarea has grown at a slower rate than other parts of the County.

Income

17. Median family income in Douglas County has been consistently lower than that of the State since 1959.

Employment

18. Employment opportunities in Douglas County have historically been linked with trends in the dominant forest products industry.

19. Recent successes toward providing a wider diversity of employment opportunities indicate that the County's economic reliance upon the forest products industry may decline in the future. Job losses in the forest products industry will be offset by increasing employment opportunities in other sectors of the basic economy.

Crowding

20. Crowding, as expressed by the number of persons per room, is not a serious problem in Douglas County.

Household Size

21. Average Household size (expressed as the number of persons per household) in Douglas County was increasing through 1960. However, by 1970 that trend reversed and household size is expected to continue its decline to the year 2000.

22. The average number of persons per household in Douglas County has declined from 3.38 in 1960 to 2.77 in 1980.

23. In Douglas County the number of households have increased at a greater rate than the population. That is partially due to a high divorce rate as well as significant population increases among those age groups either entering the household formation period (ages 15-24) or leaving the role of active parent (65 and above). It is anticipated that the number of households will continue to grow at a faster rate than the County's population.

24. Average household size has been consistently larger in Douglas County than is normal for the state.

25. The coastal subarea contains a higher percentage of small households than other parts of the County. Conversely, the south subarea contains the highest percentage of large households.

Future Demand Forecast

26. Urban growth boundary areas will receive a majority of the County's future growth.

27. Douglas County's median family income will continue to increase. However, there is no indication that future median family income in Douglas County will equal or surpass the state median.

28. The trend toward smaller families will reduce the average number of persons per household to approximately 2.54 persons by the year 2000. However, the average household size in Douglas County will remain greater than that of the state.

HOUSING NEED

Conventional Home Affordability

29. Both the cost of housing and mortgage interest rates have increased dramatically in recent years.

30. Less than 10% of first time home buyers can afford to purchase the average conventionally financed home (at 13% interest) in Douglas County.

31. Less than 20% of home buyers with previous equity can afford to purchase the average conventionally financed home (at 13% interest) in Douglas County.

32. Many families are being forced to remain in their present housing due to high housing costs and interest rates.

Mobile Home Affordability

33. Sixty-four percent of all families in Douglas County can afford to purchase a mobile home.

34. Mobile homes are increasingly becoming the only type of ownership housing that most Douglas County families can afford.

Rental Affordability

35. Nearly all households (85%) in Douglas County can afford to rent a dwelling unit of some type.

36. Approximately 45% of all renter households in Douglas County paid more than 25% of their income for rent in 1980. This compares with 33% in 1970. Of those excessive rent paying households, a considerable majority had incomes below the poverty level (50% of the median income).

Special Households

37. In 1980, approximately 36% of Douglas County households were considered low income (80%) of the median income). This compares favorably with 44% in 1970.

38. Persons aged 65 and above in Douglas County are increasing at a faster rate than the state average.

39. Approximately 13% of elderly households were living on incomes below the poverty level in 1980 as compared with 20% in 1970.

40. Physical problems associated with the aging process add to the housing dilemma already being experienced by the elderly.

41. The special housing needs of the handicapped frequently force them to reside in large institutional facilities such as the Veterans Administration Hospital.

Future Need Forecast

42. Housing affordability will continue to decline due to increases in the cost of land, construction and financing.

43. As the gap between income and housing cost widens, the demand for mobile homes, condominiums and single family attached ownership units will increase.

44. Multi-family units will increase considerably in response to the rapidly growing number of households unable to afford home ownership.

45. Greater densities and small minimum lot sizes within urbanized areas will become an economic necessity.

46. Mortgage loan rates will remain high. However, when Federal Reserve Board money supply policies are loosened, the current high mortgage rates will probably fall somewhat and stabilize somewhere between "10 and 12 percent" ("An Overview of Housing in Oregon," Gregg Smith, Salem, January, 1980).

47. Innovative financing methods and techniques will, of necessity, become firmly established during the 1980's and 1990's.

48. If costs continue to rise and new housing starts decline then preservation and maintenance of the existing

housing stock will become very important toward meeting the future housing needs of Douglas County residents.

49. The use, appeal and acceptability of mobile homes will increase dramatically in the future.

50. Concentrated housing types such as cluster developments, row houses, mobile homes parks and apartments will become more prevalent as the housing market attempts to meet the needs of owner and renter households at various income levels.

51. If housing costs continue to increase at present rates, a greater number of Douglas County households will be in need of federal or state housing assistance by the year 2000. However, as taxpayers become disinclined to pay more taxes and as the federal government pushes to balance the budget, resources that would have been used for housing subsidies will become increasingly scarce.

52. The County is likely to experience continued increases in the elderly population. As their numbers increase the housing market will find it to be more economically feasible to develop housing specifically for the elderly.

53. Due to their low numbers, special housing for the handicapped will continue to be a problem in coming years.

HOUSING PROJECTION

54. By the year 2000, Douglas County will need approximately 57,000 dwelling units in order to both house the projected population and balance all social and economic factors including supply and demand.

55. In 1980, Douglas County contained approximately 35,644 dwelling units. In order to meet year 2000 housing unit needs, approximately 21,356 units will have to be added to the present housing inventory.

56. Information contained in the 1980 Census and information contained in city comprehensive plans regarding unincorporated housing within city urban growth boundaries (UGBs) indicate that the number of persons residing within city UGBs in 1980 was less than estimated by those plans. The cumulative total of the projections or estimates developed by the cities for their respective 1980 populations was 48,565 persons. This figure is 5.9% higher than the 45,859 persons indicated by the 1980 census to be residing in these areas.

    The high County projection for rural population in 1980 was 28,440 persons. This figure is 36% lower than the 38,559 persons indicated by the 1980 Census.

    This overestimation of 1980 city UGB population and underestimation of 1980 rural population (see Housing Supply findings) will likely result in a similar if not exaggerated overestimation of city UGB housing in 2000 and conversely an underestimation of rural housing in the same year. These figures were jointly adopted by the cities and County in advance of the Census publication and can only be modified by joint City-County plan amendment. The table titled "1980 Housing Units and Year 2000 Housing Projections" indicates that using these inaccurate figures would result in an actual decline of 117 dwellings in rural areas by the year 2000. This table also includes more realistic projections of rural housing growth based upon assumptions used in the County overall population projections.

57. Additional housing units needed by category are: up to 18,196 within city UGBs using adopted city projections; 3,264 within urban unincorporated areas; and up to 5,737 in rural unincorporated areas using assumptions contained within the County's population projections.

58. Of the maximum 5,737 housing units to be allocated to rural unincorporated areas, 3,437 or 60% percent will be used to infill existing committed areas. The remaining housing units will establish the basis for applying the rural lands formula (adopted in Phase I) and subsequently designating areas for future rural development.

HOUSING POLICIES

INTENT:

These policies are directed toward improving the housing opportunities for both Douglas County and State residents. The intent is to encourage the provision of affordable housing in quantities adequate enough to allow all citizens some reasonable choice in the selection of a place to live. It is further intended that "reasonable choice" implies flexibility in regard to tenure, housing type, price range and location.

GOAL: To provide for the housing needs of citizens of the state.

COORDINATION

OBJECTIVE A: To coordinate housing information in Douglas County.

POLICIES:

1. The County, in cooperation with the Umpqua Regional Council of Governments (URCOG) shall coordinate housing planning on a subregional and countywide basis.

2. The County shall cooperate with the Douglas County Housing Authority, URCOG and other agencies in the provision of low-income and assisted housing.

3. The County shall, in cooperation with URCOG and the 12 cities, promote coordinated housing policies among local jurisdictions in order to ensure that the Countywide housing needs of low and moderate income households are adequately met.

4. The County shall periodically, and in cooperation with each city in Douglas County, reassess housing projections and make appropriate adjustments. (Revised 11-30-88)

LOW AND MODERATE INCOME HOUSEHOLDS

OBJECTIVE B: To assist in meeting the housing needs of low and moderate income households.

POLICIES:

1. The County shall, in cooperation with URCOG, promote an update of the Housing Opportunity Plan (HOP) and utilize the new information, where appropriate, to ensure a fair share allocation of assisted housing units throughout Douglas County.

2. The County shall encourage the use of federal and state housing subsidies to meet some of the housing needs of low and moderate income households in Douglas County.

3. The County shall support the efforts of public agencies and private developers to provide an adequate amount of housing units at price ranges and rent levels affordable by low and moderate income households.

SPECIAL HOUSEHOLDS

OBJECTIVE C: To assist in meeting the housing needs of elderly and handicapped individuals.

POLICIES:

1. The County shall encourage the development of new housing facilities especially for the elderly and handicapped. Such facilities shall be developed in close proximity to commercial and service areas and should have access to public transportation.

2. Use of existing housing stock for alternative living arrangements for special households, such as cooperative or shared housing and intermediate care facilities, shall be allowed either outright or conditionally in all residential zones.

LEAST COST HOUSING

OBJECTIVE D: To help lower the price of housing through the elimination of unnecessary costs and procedures.

POLICIES:

1. As systems development charges raise the costs of housing, the County shall weight the costs and benefits of systems development charges against increased housing costs and consequent accessibility to affordable housing.

2. The County shall allow increased residential densities in urban-unincorporated areas which have excess public facility capacity or potential for cost efficient expansion.

3. Encourage developers to build smaller sized residential units.

POLICY IMPLEMENTATION

1. The County shall continue to review the Land Use and Development Ordinance, the building permit process, and other administrative procedures in order to modify provisions or actions which unnecessarily add to the cost of housing.

2. The County shall periodically review urban residential densities with a view toward reducing minimum lot sizes, when appropriate, in urban low density districts so as to provide increased opportunity for least cost, energy efficient housing.

RECOMMENDATION

1. Douglas County encourages the state to review and delete items from the Statewide Uniform Building Code that are not directly related to public health and safety.

NEEDED HOUSING TYPES

OBJECTIVE E: To provide adequate choice in the type, location, density and cost of housing.

POLICIES:

1. Single family dwellings may be allowed conditionally in high density zones, and allowed outright in all other residential zones.

2. Mobile homes shall be considered as single family dwellings. However, the County does encourage skirting to be installed on mobile homes for the purpose of energy conservation and aesthetic appearance.

3. Multi-family dwelling units shall be permitted outright in any medium or high density residential zone in urban unincorporated areas.

4. Planned Unit Developments (PUD) shall be allowed in all urban residential zones in order to permit greater design freedom, innovative land development and ownership patterns, and economy of land use. The PUD designation is considered to be an exchange of additional amenities (open space, aesthetic design and the like) for greater flexibility of land use, design, density and intensity of use.

5. Zero lot line residential development shall be allowed conditionally in any urban residential zone.

6. Mobile home parks shall be allowed conditionally in all urban residential districts at the density specified in the plan.
7. Development of new mobile home parks in rural unincorporated areas

should occur within commercial or rural service center designations.

8. In urban unincorporated areas, recreational vehicle (RV) parks which predominantly cater to transitory tourist traffic shall be conditionally permitted in the tourist commercial designation and shall not exceed the density allowed in high density residential zones. In rural unincorporated areas, new commercial RV parks shall be conditionally permitted in the tourist commercial designation and, where found appropriate in resource areas, shall be subject to all applicable goals and policies for resource protection.

9. Douglas County shall not apply discretionary or subjective approval standards, based on vague criteria, to any needed housing type.

POLICY IMPLEMENTATION:

1. Provide within the Land Use and Development Ordinance nondiscretion-ary criteria and standards for condominiums, townhouses and zero lot line developments.

2. Provide within the Land Use and Development Ordinance nondiscretion-ary standards and criteria for the orderly conversion of multi-family dwelling to condominiums.

3. The Planned Unit Development (PUD) shall be applied as an overlay district where consistent with public facility capacity. A bonus of up to 25% more density (above the underlying zone) may be allowed under a PUD application. A variety of ownership patterns and dwelling unit types shall be allowed in a PUD.

4. With the exception of landscaping and design criteria, mobile home parks shall be subject to clear and objective standards and conditions.

PRESERVATION OF EXISTING HOUSING

OBJECTIVE F: To conserve the existing housing stock and recognize its importance toward meeting the future housing needs of Douglas County residents.

POLICIES:

1. The County shall encourage the rehabilitation or upgrading of existing housing units.

2. The County, through its Historic Resource Management Program, will continue to support a program to encourage the preservation of older

residential structures.

POLICY IMPLEMENTATION:

1. Prior to a plan amendment which may change residential land to another use, consider the effect upon the existing housing stock. If the plan amendment would reduce a subarea's housing supply substantially, then mitigating measures should be taken to ensure the integrity of the subarea's housing stock.

2. Monitor the number of housing units that are removed from the housing stock due to demolition, conversion or natural disaster so that plan revisions may assure an adequate supply of affordable housing.

3. Evaluate the age and condition of all housing units in the County prior to each major revision of the Comprehensive Plan.

URBAN UNINCORPORATED AREAS

OBJECTIVE G: To provide for housing at an urban level of density.

POLICIES:

1. Ensure that the amount of residential land designated in urban unincorporated areas corresponds with anticipated demand for various housing types and ownership patterns.

2. Inventory residential land in urban unincorporated areas in order to evaluate the availability of vacant and developable land, as well as monitor the conversion rate of vacant and developable land to developed land so as to assure an adequate opportunity for affordable housing.

3. In planning for housing in urban unincorporated areas, the County shall coordinate its efforts with those of cities in the region.

RURAL UNINCORPORATED AREAS

OBJECTIVE H: To provide for a rural level of housing, where appropriate.

POLICIES:

1. Encourage the infilling of developable committed lands.

2. Provision of rural housing units shall comply with the Rural Lands Goals and Policies.
3. Inventory rural development areas in order to evaluate the availability of vacant land and to monitor the conversion rate of vacant to developed land.

4. Housing planning in rural areas shall be implemented with the overall objective of protecting resource oriented uses.

HOUSING ELEMENT UPDATE

OBJECTIVE I: To provide the most recent housing supply, demand and need information within the context of a constantly changing housing market.

POLICY:

1. Update numeric and housing supply data as new information becomes available.

TRANSPORTATION

INTRODUCTORY SUMMARY

PURPOSE OF THE TRANSPORTATION ELEMENT

The purpose of the Transportation Element is to address, in detail, Statewide Planning Goal 12 and to assist in development of an effective and efficient transportation network that is compatible with the environment, local and adjacent jurisdictions, and land use planning.

WHAT DOES GOAL 12 REQUIRE?

Statewide Planning Goal 12 requires county and city jurisdictions to provide and encourage a safe, convenient and economic transportation system. All forms of transportation are to be considered in the element, based on an inventory of transportation needs. Consideration of social, economic and environmental impacts and the conservation of energy are also required of the transportation element. Finally, transportation policies are to be such that they will assist in strengthening the economy and conform to other comprehensive plans. Specifically, Goal 12 states a transportation plan shall:

- Consider all modes of transportation including mass transit, air, water, pipeline, rail, highway, bicycle and pedestrian;
- Be based upon an inventory of local, regional and state transportation needs;
- Consider the differences in social consequences that would result from utilizing differing combinations of transportation modes;
- Avoid principal reliance upon any one mode of transportation;
- Minimize adverse social, economic and environmental impacts and costs;
- Conserve energy;
- Meet the needs of the transportation disadvantaged by improving transportation services;
- Facilitate the flow of goods and services so as to strengthen the local and regional economy; and
- Conform with the local and regional comprehensive land use plans.

Each plan shall include a provision for transportation as a key facility. (Revised 12/5/01)

Finally, transportation policies are to be such that they will assist in strengthening the economy and conform to other comprehensive plans.

WHAT IS INCLUDED IN THE TRANSPORTATION ELEMENT?

The Transportation Element contains findings concerning: The background and existing conditions that affect Douglas County's transportation system; a description of Douglas County's transportation facilities; a County roadway network plan; and a Bikeway Master Plan. Also included are: transportation goals and policies, and Bikeway Policies. A detailed discussion of road, rail, air, waterways, pipeline, pedestrian and bicycle transportation and the transportation disadvantaged may be found in the support documents. (Revised 12/05/01)

DEFINITIONS OF TERMS USED IN THE TRANSPORTATION ELEMENT. (Revised 12/5/01)

May - Wish or desire (Option)

Should - Condition, obligation, or what is expected (Encouragement)

Shall - Have to, must, command or directive (Requirement)

TRANSPORTATION ELEMENT FINDINGS

ROADS AND HIGHWAYS

1. Due to its rural nature and mountainous terrain, roads and highways are the most important element of the Douglas County transportation system.

COUNTY ROADS

2. County roads include all roads which are part of the County road maintenance system. Generally speaking, the roads which make up this system serve Countywide (as opposed to local) traffic and/or meet County construction standards. In 1983 there were 1,157 miles of road within the County road system. In 1995 there were 1,165 miles of road within the County road system. (Revised 8/13/97)

Facilities

3. Douglas County uses a four part classification system to describe the function (either existing or future) of the roads under its jurisdiction as well as the State highways within the County. This classification system includes Principal Highways, Arterials, Collectors and Local roads. The Collector classification is further refined to distinguish between Major and Minor Collectors. The function of these road types is as follows:

Principal Highway

Principal Highways fall under state jurisdiction and the management of these facilities is outlined in the Oregon Highway Plan. (Revised 2/4/98)

Arterial

The Arterial network will provide through traffic movement (including public transportation) and its distribution from Principal Highways on to the Collector and Local Streets network. As with Principal Highways, Arterials provide connection between major communities in the County. Arterials are subject to regulation and control of parking, turning movements, entrances, exits, and curb uses. Access control and on street parking are a function of the number of lanes, lane and shoulder width, design speed, traffic volumes, and land use. Traffic volumes on major arterial streets can reach up to 30,000 vehicles per day. (Revised 8/13/97)

Collectors

Major Collector: Major collectors provide for the connection of major residential and activity centers. Such roads primarily accommodate through traffic and channel traffic from local and minor collectors onto streets of higher classification. Access to adjacent properties may be limited. In urban areas, major collectors should help to establish neighborhood identity and define land use patterns. In rural areas, major collectors connect minor rural communities, provide secondary access between major communities and provide access to major employment, recreational and rural residential areas. Traffic volumes on major collector streets generally can range up to 10,000 vehicles per day. (Revised 8/13/97)

Minor Collector: Minor collectors are intended to distribute local traffic onto other minor collector, major collector or arterial streets. Property access onto minor collectors is often allowed. In urban areas, minor collectors should border neighborhoods thereby helping to establish neighborhood identity. In rural areas, minor collectors also connect rural residential areas. Traffic volumes generally can range up to 5,000 vehicles per day. (Revised 8/13/97)

In addition, in rural areas minor collectors provide a connection between resource areas having high economic impact on the community and the markets for these products. These resource collectors are generally rural in nature and provide interface with agriculture, forest service, and Bureau of Land Management (BLM.) roadways. Traffic volumes range from 250 to 4,000 vehicles per day. (Revised 8/13/97)

Local Roads

Local roads are intended to provide direct access to abutting property and move traffic from its origin to the major road network. The through movement of traffic on local roads is to be discouraged. Traffic volumes on local roads are generally less than 1,500 ADT. (Revised 8/13/97)

Volume to Capacity Standards (Revised 12/5/01)

The standards for a given route vary based on the urban or rural nature, speeds, and surrounding land use designations. One standard, a volume to capacity ratio, is a measure of roadway congestion. This ratio is calculated by dividing the number of vehicles passing through a section of road during the peak hour by the capacity of the section. The Classification Table summarizes the maximum allowable volume to capacity (V/C) ratios for county routes. The Public Works Engineering Department shall have the final determination of roadway capacity issues.

Classification	V/C Urban	V/C Rural
Principal Highway[1]	0.7	0.7
Arterial	0.85	0.8
Major Collector	0.9	0.85
Minor Collector	0.95	0.9
Necessary Local	0.95	0.9

Where two different county route classifications intersect, the V/C ratio of the higher county classification shall be used for the intersection. The intersection of a county Arterial and county Major Collector shall use the V/C ratio of the Arterial as the standard for the intersection.

4. The County road classification system has designated Interstate (I-5) and most of the State highways within the County as principal highways. A portion of one state facility, Stephens Street is designated as an Arterial streets. (Revised 8/13/97)

5. The roads within the system which have been designated as arterials generally provide access from the I-5/ corridor to outlying unincorporated communities and resource areas. (Revised 8/13/97)

6. The roads within the system which have been designated as major, minor and resource collectors generally carry less traffic and serve smaller areas than the designated arterials and principal highways.

7. Those roads within the County road maintenance system which have been designated as either principal highways, arterials, major collectors, or minor collectors along with the County designation of State highways within the County are included in the following Table and are shown on Map 1 (at end of policy section) titled Major State and County Roadway Systems, and by this reference incorporated herein.

[1]ODOT has more than one v/c standard within Douglas County. To determine the V/C ratio applicable to a specific ODOT facility, interested persons should contact ODOT Region 3.

TABLE 13-1. FUNCTIONAL CLASSIFICATION - DOUGLAS COUNTY ROADWAY NETWORK.
(Revised 10/19/94), (Revised 8/13/97), (Revised 12/5/01), (12/9/09)

PH = Principal Highway ART = Arterial MAC = Major Collector
MIC = Minor Collector NLC = Necessary Local

ROAD NO.	NAME	LIMITS	FUNCTIONAL CLASSIFICATION.
STATE SYSTEM			
	Hwy 038	Hwy 99 to Hwy 101	PH
	Hwy 042	I-5 Exit 119 to Coos Co Line	PH
	Hwy 099	Umpqua College Rd. to Diamond Lake Blvd.	ART
	Hwy 099	I-5 Exit 162 to Hwy 38	PH
	Hwy 099	South Roseburg City Limits to I-5 Exit 127	ART
	Hwy 101	Lane Co Line to Coos Co Line	PH
	Hwy 138	I-5 Exit 136 to Hwy 38	PH
	Hwy 138 (Cascade Lakes Hwy)	N. Stephens to Klammath County Line	PH
	Hwy 230	Hwy 138 to Jackson Co Line (SE)	ART
	Hwy 230	Hwy 230 to Jackson Co Line (E)	PH
	I-5	Lane Co line to Josephine Co Line	PH

NORTH & WEST COUNTY ROUTES

ROAD NO.	NAME	LIMITS	FUNCTIONAL CLASSIFICATION
002D	Binder Rd	South Side of Hwy 38 to End	MIC
003	Loon Lake Road	Hwy 38 to End (F.A.S. to MP 10.04)	MIC
007	Elkhead Rd (see Rd. 050)	I-5 to Rd 50	MIC
007	Elkhead Rd	Hwy 99 to I-5 (F.A.S.)	MIC
008	Scotts Valley Rd	Rd 7 to Rd 7	MIC
011	Mehl Creek Rd	Rd 57 to Hwy 138	MIC
024	Hayhurst Rd	Rd 24A to Hwy 38	MAC
024	Hayhurst Rd	From Yoncalla City Limits to Rd 24A	MIC
024A	Drain Rd	Drain City Limits to Rd 24	MAC
025	Anlauf Rd	Rd 7 to Rd 196	MIC
037	Upper Smith River Rd	Hwy 38 west of Drain to End (F.A.S.)	MIC
044	Shoestring Rd	Rd 21 to Rd 39	MIC
048	Lower Smith River Rd	Hwy 101 to Rd 48A (F.A.S.)	MAC
048A	North Fork Smith River Rd.	BLM to FS. (F.A.S.)	MIC
049	Fivemile Rd	Hwy 101 to Lane County	MIC
055	Scholfield Rd	Hwy 38 to End	MIC
061	Buck Creek Rd	Hwy 38 to End	MIC
062	Bear Creek Rd	Rd 212 to I-5 Exit 163	MAC
062	Bear Creek Rd	I-5 Exit 163 to End	MIC
064	Deans Creek Rd	Hwy 38 to End	MIC
065	Hardscrabble Rd	Hwy 38 to Rd 37	MIC
068	Laurel Hill Rd	Hwy 38 to End	MIC
087	Lighthouse Rd	Hwy 101 Access Loop to Rd 251	MIC
087A	Beach Boulevard	Salmon Harbor Drive to End	MIC
087D	Eight Street	Beach Blvd to Hwy 101	MIC
116	Territorial Hwy	Hwy 38 to Rd 212	MAC
116	Territorial Hwy	Rd 212 to Lane County Line	MIC
117	Mathis Hill Rd	At City Limits	MIC
117A	Williams Rd	At City Limits to end	MIC

ROAD NO.	NAME	LIMITS	FUNCTIONAL CLASSIFICATION
118	Henderer Rd	Rd 11 to End	MIC
126A	John Long Rd	I-5 Exit 148 to I-5 Exit 150	MAC
127	Wilson Rd	Rd 30 to East End	MIC
178	Sandy Creek Rd	Hwy 38 to End	MIC
187	Schad Rd	Hwy 138 to End	MIC
195B	Dawson Section Rd	Rd 48 to End	MIC
196	Cox Rd	Rd 25 to End	MIC
197	South Elk Creek Rd	Rd 24 to End	MIC
212	Curtin Rd	Rd 116 to Rd 62	MIC
240	Scottsburg West Rd	Hwy 38 to End	MIC
251	Salmon Harbor Dr.	Hwy 101 to MP 1.43	MAC
251	Salmon Harbor Dr.	Spur Rd 251 to Rd 87	MAC
251	Salmon Harbor Dr.	MP 1.43 to End	MIC
282	Curtin Park Rd	W. of I-5 parallel to Curtin Rd. No. 212	MIC
329	Reedsport Landfill Rd	Rd 55 to Transfer Site	MIC
389	Eagle Valley Rd	I-5 Exit 150 to Hwy 38	ART
390	Wildwood	Hwy 101 to Coos County Line	MIC

NORTH CENTRAL ROUTES

ROAD NO.	NAME	LIMITS	FUNCTIONAL CLASSIFICATION
009	Fort McKay Road	Hwy 138 to Rd 6 (F.A.S.)	MAC
010	Rolling Ridge	Hwy 138 to Rd 76	MIC
010A	Stearns Lane	Oakland City Limits to I-5 Exit 138 (hwy 99 to I-5 F.A.S)	MAC
010A	Stearns Lane	I-5 Entrance to Rd 10	MIC
010B	Oakland-Elkton Underpass	Rd 10A to Hwy 99 (F.A.S.)	MIC
019	Nonpareil Rd	Rd 75 to Rd 22A (F.A.S.)	MAC
019	Nonpareil Rd	Sutherlin City Limits to Rd 75 (F.A.S.)	ART
019	Nonpareil Rd	Rd 22A to End (F.A.S.)	MIC
022	Driver Valley Rd	Oakland City Limits to Rd 22A	MIC
022A	Fair Oaks Rd	Rd 22 to Rd 19	MIC
023	Green Valley Rd	From End of 23A to Hwy 138	MIC
23A	Green Valley Rd	From Rd 388 to Beginning Rd 23	MIC
029	Goodrich Highway	I-5 Exit 142 to Rd 126A	MIC
030	Rice Valley Rd	I-5 Exit 146 to Yoncalla City Limits	MIC
030	Rice Valley S. Rd	I-5 Exit 146 to End	MIC
033	Tyee Rd	Rd 9 to Hwy 138 (F.A.S.)	MIC
050	Elkhead Rd (See Rd 007)	Rd 22 to Rd 7	MIC
054	Boswell Rd	Rd 389 to Rd 25	MIC
057	Bullock Rd	Hwy 138 to Bridge Sec.	MIC
057C	Cougar Creek	From Bridge Sec. South to End	MIC
057B	Maupin Rd	Hwy 138 to End	MIC
058	Sunshine Rd	North Umpqua Hwy 138 to End	MIC
060	Red Hill Rd	Rd 29 to End	MIC
063	Halo Trail Rd	Rd. 389 to End	MIC
070	Plat I Rd	Rd 19 to Rd 75	MIC
071	Skelley Rd	Rd 24 to End	MIC
071A	Skelley South Rd	Rd 71 to End	MIC
074	Metz Hill Rd	I-5 Exit 142 to Rd 23	MIC
075	Plat K Rd	Rd 22A to Rd 70	MIC
076	Rolling Ridge Rd (see Rd. 10F)	Rd 10 to Rd 23	MIC
077	Wilcox	Hwy 138 to Rd 91	MIC

ROAD NO.	NAME	LIMITS	FUNCTIONAL CLASSIFICATION
091	Cole Rd	Rd 9 to Rd 9	MIC
120	South Side Rd	Sutherlin City Limits to Rd 19	MAC
120A	North Side Rd	Rd 19 to Rd 22A	MIC
147	Plat B Rd	Rd 22A to End	MIC
152	North Old Town Oakland Rd	Rd 388 to End	MIC
154	Comstock Rd	Hwy 138 South to End	MIC
155	Duke Rd	St. Frontage to Plat M	MIC
155	Duke Rd	Rd 9 to End "Plat M"	MIC
168	Manning Rd	Rd 23A to End	MIC
190	Hogan Rd	Rd 29 to Rd 50	MIC
199	Valley View Rd	Rd 70 to Rd 75	MIC
203	Wells Rd	Rd 10 to End	MIC
213	Oakland Transfer Site	Oakland Landfill	MIC
296	Yoncalla Transfer Site	Rd 389 to End	MIC
305	Cooper Creek Rd	Rd 120 to MP 1.80	MAC
359A	Churchill Dr	Rd 30A to End	MIC
359B	Indian Creek	Rd 359A to End	MIC
359C	Wheeler Canyon	Rd 359B to End	MIC
359D	Hilltop Dr	Rd 359C to End	MIC
359E	Teeples Ct	Rd 359D to End	MIC
359F	Old Homestead	Rd 359B to End	MIC
360	Prescott Rd	I-5 Exit 148 to End	MIC
374	Slide Creek Transfer Site Rd	Slide Creek Transfer Site	MIC

SOUTH CENTRAL ROUTES

ROAD NO.	NAME	LIMITS	FUNCTIONAL CLASSIFICATION
004	Diamond Lake Blvd.	N. Stephens to Roseburg City Limits	PH
004A	Douglas Avenue	Roseburg City Limits to State Hwy 138	MIC
004C	Buckhorn Rd	MP 0.76 to Rd 16 and 17 Jct.	MAC
004C	Buckhorn Rd	Rd 4 to MP 0.76	MIC
004D	Hatfield Dr.	Rd 4 to Rd 16 and 17 Jct.	MIC
005B	Coos Bay Wagon Rd.	Rd. 52 to Jct. Rd. 5B and 112	MIC
005C	Reston Rd	Rd 5B to Hwy 42 (F.A.S.)	MIC
005D	Lookingglass Rd	Roseburg City Limits to Rd 52 (F.A.S)	ART
006	Garden Valley Rd.	Rd 31D to Rd 9 (F.A.S.)	MAC
006	Garden Valley Blvd.	Rd 9 to Rd 13A	MAC
006A	Old Garden Valley	Rd 31A to Rd 31D	MIC
006	Garden Valley Blvd.	From I-5 (Roseburg City Limits) to Rd 31A (F.A.S.)	ART
006B	Hubbard Crk Rd.	Rd 13A to End	MIC
008A	London Hill Rd	Rd 8 to Lane County Line	MIC
010F	Rolling Ridge Rd (see Rd. 76)	Hwy 138 to Rd 76	MIC
013	Melqua Rd	Rd 51 to Mode Road	MIC
013	Melrose Rd	Rd 167 to Rd 51 (F.A.S.)	ART
013	Old Melrose Rd	Roseburg City Limits to Rd 167 (F.A.S)	MAC
013A	Melqua Rd	Rd 13 to Rd 6B & Rd 6	MIC
014	Dole Rd	Rd 105 to Hwy 387 (N. Jct.)	ART
014	Dole Rd	Hwy 386 (S. Jct.) to Rd 105	MIC
015	North Myrtle Rd	Rd 103 to End	MIC
015	North Myrtle Rd	Rd 18 to Rd 103 (F.A.S. to Rd 104)	MAC
016	Carnes Rd	Hwy 42 (Kelly's) to Happy Valley Rd	MAC
016	Carnes Rd	Happy Valley Rd to RFP property	MIC

ROAD NO.	NAME	LIMITS	FUNCTIONAL CLASSIFICATION
016B	Dodson View Rd	Rd 16 to Rd 16	MIC
016C	Roberts Creek Rd	MP 2.5 to Hwy 42 (Kelly's) (F.A.S.)	MIC
016E	Dixonville	Rd 17 to MP 2.5 (F.A.S.)	MAC
017	Buckhorn Rd (see Rd. 004C)	Rd 16 to Rd. 17A (F.A.S.)	MAC
018	South Myrtle Rd	Rd 18A to End (F.A.S.)	MIC
018	South Myrtle Rd	Myrtle Creek to Rd 18A (F.A.S.)	MAC
018A	Riverside Drive	Rd 386 to Rd 18	MAC
026	Happy Valley Rd	Rd 16 to Rd 47	MAC
031	Wilbur Rd	Rd 388 Wilbur to Rd 6 (FAS from RD 115 to RD 31A)	MAC
031A	Garden Valley Rd.	Rd 6 to Rd 31D (F.A.S.)	ART
032	Oak Hill Rd	Rd 388 to Rd 6	MIC
032A	Gross Lane Rd	Rd 32 to Rd 9	MIC
038	Olalla Rd	Hwy 42 to End	MIC
040	Boomer Hill Rd	Hwy I-5 Exit 110 to End (F.A.S.)	MIC
041	Weaver Rd	Hwy I-5 Exit 106 to Rd 20	MIC
043	Willis Creek Rd	Brockway Rd (47) to 88	MIC
043A	Rice Creek Rd	Rd 88 to End	MIC
047	Lookingglass Rd	Rd 387 to Hwy 42 (F.A.S.)	ART
047	Lookingglass Rd	Hwy 42 to Rd 5	MAC
051	Melrose Road	Rd 13A to Flournoy Valley Rd	MAC
051	Flournoy Valley Rd	Melrose Road to Doerner Cutoff Road	MAC
051	Flournoy Valley Rd	Doerner Cutoff Rd to Rd 5 (F.A.S.)	MIC
052	Colonial Rd	Rd 5B to Rd 51	MAC
053	Elgarose Rd	Rd 90 to Rd 253	MAC
053	Elgarose Rd	Rd 253 to Its Own Jct.	MIC
056A	Portland Avenue	Proposed route with bridge from I-5 Exit 123 to Hwy 99 at Southgate	ART
059	Cleveland Hill Rd	Rd 51 to Rd 13	MAC
080	Curry Rd	Rd 6 to End	MIC
080A	North Curry Rd	Rd 80 to End	MIC
081	Joelson Rd	Rd 13 to End	MIC
083	South Deer Creek Rd	Rd 16 to End	MIC
084	Newton Creek Rd	Hwy 99 to Parker Road	MAC
084	Newton Creek Rd	Roseburg City Limits to End	MIC
085	Rifle Range Rd	Diamond Lake Blvd to End	MIC
086	Kester Rd	East of Roseburg - Hwy 138 to End	MIC
088	Willis Creek Rd	Rd 43 (Willis Creek Rd) to End	MIC
088A	Willis Creek Rd	Rd 88 to End	MIC
089	Brozio Rd	Rd 31 to End	MIC
090	Doerner Rd	Rd 51 to Rd 53	MAC
090A	Snowberry Rd	Rd 90 to End	MIC
100	Kent Creek Rd	Rd 47 to End	MIC
101	Dillard Gardens Rd	Rd 387 to End	MIC
103	Bilger Creek Rd	Rd 15 to End	MIC
105	Clarks Branch Rd	MP 2.50 to Rd 16	MIC
105	Clarks Branch Rd	I-5 Exit 113 to MP 2.50	MIC
106	Woodruff Rd	Rd 53 to End	MIC
107	Lookingglass Rd	Hwy 42 to Rd 47	MAC
108	Strickland Canyon Rd	Rd 47 to Hwy 42	MIC
109	Tenmile Valley Rd	Hwy 42 to Rd 5	MIC
110	Green Siding Rd	Rd 16 to End	MIC
111	Winston Rd	Hwy 42 to Thompson Rd 266	MAC
112	Coos Bay Wagon Rd	Rd 5 to End (F.A.S.)	MIC
113	Military Rd	Rd 5 to City Limits	MIC

114	Tipton Rd	Hwy 99 to End	MIC
115	Del Rio Rd	I-5 Exit 129 to Rd 31 (F.A.S.)	MAC

ROAD NO.	NAME	LIMITS	FUNCTIONAL CLASSIFICATION
115A	Page Rd	Hwy. 99 to End	MIC
115B	Pioneer Way	Hwy 99 to End	MIC
121	Glengary Loop Rd	Rd 16 to Rd 16	MIC
123	Roberts Mt. Rd	Rd 16 to Rd 14	MIC
124	Neal Lane Rd	Rd 18A to Rd 42	MIC
125	Hoover Hill Rd	Hwy 42 to Rd 38	MIC
128	Upper Camas Rd	Hwy 42 to End of Pavement	MIC
128A	Kirkendahl Rd	North of Rd. 128 to End	MIC
129	Westside Rd	Rd 128 to Hwy 42	MIC
131E	East Camas Rd	East end to Rd. 131W	MIC
131S	South Camas Rd	From 131W to End	MIC
131W	Main Camas Rd	Rd 129 to 131S	MIC
133	Melton Rd	Rd 16 to End	MIC
134	O.C. Brown Rd	Rd 17 to End	MIC
135	Brumbach Rd	Rd 17 to End	MIC
136	Strader Rd	Rd 17 to End	MIC
139A	Medford Street	Fairgrounds south of Frear St. to End	MIC
140	Ireland Rd	Hwy 42 to Rd. 38	MIC
141	Benedict Rd	Hwy 42 to Rd 140	MIC
144	Calkins Rd	Harlan St. to Roseburg City Limits (F.A.S.)	MAC
145	Rogers Rd	Rd 32 to Rd 388	MIC
146	Larson Rd	Rd 5 to End	MIC
150	Alameda Street	Proposed extension from City Limits Todd to Rifle Range	MIC
150A	Vine Street	Proposed north City Limits to proposed connection with Stephens	MIC
153	Landers Lane	Hwy 42 to Rolling Hills Road	MIC
158A	Hult	Rd 387 to Dyke	MIC
158C	Dyke	Rd 387 to Hult	MIC
159	Ramp Rd	From Douglas St to End	MIC
167	Melrose (see Rd 13 & 51B)	Rd 6 to Rd 13 (F.A.S.)	ART
171	Hooker Rd	Rd388 to General Ave	MIC
174	Callahan Rd	Rd 90 to End	MIC
179	Doerner Cutoff Rd	Rd 90 to Rd 51	MIC
180	Becker Rd	Rd 53 to End	MIC
182	Richardson Rd	Rd 105 to End	MIC
186	Little Valley Rd	Rd 26 to End	MIC
188	Grant Smith Rd.	Ingram Drive to Hwy. 42	MIC
189	Fisher Rd	Rd 6 to MP 3.00	MAC
191	Lower Garden Valley Rd	Rd 6 to Rd 275	MIC
207	Austin Rd	Rd 16 to Rolling Hills Rd.	MIC
207A	Austin Rd	Rd 16 to East End	MAC
208	Cleveland Rapids Rd	Rd 6 to Rd 275 West Side of Rd 6	MIC
208A	Upper Cleveland Rapids Rd	Rd 6 to End East Side of Rd 6	MIC
209	Civil Bend Rd	Hwy 42 to Rd 107	MIC
211	Deady Crossing Rd	Rd 388 to End	MIC
214	Camas Valley Transfer Site	Camas Valley Landfill	MIC
217	Broad Street	Edenbower at Exit 127 to End	MIC
220	Big Bend Rd	Rd 6 to End	MIC
222	Sterling Drive	Hwy 99 to End	MIC
225A	General Ave	Hooker Rd to Bower St	MIC
225B	Bower Street	General Ave to Roseburg City Limits	MIC
225C	Sweetbriar Ave	Bower St to Mulholland	MIC

246	Stella St.	Rd 207 to End	MIC
252A	Johnson Street	Newton Creek Road to Housley Street	MIC
252B	Knoll Street	Johnson Street to Slope Street	MIC

ROAD NO.	NAME	LIMITS	FUNCTIONAL CLASSIFICATION
252C	Vine Street	Knoll Street to Garden Valley BLVD	MIC
252D	Porter Street	Knoll Street to Newton Creek Road	MIC
252F	Hughes Street	Newton Creek Road to End	MIC
252G	Follett Street	Newton Creek Road to End	MIC
253	Orchard Lane	Rd 59 to Rd 53	MAC
266	Thompson	Rd 387 to Rd 111	MAC
274	Speedway Rd	Hwy 99 to Ingram Drive	MIC
275	Cleveland Park Rd	Rd 208 to Rd 191	MIC
278A	Del Mar	Carnes Rd No. 16 to Circle Dr.	MIC
278D	Circle Drive	Green Ave to Del Mar	MIC
278E	Hebard Avenue	Stella to Circle	MIC
278F	Green Avenue	Circle Drive to Carnes Rd.	MIC
283	River Forks Park Rd	Rd 6 to Park	MIC
284	Umpqua College Rd	Rd 388 to End	MIC
286	Valley Rd	Rd 253 to End	MIC
297A	Hewitt Avenue	NE Stephens to Walker Ct.	MIC
308	Stewart Parkway	Hwy 99 to Rd 6 (F.A.U.)	ART
317	Lookingglass Transfer Site	Rd 52 to Transfer Site	MIC
322A	Parker Rd	South off Newton Creek Rd	MIC
322B	Kirby	East off Parker Road	MIC
324B	Westview	Rd 31 to End	MIC
326A	San Souci	Old Melrose Rd 13B to End	MIC
328	Myrtle Creek Transfer Site Rd	Rd 14 to Transfer Site	MIC
334A	Cherokee	Rd 31A to End	MIC
341	Braunda Rd	Rd 13 to End	MIC
342	Roseburg Landfill Rd	I-5 Exit 121 to Dump	MIC
347A	Laurel Oaks Dr	Rd 52 to End	MIC
349	Grange Rd	Hwy 99 to Hwy 99	MIC
354A	Chandler Drive	W. from Carnes Road	MIC
357	Wagontire	SE off Clarks Branch Rd 105 to End	MIC
357A	Homestead Rds.	Rd 357 to End	MIC
365	Berry Creek Rd	Rd 140 to Park Access	MIC
366	Rolling Hills Rd	Hwy 42 to Rd 207	MIC
369	Cleveland Loop Dr.	Rd 59 to End	MIC
370	Touchstone Rd	Rd 51 to End	MIC
381B	Autumn Ave.	Roberts Creek Rd. to Grange Rd.	MIC
387	Old Hwy 99 South	I-5 Exit 112 to Hwy 42	ART
388	Old Hwy 99 North	Winchester Bridge north to I-5 Exit 138	ART
388	North Stephens	North of Exit 127 to Winchester Bridge	ART
	Note: The name changes from North Stephens to Old Hwy 99 North at Winchester Bridge. Both are designated Rd. 388		
395	Industrial Drive	Carnes Road to Green Siding Road	MIC
396	Ingram Drive	Grant Smith Road to Speedway Road	MIC
400	South Stephens	City Limits to Hwy 42.	ART

SOUTH ROUTES

ROAD NO.	NAME	LIMITS	FUNCTIONAL CLASSIFICATION
001	Tiller Trail	Main Street 1C to Jackson County Line	MAC
001B	Stanton Park Road	I-5 Exit 99 to I-5 Exit 102	MIC

001C	Main Street	South from I-5 Exit 99 to Tiller Trail Road 001	MAC
010E	Azalea Drive	Hwy 138 to End	MIC
012	Azalea Glen Rd.	Rd 97 to Glendale City limits	MAC
012	Azalea Glen Rd.	I-5 Exit 88 to Rd 97 (part F.A.S.)	MIC

ROAD NO.	NAME	LIMITS	FUNCTIONAL CLASSIFICATION
012A	Junction Road	I-5 Exit 80 to Rd 12 (F.A.S.)	MAC
012B	Azalea Glendale Rd	Rd 12 to Rd 313 (F.A.S.)	MAC
020	Pruner Rd	I-5 Exit 103 to Rd 263	MAC
020	Pruner Rd	Rd 263 to Riddle City Limits	MAC
020A	Yokum Rd	I-5 Exit 101 to Riddle City Limits (F.A.S)	MIC
020B	Chadwick Ln	Rd 386 to I-5 Overpass	MIC
021	Canyonville-Riddle Rd	Canyonville to Riddle (F.A.S.)	MAC
027	Reuben Rd	Rd 12 to Rd 321 (Part F.A.S.)	MIC
027A	McCullogh Creek Rd	Rd 27 to End	MIC
028	Windy Creek Rd	From Rd 12 to MP 0.20	MAC
028	Windy Creek Rd	MP 0.20 to End	MIC
034	Days Creek Rd	Rd 1 to End	MIC
035	Gazley Bridge Road	Rd 1C to Rd 35A	MAC
035	Gazley Rd	Rd 35A to End	MIC
035A	Gazley Rd	I-5 Exit 102 to Rd 35	MIC
036	Upper Cow Creek Rd	MP 8.00 to End (F.A.S.)	MIC
036	Upper Cow Creek Rd	I-5 to MP 8.00 (to recreation site) (F.A.S.)	MAC
039	Glenbrook Loop	Rd 21 to Rd 321	MAC
039A	Glenbrook Loop	Rd 321 to Rd 21	MIC
042	Days Creek Cutoff Rd	Rd 18A to Rd 1	MIC
046	South Umpqua Rd	Rd 1 to End (F.A.S.)	MIC
093	Council Creek Rd	Rd 39 to End	MIC
094	Shively Cr Rd	Rd 1 to End	MIC
095	Starveout Rd	Rd 36 to End	MIC
096	Quines Creek Rd	Rd 12 to End	MIC
097	Barton Rd	Rd 12 to End and Rd 330 to End	MIC
098A	Tunnel Rd	Rd 313 to End	MIC
099	Eakin Rd	Rd 96 to End	MIC
151	Cornutt Rd	Rd 39 to End	MIC
161	Gazley North Rd	Rd 35 to End	MIC
169	Boyer Rd	Rd 20 to Rd 263	MIC
177	Mt. Reuben Rd	Glendale City Limits to End	MIC
205	Canyonville Transfer Site	Rd 21 to Trans. Site	MIC
258A	Walnut	Rd 386 to End	MIC
258B	Hill	Walnut to Wecks	MIC
258C	Chickering	Victor Street to Arrow Way	MIC
258K	Wecks	Rd 386 to Hill	MIC
263	Riddle Bypass	Rd 20 to Rd 39	ART
264	Main Street	Rd 263 to Riddle City Limits	MAC
295C	Crest	Hwy 99S to Valley Drive	MIC
295D	Henry	Hwy 99S to Taylor Avenue	MIC
295G	Taylor	S. of Henry to Susan St.	MIC
295H	Susan	Hwy 99S to Taylor St.	MIC
299	Ash Creek Rd	Rd 21 to End	MIC
303	Ranchero	Rd 96 to Rd 97	MIC
313	Glendale Valley Rd	Glendale City Limits to I-5 Exit 80 (F.A.S)	ART
321	Cow Creek Rd	Rd 39 to Rd 27	MIC
344	Glendale Transfer Site Rd	I-5 Exit 83 to End	MIC
352E	Alameda Street	Tri-City S. from Chadwick Rd	MIC
352F	Tri City Drive	West off Old Pacific Hwy Rd 386 to End	MIC
383	Jeffries Road	I-5 Exit 99 to End	MIC

386	Old Pacific Hwy	I-5 Exit 103 to Wecks Rd	MAC
386	Old Pacific Hwy	Wecks Rd to I-5 Exit 108	ART

EAST ROUTES

ROAD NO.	NAME	LIMITS	FUNCTIONAL CLASSIFICATION
004E	Wild River Dr.	Rd 4 to Rd 4 to Rd 200 and Back to Rd 4	MIC
004G	Glide Loop Dr.	Rd 4 to Rd 4	MIC
017	Little River Rd.	State Hwy 138 to Rd 17 (FAS)	MAC
017A	Little River Rd	State Hwy 138 to Rd. 17 (F.A.S.)	MAC
017C	Little River Rd	Rd 82a to End (F.A.S.)	MIC
078	Rock Creek Rd	Idleyld from Hwy 138 to B.M. Rd	MIC
082	Cavitt Creek Rd	Rd 17 to End	MIC
082A	New Bridge Rd	Rd 17 to Rd 82	MIC
142	Lone Rock Rd	North Umpqua Hwy 138 to End	MIC
200	North Bank Rd	Rd 388 to Hwy 138	MAC
223	Whistlers Lane	Hwy 138 North and East to Hwy 138	MIC
239	Brown Street	Hwy 138 to End	MIC
244	Whistlers Bend Park Rd	Rd 223 to Park	MIC
249	Steamboat Rd	Hwy 138 to End	MIC
318	Glide Transfer Site Rd	Rd 6 to Transfer Site	MIC

PROPOSED ROUTES (Revised 7/21/93), - Identified for future planning considerations. No funding source identified (Also identified as Proposed Routes in the Financial Analysis Section) (Revised 8/13/97)

Southerly Bypass of Central Avenue in Sutherlin	ART
Sunshine Road Extension to North Bank Road	MAC
Roseburg Truck Bypass from the North Umpqua Highway near Dixonville	MAC
Extension of Vine Street north from City Limits toward the new Interchange on North Stephens	PH
Harvard Avenue Extension (including bridge) to Melrose Road	ART
Portland Avenue Extension and bridge to Highway 99	ART

County Roads Within City Urban Growth Boundaries

8. Many County Roads are located within city urban growth boundaries, flow into city streets or continue into or through cities. This situation creates a need to coordinate road classifications and construction standards with the effected cities to ensure that these roads will be able to accommodate future traffic demands placed on them.

9. There are approximately fifteen of County maintained roads within eight of the cities in the County. Some of the roads which make up this mileage carry significant amounts of through traffic and connect County roads together or connect County roads to the State Highway System. The County recognizes that such roads serve more than city needs and should remain in the County system. (Revised 8/13/97)

10. Other County roads within city limits, only provide access to adjacent properties and do not carry significant volumes of through traffic. The County would like to surrender jurisdiction of this second type of road to the cities within which they are located.

Maintenance

11. The Douglas County Road Department is responsible for maintenance of the 1,165 miles of roads within the County road maintenance system. (Revised 8/13/97)

12. In the 1995-96 fiscal year approximately fourteen million dollars were spent on maintenance and improvement of the County road system. (Revised 8/13/97)

13. It is expected that the Road Department will use an increasing percentage of its resources on maintaining

the existing road system.

System Users

14. Over the past 30 years, the use of the automobile as a means of transportation in this County has increased steadily. The number of annual miles traveled per capita over this period has increased from approximately 2,900 in 1950 to 6,900 in 1982 and to 9,500 in 1990. (Revised 8/13/97)

15. In 1994, 89 percent of the workers in the County traveled to work by private automobile. Seventy-six percent of the workers drove alone while 13 percent carpooled. (Revised 8/13/97)

16. The average number of persons per private vehicle used for commuting to work in Douglas County in 1980 was 1.14, as compared with 1.13 for the State and in 1990 was 1.09 for the County, as compared with 1.09 for the state, overall. (Revised 8/13/97)

17. In 1996, the mean travel time to work in the County and State was approximately the same - 18.7 minutes in the County and 19.6 minutes for the State. (Revised 8/13/97)

18. In 1980, approximately 94 percent of the County's households, had at least one motor vehicle available for their use, 66 percent had two vehicles available and 28 percent had three or more available. In 1990, approximately 96.9 percent of the County's households, had at least one motor vehicle available for their use, 76.1 percent had two vehicles available and 20.5 percent had three or more available. (Revised 8/13/97)

19. The last year that average daily traffic (ADT) was recorded for all roads within the County was 1995. During that year traffic volumes varied from a low of 8 ADT and a high of 15,100 ADT on County roads. Approximately 65 percent of the roads in the County system had volumes of less than 500 ADT during that year.

20. Douglas County Planning Department completed a review of the Level of Service for Principal Highways, Arterials and Major Collectors using data from the "1996 Edition - Public Works Department Average Daily Traffic Volumes". Acceptable levels of service on state highways have been determined by Oregon Department Of Transportation and are described in the Oregon Highway Plan. (Revised 8/13/97)

21. Level of Service is a range of operating conditions defined for major collectors and arterials and related to the amounts of traffic that can be accommodated on these roadways.

22. LOS is a good explanation of the range of operational conditions, but it is not a standard. The standard for defining roadway congestion is the volume to capacity ratio.

23. The standards for a given route vary based on the urban or rural nature, speeds, and surrounding land use designations. One standard, a volume to capacity ratio, is a measure of roadway congestion. This ratio is calculated by dividing the number of vehicles passing through a section of road during the peak hour by the capacity of the section.

24. The review of 1996 data identifies only three County routes that do not have an "A" Level of Service. Two of the three routes have a "C" Level of Service. The remaining route has a "D" Level of service and is impacted by many factors; an existing industrial site, an interchange and commercial development. It should be noted this LOS "D" applies to the portion of the route in close proximity to the interchange. Based upon these results, the existing road network generally is adequate to serve future needs. Individual analysis may be required for specific areas of concern. (Revised 8/13/97)

25. Amendments to the Comprehensive Plan shall be consistent with the provisions of ORS and OAR specifically including OAR chapter 660 division 12. The Land Use and Development Ordinance now provides that amendments to land use designations densities and design standards shall assure that allowed uses are consistent with the identified function, capacity and performance standards of the facility. (Revised 8/13/97)

26. Traffic volumes in 1978 were, for many County roads, the highest of any year recorded. Since that time ADT has declined and within the last few years began to increase again.

Future Projections

27. Total employment in Douglas County is expected to increase by 27percent over the study period (1995 to 2015). The Oregon Department of Transportation Employment Forecast to the Year 2015 identifies a 1.35% annual increase in employment or a 27% increase over the study period. Within the manufacturing sector, the movement away from resource-based industries will accelerate. Lumber and wood products manufacturers will still employ thousands and account for the greater bulk of manufacturing employment in Douglas County for years to come, but the industry will continue to decline as timber supply problems adversely affect the competitiveness of local firms and world markets. The diversification and growth of the Douglas County economy will be reflected by growth in both passenger and freight transportation demands. To the extent that the County follows these projections for the state overall, it should experience similar growth in transportation demand. (Revised 8/13/97)

28. The number of passenger miles traveled by automobile in the United States has increased every year since 1950 with the exception of the two periods of energy crises in the 1970s. This trend is expected to continue past the year 2000. The 1992 average annual vehicle miles of travel is 11,063. (Revised 8/13/97)

29. In addition to passenger miles of travel, population per automobile is a good measure of long-term demand for auto travel. Between 1970 and 1980 the number of persons per automobile in the State declined from approximately 1.9 persons per auto to approximately 1.8 persons per auto. The number of persons per auto was projected to continue to decline over the next two decades further substantiating the future demand for automobile travel. Between 1980 and 1990 the number of persons per automobile in the State declined from approximately 1.8 persons per auto to approximately 1.09 persons per auto. For projection purposes, this is a minimum occupancy per automobile. (Revised 8/13/97)

30. Between 1970 and 1978 traffic volumes on the highways and arterials within the County system increased by an average of 91%. Between 1970 and 1995 traffic volumes on the principal highways and arterials within the County system increased by an average of 36%. Over the same period the County population grew by 36%. This growth in ADT equals the rate of population growth. (Revised 8/13/97)

County Projections

31. The estimate of year 2020 traffic volumes on rural roads within the County system was based on the projected rural population growth and projected per capita increases in automobile use for the four subareas of the County to the year 2016. By assignment of these projected increases to the 1995 ADT on rural roads it was determined that the capacity of all of the existing rural roads which have been designated as local roads or minor collectors (requiring two travel lanes) is adequate to carry year 2020 traffic volumes. All of those roads which are projected to carry in excess of 10,000 ADT are designated as major collectors, arterials or highways. (Revised 8/1397)

32. Most of the improvements that will be required on rural roads are those which will allow their traffic capacity to be realized.

33. In addition to the assessment of rural road capacities, rural areas of the County were surveyed for locations where new routes or route improvements appeared to be desirable. Following is a listing of the new routes only the Sutherlin Bypass is identified as a proposed route in the Financial Analysis Section. The Roberts Creek Bypass is a conceptual idea. Until further financial analysis and engineering is completed, this route is not proposed for construction: (Revised 7/21/93), (Revised 8/13/97)

Bypass from The North Umpqua Highway near Dixonville to I-5 (Conceptual - No funding identified). This route would serve as a bypass for southbound and westbound truck traffic thus relieving congestion in downtown Roseburg. Existing roadways will be utilized wherever possible and other portions may need realignment. The Greater Roseburg Area Transportation study included a recommendation for a truck route from Dixonville to Kelly's Corner. The study identified a measurable

benefit by removing trucks from downtown Roseburg via this route. Two major issues must be addressed prior to implementation of this bypass. This route diverts truck traffic an extensive distance on winding roads to Dixonville. A second and substantial issue may be the cost to pave the existing gravel roads. The 1996 GRATS (Table 5-14) estimated the construction cost of this project at 25.5 million dollars. This estimate does not include the purchase of additional right-of-way. Additional analysis of the route selected and the construction cost is recommended. (Revised 8/13/97)

Southerly Bypass of Central Avenue in Sutherlin. In conjunction with the City of Sutherlin, coordinate the planning and development of a southerly bypass road to relieve congestion on Central Avenue. The Sutherlin Area Transportation Study supported a southerly bypass route for Central Avenue using Calapooya Street or Comstock Road. The dogleg corners on the Calapooya Street route should be re-aligned. (Revised 8/13/97)

OR 42 Expressway Upgrade. The project is expected to add increased capacity on Or 42. The new frontage road (necessary local) will relocate a number of driveways. Two street connections will also be closed. With Rolling Hills constructed and signalized, it will improve traffic and safety operations at the Carnes Road intersection with OR 42. (12/7/11)

34. Due to the amount and density of future development expected within the Roseburg UGB and the extent to which County roads inter-tie with roads within the city limits, a more sophisticated approach was utilized to determine future circulation needs within this area. As a result of this process, ten corridors are identified as being necessary. Five of these corridors were previously identified by the Roseburg Major Street Traffic Safety Program which is part of the Roseburg Urban Area Comprehensive Plan. Therefore, they are not described in this element. The remaining corridors identified as being needed but not reviewed in the financial analysis section are as follows: (Revised 7/21/93), (Revised 8/13/97)

Extension of Vine Street north of city limits to Stephens Street (Conceptual - No funding identified). This extension would serve the developing area as well as provide another access to east Roseburg.

Extension of Rifle Range Road north to Alameda Road (Conceptual - No funding identified). This extension would serve the developing area as well as provide another access to east Roseburg.

Extension of Harvard Avenue from the existing city limits to Garden Valley Boulevard (Conceptual - No funding identified). This extension would include a bridge across the South Umpqua River and give the Calkins Road area another access. The intersection at Garden Valley Boulevard would provide another access to Roseburg from the west.

Extension of Portland Avenue to Highway 99. **(Conceptual - No funding identified)** This proposed arterial would provide another river crossing and more effectively utilize the Portland Avenue Interchange.

Connection from Sunshine Road to North Bank Road. **(Conceptual - No funding identified)** This connection will provide a needed linkage from the north side of the North Umpqua River via a bridge to the Roseburg Area. It will serve as a rural collector.

OR 138E Corridor Solutions (Roseburg) increases Capacity along Hwy 138 Corridor and Provides Safety Improvements (12/7/11)

The project is located on Diamond Lake Boulevard (Highway 138) between Interstate 5 (I-5) exit 124 and Fulton Street in the city of Roseburg. The alignment of the State corridor through downtown Roseburg requires maneuvering a frequently congested and circuitous course of sharp turn movements. The project will improve the congestion and safety issues between I-5 and Fulton Street on OR-138E. (12/7/11)

35. Aside from the new corridors identified and the minor improvements required on existing roads, future efforts will need to focus on maintenance of the entire road system.

Construction Standards

36. County standards for development of new roads differ between urban and rural areas.

37. Within the County's five urban unincorporated areas, construction of new roads which serve or have the potential of serving more than three separate properties are generally required to meet County construction standards such that they may be incorporated into the County road maintenance system.

38. In rural areas construction of new roads which serve as collectors or important local roads or have the potential of serving more than fifty separate properties are required to meet County construction standards such that they may be incorporated into the County road maintenance system. The Land Use and Development Ordinance has variable standards for construction of private roads serving less than fifty properties.

39. Private roads may serve as access to a limited number of lots and parcels as stipulated in the Land Use and Development Ordinance and subsequently meet a lesser improvement standard.

40. New private roads are not eligible to become part of the County road system.

41. Minimum width and surfacing standards for public nonmaintained roads have been established to provide direction for road improvements that are required as part of land division approvals adjacent to these roads. (Revised 10/19/94)

42. The minimum right-of-way necessary for the safe and efficient development or redevelopment of rural public maintained County roads is generally sixty (60) feet. (Revised 10/19/94)

Local Improvement Districts

43. One mechanism used for the upgrading of public roads so that they can be included in the County system is the use of local improvement districts.

Revenue Sources

44. Funds for County road maintenance and construction activities come from three main sources: National Forest Revenues, the State Highway Trust Fund and the Surface Transportation Program - Rural Funds. (Revised 8/13/97)

45. National Forest Revenues are received by the County as a result of timber harvesting on Forest Service lands within the County. In the 1983-84 fiscal year, 3.7 million dollars were received by the County from this source. In the 1994-95 fiscal year, 11 million dollars were received by the County from this source.

46. The State Highway Trust Fund is collected primarily through motor vehicle registrations. In the 1983-84 fiscal year, the County received approximately 1.3 million dollars from this fund. In the 1994-95 fiscal year, the County received approximately 5 million dollars from this fund. (Revised 8/13/97)

47. The Federal Highway Administration, through its Surface Transportation Program - Rural Funds (STP-R), formerly Federal Secondary Funds for counties (FASC) program, distributes monies to counties for construction or maintenance of county roads and bridges which have been designated as major collectors. In the 1983-1984 fiscal year, the County received $755,000 from the federal government under the FASC program. (Revised 8/13/97)

48. General Fund monies are typically not used for any road maintenance or improvement projects. (Revised 8/13/97)

49. In 1996, Public Works Engineering Departments reviewed the six transportation studies conducted in Douglas County. Projects were prioritized based on a weighted measure of system need and available funding. The analysis considered proposed timing of the project, the source of the funding, the extent of the project proposed (maintenance, new construction, or safety). Financial analysis also considered the

source of the construction funds and excluded projects within cities or not within County jurisdiction. Public Works Department identified with few exceptions, the projects were found on the Public Works roadway improvement list. The Public Works Road budget supports the completion of the "Proposed Routes" found in Table 13-1 and Finding 28. (Revised 8/13/97)

Special Road Districts

50. The County promotes special road districts as a means for local property owners to maintain public roads which do not meet County standards and therefore are not maintained by the County. (Revised 8/13/97)

51. Using the ODOT Potential Development Impact Area Map the county inventoried each site by Township Range and Section and found only 3 of the 162 sites that were not contained within an inventoried Urban Unincorporated Area, Rural Committed Land Site, Rural Community, or Rural Service Center. The acknowledged Comprehensive Plan includes analysis of the development impact of these sites. The PDIA analysis completed by the County concluded that there are no potential development areas that would create traffic impacts for which additional planning may be needed. (Revised 8/13/97)

52. Special road districts which are authorized by ORS 371.305 - 371.385 are statutorily limited in the amount they can levy in a given year to one-quarter of one percent of the assessed valuation of the district.

53. These districts offer the benefit of providing the mechanism whereby residents may establish for themselves appropriate standards for road maintenance in their area.

Urban Unincorporated Circulation Plans

54. Urban unincorporated circulation plans, providing for safe and efficient traffic movement in Glide, Green and the Tri City portion of the Myrtle Creek Urban Growth Boundary, have been developed as part of Douglas County's overall transportation policy. Those plans are located in the Urban Unincorporated Section of the Land Use Element. (Revised 8/13/97)

55. Upon the completion of the Myrtle Creek Local Street Area Plan, Douglas County will evaluate and if needed, update the Tri-City Circulation Plan.

STATE ROADS

Facilities

56. The Transportation Planning Rule required ODOT to prepare, adopt and amend a state Transportation System Plan. The Oregon Transportation Commission adopted the Oregon Transportation Plan in September 1992.

57. Modal plans for highway, aviation, transit, rail, bicycle and ports/waterways have been developed to carry out the Oregon Transportation Plan. The Highway 38/42 Corridor Plan is a multi-modal plan. The purpose of the corridor plan is to outline ODOT's management direction for the operation of the elements of the transportation system for which it is responsible. (12/7/11)

58. An interchange area management plan (IAMP) addresses highway interchange areas and the adjacent roadway system. The County has co-adopted IAMP's for Exit 103, 106, 108, for Exit 119/120 and for Exit 129 and integrated these documents into the Transportation System Plan. (12/7/11)

59. The Oregon Department of Transportation (ODOT) is the agency responsible for administration of the State Highway System which includes 338 miles within Douglas County. (Revised 8/13/97)

60. The roads within the State Highway System have been classified as interstate, primary and secondary roads depending on their functional usage and traffic volume.

61. The condition of the State Highway System was rated in 1996 by ODOT using a 5-step rating system ranging from Very Good to Very Poor. In Douglas County most highways were found to be in Fair, Good

or Very Good condition. (Revised 8/13/97)

62. Due to the completeness of the State Highway System, the reductions in the revenues received from gas taxes, and its overall condition, the 1991 Oregon Highway Plan (OHP) adopted policies which established maintenance and preservation of the State Highway System as a high priority concern. (Revised 8/13/97)

Users

63. Traffic volumes, as measured by average daily traffic (ADT) on the State highways vary from a low of 230 ADT on Tiller Trail Highway near the Douglas/Jackson County line, to a high of 37,000+ ADT on I-5 and 27,200 on Highway 99 through Roseburg (1995 counts). (Revised 8/13/97)

64. The length of Interstate-5 within Douglas County is 87.7 miles. Over the 87.7 miles, Interstate-5 provides three rest stops for the traveling public and 39 exits to serve the communities along the corridor. (Revised 8/13/97)

65. The Transportation Element identifies Interstate-5 as the interconnecting route to Urban Unincorporated Areas, Rural Communities and Incorporated Cities located along the corridor. (Revised 8/13/97)

66. Many interchanges are the sole access to rural communities or rural service centers via frontage roads or collector streets. (Revised 8/13/97)

67. The Oregon Highway Plan discourages the use of Interstate-5 for the purpose of local travel. (Revised 8/13/97)

68. The range of ADT on each of the State highways results primarily from the volume of local (as compared with through) traffic.

69. Truck freight traffic accounts for approximately 10% of all traffic on the State highways in the County. Approximately 75% of this traffic consists of five axle combinations or greater.

70. Truck freight traffic for 1994 was on average 21,021,551 tons per mile for all highways. State highways 101 carried 7,267,797 tons per mile, State Highway 38 carried 6,683,797 tons per mile, State Highway 42 carried 7,573,058 and I-5 carried approximately 38,483,693 tons per mile in the same year. (Revised 8/13/97)

Future Plans

71. The Oregon Department of Transportation has developed and regularly updates a Six-Year Highway Improvement Program. This is a list of highway projects scheduled for construction during the ensuing six years. The Program includes projects over which the State has complete responsibility and projects by local governments for which federal or state funding has been approved.

FEDERAL ROADS

72. The two agencies which are responsible for the construction and maintenance of most federal roads within the County are the Bureau of Land Management (BLM) and the U.S. Forest Service.

Facilities

73. The BLM has jurisdiction over approximately 4,475 miles of roadway in the County. (Revised 8/13/97)

74. The Forest Service has jurisdiction over approximately 1,049 miles of roadway opened and maintained for use by passenger cars in the County. (Revised 8/13/97)

75. Other federally maintained roads within the County include those under the jurisdiction of the Bonneville Power Administration, Veteran's Administration and the Dunes National Recreational Area. These three agencies are responsible for a total of 96.7 miles of roadway, most of which is either unimproved or

graveled.

Users

76. BLM and Forest Service roads are multipurpose roads. While serving some recreational and residential groups, most BLM and Forest Service roads were constructed to access areas where timber sales have occurred. These roads are not designed for rural residential development.

Future Plans

77. None of the federal agencies with roads within the County have plans for major road projects, either improvements or new construction, in areas under their jurisdiction in the foreseeable future.

CITY ROADS

78. In 1996 there were 223 miles of roads within the 12 cities in Douglas County (excluding State and County maintained roads). The number of miles in each city varied widely from a low of 2 miles in Elkton to a high of 106 miles in Roseburg. (Revised 8/13/97)

79. The city road mileages serve primarily local needs.

OTHER ROADS

Public Non-County Maintained

80. There are approximately 335 miles of public noncounty maintained roads within the County. These roads are generally unimproved or graveled as most roads which are paved have been included within the County road system.

81. Most public noncounty maintained roads are either maintained by the individual or group efforts of property owners adjacent to the roads or are not maintained at all.

Private

82. Private roads include those roads in the County which have not been dedicated to public uses. These roads are all located on private property.

83. Some private roads are often open to public use and appear to be public roads. Other private roads are located on easements and are intended to serve a single user.

84. Many private roads in the County are owned by timber companies and are used to transport logs to mills for processing.

Undeveloped Rights of Way

85. In the early 1900s, numerous subdivisions were platted in Douglas County without consideration being given to any topographic constraints which might restrict their development. The result of this is that there are numerous dedicated rights of way which could never be developed as roads to serve adjacent property due to the steepness of the terrain or other constraints.

86. As interest arises in development of properties which would require access by such undeveloped rights of way, the County should determine the most appropriate means of access and, through vacation, trade or sale eliminate unusable rights of way and acquire appropriate access to allow efficient land utilization in these areas.

RAIL TRANSPORTATION

87. Railroads are an important part of the Douglas County freight transportation system carrying local goods

to markets across the country and goods needed in the County from markets elsewhere.

Facilities

88. Rail service to the County is provided by the Central Oregon Pacific Railroad and the Longview, Portland and Northern Railroad. Central Oregon Pacific operates two branch lines which run through the County - one line on the coast and the other through the central valley. The Longview, Portland and Northern Railroad (LP&N) operates a short branch line which extends from the Umpqua River on the Central Oregon Pacific coastal line to the International Paper facilities in Gardiner. Central Oregon Pacific Railroad (COPR) is a wholly owned subsidiary of RailTex Inc. COPR is the operator of the local branch line which provides rail support. The rail service is deemed important to the region and provides a lower cost option for freight shipments. (Revised 8/13/97)

89. The Oregon Public Utility Commission through its track inspection program provides an indication of the condition of and the maximum allowable speeds for all rail lines in the State. Segments of each of the Central Oregon Pacific lines in the County are designated as Class 3 and 4 indicating maximum speeds of 40 and 60 miles per hour, respectively. No Class 1 (rated at 10 mph) lines are identified in the County. (Revised 8/13/97)

90. In addition to the speed restrictions, the interior Central Oregon Pacific Railroad line between Riddle and the southern County line is restricted in that this section of track is not able to accommodate "AAR plate F cars" which have maximum height of 17 feet above the rails. (Revised 8/13/97)

Users

91. The shipment of goods to and from the County by rail totals 1,214,000 tons. In 1992, Central Oregon Pacific Railroad traffic originating and terminating in Oregon was lumber or wood products, fiberboard, paperboard or pulp board. The total originating and terminating tonnage in Douglas County is 3.6 percent of the state total. (Revised 8/13/97)

92. The Oregon Transportation Plan calls for the Port of Coos Bay to have multi-modal connections, and access to rail freight services. Rail service is currently provided by an independent carrier. The plan indicates that increased reliance should be placed on rail transportation for bulk freight movements between rail access points. The need for making roadway capacity improvements could be postponed if shipments are diverted away from the highway and onto rail. The Highway 38 and 42 corridors are considered a critical link in the state and regional freight transportation system. (Revised 8/13/97)

93. The Federal Railroad Administration categorizes rail lines according to the gross tonnage carried by a given line in a given year. By this system the two Southern Pacific lines in Douglas County are both classified as "A" Branchlines carrying between 1 and 5 million gross tons per year while the Longview, Portland and Northern line is a "B" Branchline carrying less than one million tons.

94. There is no passenger rail service available in Douglas County.

95. Serious car shortages from time to time have helped erode the railroads' share of freight shipments in Oregon. Also, recent growth in the west and south and the fact that a larger share of the lumber and plywood markets is being met by production in the southeastern states brings the markets for western wood products closer to home where there is more reliance on trucks.

96. The railroads are more energy-efficient than trucks over the same routes, although trucks can achieve much wider area coverage and greater flexibility because the highway network is so much more extensive than the railway network.

Projections

97. Projections in the OTP establish rail freight growth at 2.5 percent per year (the same as for truck). At this rate, rail traffic would grow by 50 percent in 20 years. The difficulty in predicting freight movements is that so many outside factors influence traffic movements. (Revised 8/13/97)

98. Originating traffic in lumber and wood products, is cyclical due to changes in production and demand associated with construction activities. Assuming the trends described in the Oregon Transportation Plan continue and that commodity movements not mentioned grow at an average rate of 2.5 percent annually as forecast in the OTP, total originating and terminating rail tonnage would be 43 million short tons in the year 2000. This represents a 27 percent increase over 1992. (Revised 8/13/97)

99. The Greater Roseburg Area Transportation Study supported relocating the rail switching yards from downtown Roseburg to Green. Until this project is completed, the use of Dillard rail spurs should continue. Central Oregon Pacific Railroad is encouraged to complete a detailed study to determine the economic, environmental and transportation related impacts and benefits of relocating the switching yard to Green or to another location outside Roseburg. (Revised 8/13/97)

100. More substantial increases in demand for rail service, depend on changes from current trends in both commodities and mode choice.

AIR TRANSPORTATION

101. The role of aviation in the County's overall transportation system is becoming increasingly important as the advantages of this form of transportation become recognized.

Facilities

102. There are four existing public use airports in Douglas County including Roseburg Regional, Myrtle Creek Airport, Felt Field (Roseburg) and the USFS Toketee Airfield. (Revised 8/13/97)

103. There are numerous private airstrips located throughout the County which provide service to agricultural, residential and industrial users.

Oregon Aviation System Plan

104. The Oregon Aviation System Plan (OASP) includes 165 existing or proposed airports as part of its system. The Roseburg Regional and Myrtle Creek Municipal are included in this group. (Revised 8/13/97)

105. Airports included within the OASP are eligible for state financial assistance for airport improvements.

National Airport System Plan

106. The federal government has established the National Airport System Plan (NASP). Two airports in Douglas County, Roseburg Regional and Myrtle Creek Municipal are part of this national system. (Revised 8/13/97)

107. The NASP has projected service levels and operation capacities for all airports in its system to the year 2014. The Myrtle Creek airport is projected to remain at their General Aviation - Basic Utility service and operational levels. The service and operational levels at the Roseburg Regional Airport are General Utility Stage I, Airport Reference Code (ARC)B-II airport. Should commercial air service be initiated, the dimensional design standards for the airport are not expected to change. (Revised 8/13/97)

Roseburg Regional Airport

108. The Roseburg Municipal Airport has a 4,600 foot long 100 foot wide asphalt runway with medium intensity lighting that includes medium intensity taxiway lighting. A total of 108 general aviation aircraft were based at the airport in 1994 with annual operations totaling 30,794, including both based and itinerant use. (Revised 8/13/97)

109. The Roseburg Regional Airport Master Plan projects that in the year 2014 there will be 150 aircraft based at that facility and that annual operations for that year will total 45,884. (Revised 8/13/97)

Sutherlin Municipal Airport

110. Sutherlin had a municipal airport between 1946 and 1990; it was closed in 1991. Closure was based on the realization that the airport could not be expanded for commercial aviation use. (Revised 8/13/97)

111. Air passenger facilities are available at Roseburg and Eugene. The City of Sutherlin has designated the former airport park area as an industrial park. There are three tenants in the industrial park, and further development is anticipated. There are no plans to re-open the Sutherlin airport in the future. (Revised 8/13/97)

Myrtle Creek Municipal Airport

112. This facility has a 2,600 foot long and 50 foot wide asphalt runway with no lighting. Eleven aircraft were based at the airport in 1995 with a total of 2,200 local itinerant operations at that facility in the same year. (Revised 8/13/97)

113. In 1995, the City of Myrtle Creek and State of Oregon - Department of Transportation Aeronautics completed an Airport Layout Plan Report in order to examine the existing configuration of the airport and to provide direction for future airport development. The development of the Airport Layout Plan Report reflects recognition by the City of Myrtle Creek of a need to improve basic airfield facilities, operational efficiency and safety while providing opportunities for private investment in aviation facilities. (Revised 8/13/97)

114. The OASP projects that by the year 2013 the number of based aircraft at Myrtle Creek will total 31 planes and the number of annual operations will reach 6,250. (Revised 8/13/97)

Toketee Airfield

115. The Toketee Airfield is located within the Umpqua National Forest and operated by the U. S. Forest Service via a special agreement with ODOT to provide an emergency airstrip. The Oregon Department of Transportation completes the maintenance of this facility. The facility consists of a 6,000 foot dirt runway. No aircraft are based at the airfield and no services are available. The airfield is used predominantly by the Forest Service for emergency and administrative purposes. The number of operations occurring at the airfield in 1979 was 600. (Revised 8/13/97)

Felt Field

116. Felt Field is the only privately owned public use airport in the County. The facility includes a 2,375 foot long turf runway with no lighting. In 1991, seventeen aircraft were based at the airport. There are no records of the number of annual operations in 1996. The 1979 annual operations totaled 3,700. (Revised 8/13/97)

117. The OASP projects that by the year 2000 the number of based aircraft at Felt Field will total 32 planes and the number of operations will reach 5,900.

Users

118. There is no scheduled commercial air passenger service available in Douglas County.

119. It is estimated by the State Aeronautics Division that, in 1979, there were 449 active pilots in Douglas County. Projections by that Division indicate that the number of active pilots should increase to 622 by the year 2000.

120. The Oregon Transportation Plan has defined a minimum level of service for commercial airports. For Roseburg, Air service connections between Portland or other West Coast hubs, and other areas of Oregon should be provided whenever commercially viable (three round trip planes per day of 19 passengers as a minimum measure of commercial viability) or whenever intercity air connections are more economic than providing operating assistance to other modes. (Revised 8/13/97)

121. The number of active general aviation based aircraft at existing airports in Douglas County in 1995 was estimated to be 150 by the State Aeronautics Division. By the year 2014, this number is projected to increase to 227, a 51% increase. (Revised 6/28/89), (Revised 8/13/97)

Airport Compatibility

122. The Federal Aviation Administration has defined "imaginary surfaces" which identify the areas where fixed objects would obstruct navigable airspace above airports. It is to the benefit of both air travelers and people on the ground to have navigable airspace free of obstructions.

123. Compatible land uses that avoid safety and noise conflicts may be achieved through either existing zoning districts or by establishing a special airport overlay zone that would modify the underlying zoning districts in the vicinity of airports.

WATERWAY TRANSPORTATION

124. Water transportation is a very efficient method for the movement of goods and raw materials. The average 1979 rate per ton-mile for water transported freight was less than one cent. To approximate 1995 rates, shipping costs for grain down the Columbia River from the Lewiston/Clarkston area were used. The range is (dollars per ton of grain): $5.55 - barge, $10.15 train, $25.00 - truck. The average 1995 freight revenue rate per ton-mile for water transported freight was $0.0073. This compares with $0.025 by rail and $0.2508 by truck. (Revised 8/13/97)

125. The economy of this form of transportation in conjunction with the types of goods and raw materials which require movement in this area have resulted in the Port of Umpqua being the third largest tonnage handling port on the Oregon coast.

126. Portions of three rivers in Douglas County are navigable for freight transportation including the Umpqua River, Smith River and Schofield Creek. The Umpqua and Smith Rivers are maintained by the Corps of Engineers to depths of 22 feet and 6 feet for lengths of 12 miles and 1 mile respectively. Schofield Creek is navigable for 6 miles with a channel depth of 6 feet.

Facilities

127. Port facilities in coastal Douglas County are under both public and private ownership. These facilities include Salmon Harbor, a docking facility located in Reedsport under the jurisdiction of the Port of Umpqua, Umpqua River Navigation sand and gravel receiving and shipment station in Reedsport, Willamette Industries Bolon Island dock, and International Paper's wood chip unloading wharf in Gardiner. (Revised 8/13/97)

Users

128. In 1980 a total of 1,010,646 short tons and in 1995 a total of 268,874 short tons were shipped using port facilities in coastal Douglas County. The majority of the materials shipped included sand, gravel, crushed rock and wood products. The remainder of the shipments were comprised of fuel oil, and fish. (Revised 8/13/97)

Projections

129. As the variety of goods shipped in the County is limited primarily to sand and gravel and logs, the future of waterborne freight transportation is tied closely to the market for these materials and the efforts at diversification of the coastal economy.

130. Some homes on the north side of the Umpqua River do not have direct road access. These property owners obtain access via boat to Highway 38. The ongoing access needs of these property owners should be addressed when highway improvements are proposed. (Revised 8/13/97)

PIPELINE TRANSPORTATION

131. Pipelines are the predominant means of transporting gaseous and liquid fuels.

132. Among the advantages of this form of transportation are its low operating cost and relatively small labor requirement.

133. Pipeline drawbacks include its high initial investment, one way flow of one or a limited variety of products, and a low transport speed of about five miles per hour.

Facilities

134. The Northwest Pipeline Corporation operates a ten inch natural gas transmission line in central Douglas County. Gas from this line is distributed to consumers in the County by W.P. Natural Gas. (Revised 8/13/97)

135. Natural gas is generally available along this pipeline corridor including all cities in the interior of the County except Elkton, Drain, Yoncalla and Glendale.

136. No gas or oil transmission or distribution facilities are located in the coastal portion of the County.

Users

137. W.P. Natural Gas serves approximately 11,120 customers in Douglas County including 9,300+/- residential users and 1,820+/- commercial and industrial users. (Revised 8/13/97)

138. The largest consumer of natural gas in southwest Oregon is Glenbrook Nickel which uses approximately 8 million therms per year, one-tenth of W.P. Natural Gas sales in Oregon. (Revised 8/13/97)

139. Over the period from 1972 to 1982 the amount of gas sold in Oregon decreased from approximately one billion therms to 680 million therms, a decrease of 32%.

Projections

140. The existing pipelines in the State have sufficient capacity to meet the State's needs at least to 1999. The Oregon Transportation Plan provides a minimum level of service for pipelines. In order to make alternative fuel widely available to the transportation uses and to support regional economic development opportunities, adequate natural gas should be available every 100 to 150 miles on major interstate/statewide transportation corridors throughout the state when economically feasible. The pipeline system within Douglas County exceeds the standards of the Oregon Transportation Plan. (Revised 8/13/97)

141. Industries along the Hwy. 42 corridor have expressed interest in the development of a natural gas pipeline from the existing Grants Pass lateral west of Roseburg to the coast. Preliminary investigations indicate that such a utility, accommodated within the existing Bonneville Power Administration electric transmission line clearing, may be viable and may be a catalyst to economic development in the area. (Revised 8/13/97)

PUBLIC TRANSPORTATION

142. The Oregon Public Transportation Plan, outlines the public transportation choices for a community. Implementation of the Oregon Public Transportation Plan builds from maintaining the existing system as it is today. A second step should keep pace with growth. And a third step should offer a menu of service options. A variety of public transportation services are available to Douglas County residents. (Revised 8/13/97)

Bus Service

143. Greyhound Lines, Inc. operates buses along two north-south corridors through Douglas County.

144. Along the I-5/Highway 99 corridor, Greyhound operates four buses per day - two northbound and two southbound. (Revised 8/13/97)

145. Greyhound operates two buses per day - one northbound and one southbound along Highway 101. (Revised 8/13/97)

146. Raz Transportation provides service from Reedsport to Eugene, but not to the interior of Douglas County. (Revised 8/13/97)

147. In addition to scheduled bus service chartered bus service is provided in the County by Greyhound, Trailways, Ellison Transportation and other smaller charter companies.

Taxi Service

148. Taxi service is to west, south and central Douglas County by companies based in Reedsport, Roseburg and Myrtle Creek. (Revised 8/13/97)

149. The Oregon Transportation Plan has defined a minimum level of service for the Roseburg Market area to have at least three minimum intermodal (Ex. taxi, bus, transit, train, air) round trip connections to Portland available per day via intercity passenger modes. The minimum of three intermodal methods to connect to Portland are: ① "Umpqua Regional Transit" to Roseburg, bus to Eugene for connection by bus to Portland, ② Taxi to Roseburg, bus to Eugene for connection by air to Portland, ③ Bus to Eugene, connect to passenger rail to Portland. Historically, the commercial venders (bus and air) have met market demand for service. The existing level of service complies with the pre-defined minimum. (Revised 8/13/97)

150. ODOT has funded a fixed route pilot project, north from Roseburg to Oakland and south to Canyonville, which has complemented an established demand responsive service to the transportation disadvantaged in rural areas of the County. The combined fixed route, Dial A Ride, and senior van systems, provides a needed service throughout Douglas County. (Revised 8/13/97)

151. ODOT proposes to daily intercity transit modes/markets and support public/private partnership opportunities to serve Hwy. 38 and 42, including connections to the Willamette Valley. This extension would enhance and expand the existing senior on-demand transit services. (Revised 8/13/97)

PEDESTRIAN TRANSPORTATION

152. The use of footpaths and bicycle paths as means of transportation is more effective in urban areas and within urban growth boundaries than in rural areas. (Revised 8/13/97)

153. In rural areas trip origins and destinations are separated by greater distances, motor vehicle speeds are higher and sidewalks are not economically feasible to construct. These factors have the effect of discouraging walking as a means of transportation outside of immediate neighborhoods.

TRANSPORTATION DISADVANTAGED

154. The transportation disadvantaged who, because of age, disability or low income, are unable to take full advantage of Douglas County's automobile-based transportation system are demonstrating an increasing interest in public transportation services that are available to other Oregonians. While members of the general public make an average of 2.2 trips per person per day, the comparable figures for those who are transportation disadvantaged range from 0.8 to 1.4 trips per person per day. (Revised 8/13/97)

155. No one mode of transportation can solve the mobility problems experienced by these people.

156. The most efficient system would be one that meets the varying requirements of its passengers with a variety of types and levels of service.

The Poor

157. The costs of ownership and operation of the automobile often limits, or even eliminates, that transportation option to the poor.

158. The problems of the poor become particularly significant in a county such as Douglas where the population density is low, where activity centers are widely dispersed, and where few trip destinations are accessible by other means of transportation.

159. In 1979, 10,289 County residents or 11.1 percent of the total population had incomes below the poverty level. In 1990, 13,828 County residents or 14.6 percent of the total population had incomes below the poverty level. (Revised 8/13/97)

The Young

160. Those persons in the 10 to 14 age group generally desire an increased level of mobility and often do not have access to the transportation necessary for their social and extracurricular activities. (Revised 8/13/97)

161. In 1980 this group totaled 9,603 persons or 10.2 percent of the County population. In 1990, 13,828 County residents or 14.6 percent of the total population had incomes below the poverty level. (Revised 8/13/97)

The Elderly

162. As a result of the natural aging process the elderly often experience difficulty in operating an automobile or in taking advantage of other forms of transportation. As a group these people suffer from a series of limitations including physical weakness, limited use of limbs, poor eyesight, hearing loss, slow reaction time, etc. While no single limitation may be severe enough to merit inclusion in the handicapped group, any combination of these physical limitations may reduce the elderly's mobility.

163. In 1980, 10,165 persons or 10.8 percent of the County population was over 65. In 1990, 17,340 persons or 17.7 percent of the County population was over 65. (Revised 8/13/97)

The Disabled

164. Those persons classified as disabled include those who, because of physical limitations, are unable to operate an automobile or use conventional types of public transit and those who are unable to comprehend and appropriately respond to directional signs or verbal instructions.

165. The 1990 Census identifies 13,557 or 14.3 percent of Douglas County residents were disabled. The census category does not include seniors with physical limitations that are unable to use current modes of transportation. As the number of seniors increase, the number of citizens with disabilities is expected to increase. (Revised 8/13/97)

The Composite Group

166. Not all of the people included in these groups are transportation disadvantaged and in need of special public transit. Rather identification of these people simply indicates those with a potential need for these services.

167. A study prepared by ODOT estimated the potentially transportation disadvantaged in Douglas County in 1972 to comprise 16.5 percent of the County population. Applying this percentage to the 1995 population would indicate that as many as 16,120 persons in Douglas County were potentially transportation disadvantaged in that year. (Revised 8/13/97)

168. Areas such as Glide, Glendale, Reedsport clearly would benefit from transit services. Historically, transit services have been provided through multi-jurisdictional subsidies, fares and donations. Although, recent statewide property taxes reduction measures have been approved by voters, preliminary surveys

conducted by the Umpqua Regional Council of Governments in the greater Roseburg area suggest that voters are not opposed to subsidizing a transit system that has a local benefit. Local community efforts in the greater Roseburg area to provide volunteer demand responsive transit services may not adequately serve forecast demand but it does rally community support and heighten public awareness. It is recommended that the State of Oregon, ODOT, Douglas County and its incorporated cities continue support for the flexible transit programs. (Revised 8/13/97)

169. The Umpqua Regional Council of Governments is conducting a transit feasibility study for the greater Roseburg area. At the conclusion of this study, Douglas County will evaluate the conclusions as part of its comprehensive planning program. (Revised 8/13/97)

BICYCLE TRANSPORTATION

Bicycle Usage

170. The popularity of bicycling continues to increase in this country. (Revised 8/13/97)

171. Assuming Douglas County is typical of the nation overall, there are approximately 27,000 bicycles in the County. Bicycles are found in most American households; the number of cyclists is rising, particularly among adults, who outnumber child cyclists. It is estimated that one Oregonian in two owns a bicycle. (Revised 8/13/97)

Types of Bicycle Trips

172. Cycling activity, as with other forms of travel, falls into two major categories: recreational and utilitarian. The type of bikeways appropriate for recreational use often differ considerable from those intended for utilitarian use. Recreational cycling involves the use of bikeways for touring, exercise, social purposes or as a sport. Utilitarian cycling utilizes bikeways to reach a specific destination, such as employment, school, and for neighborhood circulation trips such as shopping, childrens' activities, etc. The skill of the cyclist within both of these categories vary greatly. (Revised 8/13/97)

173. Often the recreational cyclist will prefer meandering or looping routes with scenic qualities which avoid areas with high automobile traffic volumes. Recreational trip length is not as important a factor as utilitarian trip length in that the cycling activity is the purpose of the recreational trip rather than reaching a specific destination.

174. Consideration of trip length and relative travel time is a prime factor in identifying work trips which could be served by bikeways. Work trips are utilitarian and are very sensitive to travel time. Average trip distances are short (typically under five kilometers), and short trips are the ones most easily made by bicycling or walking. (Revised 8/13/97)

175. Urban areas benefit most from improved bicycle and pedestrian transportation facilities. School trips are utilitarian and have the most probability of being served by bicycle travel. However, responses to the County bikeway questionnaire indicate that in rural portions of the County where elementary school attendance areas are large relatively few students ride to school. (Revised 8/13/97)

176. Neighborhood circulation trips cover all the miscellaneous trips made in a neighborhood which cannot be readily classified including children's activities, local shopping, visiting friends, trips to parks, etc. The number and frequency of these types of trips is a function of the local population and the favorability of the bicycling environment. This type of trip is particularly important to all youth below driving age as the bicycle is their primary means of personal mobility. The number of dedicated walkways between residential areas have been reduced because of increasing vandalism and criminal activities. (Revised 8/13/97)

Trip Length

177. In Oregon, approximately 16% of the adult population do not have a valid driver's license. Walking and

bicycling are often their only transportation choices, especially in areas not served by public transportation. School age children make up approximately 13% of Oregon's population. Walkways and bikeways enable school children to walk or bike more safely and conveniently to school, reducing the need for busing or automobile trips by parents. (Revised 8/13/97)

178. The length of cycling trips for various recreational and utilitarian purposes varies considerably depending on topography, bikeway availability and traffic characteristics. With minimal physical exertion, a person in reasonable physical condition can walk up to one kilometer (0.621 mile) or ride a bicycle up to 5 kilometer (3.1 miles) or more, in less than twenty minutes. - shorter than many automobile or transit commutes. (Revised 8/13/97)

Monthly Ridership

179. Bicycle volume counts conducted by ODOT indicate that in 1973 seventy-four percent of all usage of the bikeways counted occurred from May through October. A 1993 survey taken for the Oregon Bicycle and Pedestrian Plan in Eugene, Corvallis and Bend indicate that a third of regular bicycle commuters ride year-round; others ride from March to November. Traveling in the dark may be more of a deterrent than weather. (Revised 8/13/97)

180. The Oregon Bicycle and Pedestrian Plan identifies that most bicycling crashes (65% - 85%) do not involve collisions with motor vehicles; they usually involve falls or collisions with stationary objects, other cyclists and pedestrians. Many bicycle/motor vehicle crashes are not reported. The Oregon Bicycle and Pedestrian Plan statistics reveals statewide approximately 800 injury crashes a year are reported including 10-15 fatalities (1-2% of total). (Revised 8/13/97)

Bicycle Accidents

181. In Douglas County, between January, 1977, and September, 1982, there were 105 bicycle accidents which were reported to the Oregon Motor Vehicles Division. Two of these accidents involved fatalities. Only one cyclist in the 105 accidents did not receive injuries. All but one accident involved a motor vehicle as a direct collision. The only accident not involving a collision resulted from a cyclist's attempts to avoid a collision with a motor vehicle. As reflected by these statistics, the cyclist is in jeopardy regardless of who violated the traffic laws. (Revised 8/13/97)

182. Seventy-five per cent of the accidents reported between January, 1977, and September, 1982, involved cyclists 18 years of age and younger.

183. Sixty per cent of the accidents during the survey period occurred between 3:00 p.m. and 7:00 p.m. This is consistent with the period of high ridership, as it is after school and during the early family hours. Also, traffic volumes during this period of time are heavier, resulting in a higher degree of exposure.

184. Of the 105 accidents reported, 75 were determined to be the fault of the bicyclist. Thirty were the fault of the motor vehicle driver. Most crashes are due to bicyclists or motorists disobeying the rules of the road, often out of ignorance. Most crashes occur where two roadways or a roadway and a driveway intersect, and one user failed to yield the right of way to the other. The leading cause of crashes in which the bicyclist is at fault is wrong-way riding. This behavior is observed in about 15% of riders, and is responsible for 17% of crashes. (Revised 8/13/97)

185. No unincorporated location within the County was identified as exhibiting a pattern of bicycle-related accidents.

COUNTY BIKEWAY SYSTEM

Route Selection Criteria

186. Three primary and a number of secondary criteria have been used in the process of selection of bikeways for designation by this Plan. The primary criteria include anticipated usage of the bikeway, safety of the bikeway and cost of construction. These criteria were rated as being of significant importance by most of the respondents to the questionnaire. Although all are considered to be of significant importance, the relative value of each varied from route to route.

187. In the less densely populated portions of the County, most of the cycling which occurs is recreational. The distances from residential areas to activity centers in rural areas generally are such that utilitarian cycling is not practical. (Revised 8/13/97)

188. In the more densely populated areas, such as Roseburg, where residential areas are closer to activity centers, utilitarian cycling is more common.

189. The greatest amount of utilitarian cycling occurs within city limits - particularly Roseburg - where densities are the greatest and the distances from residential areas to activity centers are the shortest.

190. It is recognized that the increased interest in jogging and walking has resulted in use of many bikeways by this secondary user group. This secondary use is anticipated to continue and, as a result, has been considered in designation of all bikeways in this Plan. (Revised 8/13/97)

191. In all rural areas most bikeways are anticipated to be recreational. However, in the more urban areas of the County, consideration has been given to utilitarian needs as well as recreational needs.

192. The recreational routes which are proposed are intended to serve cyclists of most levels of ability and interest from the occasional cyclist interested in a trip of moderate length involving an hour or less time to the accomplished cyclist interested in long distance trips involving a half day, full day or longer.

193. Utilitarian routes have been mapped to connect major residential areas with activity centers including industrial, commercial, institutional and recreational sites. These routes are located in the urban area around Roseburg and in Green and the Tri City portion of the Myrtle Creek UGB. (Revised 8/13/97)

194. In unincorporated areas of the County where densities are low, short distance bikeways generally would not receive enough use to warrant inclusion in this Plan. The exceptions to this are the County's urban unincorporated areas particularly the Tri City portion of the Myrtle Creek UGB and Green. (Revised 8/13/97)

195. The need for additional short distance bikeways in the County's urban unincorporated areas should be assessed in the future and this Plan amended as appropriate.

196. The significance of safety to residents of the County was made evident by the responses to the bikeway questionnaires. This criterion was rated as the most significant factor to be used in selection of specific bikeways.

197. Four potential conflicts between motor vehicles and bicycles were evaluated in designating routes along roadways for inclusion within the bikeway system. These four criteria include the speed of motor vehicle traffic, the volume of motor vehicle traffic, the separation of motor vehicle and bicycling traffic and turning and intersection conflicts.

198. The degree to which safety has been considered in designating bikeways in this Plan has varied depending on the type of use a designated route is anticipated to receive. In designating routes intended for short distance school, neighborhood circulation or recreational use, safety has been considered to be a more significant factor than for routes intended for long distance recreational use.

199. As a criterion in route selection, construction cost includes consideration of the anticipated primary user

group and the physical characteristics of the route.

200. The cost of construction has been a more significant criterion in designating recreational bikeways than utilitarian bikeways due to the importance of safety and directness of utilitarian bikeways.

201. The adequacy of road right-of-way width, roadway pavement width and physical barriers to bikeway construction are other factors involved in the evaluation of the cost of bikeway construction.

202. Often only one roadway exists which would satisfy an identified bikeway need. This is particularly true in rural areas where there are fewer roads.

203. In areas where alternative routes could serve an identified need, five criteria, in addition to anticipated usage, safety and construction cost, were used in the route selection process. These criteria include directness of the route, continuity of the route with other routes or facilities, the grade(s) of the route, the scenic quality of the route and the frequency of required stops along the route. The relative significance of these five criteria in the route selection process varied depending on the anticipated primary usage of the alternative routes under consideration. For utilitarian routes, directness, continuity and grade(s) of the potential alternatives were the more significant criteria. For recreational routes, scenic quality and the number of required stops were given greater consideration. (Revised 8/13/97)

Determination of Bikeway Classification

204. This Bikeway Plan includes all three classes of bikeways.

205. The criteria used in determination of the appropriate classification for each route was based on a number of factors including safety, cost of route construction, level of usage anticipated, and type of usage anticipated.

206. Few Class I routes have been proposed by this Plan due primarily to the high cost of construction of this bikeway type. This Class of bikeway is proposed primarily in areas where no other class of route is feasible or where safety requires it. This Class of bikeway is proposed in areas where no other class of route is feasible, such as the maintenance road under I-5 on the Fairgrounds to Green Route #30 or where safety requires it, such as State Highway 99 over the North Umpqua River. (See Bikeway Master Plan Map for location of bikeways.) (Revised 8/13/97)

207. No Class II bikeways are designated in this Plan other than those which presently exist. This class of bikeway is generally considered to be undesirable.

208. For the purposes of this Plan, Class III bikeways have been divided into two subclasses: Class III and Class IIIs. Class III bikeways will all include creation of striped lanes on the roadway pavement in addition to signing and other required improvements. Class IIIs bike routes may require some of the improvements required for Class III bikeways. However, Class IIIs routes will not include creation of striped lanes.

209. In the determination of the appropriate classification for all routes in the County, emphasis has been placed on designating bikeways for Class III and IIIs improvements. This is due to the generally low cost of development of these types of bikeways and their appropriateness in the more rural portions of the County.

210. Bikeways which have been designated for full Class III improvements (including striping of bike lanes) have received this designation because of the high volumes of automobile traffic they carry and widths of their respective travel lanes, the high volume of existing or anticipated bicycle ridership on the road and/or the extent of existing or anticipated usage of the bikeway by children.

211. Use of these criteria has resulted in the designation for full Class III improvements to many State highways and roads to schools and parks which are proposed to be included within the bikeway system.

212. Roadways which are proposed for improvement to the Class IIIs bike route standards generally are those routes in rural areas which are relatively long distance and are intended for use by accomplished cyclists,

and rural routes with low volumes of vehicular and/or cycling traffic use.

Inventory of Designated Bikeways

213. Approximately 679 miles of bikeways have been designated by this Plan for unincorporated area of the County. A breakdown of this mileage by type of bikeway follows: (Revised 8/13/97)

Designated Bikeways

Class I	25.8 miles
Class II	1.2 miles
Class III	127.2 miles
Class IIIs	355.4 miles

214. Of the 60 bikeways designated by this Plan, the total length of 4 of these and part of an additional 3 bikeways have been constructed. The total mileage of these constructed bikeways is 27.4 or 5.5% of the overall system.

215. The bikeways designated by this plan are shown on the Bikeway Master Plan Map, Map 2 (at end of policy section), and defined by the following listing:

TABLE 13-2. DESIGNATED BIKEWAY ROUTES. (Revised 5/31/95), (Revised 8/13/97)

BIKEWAY ROUTE #	ROUTE NAME	ROAD NUMBER	LIMITS	CLASS	JURIS-DICTION	APPROXIMATE MILEAGE
			COAST			
1	U.S. Hwy 101	101	Northern County limits to Southern County limits	III	State	22.0
2	Sparrow Park Rd.	247	U.S. Hwy 101 to end (beach)	IIIs	County	3.5
3	Salmon Harbor Dr.	251	U.S. Hwy 101 to end (beaches)	III	County, State & Federal	4.0
4	Lighthouse Rd.	87	U.S. Hwy 101 to Sal-mon Harbor Dr. #251	I or IIIs	County, State & Federal	1.5
5	**Transcontinental Bike Route**					
	Smith River Rd.	48	U.S. Hwy 101 to BLM Rd. 20-11-36.0	IIIs	County	13.0
	BLM Rds.	20-11-36.0	End of Smith River Rd. #48 to beginning of BLM Rd. 20-8-17.0	IIIs	Federal	28.0
	BLM Rd.	20-8-17.0	BLM Rd. 20-11-36.0 to northern County limits	IIIs	Federal	11.0
6	**Reedsport-Sutherlin Route**					
	State Hwy	38	Reedsport city limits to Elkton city limits	IIIs	State	35.0

	State Hwy	138	Elkton city limits to Sutherlin city limits	IIIs	State	24.0

BIKEWAY ROUTE #	ROUTE NAME	ROAD NUMBER	LIMITS	CLASS	JURIS-DICTION	APPROXIMATE MILEAGE
			NORTH COUNTY			
7	State Hwy Drain Yoncalla Hwy Goodrich Highway	99 389 126A	Pass Creek Park to Rice Hill (excluding sections within Drain city limits)	III	State & County	18.0
8	Territorial Hwy	116	State Hwy 99 to northern County limits (Gravel)	IIIs	County	5.6
9	**Hayhurst Route**					
	State Hwy	38	Drain city limits to Hayhurst Rd. #24	III	State	1.0
	Hayhurst Rd.	24	State Hwy 38 to Yoncalla city limits	IIIs	County	8.0
10	**The Dr. Al Morelang Aerobic Route**					
	Elkhead Rd.	7	Drain Yoncalla Hwy 389 to beginning Elkhead Road #50	IIIs	County	10.0
	Elkhead Rd.	50	End of Elkhead Rd. #7 to Driver Valley Rd. #22	IIIs	County	8.0
11	Scotts Valley Rd.	8	Elkhead Rd. #7 to Scotts Valley School	IIIs	County	0.6
			CENTRAL COUNTY			
12	**Dr. Warren Kadas Scenic Loop**					
	Driver Valley Rd.	22	Oakland city limits to Fair Oaks Rd. #22A (southerly intersection)	IIIs	County	13.0
	Fair Oaks Rd.	22A	Driver Valley Rd. #22 to Driver Valley Rd. #22 (link)	IIIs	County	4.0
13	**Sutherlin-Driver Valley Route**					
	Nonpareil Rd.	19	Sutherlin city limits to Plat K Rd. #75	IIIs	County	3.0
	Plat K Rd.	75	Nonpareil Rd. #19 to Fair Oaks Rd. #22A	IIIs	County	1.4
14	**Cooper Creek Access**					

	Southside Rd.	120	Sutherlin city limits to Cooper Ck. Rd. #305	III	County	0.9

BIKEWAY ROUTE #	ROUTE NAME	ROAD NUMBER	LIMITS	CLASS	JURIS-DICTION	APPROXIMATE MILEAGE
	Southside Rd.	120	Nonpareil Rd. #19 to Cooper Ck. Rd. #305	IIIs	County	1.1
	Cooper Ck. Rd.	305	Southside Rd. #120 to end (Cooper Ck. Reservoir)	III	County	2.4
15	**The Ron Hjort - Rochester Bridge Loop**					
	Green Valley Rd.	23A	Oakland city limits to beginning of Green Valley Rd. #23	IIIs	County	0.4
	Green Valley Rd.	23	End of Green Valley Rd. 23A to Rochester Rd. 76	IIIs	County	2.4
	Rochester Rd.	76	Green Valley Rd. #23 to Rolling Ridge Rd. #10	IIIs	County	1.0
	Rolling Ridge Rd.	10	Rochester Rd. #76 to State Hwy 138	IIIs	County	0.4
	Stearns Lane	10A	Rolling Ridge Rd. #10 to Oakland city limits	IIIs	County	3.4
16	**Oakland-Sutherlin Route**					
	Oakland Underpass	10B	Stearns Lane #10A to State Hwy 99	III	County	0.1
	Oakland Shady Hwy	338	Oakland Underpass #108 to Sutherlin city limits	III	State	0.7
17	Church Rd.	9A	State Hwy 138 to Fort McKay Rd. # 9	IIIs	County	0.5
18	**Sutherlin-Garden Valley-Winchester Route**					
	Fort McKay Rd.	9	Sutherlin city limits to Garden Valley Rd. #6	IIIs	County	6.2
	Garden Valley Rd.	6	Fort McKay Rd. #9 to River Forks Park	IIIs	County	7.4
	Old Garden Valley Rd.	6	River Forks Park to Garden Valley Rd. #6 (east)	III	County	1.4
	Garden Valley	31A	Garden Valley Rd. #6 (north) to Del Rio Rd. #31	III	County	0.6
	Del Rio Rd.	31	Garden Valley Rd. #31A to Del Rio Rd. #115	III	County	4.2

	Del Rio Rd.	115	Del Rio Rd. #31 to State Hwy 99	III	County	2.0

BIKEWAY ROUTE #	ROUTE NAME	ROAD NUMBER	LIMITS	CLASS	JURIS-DICTION	APPROXIMATE MILEAGE
18A	Wilbur Rd.	31	Del Rio Rd. #31 to Oakland Shady Hwy 338	IIIs	County	2.2
	Oakland Shady Hwy	338	Sutherlin city limits to College Rd. #284	III	County	4.4
18A (Cont.)	State Hwy	99	College Rd. #284 to Roseburg city limits excluding North Umpqua Bridge and segment between Club and Courier (North Roseburg)	III	State	3.7
	State Hwy	99	Bridge over North Umpqua River	III	State	0.1
	State Hwy	99	Club St. to Currier Ave. (North Roseburg)	II	State	0.2
18B	Garden Valley Rd.	31	Garden Valley Rd. #6 to Del Rio Rd. #31	IIIs	County	1.2
19	Garden Valley Rd.	6	Roseburg city limits to Garden Valley Rd. #31A	III	County	3.4
20	Umpqua College Rd.	284	Oakland Shady Hwy #338 To UCC	III	County	1.7
21	Page Rd.	115A	State Hwy 99 to Mile Post 0.76	II	County	0.8
22	North Bank Rd.	200	Oakland Shady Hwy #338 to N. Umpqua Hwy 138	IIIs	County	17.0
22.5	Sunshine Rd.	58	North Bank Rd. #200 to North Umpqua Highway 138 (No Access Across River)	IIIs	County	5.0
23	**North Umpqua Route** (Revised 8/13/97)					
	Douglas Ave.	4A	Roseburg city limits to No. Umpqua Hwy 138	III	County	1.0
	North Umpqua Hwy	138	Douglas Ave #4A to Glide Loop Rd. #4G	III	State	13.7
	North Umpqua Hwy	138	Glide Loop Rd. #4G to river crossing	I	State	1.6
	North Umpqua Hwy	138	River crossing to Swiftwater Rd. #361	IIIs	State	4.4

	North Umpqua Hwy	138	Swiftwater Rd to Diamond Lake	IIIs	State	61.0

BIKEWAY ROUTE #	ROUTE NAME	ROAD NUMBER	LIMITS	CLASS	JURIS-DICTION	APPROXIMATE MILEAGE
	Swiftwater Rd.	361	North Umpqua Hwy 138 to Swiftwater Park	IIIs	County	0.4
	Glide Loop Rd.	4G	North Umpqua Hwy 138 to North Umpqua Hwy 138 (alternate route)	III	County	2.0
24	**Buckhorn Road Route**					
	Buckhorn Rd.	4C	North Umpqua Hwy 138 to Dixonville Rd. #16	III	County	0.7
	Buckhorn Rd.	17	Dixonville Rd. #16 to O.C. Brown Park	III	County	1.1
	Buckhorn Rd.	17	O.C. Brown Park to Little River Rd. #17A	IIIs	County	10.2
	Little River Rd.	17A	Buckhorn Rd. #17 to No. Umpqua Hwy 138	IIIs	County	1.2
25	**Whistler's Bend Park Access**					
	Whistler's Lane	223	North Umpqua Hwy 138 to Whistler's Bend Pk. Rd. #244	IIIs	County	2.0
	Whistler's Bend Pk. Rd.	244	Whistler's Lane #223 to Whistler's Bend Park	IIIs	County	2.0
26	**Roseburg-Melrose Route**					
	Melrose Rd.	167	Garden Valley Rd. #6 to Melrose Rd. #13	III	County	1.2
	Melrose Rd.	13	Melrose Rd. #167 to Melrose Rd. #51	III	County	0.2
	Melrose Rd.	51	Melrose Rd. #13 to Colonial Rd. #52	IIIs	County	1.8
26.5	Harvard Ave. Extension		Roseburg city limits to Garden Valley Rd. #6 (No access across river)	III	County	2.5
27	**The Craig Glass Fun Run-Bike Route**					
	Melqua Rd.	13A	Melrose Rd. #13 to Cleveland Hill Rd. #59	IIIs	County	4.2
	Cleveland Hill Rd.	59	Melqua Rd. #13 to Melrose Rd. #51	IIIs	County	4.0

BIKEWAY ROUTE #	ROUTE NAME	ROAD NUMBER	LIMITS	CLASS	JURIS-DICTION	APPROXIMATE MILEAGE
27.5	**Cleveland Hill-Umpqua Route**					
	Melqua Rd.	13 & 13A	Cleveland Hill Rd. #59 to Hubbard Ck. Rd. #6	IIIs	County	5.8
	Hubbard Ck. Rd.	6	Melqua Rd. #13A to Fort McKay Rd. #9	IIIs	County	1.2
28	**Melrose-Lookingglass-Roseburg Route**					
	Flournoy Valley Rd.	51	Colonial Rd. #52 to Reston-Lookingglass Road #5	IIIs	County	6.3
	Reston-Lookingglass Rd.	5	Flournoy Valley Rd. #51 to Roseburg city limits	IIIs	County	9.5
	Old Melrose Rd.	13	Roseburg city limits to Melrose Rd. #167	III	County	3.0
29	**Roseburg-Green Route**					
	State Hwy	99	Roseburg city limits to Carnes Road #16	III	State	2.5
	Carnes Rd.	16	State Hwy 99 to Roberts Ck. Rd. #16	III	County	2.0
29.5	Portland Ave.	56A	State Hwy 99 to I-5 Interchange #123 (No access across river)	III	County	0.3
30	**Fairgrounds-Green Route**		Fairgrounds to Carnes Rd. #16	I	County & State	1.9
31	**Green-Dixonville Route**					
	Roberts Ck. Rd.	16	State Hwy 99 to Dixonville Rd. #16	IIIs	County	10.0
	Dixonville Rd.	16	Roberts Ck. Rd. #16 to Hatfield Dr. #4D	IIIs	County	3.2
	Hatfield Drive	4D	Dixonville Rd. #16 to No. Umpqua Hwy 138	IIIs	County	0.7
32	State Hwy	42	Carnes Rd. #16 to Winston city limits	I	State	2.0
33	**Winston Loop**					
	Winston Rd.	111	State Hwy 99 to Winston Park Rd. #266	IIIs	County	1.5

BIKEWAY ROUTE #	ROUTE NAME	ROAD NUMBER	LIMITS	CLASS	JURIS-DICTION	APPROXIMATE MILEAGE
	Winston Park Rd.	266	Winston Rd. #111 to Winston city limits	IIIs	County	0.5
34	**Lookingglass-Winston Route**					
	Lookingglass Rd.	47	Reston-Lookingglass Rd. #5 to Lookingglass Rd. 107	IIIs	County	5.0
	Lookingglass Rd.	107	Lookingglass Rd. #47 to Winston city limits	IIIs	County	0.8
35	Brockway Rd.	47	Lookingglass Rd. #107 to Dillard Hwy #387	IIIs	County	0.8
36	Happy Valley Rd.	26	Lookingglass Rd. #47 to Carnes Rd. #16	IIIs	County	4.7
37	State Hwy	42	Winston city limits to Lookingglass Ck.	II	State	0.2
	State Hwy	42	Lookingglass Ck. to Olalla-Tenmile Rd. #141	III	State	8.8
38	**Berry Creek Access**					
	Olalla-Tenmile Rd.	141	State Hwy 42 to Olalla-Coos Bay Rd. #140	IIIs	County	1.1
	Olalla-Coos Bay Rd.	140	Olalla-Tenmile Rd. #141 to Berry Ck. Access Rd. #365	IIIs	County	1.0
	Berry Creek Access Rd.	365	Olalla-Coos Bay Rd. #140 to Berry Creek Reservoir	IIIs	County	2.0
39	State Hwy	42	Upper Camas Rd. #128 to South Camas Rd. #131S	III	State	1.2
40	Main Camas Rd.	131W	State Hwy 42 to Camas Valley Elementary School	III	County	.2
41	**Winston-Myrtle Creek Route**					
	Dillard Hwy.	387	Winston city limits to Dole Rd. #14	III	County	6.0
			SOUTH COUNTY			
	Dole Rd.	14	Dillard Hwy #387 to Myrtle Ck. city limits (Gravel)	IIIs	County	5.6

BIKEWAY ROUTE #	ROUTE NAME	ROAD NUMBER	LIMITS	CLASS	JURIS-DICTION	APPROXIMATE MILEAGE
42	**South Myrtle Route**					
	South Myrtle Rd.	18	Myrtle Ck. city limits to Lower South Myrtle Rd. #18A	IIIs	County	1.2
	Lower South Myrtle Road	18A	South Myrtle Rd. #18 to Myrtle Ck. city limits	IIIs	County	1.2
43	**Covered Bridge Route**					
	Days Creek Cutoff Rd.	42	Myrtle Ck. city limits to Neal Lane #124	IIIs	County	0.6
	Neal Lane	124	Days Ck. Cutoff Rd. #42 to Myrtle Ck. city limits	IIIs	County	0.2
44	Myrtle Creek Hwy	386	Myrtle Creek city limits to I-5 Interchange #103	III	County	3.9
45	Chadwick Rd.	20B	Myrtle Creek Hwy #386 to So. Umpqua High School	III	County	0.6
46	**Tri City-Riddle Route**					
	Pruner Rd.	20	I-5 Interchange #103 to Riddle Bypass Rd. #263	IIIs	County	0.6
	Riddle Bypass	263	Pruner Rd. #20 to Glen-brook Loop Rd. #39 (excluding section within Riddle city limits)	IIIs	County	2.4
47	Glenbrook Loop Rd.	39	Riddle city limits to Hanna Nickel entrance	IIIs	County	2.7
48	Canyonville-Riddle Rd.	21	Riddle city limits to Canyonville City Limits	IIIs	County	4.8
49	Yokum Rd.	20A	Riddle city limits to I-5 Interchange #101	IIIs	County	2.4
50	Tiller Trail Hwy	1	I-5 Interchange #101 to Canyonville city limits	III	County	2.4
51	Tiller Trail Hwy	1	Canyonville city limits to Herbert's Pond Park	III	County	0.7
	Tiller Trail Hwy	1	Herbert's Pond Park to Tiller-So. Umpqua Rd. #46	IIIs	County	22.0
52	Canyonville Park Rd.	215	Tiller Trail Hwy #1 to Canyonville Co. Park	IIIs	County	0.4

BIKEWAY ROUTE #	ROUTE NAME	ROAD NUMBER	LIMITS	CLASS	JURIS-DICTION	APPROXIMATE MILEAGE
53	**Windy Creek Park Access**					
	Azalea-Glen Rd.	12B	Glendale city limits to Azalea-Glen Rd #12	III	County	0.3
53 (Cont.)	Azalea-Glen Rd.	12	Azalea-Glen Rd. #12B to Windy Creek Rd. #28	III	County	0.2
	Windy Creek Rd.	28	Azalea-Glen Rd. #12 to end County Rd.	IIIs	County	5.7
	State Forestry Rd.	32-6-13	End County Rd. to Windy Creek County Pk.	IIIs	State	0.6
54	**Diamond Lake Loop**		Route circles Diamond Lake	I	Federal	10.4
55	**Diamond Lake-Crater Lake Route** (Revised 8/13/97)					
	Forest Service	6592	Diamond Lake Loop to State Hwy 230	III	Federal	0.7
	State Hwy.	230	Forest Service Rd. #6592 to State Hwy 138	III	State	0.4
	State Hwy.	138	State Hwy 230 to Southern County limits	III	State	4.4
56	Diamond Lake-Lemolo Lake Bike Trail		Diamond Lake to Lemolo Lake	I	Federal	8.4
57	Glendale/Powers Bike Trail		Glendale to County Line		State	21.0
58	**Green Area**					
	Austin Road	207A	Rolling Hills to Old Hwy 99S	IIIs	County	1.2
	Cannon Ave	289	Stella St. to Hanna St.	IIIs	County	0.1
	Chandler Road	354A	Carnes Rd. to Melody Lane	IIIs	County	0.4
	Coronado Drive	278N	Del Mar Rd to Green Ave.	IIIs	County	0.2
	Delmar Drive	278A	Carnes Rd to Beech St.	IIIs	County	0.4
	Georginna Drive	375D	Rolling Hills Rd Stella St.	IIIs	County	0.2
	Grange Road	349	Hwy 42 to Roberts Creek Rd.	IIIs	County	0.7
	Green Siding Rd	110	Industrial Dr. to Carnes Rd.	IIIs	County	0.6

BIKEWAY ROUTE #	ROUTE NAME	ROAD NUMBER	LIMITS	CLASS	JURIS-DICTION	APPROXIMATE MILEAGE
	Green Ave.	278F	Carnes Rd. to Circle Dr.	IIIs	County	0.5
	Hermosa Way	278P	Green Ave. to Austin Rd.	IIIs	County	0.2
	Landers Ave	153	Rolling Hills to Melody Ln.	IIIs	County	0.6
	Little Valley Rd	186	Happy Valley Rd 90 degree bend	IIIs	County	0.6
	Melody Lane		Landers Ln to Rolling Hills Rd IIIs	Public		0.8
	Rolling Hills Rd	366	Hwy 42 to Happy Valley Rd	IIIs	County	1.8
	Stella Street	246	Austin Rd to Melody Ln.	IIIs	County	0.5

Consistency With Other Bikeway Plans

216. The Association of Oregon Counties (AOC) developed the Integrated Road Information System (IRIS) specifically for use by Oregon counties. IRIS is designed to acquire and maintain data concerning the roads contained within a county.

217. The objectives of IRIS are to: develop a customized computer system for Oregon's needs, provide better road management tools, develop efficient data acquisition methods and supply information as concisely as possible.

218. The inventory of road shoulders was utilized to evaluate the Class III and Class IIIs routes. In general, the Class III and Class IIIs routes are four foot wide paved surfaces.

219. The Year 2000 update of the Bicycle and Pedestrian Plan considered and evaluated the Urban Unincorporated Areas, Rural Communities and Rural Service Centers. At a minimum, pedestrian access to community centers is available on rudimentary undeveloped routes.

220. Presently, sidewalks are not available in most areas. This has occurred because development has used private road access, construction standards differed at the time the roads were built and a priority was set to complete the vehicle road network.

221. The City of Roseburg adopted a Bike and Pedestrian Plan on September 2009. The City of Reedsport adopted a Bikeway Master Plan on May 1990. These are the only cities in Douglas County with an adopted bikeway plan. (Revised 12/08/10)

222. Bikeways which are shown on the Bikeway Master Plan Map within cities are either in existence or have been adopted as bikeways by those cities.

223. Bikeways within the urban growth boundaries of the cities have been included in this Plan. These routes, particularly the ones which abut city limits, have been coordinated with the affected cities to ensure continuity through these areas.

224. Of the counties which are adjacent to Douglas County, only Jackson and Josephine Counties have adopted bikeway plans. Neither of these plans have designated bikeways which abut Douglas County.

225. Five bikeways within the State bikeway system, the Coast Bicycle Route (Hwy. 101), Interstate-5, Hwy 138, 38 and 42, passes through Douglas County. Bicycle facilities should be provided along the sections

of Highway 38 from Drain to Elkton and Reedsport to Scottsburg. All five bikeways are included as part of this Plan. (Revised 8/13/97)

226. There is no comprehensive plan for bikeway development in the Umpqua National Forest. However, the Forest Service has constructed a Class I bikeway that circles Diamond Lake. The Oregon Department of Transportation plans for Diamond Lake-Crater Lake Route has not been completed to date. The connections from the highway to the lake via Forest Service bike routes were completed. The highway portion has been included as it is considered to provide good recreational opportunities for campers in the Diamond Lake area to visit Crater Lake. (Revised 8/13/97)

227. The Bicycle Travel Association was instrumental in establishing in 1976 the TransAmerica Bicycle Trail from Astoria, Oregon, to Yorktown, Virginia. This 4,250 mile train is the longest recreational train in the world. An integral part of this trail is referred to as the Pacific Alternate, a 100.7 mile trail from Winchester Bay to Eugene. This alternate route is also included in this Plan as Bikeway Route #8. (Revised 8/13/97)

228. The State Comprehensive Outdoor Recreation Plan 1977 (SCORP) published by the State Parks Department, indicates that by 1990 Douglas County will have a need for 44 miles of bikeways. This projection is significantly lower than the mileage included in this Plan. The 1995 SCORP has divided the state into 12 regions, Douglas County is located in Region 6 (Coastal) and Region 9. Region 6 contains 10 miles of bicycle trails with a level of use at 468,740. Region 9 Contains 146 miles of bicycle trails with a level of use at 1,073,070. The Plan projects an increase in use from 1987-2000 of 7% for Region 6 and 71% for Region 9. (Revised 8/13/97)

229. The SCORP projections are qualified by the State Plan as having a "low level of reliability". These projections are countered by the results of local meetings conducted by the State which indicated bike trails to be a high priority.

IMPLEMENTATION

Responsible Agencies

230. The responsibility for improvement and maintenance of the bikeways designated by this Plan lies with those agencies which have jurisdiction over the right-of-ways on which the bikeways are located. A breakdown of the mileage for which each agency is responsible is as follows: (Revised 8/13/97)

County	278.6 miles
State	340.0 miles
Forest Service	38.1 miles
Bureau of Land Management	21.9 miles

231. The Federal government is not statutorily required to take land use actions consistent with County plans and policies. However, it is likely that Federal participation in development of these bikeways under Federal jurisdiction will occur. The bikeways identified in the National Forest will meet the needs of the recreational cyclists, as identified in this Plan.

Guidelines for Construction Priorities

232. Priorities for improvement of bikeway facilities were determined through several modes of public input including questionnaires, staff discussions and guests attending committee meetings. Information was also obtained from other agencies involved in bikeway planning and design, from literature on the subject of bikeways, and from existing bikeway trail systems manuals and descriptions.

233. Numerous considerations are to be used in prioritizing bikeways for construction including the following:

a. Timely use of available county bicycle funds in cooperation with other agencies proposing to construct bikeways which fall within the jurisdiction of both agencies.

b. Bikeways which presently receive a high level of use and those bikeways which, upon

improvement, are anticipated to receive a high level of use over those which presently receive or are anticipated to receive lower levels of use.

c. Distribution of available funds throughout the County consistent with other considerations.

d. Timing consistent with roadway improvements. If a designated bikeway may be improved as part of scheduled improvements to a roadway at a cost significantly less than the cost of bikeway improvements if installed independently, improvements of this bikeway should be a high priority.

Funding Sources

234. Funding for improvements of bikeways is available from various sources at the Federal and State levels in addition to County financing.

235. In 1971 the Oregon Legislature adopted the "Bicycle Bill" which requires that not less than one per cent of the funds received each year by any county from the State Highway Fund shall be expended to establish footpaths and bicycle trails along newly constructed, reconstructed, or relocated highways.

Bikeway Design

236. In Douglas County, bikeways are divided into four distinct classifications which have been determined necessary to provide the overall bikeway facilities required to fulfill the needs and potential users in this County, commensurate with monies available for these facilities. These bikeways are classified as follows:

Class I: A separate trail for joint use of bicyclists and pedestrians. It may be entirely independent of other transportation facilities.

Class II: A bikeway that is adjacent to the travel lane of motorized traffic, but provides a physically separated through lane for bicycles and pedestrians.

Class III: A bikeway that shares the roadway with motor vehicles. Class III routes are designated by signing, striping, and other visual markings. A Bicycle Lane is a Class III Bikeway.

Class IIIs: A Class III bikeway which is signed only. A Bicycle Route is a Class IIIs Bikeway.

237. Separate Class I bicycle paths on their own right-of-way along a street or freeway are the ideal bicycle facility.

238. The minimum widths of bike paths should be at least 10 feet, and consideration should be given to even wider cross sections to provide ample space to allow riding abreast and sharing with joggers and pedestrians.

239. A commonly used Class II bikeway treatment involves the adaptation of new or existing sidewalks for bike use by constructing curb cuts at intersections.

240. Some early bikeways used sidewalks for both pedestrian and bicyclists. While in rare instances this type of facility may be necessary or desirable for use by small children, in most cases it should be avoided. (Revised 8/13/97)

241. Sidewalks are not suited for cycling for several reasons:

- Cyclist face conflicts with pedestrians;
- There may be conflicts with utility poles sign posts, benches, etc.
- Bicyclists face conflicts at driveways, alleys and intersections
- Bicyclists are put into awkward situations at intersections where they cannot safely act like a vehicle but are not in the pedestrian flow either, which creates confusion for other road users.

Cyclists are safer when they are allowed to function as roadway vehicle operators, rather than as pedestrians. (Revised 8/13/97)

242. Where constraints do not allow full-width walkways and bikeways, solutions should be sought to accommodate both modes (e.g. narrowing travel lanes or reducing on-street parking). In some urban situations, preference may be given to accommodating pedestrians. Sidewalks should not be signed for bicycle use - the choice should be left to the users. (Revised 8/13/97)

243. Striping Class III bike lanes on the street adds legitimacy and credence to the cyclists' presence on the road and defines a physical area for cycle riding.

244. Bike lane striping is a visual reminder to both cyclist and motorist which reinforces cyclist obedience to the rules of the road, encourages more predictable behavior while stimulating motorist consciousness relative to the presence of cyclists.

245. It is intended that all proposed Class III bikeways be ultimately improved to their full designated standards, which would include signing, lane striping, and stenciling of symbols and word messages on the pavement.

246. In order to allow safe and practical phase development of Class III bikeways, they must <u>not</u> be signed as Class IIIs bikeways until all the criteria for this latter class has been met.

247. A Class IIIs Bikeway is a treatment whereby certain streets in the street network are designated as Bike Routes, and bikes share the roadway with autos, but without bike lanes.

248. Properly used, however, the signed bike route is a very effective tool to provide specific designated linkage within the framework of the Bikeway Plan along streets of low volume which, because of their location, serve a cyclist's purpose.

Design Standards

249. The design of bikeway improvements in Douglas County shall, in general, conform to standards set forth in the American Association of State Highway and Transportation Officials' Guide for Development of New Bicycle Facilities, dated October 3, 1991. (Revised 8/13/97)

250. These standards are intended to provide appropriate guidance for the design and construction of bikeways within the right-of-way of streets and roads under the maintenance jurisdiction of public agencies within the County. They shall also apply as minimum requirements to all new development in Douglas County where bikeway facilities are proposed or required by the governing authority.

Bikeway Operation and Maintenance

251. Roads and highways with bicycle traffic often require a higher level of maintenance than other highways.

252. Neglected maintenance will render a bicycle facility unrideable, and the facility will become a liability rather than an asset.

253. Once the system envisioned by this Bikeway Master Plan is fully implemented, most, if not all, of the bikeway revenues from State gasoline tax will be spent on operation and maintenance of the system.

BICYCLE SAFETY EDUCATION

254. An organized bicycle safety education program to broaden the rider's knowledge and skill is badly needed in Douglas County.

255. The existing bicycle programs in Douglas County are primarily taught by law enforcement officers at the invitation of area schools.

256. The majority of parents consider a bicycle a toy for their child. This concept needs to be changed to

recognition of the bicycle as a means of transportation.

257. Reaching parents can be achieved through school handouts and child education.

258. Riders need to become familiar with their equipment. Properly functioning equipment will promote better bicycling.

259. Use of the bike path sign along designated bikeways will increase public awareness particularly operators of motor vehicles, of the possibility of bicyclists in the area.

260. Law enforcement is a necessary component of bicycle safety. Stricter enforcement can limit both intentional and unintentional infractions. As with any law, lack of enforcement leads to a general disregard of the law. Local police officers should be willing to enforce the motor vehicle code with bicyclists and motorists. (Revised 8/13/97)

261. At this point, the court system seems adequate to handle the violations. The County's size and decentralized nature discourages a bicycle court concept.

262. A comprehensive bikeway safety education program should be developed as a means of promoting safe bicycling in Douglas County.

BICYCLE LAWS AND LEGISLATION

Laws

263. Douglas County utilizes the Oregon Revised Statutes in its regulation of bicycles and their use in the County. No additional regulation has been adopted by the County which further addresses this topic.

264. Bicyclists must know and obey the rules of the road except for those which cannot apply to bicycles.

265. Bicyclists have the same rights and duties as drivers of motor vehicles.

266. There are additional rules which apply to bicyclists.

Legislation

267. Both the Federal Government and State of Oregon during the past 10 to 15 years have recognized the significance of bicycling by enacting various Bills and other legislative rules relating to this activity.

268. The Oregon Recreational Trails System Act of 1971 established a state trails system for hiking, horseback riding, and bicycling.

269. In 1971 the Oregon Legislature enacted the "Bicycle Bill" which requires that bikeways or footpaths be established as part of all highway projects except where the establishment of such facilities would be contrary to public safety, disproportionate in cost to the need in probable use, or where sparsity of population, other available ways, or other factors indicate an absence of any need or probable use.

TRANSPORTATION POLICIES

GOAL: To develop a transportation system plan that establishes a system of transportation facilities and services adequate to meet identified needs. (Revised 12/5/01)

OBJECTIVE: To be consistent with the state transportation system plan.

POLICIES:

1. The preparation and revision of the County Transportation System Plan shall be coordinated with the Oregon Department of Transportation.

2. The County Transportation System Plan relies upon the Oregon Transportation System Plan and it's modal and multi-modal plans for analysis and policy direction on state facilities and relies upon the Oregon Department of Transportation to apply plan policies and programs on state facilities.

3. Douglas County acknowledges the portions of the Oregon Transportation System Plan and it's modal and multi-modal plans are applicable to the County Transportation System Plan.

GOAL: To provide and encourage a safe, convenient and economical transportation system.

OBJECTIVE A: To accommodate existing and projected transportation demand in Douglas County.

POLICIES:

1. Transportation services and facilities shall support and be compatible with the land use designations shown on the Comprehensive Plan Map.

2. The evaluation of all proposed Comprehensive Plan and Land Use Regulation amendments should specifically address the Transportation Planning Rule requirement that an amendment to land use designations, densities, and design standards are consistent with the functions, capacities and performance standards of facilities identified in the Transportation System Plan. (Revised 12/5/97)

3. Existing and planned transportation facilities and corridors shall be protected from conflicting land uses.

4. All transportation facilities shall be periodically evaluated for their adequacy to accommodate existing demand.

POLICY IMPLEMENTATION

1. The evaluation of all proposed Comprehensive Plan and Land Use Regulation amendments shall address the transportation criteria found in the Land Use and Development Ordinance, Quasi-Judicial Plan Amendment Chapter, Amendment Standards, of the Application Form and Content Section. (Revised 12/05/01)

OBJECTIVE B: To develop and utilize design standards for road construction which promote vehicular safety and economy of construction.

POLICIES:

1. The following classification system will be used for the planning and maintenance of all roads within the County maintenance system: (Revised 6/28/89), (Revised 8/13/97)

    a. Principal Highway
    b. Arterial
    c. Major Collector
    d. Minor Collector
    e. Local

2. The County shall assess the existing and future function of those County maintained roads which have not been classified and assign to them the appropriate designation.

3. Pursuant to the Oregon Highway Plan, direct access points to state managed interstate highway and interchanges shall be prohibited. Direct access to remaining principal highways and arterial roadways should be discouraged to avoid conflicts with through traffic. (Revised 8/13/97)

4. Direct access to non-interstate Principal Highways should be provided within unincorporated communities at levels which are consistent with land use classifications and facility operations. (Revised 8/13/97)

5. Access to state roads is the jurisdiction of the Oregon Department of Transportation (ODOT). (Revised 8/13/97), (Revised 12/5/01)

6. Direct property access from major collector roads may be allowed as design features permit.

7. Through traffic on local roads shall be discouraged.

8. On street parking should only be permitted in areas where it would not interfere with the movement of through traffic.

9. For those roads located within city UGBs, the County shall coordinate road classifications and construction standards with the affected cities.

10. The requirement for alternate street standards (skinny streets) within UUA's of the county will be considered on a community by community basis at or before the County's next periodic review. (Revised 12/5/01)

11. Bicycle and/or pedestrian ways shall be provided to accommodate access from commercial or high density residential developments to adjacent residential areas, transit stops, and neighborhood activity centers within one-half mile of development in the Urban Unincorporated Area of Green or in UGB's where Urban Growth Management Agreements requires improvements. (Revised 12/5/01)

12. Pursuant to an agreement between ODOT and Douglas County, ODOT has retained the responsibility to grant access along Old Highway 99 within 900-feet of the Interchange 120 ramp terminals in order to protect the function of that interchange. (Revised 12/09/09)

OBJECTIVE C: To encourage energy conservation through promotion of means other than the private automobile for transportation.

POLICY:

1. Efforts to decrease the dependence on the private automobile shall be encouraged.

OBJECTIVE D: To improve transportation availability to the transportation disadvantaged.

POLICY:

1. The transportation disadvantaged shall be considered in the design of transportation facilities and alternative transportation modes.

OBJECTIVE E: To provide for the timely, economic and efficient implementation of the County road system.

POLICIES:

1. The County Roadway system shall be periodically evaluated to determine the need for improvements.

2. Needed roadway improvements shall be made, as funds are available, in a systematic manner based on a priority rating process.

3. Considering health, safety and welfare, average daily traffic (adt), road design standards and development impacts, a minimum County road right-of-way of sixty (60) feet outside of Urban Growth Boundaries and Urban Unincorporated Areas is generally necessary.

   * In the instances of land divisions adjacent to a road within the County road system that has less than sixty (60) feet of right-of-way, property owners are encouraged to dedicate one-half of the additional right-of-way necessary to develop the road to sixty (60) feet.

   * Setback standards from existing public rights-of-way shall be maintained and enforced to insure new development does not intrude into the future right-of-way, as determined by the roads functional classification. (Revised 11/29/95)

4. Where feasible, through the land division process, the cost of installation of road improvements to local or minor collector standards shall be borne by the benefitting or adjacent properties.

5. The cost of installation of street improvements to a standard higher than that for minor collector streets shall be borne by the County.

6. Douglas County shall work with the appropriate cities to develop means for the surrender of jurisdiction of County roads within city limits.

7. Douglas County shall develop a capital improvement program which addresses the extent and timing of County participation in road improvements as identified by this Element.

8. The County shall develop and maintain the mechanisms to facilitate delayed acquisition and improvement of certain public roads as a condition of property division. (Revised 11/29/95)

9. The County supports the upgrading of all public roads to County standard.

10. As a condition of approval of the division of property adjacent to or through which one of the streets designated by the Comprehensive Plan would pass, the County may require the property divider to irrevocably offer to sell right-of-way when the requirement is related both in nature and extent to the impact of the proposed development. Any such offer to sell shall be that necessary to develop the designated street to its ultimate standard for its full length adjacent to or through the property to be divided. (Revised 11/29/95)

11. In situations where an existing structure is proposed for improvement, and economic, safety, and usage factors indicate that a lesser width standard is warranted, then a right-of-way or lane width standard lesser than that required by this plan may be considered. (Revised 6/28/89)

12. An irrevocable offer to sell right-of-way shall state the consideration to be paid by Douglas County for purchase of the right-of-way. The consideration shall be based on the market value, of that portion of the land to be purchased, as indicated by the tax assessment records for the year in which the preliminary land division was approved. Douglas County shall have the right at any time in perpetuity from the date the irrevocable offer to sell is made to accept the offer for the consideration identified in the offer to sell. Acceptance of the offer to sell shall not bind Douglas County to purchase the right-of-way. (Revised 11/29/95)

13. Setback standards provide, in addition to safety, environment, noise, utility, parking and visual benefits, a mechanism in rural areas of Douglas County to protect future right-of-way. Maintenance of the setback standards in rural zoning designations serves an important public and private interest. (Added 11/29/95)

OBJECTIVE F: To encourage, coordinate and assist in the development of transportation modes other than private vehicle.

POLICIES:

Rail

1. The installation of spur lines in industrial areas as means of facilitating the use of rail transportation shall be encouraged.

2. The development of rail service connecting the Roseburg area to the Port of Coos Bay and Port of Umpqua at Reedsport shall be encouraged.

Air

3. Encourage the development and use of airport facilities and services throughout Douglas County.

4. Promote the development of an airport facility in coastal Douglas County.

5. Douglas County shall assist in the promotion of safety in the vicinity of airports by the application of appropriate land use regulations.

6. The County shall encourage the study of the feasibility of alternate locations for the Roseburg Municipal Airport.

Water

7. The County shall coordinate with the Port of Umpqua in the development of Salmon Harbor and other Port owned properties.

8. The County shall continue to support efforts involving the maintenance of the main channel of the Umpqua River.

9. Transportation development activities in the estuarine area of Douglas County shall be consistent with the County's Coastal Resource Plan.

Public Transit

10. The County shall encourage the reestablishment of bus service to all cities in the County.

Pedestrian

11. Sidewalks shall be installed along arterials, major collectors and ~~specified~~ minor collectors as part of new subdivisions, multi-family developments, planned developments and development within commercial districts. The sidewalk requirement is applicable within the Urban Unincorporated Area (UUA) of Green and Urban Growth Boundaries (UGB's) as implemented through the Urban Growth Management Agreement (UGMA). If UGMA supplemental standards exist which address public sidewalks, those standards shall apply. (Revised 12/5/01)

BICYCLE TRANSPORTATION

GOAL: To provide a safe, convenient, and efficient bikeway network for Douglas County which addresses both transportation concerns and recreation needs.

OBJECTIVE A: To develop a system of bikeways throughout the County which meets the needs for all types of users consistent with the demand for each.

POLICIES:

1. Bikeways shall be provided which satisfy recreational needs both long distance and local.

2. Bikeways shall be provided which satisfy utilitarian needs by connecting major residential areas to major activity areas (recreational, employment, institutional, commercial) within the County

3. Strong emphasis shall be placed on providing bikeways which satisfy both recreational and utilitarian needs.

4. Bikeways shall be provided which connect communities within the County.

5. Bikeways shall be provided which are capable of serving the needs of secondary users such as joggers and hikers.

6. Emphasis shall be placed on providing bikeways which satisfy recreational needs over utilitarian needs particularly in the less densely populated portions of the County.

7. The need for short distance bikeways in the County's urban unincorporated areas should be assessed and, as appropriate, the Plan amended to accommodate identified needs.

8. This Bikeway Plan should be periodically reassessed to ensure its consistency with identified needs is maintained.

OBJECTIVE B: To designate specific, cost efficient, bikeways in the unincorporated portions of the County which satisfy the needs of each bicycle user group.

POLICIES:

1. In the designation of specific bikeway routes, safety, cost of route construction and potential usage both by cyclists and other users shall be the primary criteria.

2. In instances where more than one route in an area would serve an identified need, the criteria used in selection of the most appropriate route shall include (in addition to safety, cost of construction and potential usage) directness, continuity, grade(s) and aesthetic quality of the route and frequency of required stops.

3. Emphasis shall be placed on designation of Class III and Class IIIs bikeways where practicable due to the high cost of constructing Class I and relatively undesirable aspects of Class II bikeways.

4. The designation and construction of Class II bikeways shall be discouraged due to the dangerous interface they create between cyclists and motor vehicles.

5. The Bikeway Master Plan Map, Map 2, designating specific bikeway locations, is part of the Douglas County Comprehensive Plan and included at the end of this Element.

OBJECTIVE C: To provide a system of bikeways which is coordinated with other jurisdictional bikeway plans.

POLICIES:

1. The County shall coordinate with other jurisdictions and agencies to ensure development of routes which are continuous across jurisdictional boundaries and which serve the needs of all Douglas County residents.

2. The County shall coordinate the designation and improvement of bikeways within urban growth boundaries with the affected cities.

OBJECTIVE D: To encourage safe bicycling and a safe bikeway system throughout the County.

POLICIES:

1. The County shall develop a comprehensive bicycle safety education program.

2. Safety shall be a primary consideration in designation of bikeways, particularly those intended primarily for short distance recreational and school use.

3. The County shall, within its means, assist school districts in the establishment of an ongoing bicycle safety education program.

OBJECTIVE E: To develop a set of standards for bikeway development and establish a system for prioritization of bikeway construction.

POLICIES:

1. All bikeways designated in this Bikeway Plan shall be developed to meet the appropriate County Bikeway Improvement Standards.

2. All Class III bikeways (excluding Class IIIs) shall ultimately include full Class III improvements including lane striping. However, to allow phasing of development of this Plan, signing of Class III bikeways shall take place as soon as a route meets minimum standards for signing, its construction is practicable, and the route is considered safe for use.

3. To facilitate the use of Class I bikeways by joggers, such bikeways, where feasible, should be constructed with a maximum 2% cross slope.

4. The State of Oregon Department of Transportation is encouraged to install

appropriate bikeway improvements on highways and roads under their jurisdiction (and within their maintenance system) as improvement projects are conducted on designated County bikeways. (Revised 8/13/97)

5. The State of Oregon should include in their Six Year Improvement Program provisions for implementation of County bikeway designations on State highways selected for improvement, construction or reconstruction. (Revised 8/13/97)

6. The County shall develop a program of capital improvements for designated bikeways on the County maintained road system.

7. Funds for development of bikeways should be expended throughout the County consistent with other considerations.

8. Bikeways which presently receive or are anticipated to receive upon improvement a high level of use should be improved prior to those which presently receive or are anticipated to receive lower levels of use.

9. Emphasis shall be placed on timely use of available County bikeway funds in cooperation with other agencies proposing to construct bikeways which fall within the jurisdiction of both agencies.

10. Emphasis shall be placed on improvement of locations along designated bikeways which have been identified as high accident locations.

11. In instances when a designated bikeway may be improved as part of scheduled improvements to a roadway at a cost significantly less than the cost of improving the bikeway independently, the bikeway should be improved as part of the roadway improvements.

12. No bikeway shall be signed, striped, or otherwise physically improved so as to indicate it is available for or encouraged to be used by bicyclists until such time as the entire route or a logical segment of it meets County Bikeway Improvement Standards.

13. In the event that development of a Class I or III bikeway is impractical, a Class II bikeway may serve to implement designations of this Plan.

14. In maintenance of County roads, an emphasis should be placed on those roads which also have been designated as bikeways by this Plan.

15. After the establishment of each bikeway in Douglas County, an effort should be made to determine actual maintenance costs required to keep it in a safe and enjoyable condition for the user.

16. Jurisdictions responsible for bikeways identified in this Plan should budget sufficient funds each year from available bikeway resources to accomplish the annual maintenance of all bikeways under its jurisdiction.

17. Federal agencies should include within their respective land use programs the provision for implementation of bikeways designated by this Plan which are within their jurisdiction.

18. New points of vehicular access to roads which have been designated as bikeways shall, as practicable, be minimized.

PUBLIC FACILITIES

INTRODUCTORY SUMMARY

THE PURPOSE OF THE PUBLIC FACILITIES ELEMENT

The Public Facilities Element is a basic inventory of the types and levels of public facilities, ranging from the library system to utilities, currently serving or planned to serve the residents of Douglas County. The Element addresses Statewide Planning Goal 11.

WHAT DOES GOAL 11 REQUIRE?

Goal 11, Public Facilities and Services, requires that all counties and cities shall:

> Plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development.

The Goal also states that:

> Urban and rural development shall be guided and supported by types and levels of urban and rural public facilities and services appropriate for, but limited to, the needs and requirements of the urban, urbanizable and rural areas to be served. A provision for key facilities shall be included in each plan. To meet current and long-range needs, a provision for solid waste disposal sites, including sites for inert waste, shall be included in each plan.

WHAT IS INCLUDED IN THE PUBLIC FACILITIES ELEMENT?

The Public Facilities Element discusses and inventories all existing public facilities and services currently serving County residents. Topic discussion focuses on the library system, education system, fire and police protection, health care facilities, sewage and water treatment facilities, communication facilities and utilities. All topics are evaluated with regard to current and projected demands, service areas, system shortages or problems and future plans for expansion or upgrading of facilities and services.

PUBLIC FACILITY ISSUES

In applying LCDC guidelines for planning, public facilities must be carefully reviewed to assure that urban and rural areas receive appropriate levels of service and that urbanizable areas receive services which are suitable for present use and are coordinated with services to be provided in the future. Urbanizable areas are not to be provided any key public facility unless other supportive facilities and services can and will be provided to future development.

RURAL AND URBAN SERVICE LEVELS

The level of service provided for urban, rural residential and rural resource lands must be evaluated to assure lifestyles and characteristics of those areas are maintained in accordance with Statewide Planning Goal 11. The following table and definitions differentiate between the service levels.

Definitions:

Density

Urban densities - As determined appropriate in individual UGB agreements.

Rural resource - This standard is applicable for all newly established residences with the

exception of preexisting "committed land" located within resource areas designated for additional infilling.

Water Service

Rural residential - The recommended trunk line size is 4"-6". Trunk lines sized beyond the recommended levels may be established as long as service from the trunk line is provided wholly within recognized development areas.

Rural resource - The recommended trunk line size is 2". Trunk lines sized beyond 2" may be permitted as long as service from the trunk line is provided wholly within recognized development areas.

Fire Protection

Urban - Full protection.

Rural residential - Full protection.

Rural resource - Additional fire protection beyond that provided by the Douglas Forest Protective Association is limited to volunteer or cooperative fire protection association.

Surface Water Drainage

Urban - Curbs and gutters required.

Rural residential - Culvert systems recommended.

Sewage Treatment

Urban - Full Service.

Rural Residential - Subsurface systems should be used except in areas where severe system failures warrant treatment facilities.

TABLE 14-1. STANDARDS FOR DEFINING THE LEVEL OF SERVICE IN URBAN AND RURAL AREAS.

	URBAN	RURAL RESIDENTIAL	RURAL COM/IND	RURAL RESOURCE
Densities acreage	Urban	1 D.U./ 2-5 acres	N/A	Commercially viable size or minimum lot size
UGB Applicability	Yes	No	No	No
Level of Services	Full	Partial	Partial	Limited
- Sewerage	Yes	No/Partial	No/Partial	No
- Water	Yes	Partial	Partial	Limited
- Fire Protection	Yes	Yes	Yes	Limited
- Surface water				

drainage system	Gutters	Partial	Partial	No
- Road standards	Yes	Yes	Yes	Yes

PUBLIC FACILITIES FINDINGS

LIBRARY SYSTEM

1. The Douglas County library catalogues over 212,000 books and 335 films.

2. Circulation for eleven County libraries and one bookmobile was over 261,237 in 1985.

3. The present ratio of volumes/capita in Douglas County is 1.8 volumes per person.

4. An additional 80,000 books will be needed by the year 2000 to maintain this ratio to projected population.

5. Fiscal restraints make the projection of future library service levels difficult.

6. Shelf space in the main branch library is currently deficient.

7. Plans for a new library are currently being studied; the Library Construction Fund has $60,955 remaining in the fund.

8. Bookmobile routes, which provide valuable library service to outlying County areas, have been severely modified due to budgetary constraints.

EDUCATION

9. Douglas County is served by 16 school districts with an average daily membership of 16,592 students during the 1984/85 school year.

10. Conservative voter approval of tax levies has slowed proposals for additional educational facilities.

11. The Reedsport and Winston - Dillard districts, and Glide High School are currently operating near facility capacity.

12. Remaining school districts are at or below facility capacity.

13. Scattered rural residential development has necessitated longer and more costly busing routes.

14. Busing, heating, and electricity expenditures are very dependent on fluctuating energy costs.

15. The Douglas ESD provides coordination between the State Department of Education and County school districts, as well as various special services.

16. Eighteen private and parochial schools provide additional elementary and secondary educational services to the County.

17. Many districts have sufficient classroom space to accommodate projected growth to the year 2000.

18. Districts needing more classroom space will need voter approval of tax levies to enable expansion of existing facilities.

19. Increases in County population do not necessarily imply proportionate school enrollment increases.

20. Private schools will be able to meet future demands because of their ability to control increasing demands for enrollments in their institutions.

21. Umpqua Community College offers a wide range of educational and vocational training and services.

22. UCC should be able to provide adequate services for the Douglas County population to the year 2000 due to ongoing building plans, Countywide support, federal government funds, and tuition.

23. The Roseburg School District meets the definition of ORS 195.110 of a "Large School District."

24. In 2006, the Roseburg School District conducted the required planning to create a school facilities plan.

25 The Roseburg School District completed the long range facilities forecast planning process in 2008. This process carefully considered the required elements outlined in ORS 195.110. Those recommendations were organized in 0-5 year, 6-10 year and 11-15 year time frames and proposed to address facility needs through improvements to existing facilities to extend their life, replacement of antiquated school(s), expanding existing school capabilities, improving the efficiency of District support facilities and importantly facility improvements to support educational program needs.

26. The Roseburg School District "2008 Facility Forecast Plan" is adopted by reference as a support document to the County Comprehensive Plan Public Facilities Element.

FIRE PROTECTION

27. Private and governmental forests and grasslands in most of Douglas County are serviced by the Douglas Forest Protective Association.

28. DFPA will not assist in suppressing fires involving structures unless such fires threaten adjacent forest or agricultural lands.

29. DFPA maintains a permit system for controlled burnings during fire season.

30. Forest Protection Associations are funded by tax assessments on private and state lands on a per acre basis as well as through federal funding.

31. The resource areas of Camas Valley, Scottsburg, and Reedsport are protected by the Coos Forest Protective Association.

32. ISO fire ratings greatly affect fire insurance rates.

33. ISO ratings are dependent on the availability and proximity of fire suppression equipment and trained fire fighters.

34. Several small rural communities in Douglas County have formed volunteer fire organizations.

35. These informal organizations are not supported by tax levies, and thus depend on fund raising projects to finance operations.

36. Equipment owned by volunteer organizations is often minimal or inadequate when compared with equipment operated by fire districts.

37. Response time, personnel training and fire defense levels are sometimes lacking by volunteer organizations.

38. Some volunteer organizations must utilize equipment which is borrowed from the DFPA.

39. Rural fire protection districts (RFPDs) are formed pursuant to ORS 478 to provide fire protection to urban unincorporated areas or rural residential areas.

40. RFPDs are supported by tax levies.

41. RFPDs are often combined with a municipal fire department.

42. Equipment owned by RFPDs, personnel training and numbers, and fire suppression techniques are generally better than the informal volunteer organizations.

43. Fire fighting aid is available through mutual aid agreements with neighboring RFPDs.

44. Rural resource lands in Douglas County are protected by the DFPA.

45. No fire protection beyond small volunteer or cooperative associations may be extended to structures in rural resource lands.

46. Many rural residential areas outside fire protection districts are without any fire protection. Lack of protection is primarily economic in nature.

47. Protection by volunteer organizations or RFPDs is encouraged by the County.

48. Rural commercial establishments receive the same protection levels as rural residential areas.

49. Rural industrial sites receive protection similar to rural commercial; however, mill sites usually have water supplies that can be used to suppress fires.

50. Urban unincorporated areas in the County receive protection on a level similar to municipal or RFPD services.

LAW ENFORCEMENT

51. The Douglas County Sheriff's Department employs 131 people. The ratio of patrol officers to rural population is about 1 to 400.

52. Increasing rural development will require longer and more frequent patrol routes to maintain protection levels which the Sheriff feels are adequate.

53. Without additional officers and patrol cars, existing patrols will have to be shifted from lower priority areas to areas of growth.

54. Maintaining longer and more frequent patrol routes will require larger budget appropriations to meet rising fuel use and costs.

55. The Sheriff's Office would like to maintain a minimum ratio of one officer/400 residents; however, uncertainty of funding makes projection of this difficult.

56. The Sheriff's Department as well as fire departments provide emergency assistance to accident victims.

57. The Sheriff's Department maintains a 200 bed portable emergency hospital which can be assembled in case of large scale disaster.

58. Four cities have entered into contract agreements with the Sheriff's Office for maintaining law enforcement; Drain, Glendale, Riddle, and Yoncalla.

59. The Oregon State Police stations 30 officers in Douglas County to enforce traffic and game laws, as well as assist other police agencies in various law enforcement operations.

HEALTH CARE

60. The availability of health care is generally quite good in Douglas County and will continue to be through the year 2000.

61. Health care facilities are generally centralized in Roseburg.

62. The number of health professionals practicing in Douglas County is more than the state average per thousand in population.

63. The North County area is deficient in dental care when compared to national standards.

64. Reedsport has been designated as a manpower shortage area for dentists and doctors.

65. There are six hospitals and six licensed nursing homes operating in Douglas County.

66. Population projections and hospital capacities indicate Douglas County is presently overbedded and had an

excess of 92 beds in 1985 and will have sufficient beds to meet bed space demand through the year 2000.

67. Nursing homes and senior residences are generally at or near bed capacity.

68. The Douglas County Health Department provides a wide range of health care services to County residents. Service fees are based on patient income.

69. The VA Hospital provides complete health care for qualified veterans free of charge. Capacity of the VA Hospital is 342 beds, of which 75 beds are designated as nursing home facilities.

70. Increasing numbers of veterans can be expected to relocate to Douglas County to take advantage of the VA services.

71. Hospital service areas have great impact on bed need projections. The service area for the two hospitals in Roseburg extends from Yoncalla to Tri-City.

72. Residents living north or south of the service areas and on the coast tend to utilize health care facilities in neighboring counties.

73. The Community Cancer Center in Roseburg offers complete cancer care to patients.

74. There is a possibility of Countywide shortages of general practitioners in the future.

75. Ambulance services are regulated by the Douglas County Ambulance Ordinance which is administered by the Sheriff's Department.

76. Response time for accident or trauma victims can be longer than optimum due to the topography and remote nature of the County.

SEWAGE TREATMENT

77. Sewage treatment is a public service which is provided to County residents within service districts.

78. Rural homesites and commercial establishments are dependent on individual septic systems for sewage treatment.

79. Service district boundaries often coincide with city limits, city UGB's or the urban service boundaries of urban unincorporated areas.

80. Privately owned sewage treatment facilities offer an alternative to septic systems in some rural residential areas.

81. There are known developed areas outside of city urban growth boundaries which are experiencing septic failures.

82. At an increasing rate, residents of these areas are seeking assistance from the State and County to solve these problems.

83. To date, assistance has been provided as requested on a reactive basis with no overall consideration being given to defining an appropriate level of County involvement or a prioritizing of areas in need of assistance.

84. The County Comprehensive Plan does not specifically address the appropriateness of sewer service outside of UGB’s. It does, however, imply that sewer service, if permissible in such areas, should be limited to rural densities.

85. LUBA 84-055 indicates that municipal sewer service may be provided to developed rural areas at rural densities.

86. DEQ's experience has shown that small package treatment plants are expensive to operate and have a propensity to malfunction. Provision of service to an area by an existing service provider is frequently more economical and efficient.

87. The creation of new special purpose districts to provide sewer service in areas nearby existing sewer districts may result in an unnecessary duplication of governmental service.

WATER SUPPLY

88. Several consumer owned water supply facilities provide water service to rural areas outside urban growth boundaries.

89. Umpqua Basin Water Association (UBWA) maintains a service district of about 75 square miles northwest to southwest of Roseburg.

90. UBWA sizes distribution lines to handle domestic water flows only.

91. UBWA utilizes the North Umpqua River as its water source.

92. Total demand on Umpqua Basin's system is 1800 services or about 5500 persons.

93. According to UBWA consumption figures, current uses fully utilize plant capacity of 1.25 Million Gallons per Day.

94. South Umpqua Water Association is a privately owned water service which provides service to the rural area between Riddle and Canyonville.

95. South Umpqua buys its water from the City of Riddle, which appropriates 0.67 cfs for their use.

96. Dixonville Water Association services 300 connections in the Dixonville area.

97. Dixonville Water Association purchases its water supply from the City of Roseburg.

98. Six small scale water systems currently provide water service to limited privately owned homesites or commercial establishments.

99. Many towns and cities provide water service for limited areas outside city limits.

STORM DRAINAGE

100. Natural drainage and percolation are disrupted by the introduction of paved roads, buildings and other development.

101. Douglas County rural areas are not generally affected by extensive unnatural runoff patterns.

102. Urban areas are most subject to runoff problems from extensive development.

103. Adequate storm drainage can be a concern in new subdivisions.

104. Older developments can pose the biggest problem to drainage due to lack of planning of proper facilities.

105. Engineering studies have been made by the Public Works Department to evaluate drainage problems.

106. Capital expenditures have been made in Gardiner to construct a drainage system.

107. Appropriate levels of storm drainage facilities are indicated in the County's standards for provision of services.

COMMUNICATIONS

108. Most of Douglas County is provided phone services by one of five utilities which operate here.

109. All telephone companies are involved in ongoing programs of updating and laying new cables.

110. Most cables are adequate to handle projected service demands for the next 5 to 15 years.

111. Connection to the regional telephone grid is provided to all telephone companies by the Bell System. Those trunk lines are adequately sized to handle anticipated demands for at least the next 10 years.

112. Eight radio stations and two television stations are located in Douglas County; one radio station serves the Reedsport area.

113. Television and radio stations located in neighboring counties also provide service to the County, depending on location and terrain.

114. Cable television service is available to most County residents. Cable service in several communities is franchised.

UTILITY SERVICE

115. Five utilities provide electrical service in Douglas County.

116. PP&L operates seven hydroelectric generating plants on the North Umpqua River.

117. Electricity is purchased from a regional power grid to provide adequate supplies for peak electrical demands.

118. Designs on a 500 KV transmission line, which will cross Douglas County and tie into the Dixonville substation, have been completed and the purchasing of the right of way is now being conducted.

119. Douglas Electric is a preferred customer of the BPA power generation system.

120. Supply is adequate for Douglas Electric to meet present and anticipated future electrical power demands.

121. Central Lincoln Peoples Utility District, which provides electrical service to the coastal area, foresees no shortages of power for BPA to meet present or future system demands.

122. Drain Municipal Electric supplies electrical power, purchased through the BPA grid, to the town of Drain.

123. Natural gas is supplied in Douglas County through pipelines owned by CP National Natural Gas Company.

124. Natural gas supplies are more than adequate for present and future demands in Douglas County.

125. Five firms provide liquified propane gas (LPG) service to rural County residents.

PUBLIC FACILITY POLICIES

GOAL: To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban and rural development in Douglas County.

GENERAL

1. Adequate types and levels of public facilities and services should be provided in advance of or concurrent with development.

2. The facilities and services provided shall be appropriate for, but limited to, the needs and requirements of the areas to be served.

3. The County will coordinate its public facilities and services planning with the plans of affected special service districts and other governmental units.

4. Encourage new development on lands within urban growth boundaries, urban unincorporated areas, and designated committed areas prior to undeveloped rural lands.

5. New developments should be directed to areas within urban service boundaries or in locations to be provided with appropriate services in the future as specified by the Comprehensive Plan.

6. Plan and policy review meetings among the municipalities, service districts, and the County should be held every two years.

7. Facility plans for urbanizable areas should be reviewed to assure proper coordination and provision of public facilities consistent with long range plans and procedures established within urban growth management agreements.

LIBRARY

OBJECTIVE A: To maintain and upgrade public library services provided to Douglas County residents.

POLICY:

1. Encourage and coordinate planning and site acquisition for construction of a new branch library in Roseburg.

EDUCATION

OBJECTIVE B: To maintain a quality and coordinated educational system in Douglas County.

POLICIES

1. Encourage and coordinate planning activities that support the implementation of the Roseburg School District "2008 Facility Forecast Plan." (12/9/09)

FIRE PROTECTION

OBJECTIVE C: To provide adequate fire protection at the appropriate levels for all land uses in the County.

POLICIES

1. Encourage the organization of volunteer fire fighting crews from residents in areas unprotected by established fire districts.

2. Encourage establishment of tax supported rural fire districts in areas with sufficient population density to generate needed funds.

3. Encourage fire fighting personnel training programs to upgrade fire fighting efficiency.

4. Where possible, encourage consolidation of rural and city fire districts to provide better overall protection levels.

5. Support mutual aid agreements between municipal and rural fire protection districts.

6. Develop and promote public educational programs aimed at upgrading citizen awareness of fire insurance rates, fire dangers and actions to be taken in the event of fire, especially in rural areas.

7. Encourage all public water suppliers to provide sufficient flows and pressure for fire suppression uses.

8. The availability of an adequate supply of water for fire protection purposes shall be a consideration of approval of any rural residential subdivision permitted by the County.

9. Development unrelated to forest resource use shall be discouraged in designated forest land areas to reduce fire hazard.

10. Developers should consult the appropriate fire protection agency and the Planning Department concerning fire protection during preliminary stages of subdivision planning.

11. Adequate access shall be provided to any available water sources within rural subdivisions.

12. Road design for rural subdivisions should incorporate appropriate requirements with respect to mobility and access by fire suppression equipment.

13. All roads within subdivisions shall be constructed to County standards.

14. Street and road signs should be installed to provide identification for firefighting crews and other emergency personnel.

15. Annexation to adjoining fire districts should be required before approval of new subdivisions if such developments adjoin existing rural districts.

LAW ENFORCEMENT

OBJECTIVE D: To maintain required law enforcement levels to assure safety and security of Douglas County residents and their property.

POLICIES:

1. All new subdivisions in urban unincorporated areas should incorporate satisfactory design criteria with respect to street lighting, pedestrian safety, and access for law enforcement agencies.

2. Encourage mutual aid agreements between city, county and state law enforcement agencies to facilitate and upgrade law enforcement in overlapping jurisdictions.

HEALTH CARE

OBJECTIVE E: To inform County residents about health care services and assist in planning health care facilities in order to provide a sufficient level of health care services, to all residents of Douglas County.

POLICIES:

1. Continued County support to the Douglas County Health Department shall be maintained to provide health care facilities for the elderly and low income County residents. (Revised 6/28/89)

2. Encourage compliance with the Douglas County Ambulance Ordinance.

3. Encourage the expansion of health facilities in smaller outlying communities where such health care levels are below national standards.

SEWAGE TREATMENT

OBJECTIVE F: To encourage the provision of adequate sewage treatment in areas where a public health hazard exists.

POLICIES:

1. New hook-ups to existing sewer lines outside of UGB's, UUA's and unincorporated community boundaries must be limited to rural densities, as designated in the acknowledged committed lands exception, or a lot-of-record unless an exception to Goals 11 and/or 14 or other applicable Goals is taken, or unless the service is provided, as allowed under ORS 197.435(6), to a Goal 8 destination resort. (Revised 5/31/95)

2. For the provision of sewer service within an Urban Growth Boundary:

a. An existing service provider should serve the area. The method of treatment and disposal and level of density to be accommodated should be determined by the service provider (consistent with adopted comprehensive plans).

b. A separate district may be formed to provide service only upon agreement by the city where applicable, existing service providers, Department of Environmental Quality and County Planning and Health Department. The method of treatment and disposal must be approved by the existing service provider. The density of development to be accommodated shall be consistent with the adopted comprehensive plan.

3. For the provision of sewer service outside of but within a reasonable distance of an Urban Growth Boundary:

a. The area should be incorporated into the urban growth boundary. Once within the UGB the provisions of policy 2a and 2b should be followed.

b. A separate district may be formed to provide service only upon agreement by the city, service provider, DEQ, and County Planning and Health Department. The method of treatment and disposal must be approved by DEQ and the County Health Department and be limited in capacity to accommodate only the density of development authorized by the Comprehensive Plan.

4. For the provision of sewer service in rural and resource areas:

a. There shall be no establishment of new sewer systems outside UGB's, UUA's or unincorporated community boundaries, nor shall there be any new extensions of sewer lines from within UGB's, UUA's or unincorporated community boundaries to land outside those boundaries unless an exception to Goal 11 and/or 14 is taken, or unless the service is provided, as allowed under ORS 197.435(6), to a Goal 8 destination resort, or unless a health hazard exists, as determined under ORS 431.705 to 431.760 by Douglas County and the Environmental Quality Commission. (Revised 5/31/95)

5. As provided in OAR 660-11-060(5) for the provision of sewer service to lands in the Oak Hill Sanitary District service area where a Goal 11 exception has not been taken:

a. The sewer system shall be designed and built so as to not exceed the necessary capacity to accommodate service, at full build-out, at Plan densities in effect on March 1, 2001.

b. Only rural uses existing or allowed on March 1, 2001, shall be served by the sewer system. Uses served shall be consistent with Goal 14's limitation on urban development on rural lands.

c. The sewer system shall not act to or be used to support future Comprehensive Plan Map amendments and zone changes to allow new or higher densities of residential or rural commercial or industrial development in the service area.

POLICY IMPLEMENTATION:

1. The County should update the Public Facilities Element to fully address the issue of community sewer service outside of UGB's. Such an update should include a comprehensive inventory of existing septic problem areas and a plan for dealing with them. The plan should give preference to:

a. the provision of sewer service by existing districts over the formation of new districts, and

b. the treatment of sewage by existing systems over the development of new systems.

STORM DRAINAGE

OBJECTIVE G: To provide adequate storm water drainage to properly dispose of peak runoff waters.

POLICY:

1. Drainage plans for any new subdivision within unincorporated areas of Douglas County shall be reviewed by the County Engineer prior to final approval.

COMMUNICATIONS FACILITIES AND UTILITIES

OBJECTIVE H: To provide coordinated, consistent planning by municipalities, special service districts, and the County in expanding communications facilities and utilities.

POLICIES:

1. Prior to partition or subdivision approval, ensure that the appropriate number of facility and utility easements are provided and located in such a manner as to facilitate existing and future facility/utility development and maintenance.

2. Encourage new utility lines and facilities to be located on or adjacent to existing rights-of-way.

RURAL LAND USE

RURAL RESOURCE DESIGNATIONS

The protection of lands that are suitable and necessary for forest and agricultural uses is of primary importance to the State of Oregon and Douglas County. Forest and agriculture lands form the basis of the County's economy as well as provide the focus for a predominantly rural lifestyle. Forest and agricultural areas are termed "resource lands" because they are the source of raw materials upon which the economic and social framework of the County relies. Conversely, "nonresource land" consists of areas that are either committed to or needed for a use other than agriculture or forestry.

The Statewide Planning Goals provide for two major resource designations: agriculture lands (meeting the requirements of Goal 3) and forest lands (meeting the requirements of Goal 4). However, Douglas County's Forest Element makes reference to the fact that there is a significant amount of overlapping agriculture/forest land. These overlapping, or transitional, lands consist of areas that are now being used for (or are suitable for) both forest and agricultural uses. Because a significant portion of the County's land base consists of mixed farm/forest areas, a third resource category, Farm/Forest Transitional, is appropriate and necessary.

In accordance with the County's Agriculture and Forest Elements, three major resource categories have been designated on the land use maps. Those designations are Timberlands, Agriculture and Farm/Forest Transitional. This section defines each of those resource categories.

The amount of land placed within all resource categories is approximately 3,160,315 acres (Countywide). By subcategory, the approximate acreage totals are: (Revised 12/8/10)

Timberlands	**2,516,543**
Farm Forest Transitional	**342,585**
Agriculture	**282,228**
Coastal Resource*	**18,959**
TOTAL	3,160,315

***** Refer to Coastal Resource document.

TIMBERLANDS

INTENT

The intent of the Timberlands designation is to conserve forest lands for forest uses; encourage activities which enhance the overall forest resource; reduce conflicts from competing land uses in forest resource areas; and to conserve and protect significant forest values such as wildlife habitat, watersheds and recreation (refer to the Forest Element and Phase I for additional information).

DEFINITION

As defined by Statewide Goal 4, Forest Lands are:

". . . (1) lands composed of existing and potential forest lands which are suitable for commercial forest uses; (2) other forested lands needed for watershed protection, wildlife and fisheries habitat and recreation; (3) lands where extreme conditions of climate, soil and topography require the maintenance of vegetative cover irrespective of use; (4) other forested lands in urban and agricultural areas which provide urban buffers, wind breaks, wildlife and fisheries habitat, livestock habitat, scenic corridors and recreational use."

Goal 4 also defines the uses of Forest Land as:

". . . (1) the production of trees and the processing of forest products; (2) open space, buffers from noise, and visual separation of conflicting uses; (3) watershed protection and wildlife and fisheries habitat; (4) soil protection from wind and water; (5) maintenance of clean air and water; (6) outdoor recreational activities and related support services and wilderness values compatible with these uses; and (7) grazing land for livestock."

Douglas County has helped to assure the protection of "Forest Land" and "Forest Uses" (as defined) through the adoption of Phase I Forest Element policies.

INVENTORY PROCEDURE

Goal 4 requires that an inventory be prepared which enables the County to map forest lands by "cubic foot site class". In the preparation of such maps Douglas County utilized the best available and most recent soils and State Revenue Department data. A procedural problem encountered was that detailed soils information is not readily available for all areas within the County. To correct that problem, Douglas County intends to update their forest site class inventory as additional information becomes available.

Three sources of information were used when inventorying the County's forest lands. The primary source used was that portion of the County's detailed soils survey prepared by the U.S.D.A. Natural Resource Conservation Service (NRCS). This survey currently covers the central portion of the County between Oakland and Winston (north-south), and between the Callahan Ridge and Glide (east-west). Interpretation and conversion (to cubic foot site class) of the NRCS information was accomplished by the County Planning Department.

Another source used to inventory forest lands (in areas not covered by the NRCS survey) was a publication entitled Soil Inventory, Roseburg BLM District. Although less detailed than the NRCS survey, the BLM soils information proved useful when inventorying the forest capability of lands around Elkton and Drain in the north through Camas Valley, Canyonville and Tiller in the south. Interpretation of the BLM soils information and subsequent conversion to cubic foot site class was also conducted by the County Planning Department.

The Oregon State Department of Revenue's Forest Site Class Survey was the source used to determine forest capability on those lands not covered by either the NRCS or BLM soil surveys. This 1971 survey evaluated the forest capability of private lands. The conversion of this information to cubic foot site class, as required by Goal 4, was completed by the Douglas County Planning Department in cooperation with the Oregon State Department of Forestry.

All inventory sources used, as well as conversion information, is available at the County

Planning Department Office. Other forest land inventory criteria used to designate Timberlands (on the land use map) can be found in the adopted Forest Element policies.

GOAL 4 CONFORMANCE

Douglas County's Timberlands designation, in combination with Forest Element policies (see Phase I), conforms to the requirements of Goal 4 - Forest Lands. As a matter of economic necessity, it is of primary importance "to conserve forest lands for forest uses" in Douglas County. Toward that end, the County has set policy (for example) which precludes the creation of lots or parcels for nonforest uses in Timberland areas. The County also intends to minimize (through policy) the construction of nonaccessory (nonforest oriented) dwellings in Timberland areas. Such protection in conjunction with other Forest Element policies will ensure the integrity of the County's forest resource.

CONFORMANCE WITH OTHER GOALS

The Timberlands designation in combination with policies from other plan elements will contribute toward meeting the requirements of Goals 5 (Natural Resources), 6 (Air, Water and Land Quality), 7 (Areas Subject to Natural Hazards), 8 (Recreation) and 9 (Economy). Reference should be made to the Economic Element; Park and Recreation Element; Air, Noise and Land Resources Quality Element; Water Resources Element; and Natural Features Element.

FARM/FOREST TRANSITIONAL

INTENT

The intent of the Farm/Forest Transitional designation is to conserve and maintain open space lands for forest uses, farm uses or both. It is also intended to maintain open space lands which are otherwise necessary to protect natural resource areas.

DEFINITION

Farm/Forest Transitional defines those resource lands which have some of the characteristics of both Agricultural Lands and Timberlands. Influenced by a number of factors (including ownership sizes, relationship to other resource lands, past use, present vegetative cover and topographic conditions), the productive level of Farm/Forest Transitional land may fluctuate considerably. It is recognized that these lands can and should be used for agriculture, forestry or both. However, no priority for forest or farming activities is intended.

INVENTORY PROCEDURE

The Comprehensive Plan Map designates only the single broad land use category of Farm/Forest Transitional. Lands designated as such consist primarily of the following:

1. Lands in areas where the lotting pattern is predominantly below 40 acres;

2. Lands where the predominant Natural Resource Conservation Service (NRCS) soil class is IV through VII and lands that have not historically been used for agricultural purposes; as an example, those lands that have not received the farm tax deferral;

3. Lands having a predominant cubic foot site class of 5 or below in Southern Douglas County

(South Umpqua and Cow Creek PAC areas) and 4 or below in Northern, Central and Coastal Douglas County; or

4. Other lands needed to protect farm or forest uses on surrounding designated agricultural or forest lands.

Two types of Farm/Forest Transitional lands were evident during the inventory process. One type consists mainly of large acreage ownerships that are not used exclusively for agriculture or forestry. Resource activities in these areas typically combine agriculture and forest uses. Dual resource operations such as those described allow for a great deal of flexibility in resource utilization and overall land management. Suited for both farm and forest uses, these "large acreage" Farm/Forest Transitional lands constitute a significant portion of the County's resource base.

The other type of Farm/Forest Transitional land characteristically includes areas of mixed resource/ residential use where the existing parcelization pattern is predominantly 40 acres or less. This type of area often includes land which is not well suited for either farm or forest use (refer to factors under the Farm/ Forest Transitional definition). Since this type of land is often located in areas of predominant resource use, it is necessary that they be placed within a resource designation (refer to #4 above - Inventory Procedure). When applying the implementing zone to this second type of Farm Forest Transitional lands, the area's lotting pattern is an important consideration. In determining the predominant lotting pattern, the sizes of units of land wholly or partially within a 1/4 mile radius of the site shall be considered (not including committed or urban lands). A majority of the acreage in this 1/4 mile radius shall be in parcels less than 40 acres. Lots exceeding 75 acres will not be designated in this classification. (Revised 10/19/94)

GOAL CONFORMANCE

Douglas County's Farm/Forest Transitional designation meets the spirit of both Goals 3 and 4 by allowing for flexibility in the use of overlapping agriculture/forest land. Permitted uses will be those farm uses described in ORS 215.203 and 215.213 and those forest uses defined in Goal 4. Resource protection in areas designated as Farm/Forest Transitional is assured through policies from the following plan elements: Agriculture; Forest; Economic; Park and Recreation; Air, Noise and Land Resources Quality; Water Resources; and Natural Features.

AGRICULTURE

INTENT

The intent of the Agriculture designation is to preserve and maintain prime agriculture lands for farm use. It is also intended to provide protection from nonfarm uses as well as provide encouragement and incentives for activities which enhance the agricultural resources of Douglas County.

DEFINITION

In Douglas County, agriculture lands are (as defined by Goal 3 - Agricultural Lands):

1. Lands with predominantly Class I through IV soils as identified in the Soil Capability Classification System of the U.S. Soil Conservation Service; and

2. Other lands which are suitable for farm use taking into consideration:

a. soil fertility;
b. suitability for grazing;
c. climatic conditions;
d. existing and future availability of water for farm irrigation purposes;
e. existing land use patterns;
f. technological and energy inputs required; and
g. accepted farming practices; and

3. Lands in other soil classifications which are necessary to permit farm practices to be undertaken on adjacent or nearby lands.

Goal 3 also defines the uses of agriculture land as those set forth in ORS 215.203 and the nonfarm uses authorized by ORS 215.213.

INVENTORY PROCEDURE

Agriculture lands in Douglas County were delineated in accordance with the agriculture land definition above. Other criteria used to identify agriculture land can be found in the Agriculture Element (Phase I). In some cases, however, other considerations necessitated a nonresource classification on lands that would have otherwise been designated as agriculture (refer to description of nonresource designations, Committed Lands Inventory and Exceptions Statement).

The plan maps designate only the single broad classification of Agriculture. However, two types of farmland, grazing land and cropland, exist in Douglas County. At the time of legislative rezoning, an appropriate EFU zone will be applied to agriculture land with the capability of supporting either a cropland or a grazing land use. The major determinants to be used when distinguishing between crop land and grazing land are accepted farming practices and irrigation potential.

Croplands consist largely of areas having existing irrigation and accompanying water rights or potential irrigation. Cropland areas are generally characterized by areas of predominately Class I and II Soil Conservation Service Capability soils and floodplain areas. When identifying cropland areas, accepted farming practices and the impact of separating potential croplands from a functioning grazing operation are major considerations.

Grazing lands consist of areas used, or capable of being used, for grazing or rangeland use. Other considerations used to identify grazing lands are predominant and accepted farming practices, size of operations, topography and the extent of adjacent lands that are needed to protect existing commercial agricultural enterprise.

GOAL 3 CONFORMANCE

Douglas County's Agriculture designation, in combination with agriculture Element policies (see Phase I), complies with the requirements of Goal 3 - Agricultural Lands. Agriculture land not only plays an important role in the County's economy, but also helps to provide the open space values upon which the County's rural lifestyle depends.

Toward the goal of "preserving and maintaining agricultural lands", Douglas County has set policy (for example) which limits the creation of new lots or parcels in areas designated as agriculture. Minimum parcel sizes have been established which, depending upon accepted farming practices, will range from 80 acres in grazing land areas to 20 acres in crop land areas (refer to Agriculture Element policies, Phase I). The agriculture designation in combination with adopted Agriculture Element policies and Oregon State law (refer to Goal 3, ORS 215.203 and ORS

215.213) will maintain the integrity of the County's agricultural land base. (Revised 10/19/94)

CONFORMANCE WITH OTHER GOALS

The Agriculture designation in conjunction with policies from other plan elements will contribute toward meeting the requirements of Goals 5 (Natural Resources), 6 (Air, Water and Land Quality), 7 (Areas Subject to Natural Hazards), 8 (Recreation) and 9 (Economy). Reference should be made to the Economic Element; Park and Recreation Element; Air, Noise and Land Resources Quality Element; Water Resources Element; and Natural Features Element.

RURAL NONRESOURCE DESIGNATIONS

Nonresource land consists of areas that: 1) are "committed to" a use other than agriculture or forestry; 2) are "needed for" a use other than agriculture or forestry; or 3) do not meet the definition of agriculture and forest land as defined by Statewide Planning Goals 3 and 4.

COMMITTED LANDS

Through the process of inventorying resource land, it was found that a Timberland, Farm/Forest Transitional or Agriculture designation would not be appropriate in some specific areas due to prior commercial, industrial or residential development (or commitment). As a result, a study of committed lands was undertaken so as to delineate areas that are committed to a use other than agriculture or forestry (refer to Committed Lands Inventory for methodology and site listings). The documentation of committed lands serves as a sufficient exception to Statewide Planning Goals 3 and 4 and allows the County to establish nonresource designations in those areas identified as committed. Nonresource designations applied to committed areas not only avoids the problems associated with nonconforming use status, but also gives economic and social validity to prior development that is currently being used intensively for nonresource purposes. As such, committed lands form the basis for most nonresource map designations.

NEEDED LANDS

Other nonresource designations are applied to lands that have been documented to be "needed" for nonresource uses. In order to establish a nonresource designation on "needed" lands, a formal Goal 2 exception (providing the reasoning as to why an agriculture or forest designation would not be appropriate) has to be provided by the County and subsequently acknowledged by the State. These "needed lands" or "need exception areas" provide appropriate amounts of land to accommodate a rural level of development and growth in rural-unincorporated portions of the County (refer to the rural-unincorporated and urban-unincorporated definitions in the Appendix). The Population, Economic and Housing Elements establish the numeric basis for "need exception areas." The County's Exceptions Statement contains compelling reasons and facts for each specific "need exception area" (in accordance with Goal 2, Part II - Exceptions). The Exceptions Statement also clearly details why the conclusion was drawn that each "need exception area" should be designated for a use other than agriculture or forestry.

NONRESOURCE LAND

There are some instances in Douglas County where areas are substantially surrounded by committed lands and other development (such as roads), have a low forest site class potential, are predominantly class VI and VII agricultural soils and are not needed to permit farm practices to be undertaken on nearby lands. These lands cannot realistically be designated as agriculture or forest land because of their low productivity potential and proximity to other development that conflicts with agriculture or forest uses. These lands, being somewhat limited in acreage and extent, must be accounted for and placed within appropriate nonresource land use designations. Specific reference to the Douglas County "Exception Statement" concerning the (nonexception) nonresource exception should be made to further understand this Classification of Lands.

DESIGNATIONS

Nonresource designations fall into four major land use categories, those being industrial, commercial, residential and public/semipublic. Those four major categories consist of several subcategories, all of which are described in the following sections. Nonresource land use designations applied to rural unincorporated lands are: (Revised 5/31/95)

INDUSTRIAL
- **Industrial**
- **Industrial Reserve**

COMMERCIAL
- **Commercial**
- **Tourist Commercial**
- **General Commercial-Industrial**

RURAL SERVICE CENTER

RESIDENTIAL
- **Committed - Lot of Record**
- **Committed - 1**
- **Committed - 2**
- **Committed - 5**
- **Rural Residential - 2**
- **Rural Residential - 5**

PUBLIC/SEMIPUBLIC

TABLE 15-1. DOUGLAS COUNTY LAND USE, GENERALIZED ACREAGE SUMMARY, (Revised

12/8/10)

TYPE		ACRES	PERCENT OF COUNTY TOTAL
URBAN	City UGB's	27,721	
	County UUA's	7,131	
	Subtotal	34,852	1%
COMMITTED	Residential	34,905	
	Other	2,732	
	Subtotal	37,637	1%
EXCEPTION	Residential	3,390	
	Other	165	
	Subtotal	3,555	*
NONEXCEPTION		3,879	*
INDUSTRIAL RESERVE		122	*
TOTAL NONRESOURCE		80,045	2%
TIMBERLANDS	TR Zone	2,516,543	77%
FARM FOREST TRANSITIONAL			
	FF Zone	324,086	
	AW Zone	18,499	
	Subtotal	342,585	11
AGRICULTURE	FG Zone	253,192	
	FC Zone	29,036	
	Subtotal	282,228	9%
COASTAL RESOURCE		18,959	1%
TOTAL RESOURCE		3,160,315	98%
TOTAL ACRES IN DOUGLAS COUNTY		3,240,360	100%

* Less than one-tenth of one percent

TABLE 15-2. DOUGLAS COUNTY NONRESOURCE DESIGNATION SUMMARY[1], (In acres) (Revised 11/30/88)

	Rural Unincorporated					Gen.[7] Comm	Urban	
Planning Area	Res[2]	Comm[3]	Ind[4]	Ind[5] Res	Pub[6]	Ind.	Area	Unincorp.[8] Total
Coastal	958	691	58	--	20	--	721	1,926
Elk Creek	2,252	98	110	17	19	--	--	2,496
Calapooya	3,797	11	241	10	17	--	--	4,076
Callahan	9,992	15	2	--	35	--	--	10,044
Roseburg-Green	5,067	51	577	57	157	--	2,295	8,204
North Umpqua	4,541	394	270	--	380	--	2,144	7,729
Douglas	3,696	41	724	--	90	--	--	4,551
South Umpqua	3,751	40	870	357	138	17	1,427	6,600
Cow Creek	1,442	37	184	17	957	--	--	2,637
TOTALS	35,496	756	3,136	458	1,813	17	6,658	48,263

[1] Listing does not include 551 acres committed by the County but subsequently included within the urban growth boundaries of Elkton, Sutherlin, Roseburg, Myrtle Creek and Glendale.
[2] Includes nonurban committed, exception and non-exception residential.
[3] Includes nonurban commercial, tourist commercial, and rural service center areas.
[4] Nonurban only.
[5] Primarily noncommitted.
[6] Includes areas designated public/semi-public within nonurban committed or exception sites only.
[7] Nonurban only.
[8] Includes all area within urban service boundaries of Winchester Bay, Gardiner, Glide, Green and Tri City.

COMMITTED LANDS INVENTORY AND EXCEPTIONS AND NONEXCEPTIONS DOCUMENT

The Committed Lands Inventory and the Exceptions and Nonexceptions Document are both integral parts of the Douglas County Comprehensive Plan. The Committed Lands Inventory is over 700 pages long and the Exceptions Document is over 400 pages long. Due to their length and specificity, each of these documents are published under separate cover. The preceding pages of this Land Use Element (pages 15-9 through 15-10) give a brief description of committed lands, exception lands (needed lands) and nonexception lands (nonresource land). For a more detailed analysis, reference should be made to each specific document. The following chart summarizes committed, exception and nonexception acreage.

TABLE 15-3. DOUGLAS COUNTY COMMITTED, EXCEPTION AND NONEXCEPTION LAND, GENERALIZED ACREAGE SUMMARY (Revised 11/30/88)

TYPE	COMMITTED	EXCEPTION	NONEXCEPTION	TOTALS
RESIDENTIAL	31,554	751	3,191	35,496
INDUSTRIAL	3,072	64	--	3,136
COMMERCIAL	722	51	--	773
PUBLIC	893	920	--	1,813
URBAN	6,545	42	--	6,587
TOTAL	42,786	1,828	3,191	47,805

NEED PROJECTIONS FOR COMMERCIAL AND INDUSTRIAL LAND

COMMERCIAL ACREAGE PROJECTION

The Economic Element describes the formula used to project commercial land use needs to the year 2000. The following calculations are based on that formula. It should be noted that improved and projected figures are Countywide (includes incorporated, urban unincorporated and rural unincorporated commercial uses).

Coastal Subarea
- 1980 population - 8,423
- 2000 population - 13,352
- Improved Commercial Land - 100 ac.
- Commercial acres per person (1980) - .0119 ac.
- Commercial projection (2000) - 159 ac.
- Designated commercial land - 245 ac.
- Amount of over-designation - 86 ac.

The over-designation of commercial land in the Coastal Area is due primarily to the amount of commercial land designated at Winchester Bay/Salmon Harbor. Being a major tourist destination area, Winchester Bay is influenced by traffic on U.S. Highway 101 as well as a large regional population (southwest Oregon). Due to these outside influences, the commercial projection formula is an impractical gauge of future commercial needs. Additional factors leading to an over-designation are:

a. Approximately 30 acres of breakwater parking area at Salmon Harbor is designated commercial (refer to Winchester Bay Plan).

b. A twenty year investment on the part of Douglas County as well as the master plan for Salmon Harbor necessitates the commercial designation of approximately 30 acres on the west breakwater for a proposed convention center and associated parking.

c. Approximately 55 acres of commercially designated land on the south side of Highway 101 at Winchester Bay is necessary in order to support the increasing demand for tourist and overnight facilities (demand being a result of the Salmon Harbor development).

North Subarea
- 1980 population - 6,229
- 2000 population - 7,901

- Improved commercial land - 61 ac.
- Commercial acres per person (1980) - .0098 ac.
- Commercial projection (2000) - 77 ac.
- Designated commercial land - 121 ac.
- Amount of over-designation - 44 ac.

The over-designation of commercial land in the north part of the County is due primarily to the designation of additional (beyond existing) commercial land at Rice Hill (32 ac.) and Curtin (10 ac.). Both Rice Hill and Curtin are major tourist commercial centers on the I-5 corridor. Being influenced by a substantially larger population (freeway traffic) than the local region contains, these two tourist commercial areas have been allowed to expand within their areas of commitment.

Central Subarea
- 1980 population - 60,636
- 2000 population - 89,734
- Improved commercial land - 924 ac.
- Commercial acres per person (1980) - .0152 ac.
- Commercial projection (2000) - 1,364 ac.
- Designated commercial land - 1,555 ac.
- Amount of over-designation - 191 ac.

The over-designation of commercial land in the central region of the County is primarily due to the large amounts of commercial land designated in Roseburg, Sutherlin and Winston.

South Subarea
- 1980 population - 16,917
- 2000 population - 24,962
- Improved commercial land - 140 ac.
- Commercial acres per person (1980) - .0083 ac.
- Commercial projection (2000) - 207 ac.
- Designated commercial land - 267 ac.
- Amount of over-designation - 60 ac.

The over-designation of commercial land in the south part of the County is attributable to the amount of commercial land designated within Myrtle Creek, Canyonville and Tri City.

INDUSTRIAL ACREAGE PROJECTION

The Economic Element and Industrial Site Inventory describe the formula used to project industrial land use needs to the year 2000. The following calculations are based on that formula. As with commercial, this projection represents Countywide figures which include incorporated, urban unincorporated and rural unincorporated industrial areas.

Coastal Subarea
- 1980 population - 8,423
- 2000 population - 13,352
- Improved industrial land - 415 ac.
- Industrial acres per person (1980) - .0493 ac.
- Industrial projection (2000) - 658 ac.
- Designated industrial land - 630 ac.
- Amount of under-designation - 28 ac.

North Subarea
- 1980 population - 6,229
- 2000 population - 7,901
- Improved industrial land - 180 ac.
- Industrial acres per person (1980) - .029 ac.
- Industrial projection (2000) - 229 ac.
- Designated industrial land - 327 ac.
- Amount of over-designation - 98 ac.

Central Subarea
- 1980 population - 60,636
- 2000 population - 89,734
- Improved industrial land - 2,800 ac.
- Industrial acres per person (1980) - .0462 ac.
- Industrial projection (2000) - 4,146 ac.
- Designated industrial land - 4,137 ac.

NOTE: Designated acreages include General Commercial/Industrial.
- Amount of underdesignation - 9 ac.

South Subarea
- 1980 population - 16,917
- 2000 population - 24,962
- Improved industrial land - 973 ac.
- Industrial acres per person (1980) - .0575 ac.
- Industrial projection (2000) - 1,435 ac.
- Designated industrial land - 1,410 ac.
- Amount of underdesignation - 25 ac.

DESIGNATION SUMMARIES

INDUSTRIAL

INTENT

To help assure the maintenance and expansion of existing industry or the establishment of new industry on lands that are committed to and designated for an industrial use. Other intent statements relevant to the County's economy can be found in the Economic Element policies.

DEFINITION

The industrial designation indicates areas outside of urban growth boundaries that 1) have existing industrial uses which have been identified as being part of a committed land site (refer to Committed Lands Inventory); or 2) have been found to meet the intent of Goals 3, 4 and 14 (agricultural lands, forest lands and urbanization) and are subsequently designated as industrial so that a proposed industrial use can be established (under the provision that access to public utilities is limited); or 3) have been classified as a rural unincorporated community. Industrial uses typical to Douglas County include: (Revised 5/31/95)

Lumber Mills - This includes sawmills, planing mills, plants engaged in the processing of veneer, plywood or paper, as well as other operations involved in secondary or tertiary processing of forest products.

Truck Shops - Located primarily within areas designated for resource uses, these operations are engaged in the limited maintenance, repair and storage of vehicles used for the purpose of mineral extraction or the harvesting of forest products. These dispersed trucking operations are essential to the County's economy.

Mineral Processing Facilities - This would include facilities such as Hanna Nickle while excluding portable aggregate extraction equipment and facilities (which are considered a resource use).

Facilities engaged in the **processing of agricultural products**.

Manufacturing Firms - Those which assemble or produce goods and materials other than wood products.

Machine and Metal Fabrication Shops

Construction Firms

Warehouse and Storage Facilities

Marine Industrial Activities - This includes industries engaged in seafood processing, boat repair, barge movement, and other water-dependent industrial activities.

All existing industrial uses in the County are not necessarily designated industrial on the land use maps. Resource oriented industries (such as a small sawmill) located in resource areas do not usually need an industrial designation since they most often represent uses that are permitted in accordance with Goal 4 (Forest Lands) and ORS 215.213.

Other industrial uses located in resource areas, specifically logging and mineral oriented

truck operations (limited maintenance and repair), do not need an industrial designation because they are necessary and accessory to either 1) the harvesting and propagation of forest products (as permitted by Goal 4 and ORS 215.213); or 2) the extraction of aggregate material (as permitted under the provisions of ORS 215.213 and OAR 629-24-111).

While not often the case, some existing industrial uses have been designated within nonresource land use categories other than industrial. This could mean that if the existing industrial use were to cease operation for a period of longer than one year, the use of the property may have to revert to its designated use.

INVENTORY PROCEDURE

Full compliance with Goal 9 (Economy of the State) requires that sites be designated which are suitable for economic growth and expansion. Toward that end, Douglas County initiated a study in which all existing and potential industrial sites in the County were mapped and evaluated. Information compiled in that study serves as the basis upon which industrial land was designated. For further reference, refer to the Industrial Site Inventory (January, 1980) and the Industrial Site Inventory, Second Edition (October, 1984). The industrial designation has been applied to the following industrial areas(excludes figures for urban-unincorporated and incorporated or UGB industrial):

GOAL CONFORMANCE

The industrial designation complies with the intent of Goals 3 and 4 (agriculture and forest protection) since it is applied primarily to those areas that have been previously committed to a nonresource industrial use. Based on an adequate inventory, the industrial designation contributes to a stable and healthy economy, thus meeting the intent of Goal 9. Compliance with Goal 14 (urbanization) necessitates that undeveloped parcels in rural areas should not be designated as industrial because industrial uses are considered to be urban uses and subsequently belong within urban growth boundaries. To meet the intent of Goal 14, Douglas County has designated as industrial primarily those rural sites that are already committed to such a use. Lands within a rural unincorporated community are also eligible for an industrial designation, consistent with requirements of OAR 660-22.

ABANDONED MILL SITES

In 2003, the 72nd Oregon Legislative Assembly (2003 Regular Session) passed HB 2691. The Bill referred to as the “Abandoned Mill Site Bill”, expedited the land use approval process for certain types of industrial development, and created a broad range of use and development opportunities for Abandoned Mill Sites outside Urban Growth Boundaries. Sixteen abandoned mill sites in Douglas County were researched. Two of the sixteen abandoned mill sites, site #5 and site #16 in the Abandoned Mill Site Inventory, were determined to not need a Goal 11 Exception for extension of urban levels of sewer service to the sites, due to HB 2691. The two sites are identified as:

Dixonville Abandoned Mill Site #5.
Township 27, Range 04W, Section 7, Tax Lot 300;
Township 27, Range 04W, Section 18, Tax Lot 300, 1200, 1300;
Township 27, Range 04W, Section 19, Tax Lot 300, 400, 500, 600;
Township 27, Range 05W, Section 24, Tax Lot 100.

Tenmile/Porter Creek Abandoned Mill Site #16
Township 28, Range 07W, Section 27B, Tax Lot 1900.

TABLE 15-4. DOUGLAS COUNTY RURAL AREAS WITH INDUSTRIAL DESIGNATION (Revised 12/08/10)

Planning	Improved Industrial	Total Designated	Committed	Exception

Area	Location	Acreage	Acreage	Site No.	Site No.
Coastal	North Fork	14	14	14	
	Smith River	--	15		1
	Frantz Creek	10	10	4	
	Bolon Island	23	93	6	
	SE of Gardiner	0	26		5
	Winchester Bay	18	18		
Elk Creek	Smith River Mill	38	41	6	
	Sunnydale	5	5	11 & 30	
	Mt. Baldy Mill	--	29	7	
	N. of Yoncalla	2	22	20	
	S. of Yoncalla	7	13		9
Calapooya	Metz Hill	5	10	32	
	Deady	9	9	20	
	Redbell	13	23	21	
Callahan	Garden Valley	2	2	15	
	Elgarose	5	--	6	
Roseburg-Green	Wilbur	4	21	2	
	Winchester	229	284	(Callahan) 8	
	Sunshine Road	15	15	6	
	N. Umpqua Hwy.	27	70	20	
	The Oaks/Shady	157	184	11	
	Glengary	3	3	19	
	Green		547		
N. Umpqua	Dixonville	266	266	24	
	Pellet Mill	4	4	24	
Douglas	EPI	75	89	18	
	Dillard	597	597	19	
	Round Prairie	25.7	25.7	21	
	Porter Creek	5	10	8	
	N. Camas Valley	6	6	1	
S. Umpqua	Tri City Airport	2	33	10	
	Boomer Hill	10	10	7	
	N. Myrtle Creek	--	34	6	
	Tiller	--	10		16
	Milo Academy	6	6	9	
	North of Riddle	300	345	24	
	SW of Riddle	114	114	26	
	Hanna Nickle	329	329	30	
Cow Creek	North of Glendale	138	138	14	
	East of Glendale	46	46	17	
	TOTAL	2,537	3,517		

RURAL SERVICE CENTER (Revised 5/31/95)

INTENT

To provide for a rural level of commercial, public or residential uses within Rural Service Center Communities. It is further intended that the map designation be interpreted so that properties within reasonable proximity to the Rural Service Center should also be considered for such uses as long as the accumulation of commercial or public activity remains limited and nonintensive. Upon receipt of a specific commercial request, the County, through the quasi-judicial process, will evaluate the need for additional commercial activity in the community. Since the Rural Service Center designation is not site specific, the acreage and extent of area designated cannot be determined. Quasi-judicial review and public hearing would be required in the case of development proposals that meet the rural service center intent but are proposed for a location outside of a committed land boundary.

This designation recognizes the diversity of current commercial activity and provides an avenue for future commercial, public or residential development, if needed or desired. To assure the implementation of the Rural Service Center designation does not provide for commercial uses more intensive than allowed by the Unincorporated Communities Rule, the Rural Service Center Commercial (CRS) zone has been established. The CRS zone provides only small scale low impact commercial uses. Public and residential uses are allowed as provided in the PR, WI and committed residential zones.

DEFINITION

Commercial activities in rural areas provide a significant service to local residents by preventing unnecessary and lengthy automobile trips to larger centers and by furnishing an outlet for emergency and minor purchases. The rural service center, with its neighborhood-type commercial and public uses, also helps to strengthen the integrity of the community and provides local residents with places to gather. Commercial, public and residential activity is encouraged within the rural service center. However, a priority for those land uses is established as follows:

1. **Commercial** uses, limited to small scale low impact uses, have the highest priority.

2. **Public** uses, such as fire stations, schools, churches and grange halls, have second priority.

3. **Residential** uses, including single-family dwellings or mobile home parks that are necessary to provide housing for people employed in the region's resource activities, have the lowest priority.

INVENTORY PROCEDURE

The rural service center designation denotes areas where existing or additional commercial activities and accessory uses at a small scale are appropriate to serve the commercial needs of the County's Rural Service Center Communities. In the future, this designation may be applied at crossroad locations near existing committed or rural growth areas where commercial demands can be anticipated. The rural service center designation has been applied to established commercial nodes as listed in Table 15-6 (listed by planning area).

GOAL CONFORMANCE

The rural service center designation is applied primarily to the County's 10 Rural Service Center Communities. The rural service center meets the intent of Goal 6 (air quality portion) and Goal 13 (energy) by encouraging fewer auto trips, thus yielding energy savings as well as cleaner air.

TABLE 15-6. RURAL SERVICE CENTER COMMUNITIES (Revised 5/31/95)

Planning Area	Community	Existing Commercial Acreage	Designated Acreage	Committed Site No.
Coastal	North Fork	12	N/A	14
Calapooya	Umpqua	2	N/A	10
	Nonpareil	3	N/A	31
North Umpqua	Dry Creek	78	N/A	35
	North Umpqua Village	5	N/A	15
	Oak Valley	11	N/A	5
	Steamboat		N/A	34
South Umpqua	Jackson Creek	1	N/A	1
Cow Creek	Fortune Branch	1	N/A	7
	TOTAL ACRES	113	N/A	

TOURIST COMMERCIAL

INTENT

To provide areas for a variety of retail businesses to serve general community, highway and tourist needs along major transportation routes and at established destination recreation areas. It is also intended to allow for residential uses that operate in conjunction with the commercial use.

DEFINITION

Tourism is increasingly becoming a major segment of Douglas County's economy. The Umpqua River System, Pacific Ocean, Cascade Mountains and many fine parks all provide ample opportunity for recreational activity. Destination recreation areas include Winchester Bay, Wildlife Safari, Lemolo Lake and Diamond Lake. Lemolo Lake Resort and Diamond Lake Resort are tourist destinations located on federal lands within the Umpqua National Forest. Diamond Lake was established as a destination resort in 1922 and the intensive development of the Lemolo Lake recreation area started in 1966. Both recreational areas are managed under a special use permit from the Umpqua National Forest Service. Other tourist activities are oriented toward the County's highway network. Demand for highway related commercial is generated by two major routes to the coast (38 and 42); two major routes to the Cascades (138 and 227); and approximately one-third of Oregon's north-south freeway system traversing nearly 100 miles through the County (I-5). The increasing need for tourist commercial services is not only imperative to meet tourist demand, but is also important toward maintaining a portion of the County's economy.

Typical tourist commercial uses in Douglas County include: motels, restaurants, auto service, small retail outlets and recreational vehicle parks. Tourist commercial uses also satisfy some general community needs. Further information on tourist related activities can be found in the Economic Element and the Park and Recreation Element.

INVENTORY PROCEDURE

The tourist commercial designation indicates areas where existing or needed tourist commercial uses are appropriate to serve tourists as well as the general community. The tourist commercial designation is applied to the locations identified in Table 15-7 (by planning area).

GOAL CONFORMANCE

The tourist commercial designation meets the intent of Goals 3 and 4 (agriculture and forest lands) because the designation is applied, in most cases, to committed areas only. Sites needed for tourist commercial uses that required a Goal 2 exception are: part of Echo Resort, Sawyers Rapids, part of the Susan Creek area and part of the Quines Creek area.

In order to satisfy recreational needs (Goal 8), Douglas County must have adequate tourist services available. This is especially important in light of the wide variety of recreational activities that are available in the County. Toward diversifying and improving the economy (Goal 9), the County must develop tourist services at a moderate level. However, maintaining and protecting our natural resources (the County's primary tourist attraction) should be the guiding determination in the resolution of local economic issues related to tourism.

The conservation of energy (Goal 13) is met by the tourist commercial designation since it is energy efficient to locate tourist services near areas attracting tourists. Goal 14 (urbanization) is not an issue in this designation because tourist facilities are not intense urban activities and do not require urban services.

TABLE 15-7. RURAL AREAS WITH TOURIST COMMERCIAL SITES. (Revised 1/12/04)

Planning Area	Location	Improved Commercial Acreage	Designated Acreage	Committed Site No.	Exception Site No.
Coastal	Echo Resort	5	15	18	2
	Loon Lake	20	20	25	
	Smith River Marina*	*5	*5	15	
	Tahkenitch Lake*	*1	1	*2	
	Siltcoos Lake	2	2	1	
Elk Creek	Anglers Acres	2	3	13	
	Sawyers Rapids	9	9		6
	Sunnydale	3	3	11	
Calapooya	Sutherlin	5	5	19	
	Bullock Bridge	1	1	4	
Callahan	River Forks	12	12	11	
North Umpqua	Rock Creek	7	9	12	
	Susan Creek	4	20	17	11
	Lemolo Lake	80	80	37	
	Diamond Lake Lodge	80	80	38	
	Diamond Lake Trailer Park	83	83	40	
South Umpqua	Weaver Road	2	2	19	
	Drew	1	1	4	
	South of Drew	1	1	6	
	TOTAL ACRES	317	356		

* Designated rural water-dependent shorelands, and zoned marine rural. Acreage for these sites are not reflected in the total. Further reference should be made to the Coastal Resources document.

COMMERCIAL

INTENT

The commercial designation is intended to accommodate existing or future retail and service commercial uses. The designation is also intended to accommodate permanent mobile home parks that already exist or would be located within a rural unincorporated community or are needed as an accessory to a resource use.

DEFINITION

This designation is primarily applied to existing retail and service commercial outlets that generally draw their customers from a large surrounding area. Uses in this category are often located near a city or unincorporated area with urban densities, or within an unincorporated community. It is recognized by the County that future commercial uses (of the type described in this paragraph), under the Statewide Planning Goals, are encouraged to be located within cities or urban unincorporated areas. It is further recognized by the County that not all of the commercial uses described in this paragraph are allowed in rural communities or rural service center communities. (Revised 5/31/95)

The Commercial designation is also applied to rural mobile home parks that do not have a tourist orientation. These mobile home parks often provide permanent housing for people who work in the County's resource based economy. The commercial designation validates those existing mobile home parks and permits new mobile home parks (in rural areas) so long as resource values remain intact and the new park is necessary to provide housing for people employed in the region's resource activities.

Typical commercial uses in this category include:

- Retail and service commercial outlets
- Auto service
- Restaurants
- Motels
- Drive-in theaters
- Permanent mobile home parks

INVENTORY PROCEDURE

The commercial designation is applied to commercial uses and mobile home parks that do not conform to the rural service center or tourist commercial criteria. Future commercial uses requiring this designation should be located within urbanizable areas (with the exception of mobile home parks and commercial uses within rural unincorporated communities, as previously discussed). The commercial designation is applied to the committed locations identified in Table 15-8; (refer to the Committed Lands Study for further information).

Other commercial uses not listed in Table 15-8 are located in the urban unincorporated areas of Winchester Bay, Gardiner, Glide, Green and Tri City. Refer to the urban unincorporated section of this element for more detailed information.

GOAL CONFORMANCE

Since the commercial designation is applied only to committed lands, no additional agricultural (Goal 3) or forest land (Goal 4) is proposed for conversion to commercial uses. However, additional mobile home parks may be allowed in rural areas if they are shown to be necessary and accessory to a forest use (refer to Housing Element policies). The commercial designation also contributes to a stable and healthy economy (Goal 9) by legitimizing (through the planning process) existing commercial enterprises.

TABLE 15-8. RURAL AREAS WITH COMMERCIAL DESIGNATIONS (Revised 5/31/95)

Planning Area	Location	Improved Commercial Acreage	Designated Acreage	Committed Site No.
Coastal	Wells Creek	8	19	21
Elk Creek	Curtin	16	16	2 & 4
	Krewson	1	1	6
	North Drain	1	1	6
	Rice Hill	32	64	23 & 24
Roseburg-Green	Wilbur	1	1	2
	North Umpqua Highway	--	1	(N. Ump.) 28
	McLain Avenue	1	3	12
	The Oaks	12	13	11
	Shady	2	2	11
	Lindy's	7	16	11
	Starlite Theaters	15	15	18
North Umpqua	Rock Creek	14	14	12
Douglas	Camas Valley	7	21	4
South Umpqua	Clarks Branch	12	27	1 & 2
	Milo	6	6	10
	Yokum Road	2	2	25
	Riddle-Canyonville Highway	3	3	22 & 23
	Tiller	4	10	3
Cow Creek	Azalea		13	4 & 5
	Glendale	5	5	14
	Quines Creek	6	14	8
	TOTAL ACRES	155	267	

GENERAL COMMERCIAL - INDUSTRIAL

INTENT

The general commercial-industrial designation is intended to allow for either heavy commercial, light industrial or a combination of both uses on the site. Residential uses are not appropriate within this designation.

DEFINITION AND INVENTORY PROCEDURE

The general commercial-industrial designation can be applied in both urban and rural areas. It is currently applied to three urban areas. This designation recognizes and allows a continuation of existing uses. The urban areas where it is applied are Glide, Green, and Tri City (refer to the urban unincorporated section of this Element). A complete explanation of this plan category can be found by referring to the commercial and industrial designations. (Revised 5/31/95)

COMMITTED RESIDENTIAL

INTENT

To identify specific areas that have previously been developed for residential purposes and can no longer be considered for resource use. It is also the intent of the County to apply a residential designation and give the highest residential development priority to committed land areas. The committed residential designation is also utilized in rural communities and rural service center communities. (Revised 5/31/95)

DEFINITION AND INVENTORY PROCEDURE

For complete information concerning committed land definition, methodology, criteria, and site mapping, refer to the Committed Lands Study. A brief explanation can be found in the Introduction (above) to the nonresource designations.

DENSITY

The comprehensive plan maps contain the following committed land residential designations:

Committed - 1 - Indicates a committed area where parcelization and potential development should not exceed a density of one dwelling unit on each acre. Note: This designation is applied <u>only</u> in the Melrose area and the Frear Bridge area west of Glide.

Committed - 2 - Indicates a committed area where parcelization and potential development should not exceed a density of one dwelling unit on each 2 acres.

Committed - 5 - Indicates a committed area where parcelization and potential development should not exceed a density of one dwelling unit on each 5 acres.

Committed - Lot of Record - Indicates a committed area where, according to County information, a combination of constraints (as listed on the following page - "density criteria") limit development potential. In areas designated Lot of Record, only existing (and vacant) lots of record shall receive additional development.

The 2 and 5 acre designations are acceptable rural densities primarily because: 1) septic limitations in the County require that enough land be available to properly site a septic drainfield; and 2) larger parcel sizes have historically been shown to be excessive amounts of land for rural residential uses (for example, 10 acre parcels have often, in the past, been redivided to smaller sized lots).

Residential areas designated as "Lot of Record" on the plan map may receive either the Rural Residential-5 (5R) or Agriculture and Woodlot (AW) zone designation. For parcels 10 acres or greater in size, further parcelization shall not be authorized unless it is found that the applicable development constraints (as specified on the following page under "Density Criteria") are either insignificant or have been mitigated. The one exception to this rule is Dillard, an unincorporated community located south of Winston. Residential land use in Dillard is characterized by a dense lotting pattern (7,500 square foot lots). The RR-5 zone (implementing zone for the "Lot of Record" designation) would inappropriately create a conflict in Dillard by applying rural standards to a

nonrural setting. Urban type zoning cannot be applied outright because Dillard does not currently meet the basic County standards for recognition as an urban unincorporated area (because of the area's lack of sewer service). Much of Dillard does, however, sit on soils which exhibit a high

degree of septic suitability. Because of the foregoing, implementation of the "Lot of Record" designation in Dillard should be accomplished through a zoning category appropriate for urban type low density residential. (Revised 7/21/93)

In the case where a committed land site should not receive further parcelization, then only existing vacant lots of record will be eligible for a residential building permit. A "lot of record" is any unit of land created as follows:

a. A lot in an existing, duly recorded subdivision; or

b. A parcel in an existing, duly recorded major or minor land partition; or

c. An existing unit of land for which a survey has been duly filed which conformed to all applicable regulations at the time of filing; or,

d. Any unit of land created prior to zoning and partitioning regulations by deed or metes and bounds description, and recorded with the Douglas County Clerk, provided, however, that contiguous units of land so created under the same ownership and not conforming to the minimum property size shall be considered one (1) lot of record.

DENSITY CRITERIA

Prior to designating committed lands on the plan maps, a determination was made regarding the density at which residential development should occur. That density determination was accomplished through consideration of the following criteria:

1. **Septic Suitability** - Are area soils capable of handling additional septic drainage? The State Department of Environmental Quality assisted the County staff in this evaluation.

2. **Water Availability** - The County Water Resources Office assisted in this evaluation.

   a. Is the area served by a public water system? If so, could additional hookups be accommodated?

   b. Is the area served by subsurface water? If so, would there be a significant impact on the underground water supply if additional wells were drilled?

3. **Access** - Is the area easily accessible by improved County roads or other major thoroughfares?

4. **Energy** - Is there an excessive distance between the site and needed services?

5. **Effect on Agriculture or Forest Land** - Based on the nature of surrounding resource operations, would additional development within the committed land site create a significant hardship on those surrounding uses?

6. **Effect on Goal 5 Considerations** - Would additional development within the committed land site have a significant impact on open space, mineral resources, energy sources, fish and wildlife habitat, natural areas, scenic views, watersheds, historic and cultural areas, potential recreation trails or potential scenic waterways?

7. **Fire Protection** - Does the site have adequate through access, and is it within a rural fire district boundary?

8. **Slope** - Is the site located on excessive slopes?

9. **Hazards** - Is the site subject to any natural hazards (such as mass movement or flooding)?

10. **Land Use Conflicts With Industry/Commercial** - Would additional residential development create a significant economic hardship on surrounding industrial or commercial development?

After evaluating all of the criteria in relation to each site, a determination was made as to whether the site should: 1) receive no further parcelization; 2) be allowed to develop to a 2 acre minimum density; or 3) be allowed to develop to a 5 acre minimum density. The listing of "Potential Additional Dwelling Units" which may be accommodated in these committed areas was determined utilizing the following steps:

a. The maximum number of additional dwelling units which could be placed on each parcel at its given density was calculated and totaled by Planning Advisory Committee areas (PACs).

b. The Rural Lands Element supporting text (page II-70) indicates that Countywide there has been a 20% denial rate on requests for septic systems. As a result, the maximum number of additional dwelling units to be accommodated in each PAC was reduced by 20%.

c. The Water Resources Element supporting text (pages 103-110) lists the number of wells (both total and dry) for each PAC area of the County. For each of these areas, the percentage of usable wells was applied as a factor to the number of potential additional dwelling units by PAC resulting from step 2.

GOAL CONFORMANCE

The committed lands residential designation meets the intent of Goal 2 (Exceptions) since compelling reasons and facts have been documented for each site. The County contends that it is not possible to apply an agriculture or forest designation to committed lands since each site has been previously committed to a nonresource use. The committed designation also meets the intent of Goal 10 (Housing) by providing areas to house a portion of the County's future population.

Through the density consideration process, the committed designation meets the intent of Goals 5 (Natural Resources), 6 (Air, Water and Land Resources), 7 (Natural Hazards), 11 (Public Facilities), 12 (Transportation), and 13 (Energy). Committed lands are not urbanizing areas and as such are not contrary to the intent of goal 14 (Urbanization).

TABLE 15-10. COMMITTED RESIDENTIAL ACREAGE (Revised 11/25/87)

Planning Area	Acres Designated	Existing Dwelling Units	Potential Additional Dwelling Units
Coastal	958	330	218
Elk Creek	2,007	372	183
Calapooya	3,797	775	320
Callahan	9,992	1,521	1,166

Roseburg-Green		1,876	514	298
North Umpqua		4,428	704	459
Douglas		3,565	721	275
South Umpqua		3,574	883	370
Cow Creek		1,357	346	213
TOTALS		31,554	6,166	3,502
	Coast -	958	330	218
	North -	2,007	372	183
	Central -	23,658	4,235	2,518
	South -	4,931	1,229	583

RURAL RESIDENTIAL

INTENT

To provide for rural residential uses in areas that will not significantly affect surrounding resource uses. It is further intended that the rural residential designation should accommodate a portion of the County's future housing need.

EXCEPTIONS

The rural residential designation indicates lands which do not meet the committed criteria but have been found to be "needed" for rural residential uses. These "needed" residential areas provide appropriate amounts of land to accommodate a rural level of development and growth in rural unincorporated parts of the County. The factual basis for these needed lands is derived from the County's overall housing projection (refer to the Population and Housing Elements) and the anticipation that all projected future growth (Countywide) cannot be accommodated within urban growth boundaries and committed lands.

An exception (pursuant to Goal 2) has been provided for each specific area designated as rural residential. The compelling reasons and facts, explaining why a resource designation cannot be applied to each area, is completely set forth in the County's Exceptions and Nonexceptions document.

DENSITY

The plan maps contain the following rural residential designations:

Rural Residential - 2 - Indicates an area where parcelization and potential development should not exceed a density of one dwelling unit on each 2 acres.

Rural Residential - 5 - Indicates an area where parcelization and potential development should not exceed a density of one dwelling unit on each 5 acres.

Reference should be made to the committed residential designations for a discussion of density and how it was determined.

INVENTORY PROCEDURE

The process for identifying lands suitable for rural residential use consisted generally of the following:

1. Areas that are on the threshold of commitment to a nonresource use. This could include:

    a. Areas where developed parcels are generally greater than 10 acres in size; or

    b. Parcelized areas with less than five structures (excluding agricultural structures) on separate but adjacent parcels.

2. Areas adjacent to (abutting at least one side) lands that have been found to meet the County's commitment criteria. Many of these areas are also bound or confined by other natural or man-made features such as rivers, creeks, roads or railroads.

3. In a small number of cases, the rural residential designation was applied to lands that do not meet the criteria in numbers 1 and 2 above but, due to other compelling reasons and facts, are needed for residential uses.

Reference should be made to the County's Exceptions and Nonexceptions document for complete inventory information on each rural residential site. The listing of "Potential Additional

Dwelling Units" which may be accommodated in these rural residential areas was determined utilizing the process identical to that specified for committed lands.

GOAL CONFORMANCE

The statewide planning goals require that an exception be taken (pursuant to Goal 2) when establishing areas for rural residential use. The County believes that a justified need exists from which to designate additional areas for rural residential development. In that regard, the County has fulfilled the necessary criteria for an exception. All exception areas listed in table 15-11 were evaluated and approved by the Land Conservation and Development Commission.

NONEXCEPTIONS

Douglas County has identified certain lands which are neither agricultural nor forest lands as defined by the Statewide Planning Goals. Consistent with the finding that these lands do not meet these definitions, the County has found that these lands are not suited or needed for agricultural or forest use. As such, it is the County's intent to designate these lands for rural residential development at a maximum density of one dwelling per five acres of land.

The LCDC Exceptions Process Policy Paper of March 10, 1978 (amended May 3, 1979) delineates the exceptions process and identifies the Goals for which the process is applicable. Because the exceptions process applies to only the three coastal Goals and the Agricultural and Forest Lands Goals, Douglas County has found that an "exception" to the Statewide Goals is not necessary to accommodate rural residential uses on lands where these five Goals do not apply.

The Exceptions and Nonexceptions document provides the factual base necessary to substantiate that Goals 3 and 4 are not applicable to the identified nonexception properties. That document also includes findings which demonstrate consistency of rural residential development of the subject properties with Goal 5.

TABLE 15-11. DOUGLAS COUNTY RURAL RESIDENTIAL ACREAGE.

Planning Area	Nonexception Acres Designated	Exception Acres Designated	Existing Dwelling Units	Potential Additional Dwelling Units	Exception Site No.
Coastal	--	--	--	--	
Elk Creek	--	245	1	74	7,8,10
Calapooya	--	--	--	--	
Callahan	--	--	--	--	
Roseburg-Green	3,191	--	2	447	
North Umpqua	--	113	4	35	12
Douglas	--	131	3	15	13
South Umpqua	--	177	15	16	14,15,17

Cow Creek	--	85	3	20	18,19
TOTALS	3,191	751	28	607	
Coast	--	--	--	--	
North	--	245	1	74	
Central	3,191	244	9	497	
South	--	262	18	36	

RURAL/COMMITTED RESIDENTIAL (RR5/RC5) LANDS DESIGNATED AFTER 10/04/00

INTENT

For rural residential lands designated after October 4, 2000, a five (5) acre minimum parcel size will be standard when a Goal 14 exception is not taken. The intent of this section is to identify the rural nature of a five (5) acre minimum parcel size in Douglas County.

The 5 acre designation is an acceptable rural density in Douglas County primarily because:

1) septic limitations in the County require that enough land be available to properly site a septic drainfield; and 2) larger parcel sizes have historically been shown to be excessive amounts of land for rural residential uses (for example, 10 acre parcels have often, in the past, been redivided to smaller sized lots).

FIVE (5) ACRE PARCEL SIZE CRITERIA

A five (5) acre rural residential parcel size has been identified as rural in Douglas County. This identification was made based on the density criteria specific to rural development in Douglas County. The development of a five (5) acre minimum parcel size for rural residential lands requiring an exception to Goal 3 or 4 was accomplished through consideration of the following criteria:

1. **Septic Suitability** - Are soils capable of handling additional septic drainage?

The State Department of Environmental Quality has assisted the County staff in this evaluation in numerous areas throughout the County and five (5) acres has been found sufficient for both the primary and replacement drainfield area.

2. **Water Availability** -

a. Is service by a public water system? If so, could additional hookups be accommodated?

b. Is service by subsurface water? If so, would there be a significant impact on the underground water supply if additional wells were drilled?

The County Water Resources Office has assisted in this evaluation in numerous areas throughout the County and five (5) acres has been found sufficient to locate subsurface water, while also assuring public water does not develop at urban densities.

3. **Access** - Is there access by improved County roads or other major thoroughfares?

Five (5) acre parcel size subdivisions generally result in private internal road systems, accessed by a County road. A five (5) acre parcel size does not encourage a need for the development of additional County roads.

4. **Energy** - Is there an excessive distance between rural lands and needed services?

Twenty-five rural communities and seven urban unincorporated areas are located throughout Douglas County. The location of these places, and there ability to serve the surrounding rural development limits the need for excessive travel from rural developments.

5. **Effect on Agriculture or Forest Land** - Based on the nature of rural resource operations, would additional development create a significant hardship on existing resource uses?

A five (5) acre parcel size and the County's implementing rural residential - 5 acre zone both contribute to reducing residential/resource conflicts. Farm uses are permitted in the County's rural residential -5 acre zone.

6. **Effect on Goal 5 Considerations** - Would additional development have a significant impact

on open space, mineral resources, energy sources, fish and wildlife habitat, natural areas, scenic views, watersheds, historic and cultural areas, potential recreation trails or potential scenic waterways?

With a limit of one single family dwelling and its accessory buildings on a five acre parcel, the opportunity to identify a compatible dwelling location, in relationship to existing, inventoried, Goal 5 resources is provided. The application of Douglas County Goal 5 overlays and the process they establish to minimize impacts and assure compatibility avoid significant impacts on Goal 5 resources.

7. **Fire Protection** - Is there service from a rural fire district or resource land wildfire protection agency?

Rural lands in Douglas County are served by numerous rural fire districts. Non-district, private lands are protected by the Douglas Forest Protective Agency (DFPA) and the County's rural residential -5 acre zone only allows 40% lot coverage, assuring open space and the ability to maintain fuel free areas.

8. **Slope** - Is there development conflicts with excessive slopes?

The "100 Valleys of the Umpqua" is an on-going array of hills and valleys, leading to rural development on slopes. A five (5) acre parcel size serves as a mechanism to provide an area of multiple dwelling locations. A five (5) acre parcel size, together with the County's Geologic Hazard Overlay Zone assure safe hillside siting.

9. **Hazards** - Is there development conflicts with natural hazards (such as mass movement or flooding)?

Existing overlay zoning, currently applied throughout Douglas County would apply to any new rural residential areas and a five (5) acre minimum parcel size serves as a mechanism to provide an area of multiple dwelling locations.

10. **Land Use Conflicts With Industry/Commercial** - Would additional residential development create a significant economic hardship on industrial or commercial development?

A five (5) acre parcel size assures that rural population densities will not interfere with economic development within urban development centers, while also assuring rural service centers do not need to expand to serve new rural population.

After evaluating all of the criteria in relation to an appropriate rural minimum parcel size and in recognition of Douglas County acknowledged periodic review five acre rural parcel size designation, a reaffirmation and determination was made that a 5 acre minimum parcel size for new rural residential lands (created after October 4, 2000), outside rural communities, is rural. A parcel size for new rural residential lands of less than five acres will require an individual and specific Goal 14 exception.

GOAL CONFORMANCE

The rural residential designations meets the intent of Goal 2 (Exceptions) since compelling reasons and facts will be documented for each site. The rural residential designations also meets the intent of Goal 10 (Housing) by providing areas to house a portion of the County's future population.

Through the density consideration process, the rural residential designations meet the intent of Goals 5 (Natural Resources), 6 (Air, Water and Land Resources), 7 (Natural Hazards), 11 (Public Facilities), 12 (Transportation), and 13 (Energy). Rural residential lands, in Douglas County, are not urbanizing areas and as such are not contrary to the intent of Goal 14 (Urbanization). Rural residential lands in Douglas County were found to be rural when a 5 acre minimum parcel size was applied (DLCD Order 00865).

PUBLIC/SEMIPUBLIC

INTENT

To identify areas devoted to public uses such as parks and school facilities, or those lands devoted to the provision of public services such as electric, water and telephone. This land use designation may also indicate other public or semipublic uses or activities which would not be characterized by another land use designation.

DEFINITION

Public land uses consist generally of buildings and facilities that are owned and supported by the public at large through tax levies of various types. Public uses include: 1) special district facilities (such as sewer and water facilities); 2) school district facilities and grounds; and 3) buildings and facilities owned by city, county, state or federal government.

Semipublic uses are not usually supported through tax dollars but do provide services and facilities for various segments of the public. Typical semipublic uses include: churches; meeting

halls; telephone and power facilities; private airports; and private recreation facilities.

INVENTORY PROCEDURE

The public/semipublic map designation is applied to most areas that are currently engaged in a public or a semipublic use. No additional rural areas are designated as such. As future public/semipublic needs become apparent, then adjustments to the plan map and appropriate exceptions will have to be provided. Existing public and semipublic uses located in other plan designations may be implemented by a public and semipublic implementing zone. Public/semipublic uses typical to Douglas County are:

- Cemeteries
- Churches
- Grange and other community meeting halls
- Fire stations
- Water impoundment sites
- Golf courses
- Parks and publicly owned recreation facilities and areas
- Schools
- Water district facilities
- Sewer district facilities
- Telephone and power facilities
- Airports
- Waste disposal sites

A study of public land use was conducted in 1985 to ensure that all existing public and semipublic facilities were adequately designated and zoned. The study, adopted in May 1985, resulted in plan map and zoning changes affecting nearly 100 acres of developed public lands.

GOAL CONFORMANCE

Public uses are generally compatible with resource use in Douglas County. Conformance with Goals 3 and 4 is assured since the County is not designating additional vacant rural land for a public/semipublic use.

SYMBOLS AND OVERLAYS

In addition to the specific land use designations listed above, special consideration through map symbols, overlay designations and other devices are utilized to designate mineral sources, natural areas, historic features, coastal shorelands, and other specific items required to be identified by the Statewide Planning Goals. Not all such special designations may be contained on the land use maps, but they will be a part of the County's Comprehensive Plan.

Special map symbols are designated in the Plan. Those map symbols most commonly found on the Plan Maps are displayed in the following chart, which also provides a list of their corresponding meaning:

TABLE 15-12. MAP SYMBOLS. (Revised 11/30/88)

SYMBOL	MEANING
	Geologic Hazard Area

Aggregate/Mineral Site

Rural Service Center

Overlay zones which will implement Plan policies of the Comprehensive Plan are listed in Table 15-13 and reflect the Plan Element or Goal which they will implement.

TABLE 15-13. DOUGLAS COUNTY OVERLAY ZONES

OVERLAY DISTRICT	ABBREVIATION PLN/ZN	COMPUTER	GOAL	ELEMENT
AIRPORT IMPACT	AIO	AZ-AZ2	12	TRANS.
ARCHITECTURAL CONTROL	AC	X	5, 10, 14	NAT. FEATURES
BEACHES & DUNES	BD	O	18	COASTAL
CULTURAL, HISTORIC AND ARCHAEOLOGICAL RESOURCES	CHA	HS	5	CULT. & HIST.
DESTINATION RESORT	DR	DR	8	PARKS & REC.
DREDGE MATERIAL DISPOSAL & MITIGATION SITE	D/MO	D	16	COASTAL
EXCEPTIONS PROCESS LIMITED USE	EP	EP	2	LAND USE
FLOODPLAIN	FP	FP	7	AIR/NOISE/LAND
GEOLOGIC HAZARDS	GH	ZZ	7	AIR/NOISE/LAND
MINERAL RESOURCES	MO	M	5	NAT. FEATURES
NATURAL AREA	NAO	NA	5	NAT. FEATURES
NORTH UMPQUA PARK OR PUBLIC RECREATION AREA	PO	NUP	5	NAT. FEATURES
PERIPHERAL BIG GAME HABITAT	BGHO	G	5	NAT. FEATURES
PLANNED DEVELOPMENT	PD	PD	5, 10, 13	AIR/NOISE/LAND; HOUSING; ENERGY
POTENTIAL WATER IMPOUNDMENT	WO	R	5, 6	WATER RES.
RIGHT-OF-WAY PROTECTION	RW	RW	12	LAND USE
RIPARIAN VEGETATION CORRIDOR	RCVO	RV	5	NAT. FEATURES
SHORELANDS	S0	S1/S2/S3	17	COASTAL
SIGNIFICANT WETLANDS	SWO	W	5	NAT. FEATURES
SPECIAL BIRD HABITAT	BH	B	5	NAT. FEATURES

RURAL UNINCORPORATED POLICIES

OBJECTIVE: To minimize land use conflicts while accommodating all desirable land uses within the County.

Committed and Rural Residential

POLICIES:

1. Discourage large lot partitionings utilizing private roads in designated committed or rural residential areas.

2. Discourage flag lot development.

3. Give the highest priority to the utilization of vacant lots of record for rural residential development.

4. Encourage within the design of new rural subdivisions provisions for circular access routes or the linking of new roads with existing roads to form circular access.

5. Guide the application of rural residential lands with a two (2) acre minimum parcel size designation to be located within rural unincorporated communities.

6. New rural residential lands established outside of rural unincorporated communities shall apply a five (5) acre minimum parcel size, unless an exception to Goal 14 is taken.

7. Develop and maintain an inventory of Residential, Industrial, and Commercial lands in each Rural Community to address any needed land supplies that may be identified in future updates and changes to the County Comprehensive Plan. Providing for other commercial and industrial uses within or near existing Rural Communities is also important to each of the Rural Communities and the economy of Douglas County.

8. Maintain a Rural Residential Land Inventory which is adequate to provide for rural home site opportunities in each Planning Advisory Committee area.

9. Where it is demonstrated infill development has reached a 65% level of

built or committed use, support the addition of additional rural residential land through both the Quasi-Judicial and Legislative Plan Amendment process.

POLICY IMPLEMENTATION:

1. The Rural Residential-5 designation is intended to provide for low density rural home sites in an open space environment in order to encourage the continued existence of rural family life. This designation provides a transition from rural residential development to the agriculture, timber and open space areas of the County. The zone may be applied to areas committed to nonresource use or reserved for rural residential expansion by the Comprehensive Plan at this density. This designation is generally found outside of urban areas or unincorporated rural communities and is designed to designate lands suitable for sparse settlement and rural home sites with no urban use.

2. The Rural Residential - 2 designation is intended to provide for rural home sites in unincorporated rural communities which are identified rural places which serve important functions to rural residents. This designation provides an appropriate rural development density for unincorporated rural communities where rural activities do not require full urban services and lands have been committed to nonresource use or reserved for rural residential expansion. This designation may also be applied to pre-existing committed land areas when parcelization and use, in the same committed land site, is documented to be less than a five acre density.

3. New two (2) acre rural residential designations requiring an exception to Goal 3 or 4 will not be allowed without a Goal 14 exception.

4. RURAL RESIDENTIAL INFILL: Douglas County has a history of steady population growth in its Rural Communities. The Rural Residential home sites provided for in Rural Communities, are important to Douglas County's economy due to there close proximity to resource lands and jobs located in rural Douglas County. Douglas County's economy in large part is resource related. Rural Communities provide home opportunities which proved shorter travel distances to resource related jobs, which reduces transportation infrastructure costs, and provides housing which is often times made affordable by reducing the trip length to and from jobs. The social fabric of these Rural Communities are also a long standing important part of Douglas County's culture. When Rural

Residential lands within a Rural Community reach a level of infill development which reduces the Rural Residential land inventory below a 10 year land supply, the County will consider adding lands with lower resource potential, to the Rural Community based on reasons and identified local need. This level of Rural Residential land inventory is needed to accommodate the resource related job base in Douglas County, and to maintain Douglas County's historic social fabric.

5. RURAL RESIDENTIAL NEW PARCEL INVENTORY: When the potential Rural Community Rural Residential new parcel inventory falls short of what is needed to maintain a 10 year inventory, the County will consider adding lands with lower resource potential, to the Rural Community based on reasons and the identified local need.

6. When Rural Residential lands within a Planning Advisory Committee boundary exceed a dwelling infill development level of 65%, the County will consider adding resource lands with lower resource potential, to the Rural Residential land inventory based on reasons.

7. Five Planning Advisory Committee Areas, which are at or near the infill rate, warrant consideration of additional lands.

Industrial Land

OBJECTIVE: To ensure that adequate quantities of land suitable for industrial use are available to the year 2000.

POLICIES:

1. Designated industrial sites shall be reserved for industrial uses.

2. Designated industrial sites should be protected from the encroachment of residential uses through the application of resource zoning or other appropriate zones compatible with the surrounding area.

3. Only those commercial uses that operate in conjunction with industrial uses should be permitted to locate in designated industrial areas.

4. Where compatible, resource-oriented industrial and commercial uses shall be allowed in resource areas. Such industrial and commercial uses must: 1) be directly tied to the resource base of the area; 2) meet

a proven need; and 3) have minimal negative impacts on surrounding land uses.

5. Encourage industrial park development in the County.

6. Consideration should be given to County acquisition of land for industrial parks.

7. Prior to the development of vacant industrial sites adjacent to areas designated for residential use, mitigation measures such as vegetative screening or earth berms may be required to reduce noise impact. Other factors considered should include a review of anticipated air quality problems (particulate matter, prevailing winds, airshed capacity, and nuisance value) and traffic circulation problems. In no case shall industrial truck traffic be channeled onto local streets in residential areas.

Commercial Lands

OBJECTIVE: To provide for the orderly development of commercial uses in Douglas County.

POLICIES:

1. Encourage the grouping of commercial uses into clusters or centers with common access in order to discourage strip commercial development along major arterials and highways.

2. Home occupations shall be conditionally permitted in agriculture and farm/forest transitional areas; not allowed in timberland areas; and allowed in other classifications as permitted in the zoning ordinance.

3. Residential uses in conjunction with a commercial use in designated tourist commercial, commercial, or rural service center areas shall be permitted.

4. Residential uses, as a secondary use, within a commercial structure may be permitted conditionally in designated tourist commercial, commercial or rural service center areas.

5. The commercial designation shall allow for retail and service commercial uses of a more intense nature than those uses provided for

in the Tourist Commercial and Rural Service Center designations.

POLICY IMPLEMENTATION:

1. Investigate the creation of a mobile home park classification within the Zoning Ordinance to be applied in designated commercial areas.

Commercial-Industrial Mix

POLICIES:

1. The Commercial - Industrial Mix designation shall allow for either commercial, light and medium industrial, or a combination of both uses on the site.

2. Residential uses are not appropriate within areas designated as Commercial-Industrial mix by the Comprehensive Plan.

Tourist Commercial

POLICY:

1. The Tourist Commercial designation shall allow for the location of retail businesses to serve general community and tourist needs along major transportation routes and at established destination recreation areas.

Public/Semi-Public

POLICY:

1. The Public/Semipublic designation in rural areas shall allow for public uses. In resource areas, public and semipublic uses shall be consistent with those uses permitted through the Oregon Revised Statutes.

POLICY IMPLEMENTATION:

1. Public or Semipublic uses contained within other plan categories may, through the quasi-judicial or legislative rezoning process, be placed within the Public Reserve zoning category.

2. The Public/Semipublic designation will be applied to existing water impoundment sites in excess of 1,000 acre feet and to selected

impoundment sites after an exception has been taken and appropriate goals have been addressed. The selection of such sites will be based on the criteria and policies contained in the Water Resources Element.

General

POLICY:

1. Should any City within Douglas County reduce the size of their urban growth boundary, the County shall then assign those deleted areas to an appropriate rural or resource designation that is compatible with surrounding land uses.

RURAL UNINCORPORATED COMMUNITIES

Oregon's rural unincorporated communities were a historic, economic, social, and political reality long before they were acknowledged by the Unincorporated Communities Rule adopted by LCDC in October, 1994. These communities, shaped by economic and social factors, are home to approximately 5 percent of the County's residents. Some communities are compact nodes of residential, commercial, public and industrial uses while others are linear and sparsely developed. These communities serve as a place of employment for some, and a place for socialization for most community residents. All of these communities serve important functions for those who reside there, County residents, and visitors.

Prior to adoption of the Rule, land use policy acknowledged urban and rural lands and their respective uses, but did not acknowledge existent rural unincorporated communities or the need to provide a clear policy framework for planning and developing these communities. Planning for rural unincorporated communities had historically been subject to a cumbersome process which required an exception to the Statewide Planning Goals be taken in order to develop these lands. The Unincorporated Communities Rule, OAR 660, Division 22, at last empowered counties to plan for and manage the development of their unincorporated communities. The Rule, OAR 660-22-010 (9)(a-e), states that Unincorporated Community means a settlement with the following characteristics:

1) It is made up of lands subject to an exception to Statewide Planning Goal 3, or Goal 4 or both;

2) It was designated in a county's acknowledged comprehensive plan as a "rural community," "service center," "rural center," or similar term before the Rule was adopted;

3) It lies outside the urban growth boundary of any city;

4) It is not incorporated as a city; and

5) It meets the definition of one of the four types of unincorporated communities:

1)	Rural Community	3)	Resort Community
2)	Rural Service Center	4)	Urban Unincorporated Community*

* The Rural Land Use section of this element deals only with rural unincorporated communities (Rural Communities and Rural Service Centers). There are no Resort Communities in the County. A Goal 14 (urbanization) exception was taken for the County's six urban unincorporated communities (Dillard, Gardiner, Glide, Green Shady and Winchester Bay). Due to their exception status, these six urban unincorporated communities are exempt from the requirements of the Unincorporated Communities Rule. For urban unincorporated area findings and policies see Urban Land Use.

Rural unincorporated communities consist of lands irrevocably committed to non-resource uses and include some urban level of development. Residential areas of these communities are developed or can be developed to meet the needs of rural residents. Some or all of the public facilities and services necessary for the existent levels of densely and intensely developed lands are present in each of these communities.

INTENT

To identify existing rural unincorporated communities, to classify them as to type, and to establish planning and zoning requirements for their growth and development.

RURAL UNINCORPORATED COMMUNITY CLASSIFICATIONS

Rural unincorporated communities are defined by OAR 660-22-010 (5), (6), and (7) as:

1) Rural Community: an unincorporated community which consists primarily of residential uses but also has at least two other land uses that provide commercial, industrial, or public uses (including but not limited to schools, churches, grange halls, post offices) to the community, the surrounding rural area, or to persons traveling through the area.

2) Rural Service Center: an unincorporated community consisting primarily of commercial or industrial uses providing goods and services to the surrounding rural area or to persons traveling through the area but which also includes some dwellings.

3) Resort Community: an unincorporated community that was established primarily for and continues to be used primarily for recreation or resort purposes; and

   (a) Includes residential and commercial uses; and

   (b) Provides for both temporary and permanent residential occupancy, including overnight lodging and accommodations.

DESIGNATIONS

The Industrial, Commercial, Public/Semipublic and Committed Residential Comprehensive Plan Map designations which are implemented in the County's rural unincorporated communities are the same designations which are implemented outside of community boundaries. The Rural Service Center designation is unique to Rural Service Center Communities. To assure these designations are fostering development which is consistent with the unincorporated communities rule, new commercial and industrial zoning designations have been created. The rural community industrial, rural community commercial and rural service center commercial zones will be implemented within rural unincorporated communities. The following chart outlines the plan designations and their implementing zones for rural unincorporated communities:

Plan Designation(s)	Zone(s)
INDUSTRIAL	Rural Community Industrial (MRC)
COMMERCIAL	Rural Community Commercial (CRC)
PUBLIC/ SEMIPUBLIC	Public Reserve (PR) Water Impoundment (WI)
COMMITTED RESIDENTIAL	Committed -1, Committed-2, Committed-5, Committed - Lot of Record
RURAL SERVICE CENTER	Rural Service Center Commercial (CRS) Public Reserve (PR) Water Impoundment (WI) Any of the Committed Residential zones; (1R, RR, 5R, Lot-of

Record)
The prioritized combination of these zones is known as; (CPR)

RURAL COMMUNITIES

As defined by the Unincorporated Communities Rule (OAR 660-22-010 (6)), a Rural Community is an unincorporated community which consists primarily of residential uses but also has at least two other land uses that provide commercial, industrial, or public uses (including but not limited to schools, churches, grange halls, post offices) to the community, the surrounding rural area, or to persons traveling through the area.

The County's Rural Communities are:

Azalea	Melrose
Camas Valley	Milo
Clarks Branch	Quines Creek
Curtin	Rice Hill
Days Creek	Riversdale
Dixonville	Scottsburg/Wells Creek
Glendale Junction	Tenmile/Porter Creek
Lookingglass	Tiller

RURAL COMMUNITY FINDINGS

1. The Public Facilities Summary Table lists the number of public services available per rural community:

Summary of Public Facilities in Rural Communities

Rural Community	Water	Fire Station	Post Office	Poll Place	Emergency Shelter
Azalea		1	97410	1	
Camas Valley		1	97416	1	1
Clarks Branch	1	1			
Curtin		1	97428		
Days Creek		1	97429	1	1
Dixonville	1	1		1	1
Glendale Junction					
Lookingglass	1	1		1	1
Melrose	1	1		2	1
Milo		1			1
Quines Creek					
Rice Hill		1			
Riversdale	1	1		1	
Scottsburg/Wells Creek		1	97473	1	
Tenmile/Porter Creek		1	97481	1	1
Tiller		1	97484	1	1

2. Public water systems provide service in the following rural communities; Clarks Branch, Dixonville, Lookingglass, Melrose, and Riversdale.

3. Fire protection is provided in all of the rural communities with fire stations located in all but two rural communities, those being Glendale Junction and Quines Creek.

4. Post offices are located in the following rural communities; Azalea, Camas Valley, Curtin, Days Creek, Scottsburg/Wells Creek, Tenmile/Porter Creek, and Tiller.

5. Polling places are located in the following rural communities; Azalea, Camas Valley, Days Creek, Dixonville, Lookingglass, Melrose, Riversdale, Scottsburg/Wells Creek, Tenmile/Porter Creek and Tiller.

6. Emergency shelters are located in: Camas Valley, Days Creek, Dixonville, Lookingglass, Melrose, Milo, Tenmile/Porter Creek and Tiller.

7. Churches, granges or community halls are present in the majority of rural communities.

8. The Public Building Summary Table lists the number of public buildings and places per rural community.

Summary of Public Buildings in Rural Communities

Rural Community	Church	Grange	Comm. Hall	Elem. School	High School	Park
Azalea	1					
Camas Valley	1	1		1	1	
Clarks Branch						
Curtin		1				1
Days Creek	1			1	1	
Dixonville	1			1		1
Glendale Junction						
Lookingglass	1	1		1		
Melrose	1	1				
Milo	1			1	1	
Quines Creek	1	1				
Rice Hill						
Riversdale	1	1				
Scottsburg/Wells Creek			1	1		
Tenmile/Porter Creek	2			1		
Tiller						

9. Schools are situated in the following rural communities; Camas Valley, Curtin, Days Creek, Dixonville, Lookingglass, Milo, Tenmile/Porter Creek, and Tiller.

10. Major employers are situated in the following rural communities. These communities are: Camas Valley, Curtin, Days Creeks, Lookingglass, Milo, Rice Hill, Tenmile/Porter Creek, and Tiller. Places of employment in these communities include U.S. Forest Service offices, lumber mills, elementary and high schools, heavy equipment repair shops, and tourist oriented businesses.

11. Lands within the rural community boundaries are exception lands committed to nonresource use. These lands are referenced in the Douglas County Comprehensive Plan and identified in the Douglas County Committed Lands Inventory and Exceptions document. A Goal 2

exception process was undertaken for these lands at the time of the County's original acknowledgment. There are no resource lands in the developable portions of any of the sixteen rural communities.

12. All Rural Communities are served by the County road network. These routes are built to rural road standards with shoulders ranging from four to ten feet.

13. None of the rural communities are served by public transit. The County encourages the development of private carpools.

14. Thirteen of the sixteen rural communities are served by the County bicycle network. These routes are Class IIIs (signed but not striped), using the shoulders as a multi-use pathway.

15. No sidewalks exist in rural communities. Only five of the sixteen rural communities have shoulders of adequate width for pedestrians to use as a multi-use pathway.

16. Sidewalks are only required in urban areas.

17. Rural Community's in Douglas County have seen considerable infill development since their creation. Douglas County's population growth rate is projected at an average 1.38% annually. When this population growth rate is applied to the existing and potential buildable lands in Douglas County's Rural Communities, it appears that 12 of Douglas County's 17 Rural Communities are or will soon be without new home site opportunities.

RURAL COMMUNITY INFILL DEVELOPMENT DATA

Community	Existing Housing Units	% infill of Rural Com.	Potential New Housing Units adjusted for Natural Hazards	Total Housing Units
Azalea	47	81%	11	58
Camas Valley	35	92%	3	38
Clarks Branch	122	95%	7	129
Curtin	25	100%	0	25
Days Creek	59	88%	8	67
Dixonville	151	76%	48	199
Glendale Junction	31	100%	0	31
Lookingglass	75	96%	3	78
Melrose	173	80%	43	216
Milo	64	100%	0	64
Quines Creek	18	90%	2	20
Rice Hill	17	68%	8	25
Riversdale	492	91%	49	541
Scottsburg	15	100%	0	15
Tenmile/Porter Creek	225	91%	23	248
Tiller	7	64%	4	11
Wells Creek	142	98%	3	145
All RC'S combined	1698	89%	212	1910

18. Growth Rates vary in Douglas County's Rural Communities. Rural Community growth may be provided through Rural Community infill and/or redevelopment or future expansion of Douglas County's Rural Communities.

19. Rural Residential lands in Douglas County have seen considerable infill development since

their creation. Douglas County's population growth rate is projected at an average 1.38% annually. When this population growth rate is applied to the existing and potential buildable lands in Douglas County's Rural Residential Lands, in each of Douglas County's Planning Advisory Committee boundary areas, the infill rate appears to exceed the 65% infill rate.

RURAL COMMUNITY NEW PARCEL DEVELOPMENT DATA

Community	Potential New Parcels Adjusted for Natural Hazards	% of Total Parcels	Total Parcels
Azalea	11	19%	58
Camas Valley	3	8%	38
Clarks Branch	7	5%	129
Curtin	0	0%	25
Days Creek	8	12%	67
Dixonville	48	24%	199
Glendale Junction	0	0%	31
Lookingglass	3	4%	78
Melrose	43	20%	216
Milo	0	0%	64
Quines Creek	2	10%	20
Rice Hill	8	32%	25
Riversdale	49	9%	541
Scottsburg	0	0%	15
Tenmile/Porter Creek	23	9%	248
Tiller	4	36%	11
Wells Creek	3	2%	145
All RC'S combined	212	11%	1910

20. Growth rates differ in Douglas County's Planning Advisory Committee (PAC) areas and additional Rural Residential lands considerations may differ. In some PAC's Rural Residential growth may be accommodated by infill and new development in existing Rural Residential areas while in other PAC areas Douglas County may consider new or expanded Rural Residential lands based on applicable criteria and the guidance of the Comprehensive Plan.

21. Douglas County has a history of steady population growth in its Rural Residential lands. The Rural Residential home sites provided for by the Rural Residential lands, are important to Douglas County's economy due to there close proximity to resource lands and jobs located in rural Douglas County. Douglas County's economy in large part is resource related. The Rural Residential lands provide home opportunities which require shorter travel distances to resource related jobs, which reduces transportation infrastructure costs, and provides housing which is often times made affordable by reducing the trip length to and from jobs. Available Rural Residential lands are appropriate to accommodate the resource related job base in Douglas County, and to maintain Douglas County's historic social fabric.

RURAL RESIDENTIAL LANDS INVENTORY DATA

PAC	Existing Housing Units	% PAC is infilled	Potential New Housing Units adjusted for Natural Hazards	Total Housing Units adjusted for Natural Hazards
Calapooya	563	72%	217	780
Callahan	1581	70%	693	274

Coastal	157	56%	121	278
Cow Creek	246	50%	243	489
Douglas	409	67%	203	612
Elk Creek	309	63%	180	489
North Umpqua	713	57%	526	1239
Roseburg/Green	592	52%	555	1147
South Umpqua	621	76%	197	818

RURAL SERVICE CENTERS

As defined by the Unincorporated Communities Rule (OAR 660-22-010 (7)), a Rural Service Center is an unincorporated community consisting primarily of commercial or industrial uses providing goods and services to the surrounding rural area or to persons traveling through the area, but which also includes some dwellings.

The County's Rural Service Centers are:

Dry Creek	North Umpqua Village
Fortune Branch	Oak Valley
Jackson Creek	Steamboat
Nonpariel	Umpqua
North Fork	

RURAL SERVICE CENTER FINDINGS

1. Lands within the rural service center communities are exception lands committed to nonresource use. These lands are referenced in the Douglas County Comprehensive Plan and identified in the Douglas County Committed Lands Inventory. A Goal 2 exception process was undertaken for these lands at the time of the County's original acknowledgment. There are no resource lands in the developable portions of the nine rural service centers.

2. Land located in the rural service center of North Fork has retained its pre-existing industrial Plan Map designation and industrial zone.

3. Places of employment are situated in all of the rural service centers. These employers include restaurants, service stations, retail stores, motels, RV parks and truck repair shops.

4. Approximately 540 people reside in the county's 9 rural service centers.

5. The Geographic Attributes Table below lists, for each rural service center: acreage, the number of parcels, dwellings, and residents.

Geographic Attributes of Rural Service Centers

Rural Service Center	Acreage	Parcels	Dwellings	Residents
Dry Creek	78	7	15	40
Fortune Branch	92	28	29	76
Jackson Creek	31	6	6	16
Nonpareil	55	32	32	86
North Fork	26	3	20	49
North Umpqua Village	58	42	15	40
Oak Valley	179	29	56	151
Steamboat	22	2	29	78
Umpqua	2	1	1	10

6. Three of the nine rural service centers are served directly by state highways. The remaining six rural service centers are served by the County road network. These routes are built to rural road standards with shoulders ranging from four to ten feet.

7. None of the rural service centers are served by public transit. The County encourages the development of private carpools.

8. Six of the nine rural service centers are served by the County bicycle network. These routes are Class IIIs (signed but not striped), using the shoulders as a multi-use pathway.

9. No sidewalks exist in rural service centers, pedestrians use the shoulders as a multi-use pathway.

10. Sidewalks are only required in urban areas.

RESORT COMMUNITIES

As defined by the Unincorporated Communities Rule (OAR 660-22-010 (5)), a Resort Community is an unincorporated community that was established primarily for and continues to be used primarily for recreation or resort purposes; and

(a) Includes residential and commercial uses; and

(b) Provides for both temporary and permanent residential occupancy, including overnight lodging and accommodations.

None of the twenty-five unincorporated communities within Douglas County fall under the classification of Resort Community.

RURAL UNINCORPORATED COMMUNITY POLICIES

The following statements of County position are intended to apply equally to all rural unincorporated communities of the County.

Rural Unincorporated Community Lands

OBJECTIVE : To provide the opportunity for rural unincorporated communities to establish new uses while preserving the integrity of agricultural and forestry uses in Douglas County.

POLICIES:

1. Assure new uses within rural unincorporated communities do not interfere with resource uses outside of the community.

2. Residential uses in conjunction with a commercial use in rural communities and rural service centers may be permitted.

3. Support the conversion of rural residential lands from five (5) acre minimum parcel sizes to two (2) acre minimum parcel sizes if the density criteria of the committed residential designation can be successfully addressed.

4. In Rural Communities, Douglas County supports the conversion of rural residential lands from 5 acre minimum parcel size to 2 acre minimum parcel size. The zone change process addresses changes in density in rural communities. Upon completion of a zone change, a corresponding plan map change shall be recorded as part of the recording of the final zone change order.

POLICY IMPLEMENTATION:

1. New uses within rural unincorporated communities which are on parcels contiguous to zones outside of the community which allow agricultural or forestry uses shall be setback twenty-five (25) feet from the contiguous boundary, if physically possible.

2. Prior to approval of new uses within rural unincorporated communities on parcels contiguous to zones outside of the community which allow agricultural or forestry uses the property owner shall file with the

Douglas County Clerk a restrictive covenant for resource management.

OBJECTIVE: To provide for safe, convenient and economical transportation in rural unincorporated communities.

POLICY:

1. Encourage organized access on to rural County roads and State Highways.

POLICY IMPLEMENTATION:

1. Prior to approval of new commercial and industrial development within rural unincorporated communities which will access onto State of Oregon Highways or County roads the applicant shall obtain an access permit from the Oregon Department of Transportation or the Douglas County Public Works Department, whichever is applicable.

OBJECTIVE: To promote the continued development of water systems in order to ensure safe and adequate water supplies within designated rural unincorporated communities.

POLICY:

1. Support the development, re-development and access to domestic water systems so that cumulative development will not result in public health hazards or adverse environment impacts that violate state or federal water quality regulations.

2. Land divisions within rural unincorporated communities shall be preceded by evidence that a proven water source could be made available to serve the proposed development.

OBJECTIVE: To promote the continued development of sewerage systems in order to ensure safe and adequate sewerage disposal systems within designated rural unincorporated communities.

POLICY:

1. Support the development, re-development and access to domestic sewerage systems so that cumulative development will not exceed the carrying capacity of the soil or of existing water supply resources and sewer services.

2. Land divisions within rural unincorporated communities shall be preceded by evidence that a sewage disposal system could be made available to serve the proposed development.

The following statements of County position are intended to apply to specific types of rural unincorporated communities within the County.

Rural Communities

OBJECTIVE : To provide the opportunity for rural industrial uses while protecting existing plans for industrial uses within Urban Unincorporated Areas (UUA's) and Urban Growth Boundaries (UGB's).

POLICY:

1. Industrial uses shall be limited to small scale low impact use as that term is defined in OAR 660-22.

Rural Service Centers

POLICY

1. The County shall provide the opportunity for a rural level of commercial, public or residential uses within established rural community centers.

POLICY IMPLEMENTATION:

1. The rural service center map designation shall be interpreted in such a manner that properties within reasonable proximity to the rural service center should be considered for additional commercial or public uses as long as the accumulation of those uses remains limited and nonintensive.

2. Upon the receipt of a specific commercial request in a rural service center, the County, through the quasi-judicial process, shall evaluate the need for additional commercial activity in the area.

3. Within rural service centers, land use priority shall be given first to commercial uses, secondly to public uses, and lastly to residential uses.

4. Based on the exception for additional development in the Ollala area, the need for a rural service center designation may be warranted in that area in the future to serve growth related to the residential designation.

The following statements of County position are intended to apply to specific rural unincorporated communities within the County.

OBJECTIVE: To minimize land use conflicts while accommodating all desirable land uses within the County's rural unincorporated communities.

POLICY IMPLEMENTATION:

RICE HILL

1. Prior to any final approval of subdivision development in the Rice Hill Exception Area, a potable water system or supply shall have been established.

NORTH FORK

1. Land within the rural service center of North Fork will maintain its existing industrial Plan Map designation and industrial zone authorized by a previous approved and acknowledged exception for this site. Any new uses shall comply with OAR 660-22.

URBAN UNINCORPORATED AREA
LAND USE

INTRODUCTION

INTENT

Within Douglas County there exist seven urban areas, each possessing a community identity. Six are located outside urban growth boundaries of incorporated cities. These six areas are Dillard, Gardiner, Glide, Green, Shady and Winchester Bay. Tri City is the seventh urban area which is located within Myrtle Creek's Urban Growth Boundary. Tri City is an Urban Unincorporated Area under the Comprehensive Plan, and administered by Douglas County under the Urban Growth Management Agreement. These areas, due to their density and the existence of public facilities (including sewer), are urban in nature. These areas have specific problems and issues relative to their development not common to the rural portions of the County. The County uses the term "urban unincorporated" to describe these areas. It is the intent of this chapter to generally discuss the urban characteristics and issues facing these areas and the planning objectives and policies designed to resolve or avoid future problems. In addition, this chapter identifies the issues which are unique to each of these seven areas through specific findings and policies.

Specific subarea plans have been prepared for each of these areas. The Gardiner, Tri City and Winchester Bay Comprehensive Plans are three of these plans. These Plans were developed to address land use issues only within the urban growth, service or committed lands boundaries which circumscribe these urban areas. This chapter includes all of the findings and policies for each of these three areas. The Green and North Umpqua (Glide) Comprehensive Plans were developed to address all land use issues within their Planning Area boundaries -- which included rural land outside of their respective urban growth and service boundaries. This chapter includes a synthesis of urban findings and all of the policies pertaining to urban development for both of these areas. Also, specific subarea plans should be consulted for more detailed information regarding the urban portion of each area and the rationale and justification for the policies specific to resolve any of the five area's problems.

In 1993 and 1996, a reasons exception was taken to the Goal 14 Urbanization Rule for lands within Dillard and Shady, respectively. The exception was based upon the following findings: 1) lands in Dillard and Shady are not "resource lands" due to their small parcel sizes, parcelization patterns, and the developed non-resource uses that exist. The lands are, therefore, committed to non-resource use; 2) the lands are not "rural lands" because it is not practical to develop rural uses near the types, intensities, and densities of non-resource and non-rural lands already present in Dillard and Shady; 3) the lands in Dillard and Shady are not "urbanizable." Residential areas are densely developed, commercial and industrial uses are intense and widespread, and there exists high capacity public facilities and services. In Dillard and Shady the conversion from urbanizable to urban uses has already taken place. The unincorporated communities of Dillard and Shady are, therefore, irrevocably committed to an urban level of development. In 2008 and 2009, separate subarea plans were developed for Dillard and Shady, respectively. (Revised 12/09/09)

DEFINITIONS

The provisions of this chapter apply only to those lands within the boundaries circumscribing each urban unincorporated area. The boundaries utilized in each case are intended to separate urban or urbanizable land from rural land. Within these boundaries it is intended that land be developed at relatively dense levels and that development be served by a full range of public facilities and services.

The boundaries utilized to circumscribe these areas are of two basic types and have been given three names. The names of the boundaries, their functions and the areas in which they have been applied are as follows:

Committed Lands Boundary - The committed lands boundary is intended to circumscribe only those lands which have been irrevocably changed to non-resource use due to their relatively small parcel size, diverse ownership patterns and physical development, as is the case in Dillard and Shady. The committed lands concept has been employed in the Gardiner area because further urban expansion is limited by topography, thus separating it from resource land. (Revised 5/29/96)

Urban Growth Boundary - This is a legal boundary line which is used to separate an urban unincorporated area which is comprised of committed lands and urbanizable land from rural land. This boundary is contiguous with an urban growth boundary circumscribing an incorporated city. Boundaries of this type have been applied to Green and Tri City where they are contiguous with the urban growth boundaries of Winston and Myrtle Creek, respectively.

Urban Service Boundary - This is a legal boundary line which is used to separate an urban unincorporated area which is comprised of committed lands and urbanizable land from rural land. This boundary is not contiguous with an urban growth boundary circumscribing an incorporated city. Boundaries of this type have been applied to Glide and Winchester Bay.

POPULATION

The 1980 population of the six urban unincorporated areas (UUAs) in the County was estimated to be 9,742 persons. (1980 population figure for Dillard and Shady are not available; Dillard and Shady are not included in the following analysis.) This represents 20% of the County population living outside of city urban growth boundaries (UGBs). By the year 2000 it is projected that this population will increase by 66% to 16,176 persons or up to 32% of the projected population residing outside of city UGBs by that year. Figure 15-1 illustrates existing population and projected growth in the UUAs of the County.

FIGURE 15-1. URBAN UNINCORPORATED AREA POPULATION GROWTH.

The urban unincorporated area projected to experience the greatest numerical growth over the planning period is Green with an increase of 2,629 persons or 62%. This amount of growth is consistent with locational, economic and other factors that influence growth in the Roseburg area. Gardiner, committed and having limited amounts of land available for future development, is projected to grow the least both in numerical and percentage terms. Infilling of Gardiner is projected to increase its population by 148 persons or 37%.

HOUSING

There were approximately 3,356 dwelling units within urban unincorporated areas in 1980. (Number of dwelling units in Dillard and Shady in 1980 is not available; Dillard and Shady are not included in the following analysis.) Of this total, approximately 2,209 or 66% were single family, wood frame units, 938 or 28% were mobile homes and 204 or 6% were multi-family units.

The UUA with the most units (as well as population) was Green with 1,439. The percentage of single family units in UUAs varied from a high of 70% in Green to a low of 44% in Winchester Bay. In addition to having the lowest percentage of single family units, Winchester Bay displayed the highest percentage (41%) of mobile homes. This is consistent with the recreational nature of this community. Gardiner had the lowest percentage of mobile home units (1%). This is a result of topographical constraints in mobile homes as well as the established development trends of this community. Gardiner and Winchester Bay both have relatively high percentages of multi-family units with 44% and 15% respectively. The lowest percentage for this dwelling type (2%) was found in Green.

By the year 2000, it is anticipated that there will be 6,620 dwelling units within these six UUAs. This represents a 97% increase in dwelling units over the twenty year period. Greater percentage increases in dwelling units rather than population is reflective of the trend towards smaller household sizes. Table 15-14 summarizes existing and future housing statistics for the 5 UUAs in the County. (Dillard and Shady not included).

TABLE 15-14. EXISTING AND FUTURE HOUSING UNITS (UUA).

	(2000) Gardiner	Glide	Green	Tri City	Winchester Bay	TOTAL
EXISTING 1980[1]	152	438	1,439	1,087	240	3,356
single family	(73)	(289)	(1,010)	(724)	(105)	(2,198)
mobile homes	(14)	(118)	(405)	(315)	(98)	(953)
multi family	(65)	(31)	(24)	(48)	(37)	(205)
FUTURE l980-2000	82	446	l,429[3]	1,116	191	3,264
single family	(12)	(267)		(513)	(67)	
mobile homes	(12)	(134)		(446)	(88)	
multi family	(14)	(45)		(l57)	(36)	
TOTAL 2000	190	884	2,868	2,203	431	6,620
single family	(85)	(556)		(l,237)	(172)	
mobile homes	(26)	(252)		(76l)	(186)	
multi family	(79)	(76)		(205)	(73)	

1 Where 1980 figures were not available, estimates were made using base year data and projections.
2 All parentheses bracket figures which, when added to other parenthesized figures in the same column for the same time period, equal the figure not contained within parentheses.
3 No breakdown by type of units available.
4 No 1980-2000 data available for Shady. In 2009, Shady has 75 single family dwelling units and 34 multi-family dwelling units.

LAND USE

The total number of acres in urban use within the seven UUAs is 4,763. Tri City contains the largest number of acres in urban use with 946, while Shady contains the least (313 acres). With the exclusion of International Paper's facility, Gardiner is the smallest of the UUAs with only 6l acres of urban development.

The composition of land uses within these communities varies so greatly that comparison of land use has little value. This variety results primarily from topographic constraints, agricultural potential, historic platting patterns, transportation routes and the existence of major industrial or public uses. The following table quantifies the existing land uses in these areas. The acreages are accurate as of the date of preparation of each subarea plan with the exception of Dillard for which 2008 land use acreages were used, Shady where 2009 acreages were used and Winchester Bay for which 2010 land use acreages were used.

TABLE 15-15. EXISTING LAND USE (UUA) (in acres). (Revised 12/8/10)

							Winchester	
Land Use	**Dillard**	**Gardiner**	**Glide**[1]	**Green**	**Shady**	**Tri City**	**Bay**	
Type	**2008**	**1980**	**2008**	**1980**	**2009**	**2009**	**2010**	**Total**
Residential	102	27	1201	479	68	595	120	2,592
- Single-family	-	(22)	-	-	-	(586)	(101)	
- Multi-family	-	(5)	-	-	-	(9)	(19)	
Commercial	6	6	70	21	63	119	107	392
Industrial	433	243	68	111	177	145	15	1,192
Public/Service	10	11	93	53	6	105	121	399
Rights-of-Way	-	32	48	111	63 [2]	194	78	463 [2]
Total	**551**	**319**	**1,480**	**775**	**314** [2]	**1,158**	**441**	**5,038**

- Data not available
[1] Refers only to Glide Core Area, as defined in that subarea plan. No data is available for land use outside of Core Area yet within the Urban Service Boundary.
[2] Rights-of-way acreage for Shady not included in total.

Projections for each of these urban unincorporated areas (with the exception of Dillard and Shady) indicate that, by the year 2000, they will grow to 5,212 acres of urbanized land. The most significant growth is projected to occur within Green where an additional 1,322+/- acres will be necessary to accommodate urbanization through the planning period. Both Glide and Tri City are anticipated to grow by 500+/- acres. Gardiner, due to the natural constraints to further development is expected to grow (through infilling) by only 11 acres. The Land Use Plan Allocations Table, which follows, indicates the number of acres within each area and various assigned land use designations.

TABLE 15-16. LAND USE PLAN ALLOCATIONS, YEAR 2000 (in acres) (Revised 12/8/10)

Land Use							Winchester	
Type	**Dillard**	**Gardiner**	**Glide**[1]	**Green**	**Shady**	**Tri City**	**Bay**	**Total**
Residential	**130**	**38**	**422**	**1,142**	**68**	**894**	**126**	**2,820**
- 1 du/5 ac	(32)	-	(41)[2]	-	(45)	-	-	
- 1 du/2 ac	(33)	-	(38)	-	(23)	-	-	
- 1 du/ac	-	-	(124)	-	-	-	-	
- 2 du/ac	-	-	(171)	-	-	-	-	
Low density 1-3 du/ac	(65)	(5)	(48)	-	-	(183)	(19)	

Land Use							Winchester	
Type	**Dillard**	**Gardiner**	**Glide**[1]	**Green**	**Shady**	**Tri City**	**Bay**	**Total**
Medium density 3-7 du/ac	-	(22)	-	-	-	(647)	(80)	
High density 7-20 du/ac	-	(11)	-	-	-	(64)	(27)	
Commercial	**8**	**6**	**43**	**87**	**58**	**85**	**107**	**394**
- Community	-	(6)	-	-	-	(45)	(2)	
- General	(8)	-	-	-	(58)	(15)	-	
- Tourist	-	-	-	-	-	(21)	(48)	
- Limited						(4)		
- Water related commercial shorelands	-	-	-	-	-	-	(57)	
Gen. Comm./Ind.	**-**	**-**	**14**	**252**	**5**	**34**	**-**	**305**
Industrial	**694**	**243**	**33**	**326**	**177**	**145**	**18**	**1,636**
- Industrial	(694)	(214)	(33)	(326)	(177)	(145)	(8)	
- Water dependent industrial shorelands	-	(29)	-	-	-	-	(10)	
Public/ Semipublic	**10**	**11**	**110**	**36**	**5**	**153**	**157**	**482**
Rights-of-way	**90**	**32**	**156**	**443**	**63**	**300**	**84**	**1,168**
Total	**932**	**330**	**778**	**2,286**	**376**	**1,611**	**492**	**6,805**

[1] Refers only to Glide Core Area, as defined in that subarea plan. No data is available for land use outside of Core Area yet within the Urban Service Boundary.
[2] All parentheses bracket figures which, when added to other parenthesized figures in same column for the same land use type, equal the figure not contained within parentheses.

ISSUES AND OBJECTIVES

The basic issues and problems associated with growth which confront all of Douglas County's urban unincorporated areas are generated by increased densities, which are made possible by the existence of sewer and water services in these areas.

The overall objectives intended to address these issues are to promote the orderly and efficient development of urban unincorporated areas and provide the necessary infrastructure to ensure the needs of these areas are met. Consistent with public facilities capabilities, it is intended that urban unincorporated areas accommodate the growth which is projected to occur within their areas through the planning period. The boundaries which define and limit these areas are intended to separate rural from urban development and define the limits within which urban levels of services may be provided.

PUBLIC FACILITIES AND SERVICES

In each of the urban unincorporated areas of the County, all necessary key public facilities and services (as defined by the Statewide Planning Goals) have been provided. However, in each of these areas, one or more of these facilities or services has been inefficiently utilized or has insufficient capacity to serve future development. (Each subarea plan should be consulted regarding which facilities or services are inadequate within that area.) The inefficiencies which exist have resulted from the improper location of development in relation to the location and condition of existing facilities or services. This locational relationship can be expressed in terms of distance from the needed facility and in terms of the conditions or limitations associated with the needed facility or service. Due to public costs incurred, it is inefficient to extend sewer, water and storm drainage lines to serve new development in outlying areas when there is developable vacant land which can be served by existing lines. For the same reason, it is also inefficient to serve new development contiguous to existing facilities where such new development would require replacing lines, widening streets or installing new pumps or water storage tanks.

Major public investments have been made for the provision of facilities and services to all the UUAs in the County. Efficient development in these areas will properly amortize and derive maximum utilization of these investments. It is also intended that these investments be managed so as to ensure their efficient use. This implies that service extensions be minimized and that development should occur in areas where service may be most economically provided. Key facilities and services within some UUAs will need expansion in order to provide the level of service appropriate for the projected growth in those areas. The key facilities of major concern in all UUAs include storm drainage, fire protection, sewer and water service.

STORM DRAINAGE

Because of the densities found in urban areas, storm water runoff levels at times are much greater than levels found in less densely developed areas. The reason for greater quantities of water is due to the fact that vacant, permeable lands, once available to absorb the moisture, are now covered with streets and houses, thus immediately increasing runoff levels. Runoff in developed areas with 6,500 sq. ft. lots exceeds runoff in developed areas with one acre lots by more than 70 percent. This runoff, in turn, affects a greater number of properties than in rural areas due to the increased density. In both Tri City and Gardiner, the increased runoff created by private development has resulted in significant County expenditures to correct the problems created.

Within all UUAs adequate storm drainage needs to be ensured. This implies that comprehensive storm drainage plans be prepared for each UUA. New development should be required to provide storm drainage facilities consistent with these plans. Natural drainways should also be protected.

FIRE PROTECTION

Structures in urban areas are characteristically located much closer to one another than in rural areas. This proximity, in turn, increases the danger of fire spreading from one property to another. In response to this potential, all of the UUAs, with the exception of Glide, rely on urban type fire suppression equipment including hydrants. Fire ratings for these areas, as determined by the Insurance Service Office of Oregon, vary from 5 to 8 (on a scale of 1 through 10, with 1 being the highest level of service).

Problems related to fire protection in UUAs are generally due to a lack of coordination between agencies and agency differences when dealing with issues affecting fire prevention. Installation of small diameter water lines have often made subsequent installation of fire hydrants impossible. Water systems often do not include the looping of lines for 2-way pressure or adequate storage capacity for proper fire suppression. Street systems and street standards have been utilized which do not allow for adequate maneuverability of fire protection equipment. It is the objective of the County to ensure that fire suppression needs are adequately met in all urban unincorporated areas. Hydrants need to be included as part of all new residential development. Water lines need to be looped and of a sufficient size to ensure adequate water pressure. Streets need to be of sufficient width and pavement thickness to ensure emergency vehicle access.

RECREATION

Urban densities create a need for neighborhood recreational facilities. The smaller residential parcels in urban areas limit the amount of land available for private outdoor recreation. Higher densities also contribute greatly to the impact on existing recreational facilities and create a need for additional common facilities.

Most of the neighborhood park needs of urban unincorporated areas are being met at least partially by recreational facilities at schools within these areas, parks in nearby cities and County owned regional parks.

The County does not own or maintain any neighborhood recreational facilities within any of the six UUAs. Further, it is the County's policy not to assume an active role in development of neighborhood park facilities.

Neighborhood park facilities could be provided in all UUAs through the establishment of special districts or other local means. Such facilities could be located where they are most accessible to the intended users. Ideal park locations are areas adjacent to schools or floodplain areas.

TRANSPORTATION

Urbanization leads to increased traffic. In many instances, this increase results in congestion and the need for additional traffic controls. Other needs caused by increased traffic are street widening and resurfacing.

Small lot piecemeal parcelization within urban areas creates problems related to the provision of appropriate access to all properties and the provision of an efficient overall circulation pattern. Access to properties in major partitions has often been through private easement. Such partitions and accompanying easements have become obstacles to logical access to adjacent parcels. Easements created as a result of piecemeal land partitioning often prove to be inadequate to handle the additional traffic placed on them by subsequent partitioning and do not facilitate development of an overall circulation system for an area.

It has been the County policy to allow considerable latitude in development of streets as part of partitioning and subdividing. Unpaved public streets have often been approved. Also, many streets have not been sufficiently developed to qualify for County maintenance. These dedicated streets have often proved to be inadequate in handling urban volumes of traffic and ultimately become a source of local aggravation.

In several urban unincorporated areas, historic platting has resulted in County ownership of right-of-way which, due to topographic and other constraints, are unbuildable and inappropriate for access to private property.

It is the intent of the County to ensure that all transportation needs are met within the UUAs. Circulation plans were prepared for all UUAs. Such plans ensure that adequate access is provided to all properties and that an efficient overall transportation system is developed. In addition, street standards which are adequate for emergency vehicle use and sufficient enough to handle anticipated traffic volumes are required. Programs for the upgrading of existing streets need to be implemented. (Revised 8/13/97)

URBAN AREA CIRCULATION PLANS

In the development of circulation plans, certain objectives and standards were observed. These objectives and standards were used in determining which existing streets currently function as collectors or arterials and which existing streets will serve these functions in the future. The objectives and standards were also used in generally establishing the location of future collector and arterial streets.

The objectives and standards used are not unique nor were they specifically developed for circulation planning in Douglas County. They represent commonly held values and principles for vehicular circulation at all levels. As such, many of these objectives and standards should be utilized in the review of plans for development of all streets, not just those identified.

OBJECTIVES

There were five major objectives used in the development of urban area circulation plans. The first objective was to provide convenient access to all existing and future residential, commercial, industrial and public areas. The lack of convenient access via designated collector or arterial streets often results in use of local streets not planned for through traffic. To provide convenient access, existing traffic patterns were studied and major routes which provide access between neighborhoods and from residential areas to activity centers (commercial, industrial and public) were identified. Obstacles to convenient access were also identified and, where feasible, these obstacles were eliminated or alternate access provided. The general location of future collector and arterial streets through undeveloped areas were established in such a manner as to ensure reasonably direct access.

The second objective was to ensure the safety of vehicular movement. The ultimate traffic volumes to be carried by each collector and arterial street considered for designation were approximated using existing Comprehensive Plan land use designations. Based upon those projected volumes, the street's location and type of traffic it is anticipated to carry, each street studied was assigned a classification including standards for its development to ensure safe traffic movement. New intersections were planned for such locations as would minimize hazardous situations.

The third objective was to keep through traffic out of neighborhoods. By providing convenient and safe access to collector and arterial streets which skirt neighborhoods, through traffic will have no need to use local neighborhood streets. Use of local streets for residential access only preserves the privacy of the residences, improves vehicular safety and generally enhances the liveability of the neighborhood.

The fourth objective was to ensure that streets are economically planned. By designating only those streets which warrant construction to a collector or arterial standard, all other streets may be developed to the lesser local street standards. This is cost effective both in terms of street construction and maintenance. Conversely, by ensuring that the rights of way of future streets which will serve as collectors and arterials are adequate for those purposes, costly condemnations and street widenings can be avoided.

The fifth objective was to ensure the adequate access of emergency vehicles to all dwellings. Areas where potential natural hazards such as flooding or landslides exist were identified and their effect on traffic circulation assessed. In instances where such hazards would adversely effect circulation, alternate plans were developed. Also identified were areas where limited access exists and where a significant number of dwellings exist or could be constructed. In these areas, where feasible, alternate or secondary access was planned.

STANDARDS

Street Classification System

In the development of circulation plans, the existing County road classification system was used. As applied, those street classifications include Principal Highways, Arterials, Major Collectors, Minor Collectors and Local Streets. These street types are defined below.

Principal Highway: Principal Highways fall under state jurisdiction and the management of these facilities is outlined in the Oregon Highway Plan. (Revised 8/13/97), (Revised 2/4/98)

Arterial: The Arterial network will provide through traffic movement (including public transportation and its distribution from Principal Highways on to the Collector and Local Streets network. As with Principal Highways, Arterials provide connection between major communities in the County.

Arterials are subject to regulation and control of parking, turning movements, entrances, exits, and curb uses. Access control and on-street parking are a function of the number of lanes, lane and shoulder width, design speed, traffic volumes, and land use. Traffic volumes on major arterial streets can reach up to 30,000 vehicles per day. (Revised 8/13/97)

Major Collector: Major collectors provide direct collection and distribution of local traffic and accommodate "through" traffic, as well. Access to adjacent properties may be limited. Traffic volumes on major collector streets can generally range up to 10,000 vehicles per day. (Revised 8/13/97)

Minor Collector: Minor collectors connect neighborhoods and activity centers. They also distribute neighborhood traffic onto major collector or arterial streets. Property access onto minor collectors is often allowed. Traffic volumes can generally range from up to 5,000 vehicles per day. (Revised 8/13/97)

Local Street: Local streets provide direct access to adjacent properties. Through traffic on local streets is discouraged. Traffic volumes on local streets are generally less than 1,500 vehicles per day. (Revised 8/13/97)

To ensure that the various street classifications defined above are able to accommodate the volume and type of traffic anticipated, standards for their construction have been adopted by the County. The standards are found in Chapter Four of the Land Use and Development Ordinance. (Revised 8/13/97)

In Tri City, that segment of Highway 99 north from Wecks Road to the Myrtle Creek city limits is designated as an arterial. With the future connection to I-5 via Weaver Road and a new bridge, this arterial segment will ultimately carry greater amounts of traffic than Highway 99 south from Wecks Road. However, existing topographic constraints, flood plain limitations, and prior development severely limit the opportunity for achieving the full right-of-way width for this road segment. An ultimate right-of-way width of 84 feet allowing four moving lanes and a continuous left turn lane would be adequate in consideration of the physical and developmental limitations. At full development of an 82 foot roadbed, no room will be available for development of a shoulder (due to the reduced right-of-way). This situation will necessitate parking restrictions. (Revised 11/12/86), (Revised 8/13/97)

Within the Sutherlin UGB, that segment of Highway 99 south from the UGB to the city limits shall have an ultimate right-of-way of 90'. Although this roadway is designated as an urban arterial, road improvements will occur at the rural arterial levels as specified in the Land Use & Development Ordinance. Urban level arterial road improvements are not anticipated because of limitations imposed by existing development, topography and road design standards. A 90' right-of-way will allow use of this roadway segment at levels consistent with adjoining roadway, both within and outside the city limits. (Added 11/12/97)

In development of the circulation plans, a number of major collector streets were identified which will serve the function of major collectors but will not carry amounts of traffic sufficient to warrant their development to the ultimate four lane major collector standards. For those streets, a right-of-way width of 74 feet allowing for two moving lanes and a continuous left turn lane would be adequate.

Within Green and Tri City, Green Avenue, Circle Drive, Hebard Avenue, Stella Street, Chandler Avenue, Rolling Hills Road, Landers Lane, Industrial Drive, Austin Drive, part of Little Valley Road, part of Carnes Road, Stella, Green Avenue, Green Siding Road, Melody, Grant Smith Road (Southeast of Highway 42), Chickering Street, Chadwick and Clark Street are designated as minor collector streets. These streets have been fully developed including pavement, curbs and gutters. However, their pavement width is less than that prescribed for minor collector streets. As an alternative to widening these fully developed streets, the County should consider alternative means, such as parking restrictions, to enable them to function in a manner consistent with their minor collector designation. (Revised 8/13/97)

Additionally, improvements may be required along a specific intersection in Green. The Oregon Department of Transportation completed capacity analysis information for various intersections within the Green UUA. Based upon the analysis, the following results were obtained.

Location	2001	2020
Old Highway 99/Speedway Road	0.22	0.96
Old Highway 99/Happy Valley Road	0.57	0.78
Happy Valley Road/Carnes Road	0.42	0.76
Happy Valley Road/Rolling Hills Road	0.12	0.55

With the exception of Old Highway 99/Speedway Road, all intersections are expected to operate within the County volume to capacity standard for the year 2020. In the long range (2011-2020) the Old Highway 99/Speedway Road intersection will require signalization with an interconnect to the Happy Valley signal and the addition of a left turn lane onto Old Highway 99. Implementation of this improvement will reduce 2020 volume to capacity ratio of Old Highway 99/Speedway Road to 0.82. (conceptual - No funding identified). (Revised 12/05/01)

Necessary Local Streets

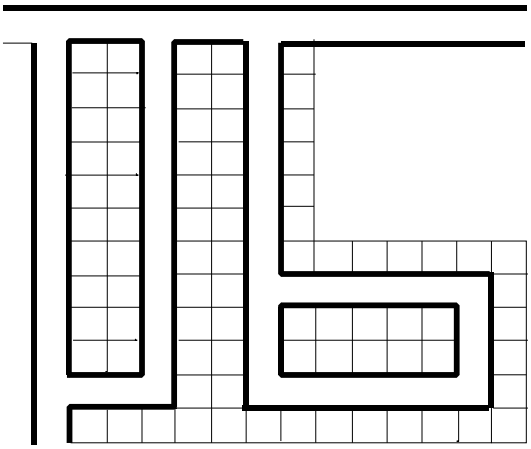
In addition to principal highways, arterials and major and minor collectors, the circulation plans have designated certain streets or street segments as necessary local streets. The purpose of designating necessary local streets is to ensure that street connections are provided in areas where, without such connections and upon development as prescribed by the Comprehensive Plan, inadequate vehicular access would exist. To explain this situation, certain standards regarding property access should be discussed. These standards address desirable lengths for residential cul-de-sac streets.

The County Land Use and Development Ordinance and Comprehensive Plan both discourage long cul-de-sacs. This length is generally defined as greater than 400 feet in urban areas. (Assuming a typical single family subdivision with 6,500 square foot lots, a street of this length could access between 15 and 20 dwellings.) There are a number of reasons for this recommended limit. Dead end or cul-de-sac streets have the potential of resulting in hazardous situations during times of emergency. If, for example, there is an automobile accident or flood that blocks the sole access point or, in a hillside area, the road gives way or is blocked by a landslide, emergency access to or from the area would be impossible. The longer the cul-de-sac, the more dwellings affected by blockages of these types. Police patrol is less efficient with cul-de-sacs due to the doubling back on the same street just traveled. And, the longer the cul-de-sac, the more liable emergency vehicles are to misdirection. (Revised 8/13/97)

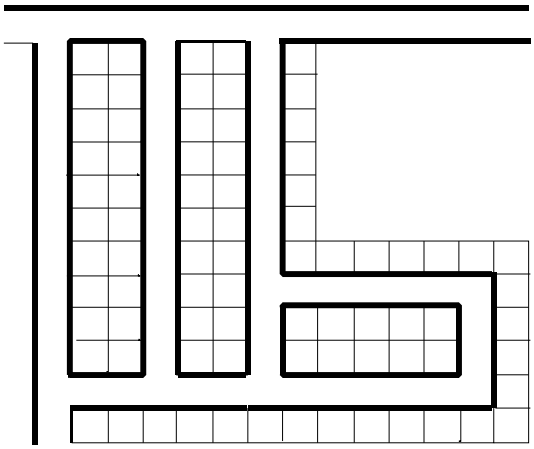
Given this concern for cul-de-sac length or the maximum number of units being located on a cul-de-sac, necessary local streets have been designated on each of the circulation maps under three sets of circumstances. First they have been included to make existing cul-de-sac streets form looping streets where, without such street connections, there exists the potential for more than 20 dwellings to be constructed on the cul-de-sac streets.

Secondly, necessary local streets have been shown in locations where single properties have the potential for division into 20 or more lots and, due to the property configuration, only one point of access could be provided by the property alone. Under such circumstances, necessary local connections have been mapped across the adjacent property or properties which provide the most logical secondary access to the site. An example of such a property is shown on the following figure.

PROPERTY DIVISION
WITHOUT NECESSARY
LOCAL CONNECTION



PROPERTY DIVISION
WITH NECESSARY
LOCAL CONNECTION



And thirdly, necessary local streets have been shown in other areas where they provide access to landlocked parcels or where they otherwise provide logical, efficient street connections and circulation.

The development of necessary local streets is not considered to be more important than the development of any other local streets. As indicated, they have been designated in areas where necessary connecting links do not exist and, without their designation, the necessary link would probably not be made. In all areas where necessary local streets are not shown, either all necessary street connections exist or they can be easily made as a condition of individual property division.

Necessary local streets have only been shown in instances where no public street access currently exists. In instances where inadequate public street access exists it is assumed that, as a condition of property division, street improvements will be installed to ensure that necessary connections can be made.

Other Standards

The quantity and location of streets shown on the circulation plan maps are based upon land use designations which have been adopted as part of the County Comprehensive Plan. Traffic volumes were determined for all residentially planned areas according to the densities prescribed. Traffic volumes for commercially and industrially planned areas were averaged using typical types of development which can be expected in these areas. These traffic volumes are shown in generally Table 15-18. Specific trip generation results may be found in the Institute of Traffic Engineers Trip Generation Manual and the 1995 Update. (Revised 8/13/97)

Amendment to the Comprehensive Plan map designations within any of the urban unincorporated areas could effect the proposed circulation plan for that area. The adequacy or appropriateness of the circulation plan for an area should be considered as part of any proposed plan amendment within it. As appropriate, an amendment to the circulation plan should accompany an adopted land use change.

An effort was made to locate future streets on existing property lines. By so doing, the cost of street dedication and improvement could be borne by two or more property owners rather than just one. Also by locating future streets on property lines, the flexibility of property owners to divide their property as they see fit is affected less than if the streets cut through the middle of their property.

TABLE 15-18. TRAFFIC GENERATION BY LAND USE TYPE.

Land Use	Weekday, One-way Trip Generation

Single Family Residential	9.7	Trips per dwelling unit
Multi Family Residential	5.9	Trips per dwelling unit
Neighborhood Shopping Center	786.7	Trips per acre
Industrial (various types)	70	Trips per net acre
Schools	1.02	Trips per Elementary student
	1.38	Trips per High School Student

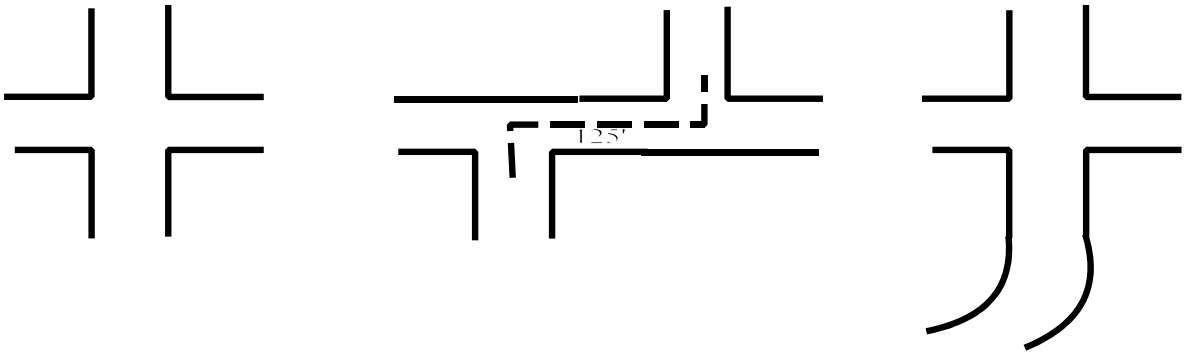
(Revised 8/13/97)

Another factor considered in locating future collector and arterial streets was street grade. Generally speaking, the higher the street classification the lower the acceptable street grade. Arterial streets, for example, should generally be restricted to grades of less than 8%, collector streets to grades less than 10% and local streets less than 22%.

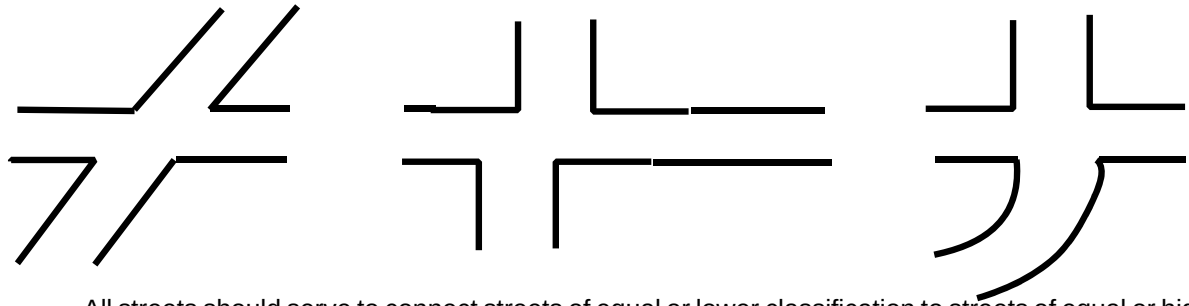
The horizontal alignment of all new intersections created by the circulation plans are proposed to be 90 degrees. Such intersections are safer and more land efficient than acute angle intersections. Acute angle intersections, particularly those of less than 70 or 80 degrees, create sight distance problems for vehicles and result in corner parcels which are uneconomical to develop.

Another concern regarding intersection design is slight jogs or offsets of intersecting streets. Two streets which intersect the same street (at T - intersections) which are offset less than 125 feet from centerline to centerline create hazardous situations for vehicular movement through the intersection. These situations are depicted on the following illustrations.

FIGURE 15-2. INTERSECTION DESIGN.
Desirable



Undesirable



All streets should serve to connect streets of equal or lower classification to streets of equal or higher classification. For example, Local Streets should connect other local streets or cul-de-sacs to local or collector streets. Local streets should not serve as a through connection between collector streets. This connection of lower classification to streets of higher classification ensures the maintenance of proper vehicular circulation

and traffic safety.

CIRCULATION PLAN IMPLEMENTATION

It is intended that all future land use actions involving properties affected by this plan be consistent with the plan. Division of private property should occur in such a manner that specific streets designated by this plan may be realized. Public installation or improvement of streets should also be made consistent with their designations and standards for improvement.

Street Locations

The locations of the streets designated by the circulation plans vary from precise to schematic. Those designated streets which are restricted in their location are those which follow existing rights of way or easements or straddle property lines (for reasons discussed previously). Also, those segments of proposed streets which are shown connecting with the ends of, or opposite, existing streets or easements are restricted in their location as they must connect at fixed points.

It is not within the scope of this plan to determine the precise alignments of the streets designated on the circulation plan maps. As a result, it shall be assumed that the ultimate alignment of existing streets which do not presently conform to their designated standard shall require equal widening from both sides of the street. In locations where it is doubtful that the ultimate alignment of a designated street will follow the existing alignment, specific alignment studies should be conducted.

In locating proposed streets where there is no existing right-of-way and where connections to existing streets is not critical, greater flexibility exists. It is intended that the proposed streets enter the affected properties in the general location shown on the plan maps. The alignment of proposed streets through vacant properties is not significant as long as the route is reasonably direct and is continuous (meaning that the designated route should consist of a single street and meet County alignment standards).

Although the alignment of proposed streets in many cases is not critical, there is a need to ensure that these future routes may be constructed as planned. The need exists to ensure that structures are not unnecessarily located within these future street corridors thereby prohibiting or greatly increasing the cost of construction of these future streets. To accomplish this corridor protection, building or mobile home placement permits should not be issued within an adopted street corridor or setback area unless an acceptable alternative alignment for the future street can be identified.

There are several locations within the plan areas where proposed streets or street extensions may significantly effect a number of small properties and may involve County purchase of needed rights of way. Due to the relatively small parcel sizes at these locations, the schematic depiction of the proposed streets of the Circulation Plan maps creates uncertainty as to the ultimate effect of the street on the parcels. In such areas, the effect of the actual street location on a given parcel could vary. The County should define precise alignments of the future streets to eliminate the uncertainty of future impacts and to identify those areas where acquisition may be necessary.

The circulation plan maps contained in the policy section of this document are of such a scale that, in some locations, it is difficult to determine which properties are affected by the designated streets. Larger scale maps which clearly indicate the location of the designated streets are available at the Planning Department office.

As discussed previously, the streets designated by the circulation plans are intended to provide safe and convenient vehicular access and movement. As such, all of the streets shown have community-wide value or importance. To ensure that these designated streets are available for public use they all should be public streets. Also, these streets should be constructed or improved to meet County standards such that they could be included within the County road maintenance system.

Street Improvement In Connection With Property Division

Many of the street improvements envisioned by the circulation plans are proposed to be made through

the property division process. The division of private property and creation of new parcels frequently requires the construction of new streets or extension of existing ones to provide access to the newly created parcels. Also, traffic generated by the uses established on the new parcels often results in a need to upgrade existing streets. Thus, it is the division of property which creates the need for new or improved streets. Generally speaking, if property is not divided and thus no new parcels require street access, no additional traffic is generated. If traffic volumes do not increase, the existing street system in each area will adequately meet its circulation needs. It is the additional traffic generated by development of parcels created through the land division process that creates the need for new streets and improvement of existing streets. As such, it is appropriate that the property division process be a major tool in realizing the improvements proposed by these plans.

The extent to which the dedication and/or improvement of streets designated by these plans is required as a condition of division of property varies according to the legal and physical status of the streets. The street requirement and/or improvements which are a condition of property divisions which are adjacent to County roads or local access roads, as designated by these plans, could include dedication, offer to dedicate or offer to sell one-half of the additional right of way width needed for the adjacent designated route to reach ultimate width.

Exceptions to this may be necessary in instances where the future alignment would not follow the existing alignment precisely. Also required is improvement of the right of way to local street standards for a full or half street (as circumstances warrant) for the length of the street necessary to serve the lots or parcels being created. Under certain circumstances an agreement to participate in a future local improvement district may be allowed in lieu of street improvements at the time of property division. Specifically, this means that the division of a property adjacent to a street designated by this plan must adhere to two conditions: 1) if the width of the right of way of the subject street (which has been designated by one of the plan maps) is not as wide as specified by the Land Use and Development Ordinance, then one-half of the additional right of way width needed for conformity to the plan shall be dedicated, offered for dedication or offered for sale along the frontage of the property to be divided unless the specific street alignment would dictate an alternate dedication, offer to dedicate or offer to sell; and 2) if the construction of the subject street (street width, surfacing material, thickness of material, etc.) is not as specified by the Land Use and Development Ordinance for its classification (local, minor collector, arterial, etc.) then the property divider shall improve the portion of the street needed for property access to the standard specified in the Land Use and Development Ordinance or agree to participate in a local improvement district should one be formed in the future, to improve the street.

The acquisition of additional street right of way mentioned above and setback requirements will ensure that development does not occur in areas which will be needed for street improvements in the future. Acquisition of only one half of the required additional right of way assumes that street widening will occur equally on both sides of the street. This is generally considered to be the most equitable arrangement when street widening is necessary.

The requirement for street improvements is based on the premise that all public streets in the plan areas should meet the County standards and that the property divider should be responsible for improvement of the street adjacent to his property. The standard to which a property divider is responsible for street improvements is dependent on the classification of the street. If the street is classified as a local or minor collector street, it is intended that the cost of street improvements be borne by the adjacent property dividers. If the subject street is designated as a major collector street or as a street of a higher classification, it clearly serves a community or County interest. In recognition of this County interest, it is intended that the difference between the cost of improving the subject street to the local or minor collector street standard and the standard for its designation (major collector, arterial, etc.) be borne by the County. Thus, if a local improvement district is formed to improve a street, adjacent property owners would be responsible for the cost of improving the street to local or minor collector standards and the County would be responsible for the additional costs to improve the street to the designated higher standard.

There are circumstances under which the installation of street improvements at the time of property division may be deferred. These circumstances include situations where the division is adjacent to a public street, a local access road or a County road and would involve only a land partitioning (not involving a public street) providing that the division would not extend an existing public street which meets appropriate County

standards. Conversely, the creation of subdivisions or land partitionings (involving public streets) adjacent to such rights of way should include improvement of the right of way (for a full or half street, as circumstances warrant) to County standards at the time of division. Also, any division involving street improvements which would result in extension (for either a full or half street) of a street which meets County road standards, whether it be County maintained or not, should include the installation of these improvements at the time of property division.

The street dedication and improvement requirements for the division of properties which are adjacent to easements, undeveloped rights of way and routes where access has not been established (as designated by this plan) include dedication, offering to dedicate or offering to sell of the necessary rights of way and improvement of the streets to local or minor collector street standards. These requirements are the same as detailed previously for County roads and local access roads regarding dedication, offer to dedicate or offer to sell right-of-way. The requirements for improvement are also the same except as they pertain to the timing of improvements. As with County and local access roads, a property divider would be responsible for improvement of the street only to local or, as applicable, minor collector street standards with County responsibility for improvement costs in excess of those standards. Under most circumstances, however, the improvement of designated easements, undeveloped rights of way and routes where access does not exist would be required at the time of property division. Deferred improvement would not generally be possible as these streets will, most often, be needed for access to the parcels being created. Instances may arise, however, in which proposed property divisions could not use streets designated by any one of the plans due to physical characteristics of the property or due to a "missing link" in the designated route. Under circumstances where the designated street could not be incorporated into development design and provide access to the lots or parcels created, only an irrevocable offer to sell the designated street right of way should be a requirement of the division. Improvement of the designated route should be the responsibility of the County. Under circumstances where the designated street could not be used due to "missing links" in the street's development, both an irrevocable offer to sell the designated street right of way and an agreement to participate in any local improvement district formed to improve the designated street would be a requirement of the division.

In Glide, emergency vehicle access to the Bar L Ranch Subdivision has been proposed. This access is discussed in the Circulation findings specific to Glide. Although not proposed as a local street for public use, this emergency vehicle access should be established as an easement and improved for all weather use as a condition of division of the property through which it would pass.

Street Improvement Without Property Division

The dedication and acquisition of right-of-way and improvement of streets as conditions of property division are commonly used and effective tools for the development of circulation systems. However, it should be recognized that the use of these tools will not realize all of the improvement included within the circulation plans.

There are certain existing County and local access roads designated by the plans which will be difficult to improve through property division or the use of local improvement districts. Property adjacent to these streets has, generally, been divided to the maximum density permitted by the Comprehensive Plan. Without further division, there is no mechanism available to the County to ensure participation of adjacent property owners in future local improvement districts to improve these streets. Examples of such streets are Austin Road in Green, Walnut Street in Tri City and Pike Street in Glide. Responsibility for the improvement of these and other similar streets to the standards indicated by this circulation plan will likely fall under the County's responsibility.

In addition to the type of street mentioned above, there are a number of specific street improvements envisioned by these plans which cannot be accomplished by normal street dedication and improvement. These improvements, which are identified below, will require County and State participation.

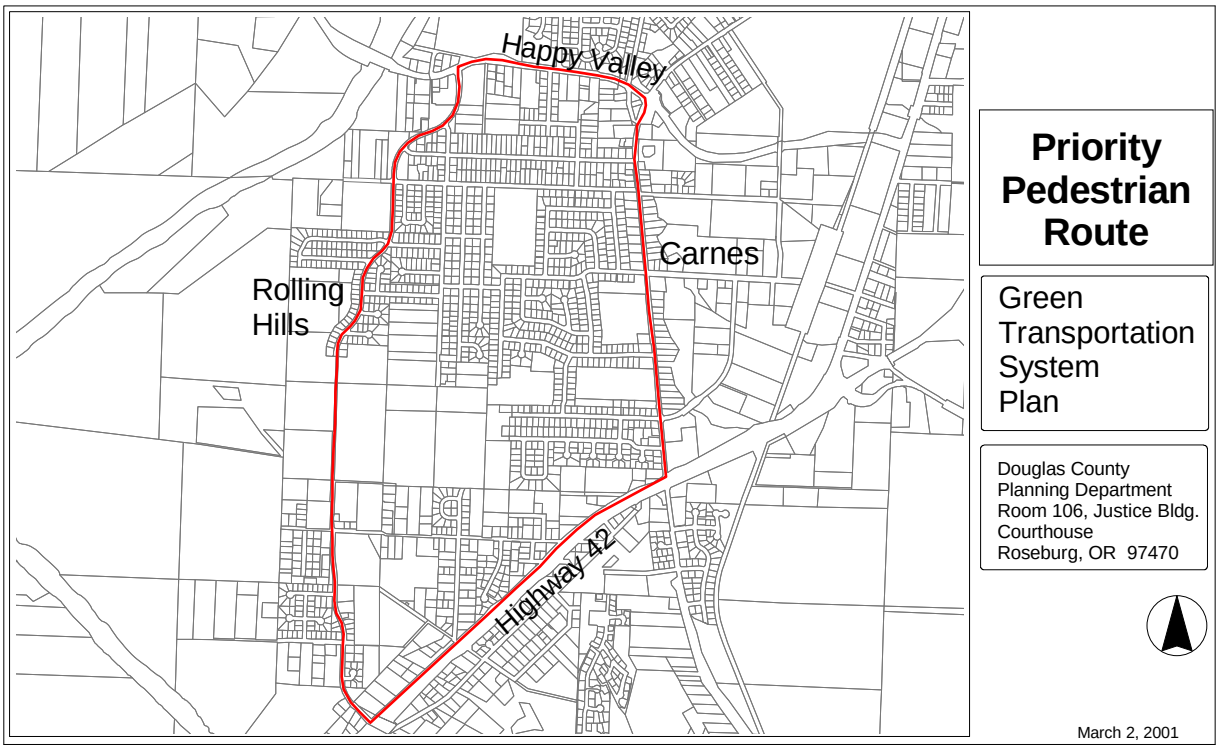
In Glide, there are two designated routes which may involve the County in their implementation. The minor collector between Glide Loop Road and the North Umpqua Highway is located on school district property and thus under jurisdiction of that agency. Discussions with district officials indicate that future dedication of that gravel road for public use may be possible. However, the responsibility for improvement

of that road to minor collector standards has not been determined. The other route which may involve County participation is the minor collector connection between the North Umpqua Highway and Upper Terrace Drive. The southernmost section of this route would cross a property which may have no practical use for it. As a result, County improvement of this section of the route may be necessary.

In Green, there are two bridge crossings which should include County participation. The minor collector street crossing of Roberts Creek and its connection to Carnes Road will benefit the entire Little Valley area. However, this connection will likely be expensive due to the construction costs of the bridge and potential condemnation of the property between the bridge and Carnes Road. The cost and areawide benefit of this improvement will probably require County involvement. The other bridge crossing in Green involves the Austin Road crossing of the Southern Pacific rail lines. As with the Roberts Creek crossing, this bridge offers community-wide benefit and its construction could not reasonably be made a condition of property division.

Other street improvements in Green envisioned by the Plan which will likely involve public participation include segments of the extension of Rolling Hills Road between Austin Road and Happy Valley Road, and construction of the minor collector connection between Highway 42 and Grange Road. Portions of the segment of Rolling Hills Road between Austin and Happy Valley Roads also may not benefit adjacent properties either on one or both sides of this minor collector. Such portions may require County participation in their construction. (Revised 8/13/97)

The local transportation network for the Green Urban Unincorporated Area was evaluated to better serve pedestrian needs. The county deemed it important to facilitate the construction of sidewalks along Minor Collectors and above that serve high traffic areas. The following priority pedestrian route map identified the key routes targeted for sidewalk improvements. As new subdivisions, multi family residential development, planned development or commercial uses are constructed along arterials, major collectors and minor collectors, sidewalks will be required. When houses are placed in existing subdivisions along collectors and above a waiver of remonstrance to the creation of a Local Improvement District will be required. In some areas were topography does not facilitate pedestrian flow, sidewalks may be required on only one side of the road.



The Douglas County Public Works Department may choose to complete sidewalk sections to fill in gaps and complete a continuous sidewalk. As priority pedestrian routes, arterials and collectors are reconstructed, upgrades will include the construction of sidewalks along both sides or one side. The requirement to install sidewalks is applicable only within the Urban Unincorporated Area (UUA) of Green and Urban Growth Boundaries (UGB's) as implemented through the Urban Growth Management Agreement (UGMA). If UGMA supplemental standards exist which address public sidewalks, those standards shall apply. (Revised 12/5/01)

In Tri City, six improvements are of such a nature that they appear to require County and/or State participation. Three of these involve the foothill collector street which roughly parallels Old Pacific Highway. Completion of this route could require condemnation of one of the homes in the Woodcrest subdivision and property between it and Aker Drive. A culvert crossing of a creek between Indian Lane and Aker Drive will also be required. Also involving this collector is the probable need for the acquisition of right of way for the extension of Valley Drive in the vicinity of Gael Lane. As several parcels through which this street would pass have limited potential for division, right-of-way acquisition as a condition of property division is unlikely.

Another improvement in Tri City which may involve County participation is the connection of Taylor Street with Old Pacific Highway. Presently there is a grade differential at this intersection which will require lowering of Taylor Street to connect with the Highway. The fifth Tri City improvement consists of the connection between Old Pacific Highway and I-5 at the Weaver Road interchange. This route would benefit much of the Tri City and Myrtle Creek areas by reducing the traffic volumes on Old Pacific Highway. This route involves a major bridge crossing of the South Umpqua River. Due to the expense involved, this connection would likely require the financial participation of various levels of government. The sixth improvement involves the construction of a continuous left turn lane on Old Pacific Highway. (Revised 11/12/86)

In 2009, ODOT completed an Interchange Area Management Plan (IAMP) in the Green UUA for Exit 119 and 120. The goals of the IAMP were to develop a plan for improvements that can be implemented over time to:

- Improve safety and operations of Interchanges 119 and 120 and the I-5 mainline in the vicinity of these two intersections;
- Protect the investment in I-5 and its interchanges and maintain the function of the interchanges;

- Provide better accessibility to Roseburg, Winston, and the Green Area consistent with the adopted local comprehensive land use and transportation plans; and
- Maintain a system interchange between OR 42 and I-5 that allows free movements for all directions of travel.

In addition, Douglas County's goals include:

- the promotion of economic Growth and development opportunities for the area,
- the assessment of essential nexus when considering of access management techniques and/or requiring road improvements and balancing those requirements to the impact of the uses(s) proposed,
- the ability to implement land use designations under the Comprehensive Plan,
- Protecting property owners rights to develop their land,
- the coordination with ODOT on standards "deviations" where necessary to facilitate private development.

To achieve those goals, the IAMP established objectives to:

- Consider concepts to improve safety and increase capacity of the interchanges and roadways to address existing and future needs.
- Evaluate the need for ODOT to complete capacity improvements based on the adopted, comprehensive land use plans of Roseburg, Winston and the Green Area and the mobility standards prescribed in the Oregon Highway Plan (OHP) and the level-of-service standards in the Douglas County Transportation System Plan (TSP).
- Develop an access management plan that provides for safe and acceptable operations on the transportation network and that meet the access spacing standards prescribed in the OHP. (12/9/09)

LAND USE

RESIDENTIAL

Urban densities and their accompanying smaller lot sizes increase the potential for land use conflicts. Commercial or industrial uses often impact nearby residential areas due to their hours of operation, visual appearance, noise, odors, and traffic generated. These impacts, in turn, may affect neighborhood stability and the value of affected residential properties in the area.

Certain residential portions of each of the urban unincorporated areas are subject to developmental constraints caused by excessive slope, limitations relative to traffic generation, or have the potential for flooding or mass movement. Prior to development in these areas, builders should recognize and appropriately respond to these constraints. Also, development of sensitive lands should occur only at low densities so as to minimize the potential for property damage.

It is within UUAs that the County has the greatest opportunity for satisfying the housing needs of low and moderate income persons. Smaller lot sizes and the availability of sewer and water service help to make single family units and mobile homes less costly than they are in rural areas. Also, it is only within UUAs that multi-family units may be constructed.

COMMERCIAL

Commercial uses in Tri City and Glide have begun to line the arterial streets, resulting in linear or strip patterns of development. Without proper controls, there exists the potential for similar patterns to occur within other urban unincorporated areas of the County. This form of development is typically unsightly and creates traffic safety problems. The inefficiencies of access to strip commercial development often result in lower overall sales when compared to concentrated commercial centers.

It is intended that commercial development within UUAs be convenient to the consumer, attractive, safe for vehicular and pedestrian circulation, efficient (in terms of satisfying all commercial needs) and not adversely affect adjacent residential property values. Strip commercial development should be discouraged. Instead, the aggregation of commercial uses should be encouraged so as to create commercial nodes within

each UUA. Clustering commercial uses often decreases traffic conflicts by focusing street access on certain areas and encouraging joint access points and parking. Aggregation also leads to more efficient retail shopping by minimizing the number of vehicle destinations required to satisfy consumer needs by facilitating competitive shopping which often improves overall retail sales. To ensure that properties well suited for commercial uses are available when the need arises, these lands should be preserved primarily for commercial use.

INDUSTRIAL

Industrial uses exist within all of the County UUAs. The future industrial uses which are planned within each of these areas, of necessity, will be located adjacent to residential uses. Care must be taken to ensure that the impacts which these uses may pose on adjacent or nearby residential uses are minimized.

Properties which have been designated for industrial use should be preserved for such purposes to ensure their future availability.

PUBLIC/SEMIPUBLIC

In reference to the land use maps, existing public and semipublic land uses are located within a variety of land use designations. Land uses owned by the public are located almost exclusively within the Public/Semipublic land use designation. However, numerous semipublic uses have located within residential and commercial areas as conditional uses. This situation should be allowed to continue into the future. It is necessary, however, to ensure that public and semipublic uses do not adversely affect adjacent or nearby uses.

MAP DESIGNATIONS UTILIZED

To carry out the objectives for Douglas County's urban unincorporated areas a number of land use designations have been utilized which have not been applied to rural areas of the County. These designations are intended to facilitate residential development at higher densities than in rural areas and provide for and separate the various types of commercial uses anticipated.

RESIDENTIAL DESIGNATIONS

Residential development at densities ranging between 2 and 20 dwelling units per acre is projected to occur within all of the UUAs except Glide. This range is considered adequate to provide for single family attached and detached, multi-family and mobile home development. Three designations have been utilized for residential development in order to separate development types and provide density ranges appropriate for various environmental, social and topographical circumstances. These designations and general descriptions of their intended application are described below.

Low Density Residential: Up to 3 dwelling units per acre. This designation is intended to accommodate limited usage in areas where significant constraints to development exist. This designation has been applied to areas within floodplains, where it reflects the predominant land use pattern of the area, areas with steep slopes, in areas where higher density development would create traffic safety problems, and in Glide (for reasons explained below). (Revised 12-5-90)

Limited Hazard Residential: Up to 3 dwelling units per acre while the property is located within the floodplain. This designation has been applied to areas within the 100 year floodplain which are intended for residential use within the Green Urban Growth Boundary. Upon filling any area so designated such that it is no longer within the floodplain it may be redesignated consistent with the underlying designation.

Medium Density Residential: Up to 7 dwelling units per acre. This designation is intended to accommodate the majority of future residential development in urban unincorporated areas. The predominant housing types anticipated within this designation are single family detached units, duplexes and mobile homes which are not contained within parks. This designation has been applied to those lands with few, if any, constraints to development.

High Density Residential: Up to 20 dwellings units per acre. It is anticipated that this designation will accommodate multi-family development and mobile homes contained within parks. It has been applied (as justified by need) to those lands which are close to commercial nodes, major transportation routes, and where it reflects existing land use.

Within the Glide urban service area residential development is planned to occur within lower densities ranging from one dwelling unit per 5 acres to low density residential. These lower densities are necessary given sewer line capacities. Lower densities in Glide are also considered desirable for maintenance of the area's rural atmosphere and overall environmental quality. The densities used within the Glide USB are as follows: (Revised 12-5-90)

- 1 dwelling unit per 5 acres
- 1 dwelling unit per 2 acres
- 1 dwelling unit per acre
- 2 dwelling units per acre
- Low Density Residential

COMMERCIAL DESIGNATIONS

A variety of commercial uses are anticipated to locate within UUAs. As discussed previously, a need exists to promote focused retail commercial centers. There is also a need to reserve land well suited for tourist commercial uses and to restrict heavy, service commercial uses to areas where they will not adversely effect other nearby uses. In recognition of these and other concerns, nine commercial land use designations have been utilized. These designations and their intended usage are as follows:

Commercial: This designation has been applied only to the Green and Glide urban unincorporated areas. It is intended to accommodate uses typical to both the general and community commercial designations. The siting of new commercial uses in Glide and Green is guided by the findings for those areas.

Community Commercial: This designation is intended to accommodate light retail and service commercial uses, thus satisfying the daily needs of community residents. It has been applied to limited areas in an effort to aggregate such uses, thereby establishing retail commercial cores for each UUA.

General Commercial: This designation is intended to accommodate heavy retail and service commercial uses including lumber yards, cabinet shops, auto repair, etc. It has been applied to areas where it reflects the predominant existing land use and to other areas where proper access is available and potential impacts on adjacent land uses will be minimal.

Limited Commercial: Promotes Community Commercial uses which do not generate significant amounts of traffic. This designation has been applied to lands within the Tri City Urban area on the west side of Old Pacific Highway at the northern end of the Urban Area. This designation is intended to allow for reasonable economic use of these parcels while ensuring that vehicular access onto Old Pacific Highway is minimized.

Tourist Commercial: This designation is intended to accommodate uses which cater to transitory tourist traffic or other uses which require high traffic volumes such as motels, restaurants, gas stations, etc. It has been applied only to those areas where such uses exist or a need for such uses has been demonstrated.

Water Related Commercial Shorelands: This designation is intended to accommodate water related commercial uses including bait and tackle shops, boat charter operations, and other similar uses which meet the needs of fishermen and pleasure boaters. This designation has been utilized, for consistency with the Coastal Element of the County Comprehensive Plan, only in Winchester Bay.

Water Oriented Commercial Recreation: This designation allows water oriented restaurants and lodging facilities to enhance the public enjoyment of public open space and view opportunities. This designation has only been applied in Winchester Bay.

Water Oriented Tourist Commercial: This designation allows selected water-oriented tourist commercial uses that enhance and are enhanced by, and provide public access to waterfront amenities and views including restaurants, gift shops and bait and tackle shops. This designation has only been applied in Winchester Bay.

General Commercial/Industrial: This designation has been applied to areas where either heavy retail and service commercial uses or light industrial uses are considered to be appropriate. Zoning of either C-3, General Commercial, M-1 or M-2, Light or Medium Industrial, is consistent with this plan designation.

INDUSTRIAL DESIGNATIONS

Three designations have been utilized to accommodate industrial development. These designations and general descriptions of their intended application are as follows:

Industrial: This designation is intended to accommodate the full range of uses from storage of materials and machinery to manufacturing processes which utilize primary materials.

Water Dependent Industrial Shorelands: This designation is intended to accommodate only those industrial uses which are dependent on water such as boat building or repair, fish processing, and other similar uses. This designation has been utilized, for consistency with the Coastal Element of the County Comprehensive Plan, only in Winchester Bay and Gardiner.

General Commercial/Industrial: This designation has been applied to areas where either heavy retail and service commercial uses or light industrial uses are considered to be appropriate. Zoning of either C-3, General Commercial, M-1 or M-2, Light or Medium Industrial, is consistent with this plan designation.

PUBLIC/SEMIPUBLIC DESIGNATION

This plan designation is intended to identify and reserve property which is presently under public or semipublic ownership for a variety of service activities.

URBAN UNINCORPORATED AREA FINDINGS

Following are individual sets of findings for the urban unincorporated areas (UUA) of the County including Dillard, Gardiner, Glide, Green, Tri City, and Winchester Bay. These findings address those issues which are specific to each of the six urban unincorporated areas and do not apply to the County as a whole. Some of these findings deal with issues which are also dealt with in other elements of the County Comprehensive Plan. In such instances, the findings in this section address these issues in greater detail than in the Countywide elements. Other findings, such as those relating to public facilities, address topics which are not discussed in other elements of the County Comprehensive Plan. All general findings within the Comprehensive Plan are intended to apply to the County's urban unincorporated areas. If an issue is not addressed in the findings which are specific to a given urban unincorporated area, it may be assumed that the Countywide findings of other elements also apply to the UUA. In cases of conflict between findings contained in this section and those in other elements of the Comprehensive Plan, the more specific findings of this section shall control. For additional information regarding any of the six urban unincorporated areas, the individual plan booklets should be consulted.

DILLARD FINDINGS

NATURAL HAZARDS

Flooding

1. The 100 year floodplain identified on National Flood Insurance Rate Maps encompasses approximately 50% of the land within the Dillard UUA.

2. Flooding seems to be the only natural hazard within the Dillard UUA.

SOCIO-ECONOMIC FACTORS

Economy

3. The primary contribution of the Dillard UUA to the regional economy has been as a resource for the timber, agriculture and aggregate industries.

Population

4. Based on a housing survey conducted in August 2008**,** the urban unincorporated area population is estimated to be 611. The population was estimated as follows: [235 (housing count) x 2.6 (estimated persons per housing unit in 2008)] = 611 (population).

5. The projected year 2030 population for the Dillard UUA is 746 . This projected population represents an annual growth rate of 1% which is consistent with county wide projected growth rates.

6. The projected population of the Dillard UUA, 746 persons by the year 2030, will require a net increase of about 52 homes.

7. By in filling vacant areas, the projected population increase of (135) could be easily accommodated within Urban Unincorporated Area Boundary.

Incorporation

8. The incentive for Dillard to form as an incorporated city does not appear to exist due to the type of rural area services already provided by the County, and the relatively low property tax rate.

Housing

9. Dillard is within the Douglas Planning Advisory Committee area which is primarily rural. However, housing densities and increased population growth have required public facilities to be developed for the area.

10. Since the Douglas Planning Advisory Committee area economy does support the local area population, it is also assumed that housing in Dillard is connected to workers who commute to Winston and Roseburg.

11. New areas of concentrated housing are best suited within the Dillard UUA.

12. If necessary, the adopted urban unincorporated area could meet housing demand to the year 2030.

13. 92% (194) of all dwelling units in the Dillard UUA are single family dwellings; 6% (12) are duplexes; and 2% (4) are multiple family dwellings.

14. Estimated Future Housing Needs:

Year 2030 population (estimate)		746
Dwelling Units Needed		287
Vacant Units (@ recommended 5%)	14	
Total Units Needed		301
Less Existing Units		235
Total New Units Needed		66
(Single-family homes - 92%)		194
(Duplexes - 6%)		12
(Multiple-family homes - 2%)		4

PUBLIC FACILITIES AND SERVICES

Water Service

15. An extensive portion of the Urban Unincorporated Area is served by a public water system (Winston-Dillard Water District).

16. The Winston-Dillard Water District has three water rights. The first water right is dated 1953, for 1.50 cfs (cubic feet per second); the second is dated 1955, for 0.66 cfs; and the third is dated 1969, for 2.00 cfs. If all three water rights were used to capacity, the Winston-Dillard Water District could conceivably withdraw approximately 2.5 million gallons per day. The District also has 1 water impoundment right which adds to this amount, making the total 2.75 million gallons.

17. The Winston-Dillard Water system draws water from the South Umpqua River in central Winston. At the point of intake, the river water is subject to variations in quality due to seasonal sedimentation.

18. After intake, water is pumped straight to the treatment plant located near the South Umpqua River. The purification process includes flocculation, sand filters, two sedimentation basins, and a clear well affording 2 million gallons per day processing capacity. Although substantial additions would be required, the plant is designed so that treatment capacity could be doubled in the future.

19. Treated water is stored in five reservoirs with a combined capacity of 2.75 million gallons. Each of the reservoirs is located at or above the 759 foot elevation level. This means the system cannot service hookups above 650 feet without booster pump facilities. At present the only booster pump is on Galaxy Drive in Winston.

20. Line and reservoir additions have increased the service area of the water district. In 2008, the district serviced 2,250 water hookups, with the storage capacity for the system being 2.75 million gallons.

21. The water system serves residential, commercial and industrial customers.

22. During 2008, water consumption averaged about 737,400 gallons per day with as much as 1,074,200 gallons per day needed in the summer months. (June, July, August, and September.)

23. The Winston-Dillard water source (the South Umpqua River) can supply twice the amount of water than the current peak day use in the summer months, including water impoundment rights (based on combined water rights of 4.16 cfs).

24. The storage capacity of the water system is currently 2.5 times greater than the current peak day use in summer months.

25. Since 1988, a Water District program has been in place in which existing 4" lines have been being replaced with new 6", 8", and 10" lines. As of 2008, the Water District project is 95% complete.

Sanitary Sewer Service

26. The land use plan encourages in-filling of Dillard, due to the fact that Dillard does not have sanitary service available, new development and redevelopment must be done in accordance with the areas capacity to handle septic systems.

27. Although most of the residentially zoned land in Dillard is divided into suburban residential sized lots, there are no identified sanitation hazards in Dillard.

Fire Protection

28. The Winston-Dillard Fire District Firehouse which serves the Winston and Dillard areas is located in Winston. The Winston-Dillard Fire Department has 3 Type 1 Class A structural engines, 2 Type 6 wild land engine, 4 ALS ambulances, and employs a staff of 20 firefighters.

29. The Winston-Dillard Fire District services approximately thirty square miles. The district also provides ambulance service for approximately 325 square miles. The Douglas County Planning Department's "Utility Atlas" identifies the boundaries to the district.

30. The Winston-Dillard Fire District was formed in 1950. The Fire District service within the Winston-Dillard Water District boundary, has reduced the fire rating to a four. This fire rating reduces the cost of fire insurance to about half of what it would be without fire protection.

Storm Drainage

31. In filling of vacant lots, or subdivision development may require drainage facilities to avoid property damage from excessive runoff.

School Facilities

32. Three properties within Dillard are owned by Winston-Dillard School District, totaling 9.98 acres. The Winston-Dillard School District boundary extends beyond Dillard, encompassing Porter Creek, Ten Mile, Reston, and the City of Winston.

33. School officials report that the 2008-2009 enrollment at Douglas High School is 479, with approximately 72 of the students being from Dillard.

34. Dillard students attend McGovern Elementary School for grades Kindergarten through Fifth, and Winston Middle School for grades Six through Eight.

Law Enforcement

35. The urban unincorporated area is protected by the County Sheriff's Office. The Douglas County Sheriff's Office has deputy patrol's coordinated and dispatched to the area from the Roseburg office. The deputy's answer calls on day, evening, and night shifts. All calls are channeled through the Roseburg office (courthouse) where a deputy is dispatched on a case by case basis.

Library Service

36. Douglas County does not operate a branch Library in Dillard.

Health Service

37. Local ambulance service is provided by the Winston-Dillard Fire District.

38. No dental or medical clinics are located in Dillard. Hospital care is available in Roseburg.

Public Utilities

39. Primary energy and communication facilities are provided to Dillard by Avista Utilities and Qwest. In addition to primary energy and communication facilities, Dillard is also served by Charter Communications.

Recreational Facilities

40. High intensity recreation facilities for area residents are primarily those provided in conjunction with the public schools.

TRANSPORTATION

Roadway System

41. Old Highway 99 South and Brockway Road have the highest traffic volume classifications for roads in Dillard. Old Highway 99 South and Brockway Road traverse Dillard, and serve as the main thoroughfares to and from Dillard.

Road Conditions

42. Although the central Dillard area has an efficient transportation network, many of the streets in Dillard do not meet County standards and are often hazardous to normal traffic during wet weather conditions.

Traffic Circulation

43. A circulation plan with adequate through access provisions has been developed for all designated residential areas.

Circulation Plan

44. Within the Dillard UUA, there are six existing roads which are designated as either an Arterial or Minor Collector in the Douglas County Transportation System Plan. These six roads are:

Old Highway 99 South - This route is an Arterial for its full length within the UUA.

Brockway Road - This route is an Arterial for its full length within the UUA.

Kent Creek Road - This route is a Minor Collector for its full length within the UUA.

Hult Avenue - This route is a Minor Collector for its full length within the UUA.

Dyke Road - This route is a Minor Collector for part of its length within the UUA.

Dillard Gardens Road - This route is a Minor Collector for its full length within the UUA.

45. There are no new streets outside of the core area which are proposed for incorporation into this plan.

46. A number of the platted streets in the core area of Dillard, including First Street through Fifth Street, Scott Way and Reston Avenue have rights of way that are 50 feet wide. As properties on both sides of these streets have been divided to the maximum density permitted by the Comprehensive Plan and no further property division is possible, the only means of acquiring the additional right of way needed to meet County standards would be through voluntary dedication, purchase or condemnation by the County.

47. Due to the suburban and rural densities planned for Dillard, the required installation of urban streets as a condition of property division may have the effect of discouraging property division. As a means of facilitating realization of the Comprehensive Plan for this area, the County should consider relaxation of street improvement standards within the Dillard UUA. Utilization of the County's rural public roadway standards would seem appropriate in this unique setting. For major and minor collector streets, 64 and 40 foot roadbeds should, respectively, be used. For local streets, 36 foot roadbeds and 56 foot rights of way should be considered adequate.

Bicycle and Pedestrian Transportation

48. There are no improved bikeway facilities within Dillard.

LAND USE AND URBANIZATION

Residential

49. Residential land use within the Dillard UUA includes single-family, multi-family and mobile home development. Residential land use is approximately 14% of the land use pattern in Dillard.

50. “Flag lot” development is an inefficient use of the land base and often adds to the inefficient provision of public facilities, utilities and services, and increases transportation problems.

51. Subdivision development with complete services and paved roads would improve the quality of residential living in the Dillard Urban Unincorporated Area.

52. Areas in Dillard which are recognized for comparatively dense development, but have not received full services, will need some protection from haphazard parcelization which could destroy any opportunity for residential development at the appropriate density.

53. Residential land use in Dillard is characterized by a dense lotting pattern (7,500 square foot lots). Although the area lacks sewer service, much of Dillard does, however, sit on soils which exhibit a high degree of septic suitability. Because of the foregoing, implementation of the "Lot of Record" designation in Dillard should be accomplished through a zoning category appropriate for urban type low density residential.

Commercial

54. Designated commercial areas in the Dillard UUA are anticipated to satisfy Dillard's commercial needs to the year 2030.

55. As of 2008, Dillard had ten commercial establishments which are located in a linear manner along Old Highway 99 South.

56. Commercial uses in Dillard have increased 10% from 1999 to 2008.

Industrial

57. Industrial land use is approximately 84% of the land use pattern in Dillard. Fourteen industrial uses are located in Dillard, which occupy approximately 705 acres.

58. Dillard has three cluster Industrial sites that are identified in the Douglas County Industrial Sites Inventory. The Sites are identified as Central County Region Clusters 37, 38, and 39.

TABLE 1 - LAND USE ALLOCATIONS AND DEVELOPED ACRES IN THE DILLARD UUA. (2008)

LAND USE DESIGNATIONS	ACRES ALLOCATED	ACRES DEVELOPED
Residential	**118**	**102**
Commercial	**8**	**6**
Industrial	**705**	**433**
Public/Semipublic	**10**	**10**
TOTAL	**841**	**551**

GARDINER FINDINGS

NATURAL HAZARDS

Flooding

1. Approximately 252 acres of the western portion of Gardiner is prone to peak storm surge flooding by the Umpqua River. The bulk of this land is comprised of the International Paper facilities west of Highway 101.

2. Generally, the portion of the platted area east of Front Street is elevated above this floodprone area.

3. Almost all of the properties which are subject to flooding are developed. Few of these have been constructed with floor elevations above the crest line of the 100 year flood.

Mass Movement

4. Approximately 25 acres of the eastern portion of Gardiner is bordered by slopes in excess of 25%. These lands are often subject to mass movement hazards including moderate to rapid erosion and slow to rapid earth-flows.

5. Approximately 5 homes and one church are presently located in areas subject to mass movement hazards.

Seismicity

6. No seismic epicenters have been recorded in Douglas County in over 100 years; however, a small earthquake occurred off the coast in 1938.

7. The effects of earthquakes off the California coast have been felt in Gardiner.

8. Earthquake potential is considered to be minor in Gardiner.

SOCIO-ECONOMIC FACTORS

Economy

9. The economy of Gardiner is dependent on that of the entire coastal portion of Douglas County.

10. The wood products industry is the largest employer in coastal Douglas County, employing in excess of 700 persons.

11. Employment in the wood products industry is expected to decrease in the future due to a reduced supply of available timber and technological increases in productivity.

Population

12. The 1980 population of Gardiner is estimated to be 405 persons. The 2000 population of Gardiner is 271 persons.

13. It is estimated that infilling of vacant land within Gardiner (consistent with the plan map designations) in conjunction with projected decreases in the number of persons per household will result in a year 2000 population of 553 persons.

Housing

Existing Housing Stock

14. Fifty-seven percent of the total housing units in Gardiner are single family dwellings as compared with 65% for Douglas County overall. Duplex and multi-family units comprise 43% of the Gardiner housing stock as compared with 12% for Douglas County overall. Only 14 units or 9.2% of the housing is comprised of mobile homes compared to 22% for Douglas County overall.

Housing Conditions

15. A majority of housing units (a 85%) in Gardiner is in standard condition, 10% is in minor substandard condition, and 5% is in major substandard. Only one unit is in dilapidated condition. Units within each of these categories may be found throughout the area. Generally, those units in the southern half of Gardiner were found to be in better condition than those in the northern half of this community.

Housing Age

16. Approximately 38% of the housing units in Gardiner were constructed prior to 1940. Units of this age are often prone to some form of deterioration or fail to meet all the standards of the Uniform Building Code.

Household Size

17. The 1980 average household size in Gardiner is estimated to be 2.87 persons. The 2000 Census average household size for the County is 2.48 and for the Reedsport (Coastal) Census Division is 2.19 persons.

18. The County housing element projects that household size decreases towards smaller family size and the increasing formation of one and two person households.

Future Housing Needs

19. Development of vacant lands within the Urban Unincorporated Boundary consistent with plan designations would result in the addition of approximately 38 dwelling units, of which 24 would be single family detached or mobile homes and 14 would be multi-family, townhouse or other higher density housing types. The following table summarizes the existing housing inventory and future housing projections:

EXISTING AND FUTURE HOUSING UNITS, GARDINER

	2000		Future		Total (after infilling)	
Housing Type	#	%	#	%	#	%
Single Family and Mobile Homes (Medium Density)	87	57	24	63	111	58
Multi Family (High Density)	65	43	14	37	79	42
TOTAL	152		38		190	

PUBLIC FACILITIES

Water Service

20. Gardiner receives water service from the City of Reedsport water system via an 8 inch lateral from Reedsport. The existing water transmission lines from the City are being replaced with an 18" transmission line under the Umpqua River and across Bolon Island. The 500,000 gallon water tower on Bolon Island has been rehabilitated and will be connected to the City's water system to provide fire flow and potable water for Bolon Island.

21. The City of Reedsport uses Clear Lake for its water source. The quantity and quality of this water is good.

22. It is estimated that this source is adequate to serve the needs of Reedsport, Gardiner and Winchester Bay through the planning period.

23. No changes in the Reedsport system are planned at this time.

24. International Paper receives its water supply from Siltcoos and Tahkenitch Lakes under two water rights issued in 1960 totaling 49 cfs.

Sanitary Sewer Service

25. Sewerage service for Gardiner is provided by the Gardiner Sanitary District. The District pumps collected raw sewerage to the Reedsport Sewage Treatment Plant for treatment.

26. Sewer lines are generally in good condition owing to their relatively young age and an ongoing system of preventative maintenance.

27. No problems in providing adequate sanitary sewage service through the planning period are anticipated by Reedsport.

Fire Protection

28. Fire protection in Gardiner is provided by the Gardiner Rural Fire District.

29. The District utilizes 18 volunteers and 4 motorized apparatus for fire suppression.

30. Fire hydrants, located in the platted portion of Gardiner, are predominantly served by 6" looped and pressurized water lines providing good water flow for fire suppression.

31. Fire risk ratings are Class 6 within Gardiner's hydrant grid and Class 10 in the outlying areas.

32. The future plans of the District call for the purchase of a 1,000 gallon pumper truck to supplement its fire suppression abilities.

Storm Drainage

33. Storm drainage has been identified as a problem by Gardiner residents and the Douglas County Department of Public Works.

34. The County has conducted a complete engineering study and constructed drainage facilities to alleviate the runoff problem.

TRANSPORTATION

Traffic Circulation

35. All roads in Gardiner, with the exception of Highway 101, are defined as local streets.

36. A study by the County Public Works Department determined that the number of street right-of-ways in Gardiner and their present widths are adequate to accommodate both the existing and projected traffic volumes through the planning period.

37. According to the Traffic Division of the Oregon Department of Transportation, the alignment, grade, width and striping of U.S. 101 through Gardiner is quite good, allowing for safe access into and out of Gardiner via seven side streets.

Roadway Conditions

38. Existing roads in Gardiner total 1.44 miles in length of which approximately .9 miles are paved and County maintained, .26 miles are paved but not County maintained, and the remaining .28 miles are gravel surfaced. Approximately .47 miles of the existing roads in Gardiner contain sidewalks.

39. Those roads which are County maintained are, generally, in good condition with smooth wearing surfaces. Paved streets which are not County maintained vary in condition from good to poor.

40. There exists approximately one mile of undeveloped street right-of-way in Gardiner. These undeveloped streets are predominantly located in areas of steep slopes where no property development has occurred.

41. With increased pressure for development, aggregation and replatting of the existing parcels in this area will be necessary. As part of this replatting, the County should cooperate through vacation, trade or sale and viable right-of-ways should be obtained to facilitate efficient land utilization in this area.

42. As additional development occurs in areas served by existing streets (gravel or paved) which do not meet minimum County standards for maintenance, these right-of-ways should be upgraded so that they may be County maintained. Adherence to County maintenance standards will ensure the ability of these streets to accommodate the anticipated traffic volumes and facilitate emergency vehicle access to all developed areas of Gardiner.

LAND USE AND URBANIZATION

Residential

Existing

43. There presently exist 152 dwelling units within the plated portion of Gardiner. Seventy-three of these units are single family, 14 are manufactured homes and 65 are contained within multi-family buildings.

44. All but 5 of the dwelling units in Gardiner are located in areas with slopes less that 25%. Seventy-eight units are situated in the floodplain.

45. The single family zone in Gardiner occupies 21.6 acres, while the multi-family zone occupies 5 acres.

46. A 2002 survey identified seven residences in Gardiner as being of "historical interest". The majority of these buildings are located south of Spring Street.

47. Existing zoning in Gardiner recognizes most residential dwelling types. The area contains a balance mix of single family and multi-family dwellings. The downturn of the timber industry has created the need for fewer multi-family dwellings.

Future

48. Three primary factors have influenced the residential land use pattern proposed by the Land Use Plan map: 1) the need to provide additional housing units at affordable costs; 2) the need to preserve historic structures and their environment; and 3) physical constraints to development.

49. Higher density development including apartments, condominiums and townhouses is an appropriate means of providing additional lower cost housing units in Gardiner.

50. The High Density Residential designation has been applied to approximately 5 acres of land in the western and northern portions of Gardiner. This area has the capacity for an additional 14 dwelling units.

51. The Medium Density Residential designation has been applied to approximately eight acres of land in the western and northern portions of Gardiner. This area has the capacity for an additional 14 dwelling units.

52. The Single Family Residential designation has been applied to areas of steep slopes due to the respective parcelization and existing development type in these areas.

53. The Single Family Residential designation has been applied to approximately 21.6 acres of land. This area will accommodate approximately 17 additional dwelling units.

54. It is recognized that development of each lot in the platted area which has been assigned the Single Family designation would result in an overall net density of three+/- dwelling units per acre exceeding the density range of the category.

55. The addition of 38 units over the next 20 years would increase the Gardiner housing supply by 20%.

56. Multi-family residential units would comprise 37% of the new housing units.

Commercial Existing

57. There are currently three commercial land uses located on .6 acres in Gardiner. Existing commercial establishments include a restaurant and lounge, a small community grocery and an auto parts store.

Future

58. In that it is anticipated that commercial uses in Gardiner will continue to serve the residents and workers of the area, the Community Commercial plan designation is considered to be appropriate for this community.

59. Although the projection of commercial land use needs is difficult to evaluate, approximately six acres have been designated to accommodate existing and future commercial use.

Industrial Existing

60. International Paper owns 313.1 acres west of U.S. 101 of which 54% (169.9 acres) is utilized by their paper mill. International Paper has cleared the 20% (62.3 acres sawmill site) percent of their holdings in Gardiner. The remaining 26% (80.9 acres) are shoreland and estuarine areas. An additional 3.9 acres east of U.S. 101 is the site of Cedar Palace (IP's old office complex). This is the only industrial use in Gardiner.

Future

61. No additional land has been designated to accommodate future industrial development. The IP ownership is of sufficient size to accommodate future expansion plans.

Public/Semipublic Existing

62. Public land use in Gardiner includes a cemetery, water storage tank, post office, fire station, forest service offices and the State Police. These public uses utilize about 11 acres.

Future

63. No additional land has been designated for public use as existing open land is sufficient for future needs.

Development Standards

64. Lots in the platted portion of Gardiner are, on an average, 4,000 sq. ft. This is considerably below the minimum 6,500 sq. ft. lot size established by County ordinance. While construction of a single family home on one of these lots is permitted, development of multi-family housing in this area will require aggregation of 3 or more of these lots to meet minimum ordinance standards.

Urbanization

65. Future projections for Gardiner depict a community with a low growth rate in population and housing.

66. The shut-down of the International Paper facilities, the opening of the American Bridge plant and rising fuel costs will increase the demand for housing in this community. This demand will enhance the economic viability of development of Gardiner with its steep slopes as well as scattered vacant lots throughout the area. The old sawmill site south of IP Paper plant could provide additional commercial and residential opportunities as a mixed use community.

67. Given the land use needs discussed previously, the following table depicts the total land use allocations within the Gardiner committed lands boundary to accommodate existing and future uses.

LAND USE PLAN ALLOCATIONS FOR GARDINER

Land Use Type	Acres
RESIDENTIAL	
- Medium Density	22
- High Density	5
COMMERCIAL	
- Community	6
INDUSTRIAL	
- Urban Water Dependent Shorelands	73
- Industrial	214
PUBLIC/SEMIPUBLIC	11
RIGHTS-OF-WAY	32
TOTAL	363

GLIDE FINDINGS

NATURAL HAZARDS

Flooding

1. In the Glide UUA, flooding is generally limited to a narrow band along the North Umpqua River and its tributaries. Several areas that are subject to flooding include:

   a. The northwest side of Wild River Drive (in the vicinity of Wild River Drive Estates).

   b. A localized area fanning out from the south entrance to Frear Bridge.

   c. Little River (low banks) extending approximately 1/4 mile south from the North Umpqua Highway.

Mass Movement

2. Slope stability is a critical problem, especially on slopes with faulty drainage.

3. On sites where evidence of previous mass movement exists, care must be taken not to reactivate it.

4. Improper construction activities can increase mass movement hazards, adding to a previously unstable situation.

5. Excessive slope, defined as inclines of greater than 25 percent, does not necessarily preclude structural development. However, structural development is risky and more costly to establish and maintain as slope increases above 25 percent.

6. Many land uses do not adapt to excessive slopes. Good industrial areas, for example, are limited to level or near level land. Other land uses such as commercial areas, majority of residential development, parks and public buildings are more easily developed on gently sloping or nearly level areas.

7. Slope tends to affect the depth of soil. Steep slopes usually lead to rapid precipitation runoff and greater erosion problems.

NATURAL FEATURES

Open Space

8. An area of open space in Glide should be protected from development because of its susceptibility to geologic and flooding hazards. The area is identified as:

   A narrow strip of land between Glide Loop Drive and the North Umpqua River in Glide. This open space area extends from Colliding Rivers Park to and including property owned by Glide School District in the SW1/4 of Section 17, T26S, R3W (approximate length is 1.5 miles).

Potential Natural Area

9. The coast range was formed under the ocean when the earth's crust began downwarping due to the massive weight of accumulated sedimentation. Evidence of this marine environment can be found in fossils scattered throughout the area, particularly along the North Umpqua River downstream from Lone Rock and especially at the confluence of Little River and the North Umpqua River. The Little River Fossil Beds, located at Little River/North Umpqua Colliding

Rivers (T26S, R3W, Section 19), contain exposed fossil beds (mainly of marine origin) which were deposited during formation of the Coast Range.

10. Due to a lack of specific location, quality and quantity information, the Little River Fossil Beds are temporarily classified (refer to the Natural Features Element) as a "potential natural area" (1B resource - Goal 5 process delayed). Additional time and professional assistance will be necessary in order to evaluate the site for its ecological and scientific significance.

SOCIO-ECONOMIC FACTORS

Economy

11. The primary contribution of the North Umpqua area to the regional economy has been as a resource for the timber, agriculture and tourist industries.

Population

12. Based on a housing survey conducted in the summer of 2008, the urban service area population is estimated to be 1,934. The population was estimated as follows: 744 (housing count) x 2.6 (estimated persons per housing unit in 2008) = 1,934 (population).

13. The Comprehensive Plan encourages a majority of growth to occur within the area planned for sewer and water services. Presently, 33% of the North Umpqua population lives within the Urban Service Boundary. It is anticipated that plan policies will encourage a greater percentage of the population to live within the Urban Service Boundary by the year 2030.

14. The projected year 2030 population for the Glide UUA is 2,611. This projected population represents an annual growth rate of 1.5% which is consistent with countywide projected growth rates.

15. The projected population of the Glide UUA, 2,611 persons by the year 2030, will require a net increase of about 310 homes (refer to Finding 23).

16. By infilling vacant areas, the projected population increase (677) could be easily accommodated within the Urban Service Boundary.

Incorporation

17. The incentive to form an incorporated city around Glide or Idleyld Park does not appear to exist due to the type of rural area services already provided by the County, and the relatively low property tax rate.

Housing

18. The North Umpqua Area is primarily rural. However, housing densities and increased population growth has required public facilities to service many areas.

19. Since the Planning Advisory Area's economy does not completely support the local area population, it is assumed that the extent of housing is due to both retirement living and workers who commute to Roseburg.

20. New areas of concentrated housing are best suited within the central Glide area.

21. If necessary, the adopted urban service area could meet housing demand to the year 2030.

22. 8% of all dwelling units in the Glide UUA are mobile homes; 85% are conventional homes; and

9% are multiple family dwellings (information from Douglas County GIS and Property Data, September 2008).

23. **Estimated Future Housing Needs Within Glide**:

Method	Number
Year 2030 population (estimate)	2,611
Dwelling Units Needed (2.6 persons per household)	1,004
Vacant Units (@ recommended 5%)	50
Total Units Needed	1,054
Less Existing Units	-744
Total New Units Needed	310
(Single-family homes - 90%)	(279)
(Multiple-family homes - 10%)	(31)

PUBLIC FACILITIES

Water Service

24. An extensive portion of the urban unincorporated area is served by a public water system (the Glide Water Association). The system includes the North Bank Road to the west, Little River Road to Buckhorn Road to the south, and Glide Loop Road to the east.

25. The Glide Water Association has one water right and two permits. The first water right was dated May 12, 1961 for 0.20 cfs (cubic feet per second); the second was dated April 29, 1970 for 0.50 cfs; and the third was dated January 9, 1974 for 1.50 cfs. All three water rights are subject to the 1958 minimum flow level established for the North Umpqua River (525 cfs). Flow levels are measured at Browns Bridge (where Garden Valley Road intersects the North Umpqua River). If all three water rights were used to capacity, the Glide Water Association could conceivably withdraw approximately 1.4 million gallons per day.

26. The Glide water system draws water from the North Umpqua River in central Glide. At the point of intake, the river water is subject to variations in quality due to seasonal sedimentation.

27. After intake, water is pumped south to the treatment plant located near the post office in Glide, north of Highway 138 (see facilities map). The purification process includes a Reliant Trimedia filter system, flocculation, sedimentation basins, and a clearwell affording 70,00 gallons per day processing capacity. Although substantial additions would be required, the plant is designed so that treatment capacity could be doubled in the future.

28. Treated water is stored in five reservoirs with a combined capacity of 418,000 gallons. A 77,000 gallon reservoir and two 12,000 gallon reservoirs are located south of Glide in T26S, R3W, Section 20. The main 300,000 gallon reservoir is located west of Little River in T26S, R3W, Section 19. Each of the reservoirs is located at or above the 900 foot elevation level. This means the system cannot service hookups above 830 feet without booster pump facilities. At present the system has two booster pumps.

29. The Glide Water Association will have to substantially increase its storage capacity in order to service homes and businesses anticipated through full utilization of the pressure sewer system (based on the Oregon State Board of Health general standard that water storage capacity should equal approximately 1,000 gallons per home).

30. Line and reservoir additions have increased the service area of the water association. In 1970 there were 112 water hookups, in 1982 there were 290 hookups, in 1999 423 hookups, and in 2008 524 hookups. With current storage capacity (418,000 gal.), the system can accommodate a total of 550 hookups.

31. The water system serves residential, commercial and industrial customers. No more than 15% of the water used by the Water District can be allocated to industrial uses according to Water Association regulations.

32. During 2008 water consumption averaged about 180,000 gallons per day with as much as 220,000 gallons per day needed in the summer months.

33. Growth in the number of water service hookups has been based mainly on filling of vacant lots.

34. The Glide public water source (the North Umpqua River) can supply 7.6 times more water than the current peak day use in summer months (based on combined water rights of 2.2 cfs).

35. The storage capacity of the water system is currently 1.7 times greater than the current peak day use in summer months. Although the source of supply and treatment facilities (after expansion) are adequate, the present storage capacity and water lines are not of adequate design and dimension to accommodate the population projected within the Urban Unincorporated Area Boundary to the year 2030. Since 1988, a Water District program has been in place in which existing 4" lines are being replaced with 6" lines, and existing 6" lines are being replaced with 8" lines, thus increasing the overall water carrying capacity.

36. Glide Water Association is requiring all new developments to meet a½ acre average lot size to be consistent with overall comprehensive plan density provisions.

Sewer Service

37. The inability of land and water resources to support growth has created a public health hazard in the Glide/Idleyld area from 1973 to 1975. Due to this health hazard, a County and state building moratorium was enforced from October, 1973, to September, 1975. These events lead to plans and eventual construction of a unique low density sewer system.

38. The Glide/Idleyld Park Sewer System, based on pressure pumping of sewage through special lines, began operation in July, 1980.

39. The County constructed the sewer system with special revolving sewer fund money. The money is to be repaid to the County through hookup and monthly user fees. In June of 2008, the Glide-Idleyld Sanitary District was formed, relieving the County of administration, operations and maintenance of the sewer system.

40. The boundary area of service generally includes Glide to Idleyld Park.

41. The pressure sewer system is designed for low density rural-type development.

42. The new sewer system contributes to an improved environment by reducing coliform bacteria contamination of groundwater, surface water and land.

43. The pressurized sewer system cannot efficiently handle large-scale urban growth that would normally be handled by a conventional gravity sewer system. Conversely, a conventional sewer system cannot economically support rural-type development whereas a pressure sewer can.

44. Glide/Idleyld Pressure Sewer operation.

    a. Sewage is first collected in a normal septic tank. The septic effluent then flows into a vault where it is pumped into a main line for conveyance to the plant.

    b. Lines in the system are smaller than ordinary sewer lines and are buried relatively shallow.

    c. Because the lines are pressurized, engineers were not required to design the system for continuous downgrade slopes as is required in the use of conventional gravity sewers.

    d. The treatment plant is located a short distance north of the Frear Bridge. The plant is designed to provide tertiary treatment with effluent discharge meeting appropriate pollution standards.

45. Each section of the pressure sewer system has a designed capacity. Exceeding the design capacity in a given area may either affect the availability of future hookups for other properties served by the same section of the system or over-commit the design of the system (which would require expensive line replacements or additions). The total collection system has a 2300 EDU (Equivalent Dwelling Unit) capacity.

46. The design of the sewer system is compatible with the relatively severe local topography and rural nature of the area.

47. The design capacity of the sewer system was a major factor in developing the comprehensive land use map. As of 2008, the plant has 650 connections, with approximately 850 EDUs connected to the system.

48. The sewer system has enabled a large amount of new growth on building sites which were previously undevelopable because of septic system requirements. Generally, connecting to the sewer system is required for properties within 600 feet of the sewer line, in the district boundary.

49. The land use plan encourages infilling of the Glide/Idleyld service area in order to maximize the benefits of the system.

50. The design of the sewer system is sufficient to accommodate projected population growth to the year 2030 without increasing sewer capacity.

Fire Protection

51. The Glide Rural Fire Protection District firehouse is located in west central Glide adjacent to the Glide District Forest Service Offices. Fire equipment in Glide includes two Type 1 Class A engines, three Type 2 water tenders, one Type 6 Wild land engine, and two BLS ambulances. Thirty-three of the districts thirty five fire fighters are volunteers.

52. The Glide Rural Fire District includes land within eight miles of the fire station along easily accessible roads. The district extends roughly to Rock Creek on the east, Peel to the south, and Philippi Acres and Whistler's Bend Park on the west. This area covers the major settlements in the North Umpqua Area. In addition, the Fire District goes outside their district boundaries with medical aid up to Toketee Reservoir and into portions of the National Forest.

53. The Glide Rural Fire District was formed in September of 1977, replacing the Glide Fire Association. District formation constituted the first step towards floating a bond issue for the purchase of improved fire equipment. The new fire equipment has allowed homeowners within the district to attain a fire insurance rating lower than ten. Improved fire equipment has reduced the fire rating to an eight for structures within five miles of the firehouse and has reduced the fire rating to a nine for structures within eight miles of the firehouse.

54. The fire insurance rating can be reduced to a seven by providing fire hydrants in new residential development areas.

Storm Drainage

55. Infilling of vacant lots, or subdivision development (greater than one home per acre) can require corrective storm drainage facilities to avoid property damage from excessive runoff.

School Facilities

56. Four properties within Glide are owned by the school district to meet existing and future school enrollment. The Glide school district boundaries extend beyond the North Umpqua PAC area to include Dixonville and Toketee.

57. School officials report that, current enrollments at all of the Glide schools is 750 students (including the elementary, upper elementary and high school).

58. Future population growth may eventually require school facility expansion. The school district owns 102.46 acres in Glide.

Law Enforcement

59. Emergency dispatch calls are channeled through the Roseburg office (Courthouse) where a deputy is dispatched on a case by case basis.

Library Service

60. Each of the public schools maintain their own library facilities. Douglas County does not operate a branch Library in Glide.

Health Service

61. Primary ambulance service to Roseburg is provided by the Douglas County Fire District 2, secondary service is provided by the Glide Fire Protection District.

62. A dental office and a medical clinic are located in Glide. Hospital care is available in Roseburg.

Telephone and Electricity

63. Primary energy and communication facilities are provided to the Glide Area by Pacific Power and Light Company and PTI Communications.

TRANSPORTATION

Roadway System

64. The main highway in the North Umpqua region is Highway 138. It is the major arterial for east-west traffic, connecting the area with Interstate 5.

Road Conditions

65. The central Glide area does not have an efficient transportation network. Many streets do not meet County standards.

Traffic Circulation

66. In the past, large-lot partitionings in designated residential areas legally avoided road dedication and surfacing standards.

67. A circulation plan with adequate through access provisions should be considered for all designated residential areas.

Bicycle and Pedestrian Transportation

68. Within the urban service area there is an improved bikeway facility. That facility (about ½ mile in length) is in the central Glide area adjacent to Highway 138 and is used primarily for bicycling and walking. Additional bikeway facilities, paralleling Highway 138, are needed.

GLIDE CIRCULATION PLAN

69. Outside of the core area there are four existing roads that are to be included as part of the overall circulation system for the Glide UUA.. These four streets include the following:

    * North Umpqua Highway - This route is a Principal Highway for its full length within the UUA.

    * Wild River Drive - This route is a minor collector for its full length within the UUA.

    * North Bank Road - This route is a major collector for its full length within the UUA.

    * Lone Rock Road - This route is a minor collector for its full length within the UUA. (Revised 8/13/97)

70. There are no new streets outside of the core area which are proposed for incorporation into this plan.

71. Little River Road and Glide Loop Road are recognized as major and minor collector streets, respectively, by this plan.

72. The existing street which connects Glide Loop Road to the North Umpqua Highway across the Glide Elementary School property has been designated as a minor collector street. Although open to public use, this street is under school district ownership and its use could be restricted by action of that agency. The intent of the minor collector designation is to promote the dedication of this street to ensure its future availability for public use. This street provides relatively direct, convenient access between the elementary school and future high school site and the residential area south of the North Umpqua Highway. The dedication of this street for public use opens the possibility of its use by industrial traffic from the mill which is located adjacent to and east of it. This could, in turn, reduce or eliminate the amount of industrial traffic on the Loop Road west of the minor collector - a situation which has been characterized as hazardous by the school board and residents of the area.

73. A minor collector street is proposed to connect the Terrace Drive/Upper Terrace Drive intersection to the North Umpqua Highway through the 73+/- acre property west of the Bar L Ranch Subdivision. This street is intended to serve as a primary access to the 73 acre property through which it passes and to provide a second means of access to the Upper Terrace Drive and southern Terrace Drive areas. Without this connection, Terrace Drive would be the only means of access.

74. The necessary local streets designated are intended to provide a second point of access and looping circulation through areas which have the potential for substantial development (20 or more homes) and which presently have only a single point of access.

75. There are two areas within the Glide UUA which have a single access, cannot reasonably be provided with a second point of access and which have the potential for the construction of 20 or more homes. These areas include Lone Rock Road and Bar L Ranch Road. (Revised 8/13/97)

76. Improvement of the existing unimproved road between Overlook Road and the proposed necessary local street to the north of it or development of an alternate connection between Bar L Ranch Road and Terrace Drive to allow one-way emergency vehicle access in all weather is proposed to ensure that, in the event of a blockage of Bar L Ranch Road north of Overlook Road, an alternate means of access would be available to all properties south of the blockage.

77. The necessary local street which connects the North Umpqua Highway with Catherine Street passes through an area which has been identified as consisting of unstable soils (see the Glide Circulation Plan Map). Discussions with the County Engineer's office indicates that construction of a street through this unstable area following the alignment of the existing undeveloped road is an acceptable solution for circulation through the area.

78. A number of the platted streets in the core area of Glide, including Pike, Park, Abbott and West Estella have rights of way that are 50 feet wide. As properties on both sides of these streets have been divided to the maximum density permitted by the Comprehensive Plan and no further property division is possible, the only means of acquiring the additional right of way needed to meet County standards would be through voluntary dedication or condemnation by the County.

79. Due to the suburban and rural densities planned for Glide, the required installation of urban streets as a condition of property division may have the effect of discouraging property division. As a means of facilitating realization of the Comprehensive Plan for this area, the County should consider relaxation of street improvement standards within the Glide UUA. Utilization of the County's rural public roadway standards would seem appropriate in that unique setting. For major and minor collector streets, 42 and 34 foot roadbeds should, respectively, be used. For local streets, 28 foot roadbeds and 56 foot rights of way should be considered adequate.

80. Outside of the Glide core area, much of the Idleyld Park area was divided into one and five acre parcels by the North Umpqua Homes subdivision. This 80+ acre subdivision included the dedication of public rights of way to access all of the lots created. Although divided, most of this subdivision remains under a single ownership. Access to the few lots which have been developed in the subdivision does not follow the dedicated rights of way but rather traverses a number of lots in it. And most, if not all, of the one acre lots in the subdivision may be partitioned as they are located in an area planned for half acre density. The County should coordinate with property owners in this area in an effort to realign existing rights of way and develop a circulation plan which is consistent with the Comprehensive Plan designation in the area and provides logical and safe access to properties in the area.

RECREATION

81. High intensity recreation facilities for area residents are primarily those provided in conjunction with the public schools (all-purpose play-field, playground equipment and an all-purpose gym). Other school facilities, the Glide Community Building and several community churches are available as meeting places.

LAND USE

Residential

82. "Flag lot" development is an inefficient use of the land base and often adds to the inefficient provision of public facilities, utilities and services, and increases transportation problems.

83. Subdivision development with complete services and paved roads would improve the quality of residential living in the Glide Urban Unincorporated Area.

84. Areas in Glide and Idleyld Park which are recognized for comparatively dense development, but have not received full services, will need some protection from haphazard parcelization which could destroy any opportunity for residential development at the appropriate density.

Commercial

85. Designated commercial areas in the Glide UUA are anticipated to satisfy North Umpqua regional commercial needs to the year 2030.

86. In the Glide UUA, from North Bank Road to the Idleyld Park area, there are 28 retail and service commercial establishments. The Idleyld Park area offers mostly commercial services primarily oriented toward tourists.

87. The Glide area increased from 20 retail and service commercial establishments in 1999 to 28 retail and service commercial establishments in 2008, which are located along Highway 138.

88. Two commercial areas in Glide, one being near the Lone Rock Bridge and the other near Abbott and Pike Streets (adjacent to Highway 138), are better suited for general commercial uses. Other commercially designated land in Glide is best suited for community commercial uses.

89. Commercial uses in Glide have increased 40% from 1999 to 2008.

Industrial

90. Six industrial uses are located in west and central Glide. The number of industrial uses in Glide has not increased since 1999.

GREEN FINDINGS

NATURAL HAZARDS

Slope

1. The variability and degree of slope often influence the type and intensity of land uses which are found and/or successfully located in an area.

2. The degree of slope tends to affect the depth of soil in any area. Because steeper slopes have more rapid runoff, a greater erosion problem often exists.

3. Approximately 10 acres within the Green UGB consists of slopes greater than 25%. Steeper slopes tend to inhibit development as they require expensive engineering and construction technique and pose a greater degree of risk of mass movement.

Mass Movement

4. Mass movement is the downslope movement of earth material in response to gravity. The main hazard attributed to areas where mass movement occurs is the destruction of structures and facilities such as streets, underground pipes, etc. Two major factors that accelerate mass movement are road construction and removal of vegetation.

5. The area that shows signs of mass movement within the Green UGB is the area surrounding the Roberts Creek water tower above Grange Road. (Revised 6/28/89)

6. A majority of soils within the Green UGB have been identified as containing severe limitations for general development. The major limitations are shrink-swell potential, subsurface sewage, foundation and road limitations.

7. At the present time, engineering techniques can be used to overcome shrink-swell, road and foundation limitations. Subsurface sewage limitations are considerably more difficult to overcome because of possible health hazards resulting from inadequate drainfields.

Flooding

8. The South Umpqua River floodplain has been identified as a natural hazard in the Green UGB.

9. Due to existing development patterns, availability of services, parcel sizes and location, the following areas represent lands within the floodplain that are committed to residential development:

    a. The area south of Happy Valley Road to Austin Road and east from the South Umpqua River to Bourne Street. (Revised 6/28/89)

    b. The area along Carnes Road south from Interstate 5 to Happy Valley Road. (Revised 6/28/89)

10. Areas within the 100 year floodplain have been designated Limited Hazard Residential. In order to reduce the number of persons and the amount of development subjected to this potential hazard, densities in these areas are not to exceed three dwellings per acre. If any of these areas are removed from the floodplain, the density permitted may be increased to that of the underlying designation.

SOCIO-ECONOMIC FACTORS

Population

11. Green has experienced rapid growth since 1970. The average growth rate for the Green UGB from 1970-1980 was approximately 6.6% per year. The growth rate for Douglas County for the same time period was 2.7% per year. The high growth rate for the Green UGB area is attributed to a number of factors such as the availability of support services (sewer and water), the availability of relatively inexpensive developable land, and the proximity to major employment centers. The following table shows the change in population for the Green UGB compared to that of Douglas County:

POPULATION INCREASE 1970 - 1980
GREEN UGB AND DOUGLAS COUNTY

Area	1970	1980	%Change
Green UGB	2,254	4,273	+90%
Douglas County	71,743	93,748	+31%

12. Continued growth within the Green UGB is dependent on a number of factors such as: the extended economic outlook for Douglas County; fertility and mortality rates; migration trends; and the capability of support facilities to sustain continued growth.

13. Population projections for the Green UGB were based on a study by the Coastal Management Foundation in cooperation with the Douglas County Planning Department in June of 1978. These projections were based on the factors mentioned above.

14. Through research and analysis of available data, it was determined that lands within the Green UGB could support growth at a continued rate of 7.0% per year. However, the future annual growth rate of the area is projected to decline. Population projections from 1980 to 2000 reflect an average annual 2.4% growth rate. The year 2000 population within the Green UGB is projected to reach 6,902 persons.

Housing

15. The number of dwelling units within the Green UGB has increased by 110% from approximately 686 units in 1970 to 1,439 units in 1980.

16. The population for the Green UGB has increased by 90% between 1970 and 1980. The smaller percent increase in population compared to the increase in housing units is attributed to a decrease in average household size from 3.3 persons in 1970 to 3.05 persons in 1980.

17. Approximately 70% (1,010 dwellings) of all housing within the Green UGB is of the conventional construction, single-family type.

18. The number of mobile homes has increased within the UGB area from approximately 91 in 1970 to 405 in 1980. (This includes mobile home parks.)

19. Multiple-family housing (duplexes, 3- and 4-plexes and apartments) comprise 2% (24 units) of the total housing stock within the Green UGB.

20. The housing stock within the Green UGB is relatively new, with 52% of the total housing units constructed since 1970.

21. Approximately 2.7% or 39 houses within the Green UGB area were constructed before 1939. As a general guide, 1% of all units constructed before 1939 will drop from the housing market each year. The replacement of these lost units must be included in the future calculations estimating housing needs.

22. It is estimated that approximately 86% of all the Green residents own or are purchasing their homes. The remaining 14% of the residents rent their homes.

23. The estimated vacancy rate for the Green UGB in 1980 was 2.5%. A low vacancy rate indicates a restricted housing market. The U.S. Department of Housing and Urban Development recommends a vacancy rate of 5% to allow for mobility and a reasonable choice of housing. The 5% figure was used in calculating the future housing needs for the Green UGB.

24. Approximately 18% of the total housing units within the Green UGB are considered substandard in some way, ranging from houses in need of minor repairs, which are nonetheless more than is generally included in regular maintenance, to houses requiring demolition.

25. The areas with higher percentages of substandard housing units are primarily where the older housing stock exists (the Landers Lane/Grange Road area) and where there is a greater mix of land uses (the area bounded by Carnes Road, Highway 42, and I-5). (Revised 6/28/89)

26. Approximately one-fifth of the residents of Douglas County can afford the average home for sale in 1978. The inequity between housing costs and average household income has resulted in increased demand for rental units.

27. The following chart illustrates the estimated amount of new housing units needed to meet the needs of a projected population of 6,902 people by the year 2000.

Estimated Future Housing Needs Within Green

Method		Number
Year 2000 population (estimate)	6,902	
Dwelling Units Needed (@ 2.59 persons/household)		2,665
Vacant Units (@ recommended 5%)		134
Replacement of Dilapidated Units (@ 0.5% per year)		69
Less Existing Units		-1,439
Total New Housing Units Needed		1,429

PUBLIC FACILITIES

Sanitary Sewer Service

28. Sewer service is provided through the Green Sanitary District. (Revised 6/28/89)

29. A regional sewer facility serving the Green and Winston areas was completed in 1980. The location of this facility is on the South Umpqua River, northwest of the Winston bridge. (Revised 6/28/89)

30. The new regional facility has a design capacity of 1.6 million gallons per day (mgd). Present treatment averages 0.6 mgd during the summer and 1.9 mgd during the winter months. The high treatment volumes during the winter are attributed largely to inflow and infiltration problems in Winston.

31. An agreement between Douglas County, Green Sanitary District and the City of Winston stipulates that upon reaching 85% capacity of the new facility, planning will begin for the second facility, expanding treatment capacity by 100%. The agreement further stipulates that the remaining 15% plant capacity will be divided in a manner proportionate to the cumulative contributions to capital made by parties, unless other agreements are made.

32. The initial sizing of sewer lines for the new regional facility has included carrying capacity for the second phase of the facility.

Solid Waste Disposal

33. In the Green UGB, solid waste disposal service is provided by a private commercial hauler who is franchised in the area. The Douglas County sanitary landfill, located at I-5 and McClain Avenue, is readily accessible from the Green area.

Water Service

34. The Green UGB is served by Roberts Creek Water District.

35. The water source of the Roberts Creek Water District is the South Umpqua River, an unrestricted river which fluctuates substantially between seasons. As the water district continues to grow at a rapid pace, the river becomes less dependable as a constant source of water.

36. The water district has two water rights on the river: the first dated November 5, 1948, for approximately 500,000 gal/day; the second dated January 26, 1973, for approximately 2.5 million gal/day. The older water right is not subject to the State of Oregon minimum flow rulings for the South Umpqua River. The newer water right, however, is subject to the 1958 minimum flow and would be suspended in the event the 1958 minimum flow is reached.

37. An additional 163 million gallons of water per year (500 acre feet) is provided to Roberts Creek Water District from the Berry Creek Dam in the Douglas PAC area southwest of the Green UGB. This water from Berry Creek is released during the summer months to increase the flow of the South Umpqua River.

38. Use of the 0.5 mg/d pre-minimum flow water right in conjunction with the District's Berry Creek allocation should provide adequate raw water to meet the year 2000 growth projections of this Plan.

39. As an additional means to alleviate potential water shortage problems affecting Roberts Creek Water District during low river flow periods, an inter-tie system was constructed to pipe an additional 1 million gallons/day from Roseburg Water Service to Roberts Creek and Winston-Dillard water system. The inter-tie is used only during periods of water shortage.

40. The intake and treatment facilities for the water district are located on the South Umpqua River, northeast of the Winston bridge. After treatment, the water is contained in three storage tanks with a combined holding capacity of 2,750,000 gallons. A 500,000 gallon tank is located above the Shady Oaks Motel. A 250,000 gallon tank is located near the Roberts Creek Road freeway overpass. The third tank, with a capacity of 2,000,000 gallons, is located above the intake facility. (Revised 6/28/89)

Fire Protection

41. The Green UGB is within Douglas County Fire District #2.

42. Fire protection from Fire District #2 is provided through manpower and equipment from a local station located at the corner of Carnes Road and Green Avenue, and from a backup unit from the central station in Roseburg. (Revised 6/28/89)

43. The Insurance Service Office of Oregon (ISO) sets the insurance rates for areas based on the degree of fire protection available. ISO has given a Class 5 rating to those areas of Fire District #2 that are within a five mile radius of a station and within 1,000 feet of a hydrant. Areas within five miles of a station but without hydrants have received a Class 8 rating.

44. With increases in capital expenditures and manpower, Fire District #2 will be able to provide the same level of service to the Green area as growth continues.

45. Two major problems have been identified to exist between subdivision development and fire protection. Plans for subdivision are often lacking in the recommended number of fire hydrants as suggested by ISO in relation to the size of the subdivision. The extensive use of cul-de-sac in the subdivision restricts the mobility of fire trucks.

Storm Drainage

46. Existing storm water runoff is presently handled by a combination of an incomplete storm drainage system, open ditches, uncontrolled and natural runoff.

47. As urban development continues within the Green UGB, the amount of storm water displaced by paved streets and houses increases. The development of an overall storm drainage pattern prior to continued development would help alleviate most potential problems created by storm water runoff.

Recreational Facilities

48. Green Oaks Park is the only maintained County park within the Green UGB. The park, located along Carnes Road, contains picnic and limited recreational facilities within its six acres. (Revised 6/28/89)

49. Continued growth within the Green UGB will increase the need for additional community oriented parks offering a variety of recreational facilities.

50. Additional recreation facilities at Green and especially Sunnyslope Schools could help satisfy current and projected recreational demands.

Schools

51. The Green UGB is located within the Douglas County School District #4 boundaries. The actual school facilities within the UGB are limited to two elementary schools, Green and Sunnyslope.

52. Green School is located on Carnes Road in Subarea #1. Existing facilities allow for 420 students in the 18 classroom building. Enrollment for the 1982-83 school year is 300 students.

53. Sunnyslope School is located on Cannon Avenue in the Sunnyslope Subdivision. This facility, which was completed in 1981, includes 18 classrooms with a maximum enrollment of 450 students. This school was designed to allow for expansion in the future should enrollment warrant it. Enrollment for the 1982-83 school year was 297 students. (Revised 6/28/89)

54. Junior high school students living in the Green area attend Fremont Junior High, located on Harvard Avenue in Roseburg.

55. High school students living in the Green area attend Roseburg Senior High School, located on Chapman Avenue in Roseburg.

56. Extension classes in art are taught at the Art Mill on ORE 99 southeast of Kelly's Korner. The classes are funded by Umpqua Community College. UCC also occasionally offers classes at the Evergreen Grange.

TRANSPORTATION

Road Conditions

57. Currently, there is no specific rating system for road conditions of the roads maintained by Douglas County. Such a rating system is necessary to determine and prioritize road maintenance and improvement needs.

58. The major road improvements within the Green UUA are primarily centered around the need to widen and pave many of the local streets west of I-5 and Highway 42. (Revised 6/28/89), (Revised 8/13/97)

59. With the exception of Old Highway 99/Speedway Road, all intersections considered in ODOT's capacity analysis are expected to operate within the County volume to capacity standard for the year 2020. In the long range (2011-2020) the Old Highway 99/Speedway Road intersection will require signalization with an interconnect to the Happy Valley signal and the addition of a left turn lane onto Old Highway 99 (conceptual - No funding identified). (Revised 12/5/01)

Alternate Transportation

60. Current public transportation available to the Green area consists of taxi and a fixed route transit system from the City of Winston to Umpqua Community College. (Revised 12/5/01)

61. Pedestrian movement is hazardous as no protected sidewalks or walkways exist in the area. This problem is especially apparent in the areas around Green and Sunnyslope schools where there are high concentrations of children.

62. Currently, fifteen bikeways exists in the area. A Class I Bikeway is located along Oregon State Highway 42 and runs to Winston. Class IIIs bikeways use the paved shoulders on existing streets and highways for transportation within the area. Bicycle movement between Green and Roseburg is extremely restricted because of the narrow, constricted corridor of Oregon State Highway 99 north of Shady. (Revised 12/5/01)

63. Following the passage of HB 2142 (2001), ODOT project staff have been advised of the need to incorporate bicycle/pedestrian facilities to link up the Roseburg and Green bicycle paths. (Revised 12/5/01)

64. The Green UUA is a densely populated area. An inventory of the Green UUA reveals that no sidewalks exist in Green. (Revised 12/5/01)

GREEN CIRCULATION PLAN

65. The circulation plan for Green recognizes the roles which the major streets through the area presently play: I-5 and Highway 42 as principal highways; Highway 99 as an arterial; part of Carnes Road, Roberts Creek Road, and Happy Valley Road as major collectors; and, Austin Road, part of Little Valley Road, part of Carnes Road, Stella, Green Avenue, Green Siding Road, Landers Lane, Rolling Hills Road, Industrial Drive, and Grant Smith Road (southeast from Highway 42), as minor collectors. All other developed streets within the UUA are classed as local streets. (Revised 5/29/96), (Revised 8/13/97)

66. The Oregon Department of Transportation has relocated the intersection of Carnes Road and Highway 99. The new point of intersection is approximately midway between I-5 and Highway 42 on Highway 99. The County participated in this project by constructing a connection from Austin Road to the new roadway, thus greatly improving east-west traffic circulation. Following the completion of this project: 1) Carnes Road was closed at the Central Oregon Pacific railroad tracks; 2) the functional downgrading to a local street was completed for Carnes Road northeasterly from its intersection with the new southeasterly roadway; 3) the functional downgrading to a minor collector was completed for Austin Road west of Carnes (as Austin will ultimately become a secondary connection to Highway 99); and 4) Happy Valley Road was extended to the east as a major collector. The Happy Valley Road extension followed a small intermittent drainage way (that flows east to west into Roberts Creek) and connected at a new lighted intersection on Hwy. 99. (Revised 11/25/87), (Revised 8/13/97)

67. Although Happy Valley Road (from the UUA east to Carnes Road), Roberts Creek Road, and part of Carnes Road (between Linnell Ave. and Happy Valley Road) will serve as major collector streets, it is not anticipated that traffic volumes along these routes will result in the need for four moving traffic lanes. As such, these streets should be developed to the lesser standard for major collector streets utilizing a 74 foot right-of-way. The 84 foot major collector standard should be applied to Carnes Road (between Highway 42 and Linnell Ave.) and to the extension of Happy Valley Road (from Carnes Road east to Highway 99). (Revised 12-5-90), (Revised 8/13/97)

68. When fully developed, the vacant industrial property between Carnes Road and the Central Oregon Pacific Railroad lines could generate approximately 3,000 additional vehicle trips per day. One minor collector streets is proposed to connect this area with Carnes Road: to the north of Happy Valley Road following an existing 40 foot right-of-way. The extension of Industrial Drive to connect with Linnell Street is completed. These minor collectors will provide access to the undeveloped properties in the industrial area, a looping circulation system through it and provide for truck access to the area which bypasses most of the residentially planned area on Carnes Road. (Revised 12/5/90), (Revised 8/13/97)

69. Up to 600 dwellings could be constructed in the Little Valley area, north of Happy Valley Road and west of Roberts Creek. At the present time the only access to this area is Little Valley Road via Happy Valley Road, a minor collector street. An alternate point of access is proposed due to the volume of traffic that will be generated by development of this area and as a solution to the potential blockage of access from Happy Valley Road during periods of flooding of a 100 year intensity. This alternate access is proposed to be a minor collector connecting Little Valley Road to Carnes Road opposite the proposed access to the industrial area east of Carnes. This minor collector will require a bridge crossing of Roberts Creek. It is likely that construction of this bridge and its connection to Carnes Road will require County participation due to the impact this street would have on the property through which it passes.

70. The existing streets which are designated as minor collector streets in the area south of Happy Valley Road, west of Carnes Road and north of Highway 42 include Stella Street, Landers Lane, Rolling Hills Road, Austin Road and Green Avenue. (Revised 5/29/96), (Revised 8/13/97)

71. Future collector streets in the area south of Happy Valley Road, west of Carnes Road and north of Highway 42 include Rolling Hills Road, and northerly extension of Stella to Rolling Hills Road. It is intended that Rolling Hills Road be the primary collector of north and southbound traffic generated by development of the area through which it passes. It is not anticipated that a significant amount of traffic generated outside of the Rolling Hills corridor will use this street. The segment of Rolling Hills Road between Austin and Happy Valley Roads will improve circulation between these two streets and should reduce the amount of additional traffic on Austin Road generated by development of the western portion of the Green area. . (Revised 5/29/96), (Revised 8/13/97)

It is possible that with development of the western portion of the Green area that Rolling Hills Road may carry more traffic than Happy Valley Road. This possibility should be further studied and, if appropriate, the intersection of those two streets realigned (as a County project) to facilitate uninterrupted traffic movement onto and off of Rolling Hills Road.

A future street that runs east and west between Stella (near its intersection with Hebard Avenue) and Rolling Hills Road has been designated as a necessary local street. A local street midway between Austin and the Chandler/Melody extension would achieve the overall purpose of the Green Circulation Plan. This necessary local street takes advantage of an existing right-of-way and also provides a logical and efficient street connection between Rolling Hills Road and Stella Street. (Revised 8/13/97)

72. The minor collector planned for the area south of Highway 42 and west of Roberts Creek Road will provide access and connecting links through this hilly area. A planned development, the Highlands at Vista Ridge received approval for an amendment to the circulation plan removing the minor collectors in this area.

    Landers Lane will focus turning movements onto and off of the Highway at a central location thereby promoting traffic safety. As part of the development of the new access point, the existing northeasterly intersection of Grange Road and Highway 42 will be closed. This existing access point is very close to the intersection of Highway 42 and Roberts Creek Road. Increased use of this existing access point in the future due to development of the hill area south of Highway 42 could create a hazardous situation. (Revised 8/13/97)

73. The necessary local streets planned throughout the Green area are intended to provide for a looping circulation system, ensure that no properties or areas will develop with more than 20 dwellings off of a single access, and to provide for other logical street connections.

74. The Green Urban Growth Boundary is suitable for expansion eastward from I-5 to accommodate new commercial or industrial uses. Current access to the area is by way of Speedway Road to the north and Grant Smith Road to the South. Speedway Road would be much less desirable as commercial or industrial access due to its poor freeway access and a limited capacity underpass. Primary site access for commercial and industrial development east of I-5 should be by way of Grant Smith Road. With the completion of a new north south street, Ingram Drive, provides access to a new industrial area north of Grant Smith Road on the eastern side of I-5. The northern section to Speedway Road is completed, creating a new east west loop. This improvement addressed the height restrictions at the underpass for Speedway Road. (Revised 8-17-89 QJ), (Revised 8/13/97)

75. Commercial or industrial developments east of I-5 could have significant impact on the transportation network serving the Green Area. The urban minor collector road classification is the minimum road standard which will ensure that Grant Smith Road within the Urban Unincorporated Area will be developed to a width and specification sufficient to handle commercial and industrial uses and accessory vehicles on the road and as additional development occurs east of I-5. (Revised 8/17/89 QJ), (Revised 8/13/97)

LAND USE

Residential

76. Residential land use within the Green UGB includes single-family, multi-family and mobile home development. Residential development currently covers approximately 70% of the total developed lands within the Green area.

77. The majority of the new residential development has occurred in subarea 3 with additions of several new subdivisions in recent years. Residential lot sizes have averaged between 7,500 and 10,000 square feet in size.

Commercial

78. Commercial land uses presently cover approximately 3% of the developed land within the Green UGB. A total of 19 uses exist in this area, most of which are intended to serve the convenience needs of the community. Green residents must currently travel to other areas for additional retail and service needs.

79. The need for additional land to attract additional commercial businesses has been recognized. Areas designated for future commercial land use are located within close proximity to developed areas, and on major transportation routes, to facilitate convenience and reduce travel time.

80. The commercially designated areas on Carnes Road and on the northwest and northeast quadrants of the Kelly's Corner intersection are well suited for community commercial uses. Such uses should be promoted in these areas.

81. The commercially designated southwest and southeast quadrants of the Kelly's Corner intersection presently contain various types of commercial uses. A continuation of this variety is considered appropriate and should be allowed through Community or General Commercial zoning.

82. The commercially designated area between Highway 42 and Grange Road is considered to be suited for such uses due to its narrow width and adjacency to the Highway. Care should be taken to ensure that development in this area will not adversely affect the adjacent residential area.

83. The need for smaller retail businesses within the residential areas has also been recognized. In an effort to avoid potential land use conflicts, such businesses should address design, landscaping, and lighting to ensure compatibility within the area. The Design review Process may be applied to such sites to address compatibility.

Industrial

84. Industrial land uses comprise approximately 17% of the developed lands within Green. Existing industrial land uses are almost all located within the area bounded by Carnes Road, Highway 42 and I-5. (Revised 6/28/89)

85. The value of industrial lands has been recognized through a policy to retain and protect existing industry from the encroachment of conflicting land uses.

86. Industrial and commercial lands in the area bounded by Carnes Road, Highway 42 and I-5 are so designated in recognition of existing industrial and commercial development within the area, and allows for continued diversified uses. Residential land uses conflict with commercial and industrial uses in this area. (Revised 6/28/89)

Public/Semipublic

87. Public land uses consist of approximately 8% of the developed land within Green. Public land uses include two schools, a park, and a fire station. Additional public lands should be purchased to provide for the needs of the Green area residents as the population increases. The need for additional recreational lands is addressed in the Public Facilities Element.

Urbanization

88. As development continues within the Green UGB to meet the needs of an estimated 6,902 people by the year 2000, some of the surrounding land will be needed to be converted to urban uses. This conversation will be gradual, and therefore a considerable portion of this Comprehensive Plan has been designed to ensure that the community develop in an orderly fashion benefitting from the appropriate timing of public facility extensions.

89. The purpose of designating an area suitable for urban growth is to avoid sprawling or inappropriately located development that can be costly to maintain and wasteful of land resources. Scattered development can cause an over-investment in community facilities resulting from attempts to serve widely separated areas at the same time. It can also result in the loss of valuable resources and amenities that make the Green area a desirable place to live. Establishing a boundary will recognize a distinction between areas intended for urban services and development and outlying areas where full urban services will not exist and an essentially rural character will remain.

90. It has been the product of considerable study to determine which lands within the Green area are suitable to support urban growth. Such factors have been considered as topography, soil characteristics, previous growth patterns, land uses, and the placement of public facilities. After the surrounding lands have been assessed for their ability to support a growing community, some areas have been in the Green area's urban growth area and designated by an urban growth boundary.

91. There are two phases involved in determining the area to be enclosed by the Green Urban Growth Boundary. The first is to determine the amount of land required to meet the needs of the estimated future population and the second is to determine the location of the boundary.

92. The initial step in assessing the amount of land that will be needed is the use of population estimates to determine housing and land use needs until the year 2000.

93. The Housing Needs Table in the Housing Element indicates a need for 1,429 additional dwelling units by 2000 to accommodate the projected 2,629 new residents. Due to the inflated prices within the housing market, it is estimated that the amount of multi-family dwellings will increase within Green.

94. In determining land use acreage needs, allowances were made for choice and availability of lands, and to provide sufficient amounts of commercial lands to attract needed retail businesses within the area.

95. The Urban Growth Boundary has been located to have adequate lands to meet the needs of community expansion. Considerations for identifying lands to be included within the urban growth area are their proximity to existing development, degree of development, existing roads, ease of public facility extension and the need to include lands of differing character to provide for a variety of land use and development options.

96. As part of the process of locating the urban growth boundary, public facility improvements and extensions were considered, as some areas will be easier and more economical to serve than others. In addition, consideration was given to areas designated to receive sewer service because of health hazards. Additional phasing within the urban growth boundary will also be largely a product of the land market.

97. **Existing and Future Land Use Allocations**:

EXISTING LAND USE, GREEN 1980

Land Use Type	Acres
Residential	479
Commercial	21
Industrial	111
Industrial/Commercial	-
Public/Semipublic	53
TOTAL	664

GREEN LAND USE PLAN ALLOCATIONS

Land Use Type	Acres
Residential	1,142
Commercial	87
Industrial	326
Industrial/Commercial	252
Public/Semipublic	36
Rights-of-Way	443
TOTAL ACRES IN UGB	2,286

SHADY FINDINGS

NATURAL HAZARDS

Flooding

1. The 100 year floodplain identified on National Flood Insurance Rate Maps, encompasses approximately 23% of the land within the Shady Urban Unincorporated Area.

Steep Slope

2. The eastern edge of the Shady UUA includes a considerable slope increase. Slope and soil stability should be considered when developing within the Shady UUA boundary.

SOCIO-ECONOMIC FACTORS

Economy

3. The primary contribution of the Shady Urban Unincorporated Area to the regional economy has been as a resource for the timber and aggregate industries.

Population

4. Based on a housing survey conducted in March of 2009, the UUA population is estimated to be 283. The population was estimated as follows: [109 (housing count) x 2.6 (estimated persons per housing unit in 2009)] = 283 (population). The Comprehensive Plan Population Element recognizes two median household sizes, one for families and another for seniors. The median household size for families over 55 is 1.5 persons. The higher median household estimate of 2.6 persons was used to recognize the area's families working at the local mills in the area.

5. The projected year 2030 population for the Shady UUA is 372. This projected population represents an annual growth rate of 1.38% which is consistent with countywide projected growth rates.

6. The projected population of the Shady UUA, 372 persons by the year 2030, will require a net increase of about 34 homes.

7. By in-filling vacant areas, the projected population increase of 89, could be easily accommodated within the UUA Boundary.

Incorporation

8. The incentive to form an incorporated city around Shady does not appear to exist due to the type of urban area services already provided by the County and Special Districts, and the relatively low property tax rate.

Housing

9. The Shady UUA is located within the south-central portion of the Roseburg-Green PAC area. The Roseburg-Green Planning Advisory Committee area is primarily urban. Housing densities and increased population growth has required public facilities to service these areas.

10. Since the Planning Advisory Committee area economy does not support the local area population, it is assumed that the extent of housing is due to workers who commute to Winston, Green and Roseburg.

11. The adopted UUA could meet housing demand to the year 2030.

12. In the Shady UUA, 69% (75) of all dwelling units are single family dwellings; 0% (0) are duplexes; and 31% (34) are multiple family dwellings.

13. Estimated Future Housing Needs:

Year 2030 population (estimate)	372
Dwelling Units Needed (based on Finding Number 6)	143
Vacant Units (@ recommended 5%)	7
Total Units Needed	150
Less Existing Units	109
Total New Units Needed	41
(Single-family homes - 69%)	28
(Duplexes - 0%)	0
(Multiple-family homes - 31%)	13

PUBLIC FACILITIES AND SERVICES

Water Service

14. The Shady UUA is served by Roberts Creek Water District, except for a small section of the northern boundary of the UUA, which is served by the City of Roseburg.

15. The water source for Roberts Creek Water District is predominantly the South Umpqua River. As the water district continues to grow, additional water rights will be considered for district needs.

16. The water district has five water rights which have dates of 1948, 1950, 1952, 1952 and 1973. The water rights total approximately 3.6 million gallons/day.

17. An additional 244 million gallons of water per year (750 acre feet) is provided to Roberts Creek Water District from the Ben Irving Reservoir in the Douglas PAC area. This water from the reservoir is released during the summer months to increase the flow of the South Umpqua River.

18. As an additional means to alleviate potential water shortage problems affecting Roberts Creek Water District during low river flow periods, an intertie system was constructed to pipe an additional one million gallons/day from Roseburg Water Service to Roberts Creek and Winston-Dillard water system. This system is used only during periods of water shortage.

19. The intake and treatment facilities for the water district is located on the South Umpqua River, northeast of the Winston Bridge. The treatment facility has a 3 million gallon a day capacity. After treatment, the water is contained in three storage tanks with a combined holding capacity of 2.75 million gallons. The first tank is a 500,000 gallon tank located above the Shady Oaks Motel. The second tank is a 250,000 gallon tank located in the Roberts Creek Road area southwest of Shady. The third tank with a capacity of two million gallons is located above the intake facility by the water treatment plant.

20. As of 2009, the Roberts Creek Water District served approximately 3,000 hookups.

21. The water system serves residential, commercial and industrial customers.

Sanitary Sewer Service

22. The land use plan encourages in filling of Shady. Due to the fact that Shady does not have sanitary service available, new development and redevelopment must be done in accordance with the areas capacity to handle on-site septic systems. A minimum residential density of one acre per dwelling unit would provide adequate area to accommodate needed septic systems until such time that community sewer service becomes available.

23. Although most of the residentially zoned land in Shady is divided into suburban residential sized lots, there are some identified sanitation limitations in Shady.

24. Both Green Sanitary District to the south and Roseburg Urban Sanitary Authority to the north, have service districts which are contiguous to the boundaries of Shady UUA. Without addressing financing issues, service could be extended with relative ease if needed by new or existing development in Shady.

Fire Protection

25. Fire protection in Shady is provided by Douglas County Fire District No.2 (DCFD2) and, if needed, under a mutual aid agreement, the City of Roseburg Fire Department.

26. The Douglas County Fire District No. 2 station which is closest to Shady is Station #2, located in the Green UUA on Carnes Road. Station #2 has one fire engine, two ambulances, and one brush unit.

27. The DCFD2 services approximately 84 square miles. The district also provides ambulance service for approximately 2,600 square miles. The Douglas County Planning Department "Utility Atlas" identifies the boundaries to the district.

28. The DCFD2 has been operating since 1945 and the district was formed in 1952. The Fire District service within the Fire District boundary has reduced the Community Fire Protection rating to a class 4/9. The split rating applies the lower of the two ratings to those structures within five miles of a fire station and within 1,000 feet of a hydrant or creditable water source. All others receive the higher rating.

29. The Douglas County Emergency Communications 911 Center provides emergency call receipt and dispatch service.

Storm Drainage

30. In filling of vacant lots, or subdivision development may require storm drainage facilities to avoid property damage from excessive runoff.

School Facilities

31. The Roseburg School District boundary extends beyond the City of Roseburg, encompassing Wilbur, Melrose, and Umpqua, and the Shady and Green UUAs.

32. School officials report that the 2008-2009 enrollment at Roseburg High School is 1815 students.

33. Shady students attend Rose Elementary School for grades Kindergarten through Fifth, and Fremont Middle School for grades Six through Eight.

34. Approximately 34 students from Shady are in sixth through twelfth grade, out of a total 50 students from the UUA.

Law Enforcement

35. The Shady UUA is protected by the Douglas County Sheriff's Office. The Douglas County Sheriff's Office has deputy patrols coordinated and dispatched to the area, on a case by case basis. The Douglas County Emergency Communications 911 Center provides emergency call receipt and dispatch service.

Library Service

36. Douglas County does not operate a branch Library in Shady.

Health Service

37. Local ambulance service is provided by MedCom/Douglas County Fire District No.2.

38. No dental or medical clinics are located in Shady. Hospital care is available in Roseburg.

Public Utilities

39. Primary energy and communication facilities are provided to Shady by Avista Utilities, Pacific Power and Qwest Communications. In addition to primary energy and communication facilities, Shady is served by Charter Communications, a cable television, telephone and internet service provider.

Recreational Facilities

40. High intensity recreation facilities for area residents are primarily those provided in conjunction with the public schools and in the adjacent Roseburg UGB.

TRANSPORTATION

Roadway System

41. Shady has narrow linear development along Old Highway 99 South. The surrounding topography is challenging and the South Umpqua River to the west further limits transportation options. Old Highway 99 South and Tipton Road are the two roadways within the Shady UUA, of which Old Highway 99 South has the highest traffic volume classification. Old Highway 99 South, which traverses Shady in a north-south direction, serves as the main thoroughfare to and from Shady, and is classified as an Arterial roadway for its full length in the UUA. Tipton Road, which traverses westerly and then generally south and parallel with the railroad right-of-way, and is a Minor Collector roadway for its full length in the UUA.

Road Conditions

42. Old Highway 99 South and Tipton Road are the two existing roadways in the Shady UUA, and are not developed to full County standards. These two roadways do not comprise a typical road network. At present time, the southern end of Tipton Road does not circulate to connect into Old Highway 99 South.

Traffic Circulation

43. A circulation plan with adequate through access provisions is needed for all designated residential areas.

Circulation Plan

44. Within the Shady UUA, there are two existing roads which are designated as either an Arterial or Minor Collector in the Douglas County Transportation System Plan. These two roads are:

    Old Highway 99 South - This route is an Arterial for its full length within the UUA.

    Tipton Road - This route is a Minor Collector for its full length within the UUA.

45. The existing railroad line through Shady bisects Tipton Road and at times impedes traffic circulation.

46. Service to future development in Shady will be served by local roads.

47. Due to the suburban densities planned for Shady, the required installation of urban streets as a condition of property division may have the effect of discouraging property division. Realistically, most of the development in Shady will occur on private roads or residential cul-de-sacs. The County should consider use of private roads or variances to road standards where appropriate to facilitate property division and realization of the Comprehensive Plan for this area.

Bicycle and Pedestrian Transportation

48. Old Highway 99 South in Shady is a Class III Bikeway (bike lane striping and signage).

LAND USE AND URBANIZATION

Residential

49. Residential land use within the Shady UUA includes single-family and mobile home development, including within an existing mobile home park. Residential land use is approximately 22% of the land use pattern in Shady.

50. Subdivision development with complete services and paved roads would improve the quality of residential living in the Shady UUA.

51. Several areas in Shady are recognized for comparatively dense development, but have not received full services. Care should be take to provide opportunity for residential development in-fill and redevelopment.

52. Residential land use in Shady is characterized by a suburban residential lotting pattern (one acre lots). Implementation of the "Lot of Record" designation in Shady should be accomplished through a zoning category appropriate for urban type low density residential.

Commercial

53. Designated commercial areas in the Shady UUA are anticipated to satisfy Shady's commercial needs to the year 2030.

54. As of 2009, Shady had six commercial establishments which are located in a linear manner along Old Highway 99 South.

55. Commercial uses in Shady have increased 7% from 1999 to 2009.

Industrial

56. Industrial land use is approximately 57% of the land use pattern in Shady, with approximately 126 acres currently developed.

57. Shady has one cluster Industrial site that is identified in the Douglas County Industrial Sites Inventory. The Site is identified as Central County Region Cluster 17.

TABLE 1 - LAND USE ALLOCATIONS AND DEVELOPED ACRES IN THE SHADY UUA. (2009)

LAND USE DESIGNATIONS	ACRES ALLOCATED	ACRES DEVELOPED
Residential	68	55
Commercial	63	45
Industrial	177	126
Public/Semipublic	5	0
TOTAL	313	226

TRI CITY FINDINGS

ENVIRONMENTAL FACTORS

1. Soils within the Tri City Urban Area are of three general types: fertile alluvial soil adjacent to the South Umpqua River and in areas subject to flooding; old terrace soils which were deposited on ancient floodplains and are less fertile than alluvial soils; and the upland soils which exist on steep slopes in the area.

2. Approximately 72 acres of land within the Urban Area consist of land with slopes in excess of 25%. This land is often subject to slow earth flows and erosion, requiring additional engineering and construction techniques when developed for residential use. Forty-eight of these acres have been designated for low density residential use while 24 are in public usage.

3. The South Umpqua River and riparian strips along its banks serve as a major habitat area for quail, water fowl, nongame species and fish. These habitats have been affected by several types of nonpoint pollution problems including streambank erosion, sedimentation, excessive water withdrawal and elevated water temperatures.

4. The South Umpqua River has an average annual runoff of 2,105,000 acre feet with 22% of this runoff occurring in the month of January and only 1% occurring during the months of August and September. The river experiences relatively frequent flooding. The Tri City Urban Area contains approximately 156 acres of land within the 100 year floodplain. Of this floodplain area, 74 acres are classified as being located within the floodway while 82 acres are within the flood fringe. Development within these areas is regulated by County ordinance to ensure certain minimum safety standards are met.

5. The relatively low river flow in the summer months also coincides with peak water demand. This has resulted in the need for voluntary water conservation during low flow periods.

PUBLIC FACILITIES

6. The Tri City Water and Sanitary Authority serve the area with these services. The Sanitary Authority jointly owns with Myrtle Creek a sewage treatment plant which was completed in 2004. This plant has a capacity sufficient to service 10,000 persons. This is considered adequate for the projected year 2024 population of the area. The sewer treatment plant discharges treated effluent into the South Umpqua River during winter flows and uses land application during the low flows of summer. This discharge presently meets State standards. (Revised 12/8/10)

7. The Water Authority provides water to local residents from the South Umpqua River. This water is pumped and treated by a new facility completed in 2005. The Authority has four water rights totaling 1.445 cfs and have two more totaling 3.425 cfs that are in the certification process. This is more than adequate to satisfy all future demand at times of normal river flow. At times of low river flow, the effective supply of water is 1.0 cfs. To supplement supply during low flow periods, the Authority purchases 95 acre-feet of water from Galesville reservoir each year. In that the Authority is obligated to provide water only for domestic use and not outside use or fire protection, this supply is considered adequate to serve the year 2020 population. (Revised 12/8/10)

8. Recreational facilities available to residents of the Tri City Urban Area are limited to those provided by the public schools in the area and the City of Myrtle Creek. The plan identifies a need for two neighborhood parks -- one to be sited in both the northern and southern ends of the area. It is recommended that such facilities be provided through the formation of a recreation district.

9. Storm drainage systems have been incorporated into the development of subdivisions in the Urban Area. There are, however, areas where extensive partitioning has occurred, without provision being made for storm drainage resulting in road flooding, deterioration, and hillside erosion. To alleviate this situation, a master storm drainage plan for all identified problem areas within the Tri City Urban Area has been proposed.

TRI CITY STORM DRAINAGE PLAN (Adopted 11/25/87)

10. The Tri City Storm Drainage Plan is a general plan for storm drainage improvements within the Tri City Urban Growth Boundary. The plan represents an overview of storm drainage needs of the area based on general, area-wide information. The Tri City Storm Drain Plan is general and does not represent the final design solution for any subbasin, even where solutions are specific. Prior to the installation of any improvement required by this plan, the property developer or public entity will need to provide detailed engineering plans. Those detailed plans could result in modifications to the size or location of lines shown.

11. The accommodation and disposal of storm water runoff is a necessary governmental function within urbanizing areas such as Tri City. Without proper planning, the additional runoff generated by urban development may result in public safety hazards that could cause significant property damage. Since the County regulates land use in Tri City, it is also appropriate that the County develop a storm drainage program to address the problems resulting from land development.

12. The plan is predicated upon full development of the Tri City drainage basin consistent with existing Comprehensive Plan designations. Thus, it assumes that all land within the basin, yet outside of the Urban Growth Boundary, will remain in resource use while all land within that growth boundary will be developed with urban uses at full urban intensities.

13. The Tri City Sewer, Water and Storm Drainage Study is the supporting document for findings and policies affecting storm drainage in the Tri City urban unincorporated area.

14. The adopted land use plan for Tri City is the basis for designing storm drain facilities in Tri City. Ultimately, 3180 dwellings could be accommodated in the UGB. The land use plan allocates land for various uses and by acres as follows:

TRI CITY LAND USE PLAN ALLOCATION (Revised 12/9/09)

Land Use Type	Acres
Residential	
- Low Density	183
- Medium Density	647
- High Density	64
Commercial	
- Community	45
- General	15
- Tourist	21
- Limited	4
General Commercial/Industrial	34
Industrial	145
Public	153
Rights-Of-Way	300
Total Acres In UGB	1,611

15. The location of the South Umpqua River to the northwest and hills on the southeast has formed Tri City's linear development pattern along Old Pacific Highway (formerly State Highway 99). The community is approximately 3.6 miles long and encompasses approximately 1,450 acres.

16. Population increased in Tri City at a rate of 5.8 percent between 1970 (2,000 people) and 1980 (3450). Since 1980, population has declined to 3060 people in 1985.

17. The Tri City area has an annual precipitation rate of 28 to 30 inches per year with the majority occurring in the months of November through March.

18. The Land Use and Development Ordinance (LUDO) ensures that storm drainage improvements will be installed to serve new development resulting from property division. The LUDO does not set standards for storm drainage improvements for developments such as large scale commercial uses and associated parking lots. Those developments are subject to the requirements of the developer and consulting engineer. This omission could permit a large area to be surfaced without adequate storm drains resulting in a high peak load run off downstream from the development.

19. The Douglas County Land Use and Development Ordinance requires storm drainage lines (except main lines) be designed for a "10-year storm". Mainlines are required to be sized for runoff produced by a "50 year storm". In addition, street sections are to be designed to carry the difference between the 10 and 50 year storms. The LUDO also requires that storm drain lines which are installed as a condition of property division be oversized, if necessary, to accept peak runoff from uphill properties (assuming their ultimate development). The LUDO standards are consistent with the design frequencies used for this storm drain plan.

Drainage Characteristics

20. The terrain of Tri City descends from a ridge line (2100 feet) on the southeast to the South Umpqua River (600 feet) on the northwest. Slopes vary from 25 percent or more near the ridge line, to 20 percent at the eastern Urban Growth Boundary to less than five percent near the River. Storm water runoff courses in deep "V" shaped creeks at the undeveloped eastern edge of the Urban Growth Boundary and sheets out over the land in the flat residential areas near Old Pacific Highway, causing public health and safety hazards for residents.

21. There are 14 drainage subbasins in the Tri City Urban Growth Boundary. Each of these subbasins is an independent drainage area having its own drainage characteristics and independent points of outfall outside of the Urban Growth Boundary.

22. There are three small areas within Tri City where storm drainage is conduited through existing underground pipe. These three areas include the Hatfield and Midway Tracts subdivisions, Tri City Terrace and Tri City Terrace First Addition subdivisions, and the Camelot Place subdivision. Storm drainage in all other areas within the Urban Growth Boundary is handled by a combination of roadside ditches, driveway and road culverts, swales, and creeks.

Drainage Issues

23. The flat terrain of the western portion of the Urban Growth Boundary results in slower storm water velocities. Uphill development has created more impervious surfaces and thus more runoff onto downhill areas resulting in ponding and flooding. As upland areas continue to develop, the effect on low-lying areas will be more acute.

24. There are three specific downhill areas experiencing significant storm runoff problems. The first is the Briggs Acres area south of Walnut Street where runoff now follows natural contours crossing open fields and backyards. Existing culverts are too small to handle flows. The second major problem area is in the vicinity of Henry Street and Schmol Place in Subbasin 12. As with Briggs Acres, the Henry and Schmol area experiences intense rainfall which forces runoff over

driveways and roads and under homes. The absence of scheduled maintenance for ditches is also a problem in both areas. The third problem area is the Old Pacific Highway corridor. Runoff from the area southeast of that route is channeled under the highway through a series of 20 culverts ranging in size from 12 to 36 inches in diameter. These culverts are undersized by factors of 2 or 3 and are incapable of handling the present runoff. During peak flows, several of the culverts have been reported as having three to four feet of water built up (surcharged) on the inlet side.

Drainage Solutions

25. The Tri City Storm Drainage Plan prescribes drainage improvements needed for those lands located within the Tri City Urban Growth Boundary (UGB). This UGB coincides with the Tri City Water and Sanitary Authority boundaries with minor exceptions. The study area for the plan also includes land uphill (to the ridgetops) from the UGB.

26. Requiring storm drainage improvements outside of rights-of-way as a condition of property division is necessary to ensure full implementation of the Tri City Storm Drain Plan.

27. The Tri City Storm Drain Plan prescribes a combination of existing open drainage courses and underground piping. A total of 16.1 miles of pipe has been proposed with sizes varying from 12 to 78 inches in diameter. The plan assumes that runoff created by storms of a "ten year intensity" or less will be carried by paved, guttered streets.

28. All of the improvements proposed by the Tri City Storm Drain Plan are located within the Urban Growth Boundary (UGB). Runoff generated in upstream areas outside of the UGB will continue to flow in open ditches and creeks. Likewise, outfalls from the storm drainage improvements within the UGB will be carried in open ditches to the river.

29. In undeveloped areas, only main collector or trunk lines have been planned. These lines are intended to receive the runoff from most, if not all, of the area through which they pass. Concurrent with the development of these areas, smaller lateral storm drainage lines will need to be designed and installed to flow into the main lines.

30. In developed areas, the storm drainage plan is specific in describing both main collector and lateral lines. In areas within the Urban Growth Boundary where the street pattern has been established, the master plan is specific and should serve the ultimate needs of the area.

31. The Tri City Storm Drain Plan is designed to eliminate the need to channel runoff through existing subdivisions that have installed storm drain lines. In each case, collector lines have been planned on or adjacent to uphill properties to collect the runoff and bypass existing subdivisions with adequate storm drains. As a result, the existing lines in these subdivisions will continue to serve their intended purpose and will not require modification as nearby development occurs.

32. Development of downstream portions of the storm drainage system, prior to upstream improvements, especially within the Old Pacific Highway right-of-way, is essential for proper drainage. Needed downstream improvements will ensure that increased runoff caused by development on upper reaches will be properly channeled and not result in the greater flooding of low lying areas.

33. An open and maintained ditch is an appropriate low cost method of storm water drainage in some areas of Tri City. These areas include: portions of the drainage-way paralleling Wecks Road in Subbasin 6; portions of the drainage way downstream of Old Pacific Highway in Subbasin 9; portion of the drainage way downstream of Chadwick Lane in Subbasin 10; that portion of the drainage way downstream of Old Pacific Highway in Subbasin 11; and that portion of the drainage way downstream of Old Pacific Highway to Henry Street together with portions upstream from Old Pacific Highway in Subbasin 12.

Prioritized Drainage Projects

34. The implementation strategy for this plan divides the proposed improvements into two classes. Class I improvements can alleviate the immediate public health and safety hazards (as related to storm drains) in Tri City. Class II improvements can alleviate less pressing, secondary health and safety needs or provide facilities to accommodate more intense land use. This strategy facilitates the assigning of scarce resources to the greatest facility related problems.

35. The 1987 cost of constructing the Class I storm drain improvements, that will alleviate the greatest public health and safety hazards in Tri City, is an estimated $1,341,450 (1987 dollars). The six Class I projects include laying pipe under, and laterals along, Old Pacific Highway; cleaning and shaping ditches in strategic areas; and, constructing all of the proposed storm drainage systems in subbasins 4 and 5 and the lower portions of subbasins 3 and 6 as illustrated by map in the Tri City policy section.

36. Class I improvements will probably be needed within five to ten years. Class II improvements are appropriate for year five through year 15 or will be constructed as required by property owners as they develop their lands for more intensive uses.

37. The cost of constructing the priority Class II storm drain improvements, that will alleviate less pressing secondary public health and safety hazards in Tri City, is an estimated $1,849,550 (in 1987). These projects include the construction of storm drain pipe in parts of Subbasins 1, 2, 7, 9, 11 and 12 as illustrated by map in the Tri City policy section. The balance of the Class II projects necessary for providing proper drainage at greater land use densities, has not been estimated.

38. Development of all storm drainage lines within the Old Pacific Highway right-of-way is the highest priority of all storm drain projects. Existing lines crossing under the highway are a bottle neck to adequate drainage at present and are inadequate for handling the proposed drainage system. The cleaning and shaping of selected ditches, the second ranked priority project for storm drains, is an interim method of economically removing surface water from subbasins 6, 9, 10, 11 and 12 by channelling storm water into existing water courses. Projects ranked "3" through "6" (in the Tri City policy section) will conduit storm water via underground pipe. Some projects, such as in Subbasins 3 and 4, will receive a full complement of the planned storm drain sewerage as a result of the extent of the public health and safety need.

TRANSPORTATION

39. The transportation system in the Urban Area consists of arterial, collector and local streets and private roads with Old Pacific Highway serving as the major north-south spine for the area. The number of accesses to this arterial has been identified as creating a major traffic problem in the area.

40. Roadway conditions within the Urban Area vary from extremely rutted, narrow gravel lanes to paved and curbed streets. The unpaved roads, located throughout the area, seriously impair traffic circulation and create conflicts between residents living on these roads and through traffic.

41. The lack of an overall circulation plan for the area has resulted in a street system which does not move traffic efficiently and has resulted in certain streets serving as collectors which were not designed for such traffic loading.

42. Transportation issues have been addressed with policies restricting future accesses to Old Pacific Highway, encouraging development of an arterial connecting Old Pacific Highway and the Weaver Road interchange and placing restrictions on partitioning and subdividing in areas where street improvements are needed. Also, a schematic collector street plan has been proposed which provides a north-south collector parallel to Old Pacific Highway in the foothills and will aid in future street locations.

TRI CITY CIRCULATION PLAN

43. The circulation plan for Tri City recognizes the effect that the configuration of this area has on its traffic pattern. The two major north-south carriers through the area are I-5 and Old Pacific Highway. I-5 has been designated as a principal highway. Old Pacific Highway has been designated as an arterial street from Wecks Road north to Myrtle Creek, and a major collector south from Wecks Road to Pruner Road. Most of the existing streets which intersect Old Pacific Highway have been designated as minor collector streets. (Revised 11/12/86)

44. No undeveloped future streets are proposed to be designated as major collectors. This is due primarily to the proximity of Old Pacific Highway to all areas within the UGB. (Revised 11/12/86)

45. A minor collector is proposed through the foothills of Tri City. This route which would generally parallel Old Pacific Highway would collect traffic from east of it and funnel that traffic onto other minor collectors which intersect Old Pacific Highway. Also, it would provide an alternate access to a number of areas in Tri City which have significant development potential and, without such a connection, would have only a single point of access. This is particularly important for those areas which may be effected by flooding.

46. As a means of reducing traffic volumes on Old Pacific Highway, a connection is proposed between Old Pacific Highway and I-5 at the Weaver Road interchange. This arterial connection is proposed to intersect Old Pacific Highway opposite Wecks Road. (Revised 11/12/86)

47. All but two of the necessary local streets included in this Plan are intended to ensure a second point of access to areas with the potential for development of 20 or more homes. One of the exceptions to this is the local street shown extending north from Gale Lane to provide access to the rear portion of a commercially developed property which fronts on Old Pacific Highway. The other exception is located south of and parallel to Wecks Road. This street is intended to provide access to the rear portions of the contiguous deep parcels which front on Old Pacific Highway and Wecks Road.

48. Past parcelization in Tri City has resulted in the creation of many parcels with direct access onto Old Pacific Highway. This access, in turn, has resulted in a high incidence of rear end accidents resulting from left turn movements onto and off that street. While there is no practical way to restrict the access which has been previously granted, the number of additional access points to the Highway should be limited through design review.

49. The other means proposed to addressing the hazardous situation which exists along Old Pacific Highway is to encourage the installation of a continuous left turn lane along that street. One phase of this project has been completed as of 2010, with plans having been made to complete the rest of the project. (Revised 12/8/10)

50. Pruner Road has been designated as a major collector street for its entire length, both inside and outside of the Tri City urban area. Within the UGB, the County anticipates this street to ultimately be developed to two travel lanes with a continuous left turn lane and curbs and gutters. Given the amount of traffic this street will carry, the urbanizing nature of Tri City, and anticipated commercial and industrial development on Pruner Road west of I-5, this standard is considered appropriate for that portion of Pruner Road which is within the UGB. The remainder of Pruner Road west of the UGB is within a rural area and, as such, would develop to rural standards. Rural major collector standards allow for two travel lanes and do not require curbs and gutters. (Revised 7/21/93)

51. The Briggs Acres and First through Fourth Additions to Briggs Acres subdivisions were platted with 50 foot wide right-of-ways. Many of the lots within these subdivisions have been developed in such a manner as to preclude their redivision. As a result, it is unlikely that much of the additional right-of-way necessary for these streets to meet County standards (56 feet for local streets) will be obtained through the property division process. However, it is possible to develop a street

meeting all local street standards within a 50 foot right-of-way. To remove one impediment to their improvement, the County should accept local streets within these subdivisions into the County street maintenance system at their current right-of-way width assuming all other standards are met. The streets to which this would apply include Seely, Laura, Cornutt, Adams, Conrad, and a portion of Cook Street.

52. The Myrtle Creek Area Transportation Study has identified two concerns regarding the I-5 corridor and impacting Tri-City area. The Chadwick Road Overpass is too low for some trucks to go under, causing the use of downtown Myrtle Creek as a bypass. The study recommended raising the bridge and adding a traffic signal at Chadwick Lane/Old Highway 99 South. Riddle Interchange Overpass (Exit 103) is too low for some trucks to go under and is not designed as a typical diamond interchange. The study recommends ramp/intersection improvements to either raise bridge or provide an alternative routing via re-designed on/off ramps. (Revised 12/8/10)

53. The "Study of the Tri City Circulation Plan and Development Standards," prepared in June, 2003, identified the following six streets which, if improved, would greatly enhance mobility, improve the urban setting, and facilitate and stimulate new urban development: Klimback Street, Gael Lane, Woodcrest Drive, Meadow Lane, Aker Drive, and Celestial Way.

54. For the streets, Klimback Street, Gael Lane, Woodcrest Drive, Meadow Lane, Aker Drive, and Celestial Way, a hierarchy of road development priority shall be established. All though all the roads are important, Highest priority is given to Klimback Street and Gael Lane which have existing right-of-way, and have a higher immediate impact on development and the circulation pattern within Tri City. Improvement of Klimback Street will provide access to residential land with the potential for development. Improvement of Gael Lane, will provide access to an already densely developed residential area. Medium priority roads are also important to circulation and development in Tri City. The Medium priority roads are as follows: Woodcrest Drive, Meadow Lane, Aker Drive, and Celestial Way.

55. Originating from a "Study of the Tri City Circulation Plan and Development Standards" and in coordination with the Douglas County Department of Public Works, a *Street Improvement Test Project* was proposed. The County shall construct Klimback Street, Gael Lane, Woodcrest Drive, Meadow Lane, Aker Drive, and Celestial Way with the public expenditure being reimbursed by developers as they create new lots or parcels, through the partition, subdivision, or planned development process, accessing one of these six streets.

56. Establishment of sidewalk standards is needed for enhancing mobility in the Street Improvement Test Project area. Sidewalks shall be required for each minor collector street (all but Celestial Way). New local streets which will have direct access onto one of the six streets identified in the Street Improvement Test Project or which will access any County maintained collector street in Tri City, may be constructed using alternate street standards. Local streets that accommodate more than 1500 ADT do not qualify for the alternate street standards. The following alternate street standards shall be the minimum requirement for development of new local streets that will be maintained by a qualifying homeowners association or other similar private entity. Sidewalks shall be required on one side of the road for development of alternate streets with an ADT of 800 to 1500. Sidewalks shall not be required under the alternate street standards for streets with less than 800 ADT.

EXISTING LAND USE

Existing Population and Developed Acreage

57. The Tri City Urban Area is one of the fastest growing areas in Douglas County. Between 1970 and 1980 the population increased approximately 66% with the 1980 population equaling 3,135 persons. The number of developed acres of land in the Urban area totals 917+/- acres.

Residential

58. Along with the increase in population, the number of dwelling units increased from 587 in 1970 to 1,050 in 1979. A 205% increase was seen in mobile home placements over this time period resulting in a total of 300 units or 29% of the entire housing stock.

59. This recent growth has resulted in a relatively new community with 48% of the housing stock being less than 10 years old and only 7% being older than 40 years. The housing stock is in good condition with 91% being in standard condition or in need of only minor repairs.

60. Vacancy rates in the Tri City Urban Area are less than 2%, indicating a shortage of available housing in the area.

61. The Tri City area of the Myrtle Creek Urban Growth Boundary has seen substantial development of the existing residential lands. There are approximately 1,634 dwellings in Tri City, which would give it a population of 4,330 persons when using the County's estimated household size number of 2.65. The recent growth has created a need for additional residential lands to meet the twenty year development needs of Tri City.

Commercial

62. There are 43 commercial uses located on approximately 34 acres within the Urban Area. These uses have located in a linear manner along Highways 99 and 20. Of these 43 uses, 26, or slightly less than two-thirds, are of a retail or light service nature. This number of retail uses is small when compared with other communities of a comparable size. Conversely, the number of heavy commercial uses (14) including auto repair shops, welding shops, etc., located in the area is large when compared with comparably sized areas.

63. The infill development of the Tri City area of the Myrtle Creek Urban Growth Boundary residential lands has created a need for additional commercial lands.

Industrial

64. The growth of Tri City residential lands, of the Myrtle Creek Airport, and development of the County Industrial park site at Pruner Road have created a need for additional industrial lands.

65. There currently exist only 5 industrial uses within the Tri City Urban Area. However, in March of 1992, the County Board of Commissioners adopted amendments that added the 90-acre Riddle Interchange Industrial Park Site to Tri City's industrial land base. The 1992 amendments, adopted in conjunction with Myrtle Creek's Periodic Review, combined the Myrtle Creek and Tri City urban growth boundaries to form one large UGB surrounding the incorporated city of Myrtle Creek and the unincorporated Tri City Urban Area. At the same time, the 86-acre Myrtle Creek Municipal Airport, which includes 22 acres of industrial land, was incorporated into the combined UGB. As a result of these changes, the County's Industrial Sites Inventory identifies 110 acres as vacant and suitable industrial land within the Tri City Urban Area. (Revised 10/19/94)

FUTURE LAND USE

Population and Development Projection

66. The projections for the Tri City Urban Area indicate a need for an additional 500+/- acres to accommodate future growth. This growth is anticipated to include a population increase between 1,868 and 2,401 persons and a proportional increase in commercial and industrial development to that existing ratio.

Residential

67. The number of housing units needed by the year 2000 is based upon a decline in the area household size to 2.65 persons and on vacancy rates considered necessary to ensure adequate choice in the market. The total number of dwelling units projected to be needed is 2,023, an increase of 110% over the existing housing stock. The breakdown of units by type include 1,344 (61%) single family, 198 (9%) multi-family and 661 (30%) mobile homes. This ratio reflects the changing trends in housing necessitated by increased single family housing costs.

68. To accommodate existing development and future need, three residential land use designations and acreages have been utilized as follows:

    Low Density Residential: 191 acres. Up to 3 dwelling units per acre. This designation is intended to accommodate limited usage in areas where significant constraints to development exist. This designation has been applied to areas within the floodplain, where it reflects the predominant land use pattern of the area, areas with steep slopes, and in areas where higher density development would create traffic safety problems.

    Medium Density Residential: 667 acres. Up to 7 dwelling units per acre. This designation is intended to accommodate the majority of future residential development in the Tri City Urban Area including predominantly single family detached units, duplexes and mobile homes which are not contained within parks. It has been applied to those lands with very limited, if any, constraints to development.

    High Density Residential: 51 acres. Up to 20 dwelling units per acre. This designation is intended to accommodate multi-family development and mobile homes contained within parks. It has been applied as justified by need to those lands which are close to the commercial nodes, major transportation routes, and where it reflects existing land use. (Revised 4/16/87 QJ)

Commercial

69. This projection of future land needed to accommodate commercial expansion has been based on the existing ratio of commercially developed land to population (10.85 ac/1000 persons) to the projected year 2000 population. This results in a need for an additional 27 acres of land for commercial usage.

70. To accommodate the existing commercial uses and provide for the identified commercial need, four land use designations have been utilized. These designations, descriptions of the types of uses to be accommodated within each, the acreages assigned to each and their general location are as follows:

    Community Commercial: 24 acres. Allowing light retail and personal service commercial uses. This designation has been applied to existing commercial uses of this type and in the general vicinity of the intersection of Old Pacific Highway and Chadwick Road. The aggregation of such uses in this location is intended to create a "downtown" area, minimize strip development along Old Pacific Highway and provide an area where joint parking may be encouraged. (Revised 4/16/87 QJ)

    General Commercial and General Commercial/Light Industrial: 17 and 34 acres respectively. Allowing heavy retail and service commercial uses including plumbing shops, auto repair, body shops, etc. This designation has been applied to existing uses of this type and in the northern end of the Urban Area. By locating future uses of this type in the northern area it is intended that they be separated from future residential subdivisions and that strip commercial development along Old Pacific Highway be minimized. (Revised 4/16/87 QJ)

    Tourist Commercial: 27 acres. Allowing motels, restaurants, gasoline stations, etc. This

designation has been applied generally in the vicinity of Riddle Highway 20 and I-5. (Revised 11/12/86)

Limited Commercial: 5 acres. Allowing Community Commercial Uses which do not generate significant amounts of traffic. This designation has been applied to lands on the west side of Old Pacific Highway at the northern end of the Urban Area. This designation is intended to allow for reasonable economic use of these parcels while ensuring that vehicular access onto Old Pacific Highway is minimized.

Industrial

71. Tri City's most significant site identified for future, major industrial development is the 90-acre Riddle Interchange Industrial Park Site. The Industrial Park will be maintained in a "heavy" industrial zoning classification and shall not be used to accommodate retail service and commercial activities or "land extensive primary processing" of resource related materials. Based on the type of industries targeted for the site, a minimum parcel size of 10 acres applies to 40 acres of the site; a minimum parcel size of 5 acres applies to the remaining 50 acres of the site. The site has been designated with the intent of providing an attractive and well-planned industrial environment, through a design review process. The approximately 20 acres surrounding the existing Tri City Airport hangar facility is also identified in the Industrial Sites Inventory as vacant and suitable industrial land. The M-2, Medium Industrial zoning designation given to the airport site will accommodate less intensive future industrial uses than the Riddle Interchange Industrial Park. (Revised 10/19/94)

WINCHESTER BAY FINDINGS

Note: The Winchester Bay Comprehensive Plan was completely revised in May, 1991. With exception of findings 47, 48, 56, 57, 58, 64, 65, 66, 68, 69, 72, 73, 74, 75, 78, 79, 85, 86, 87, 89, 90, 96, 101, 102, 103, 104, 105, 106, and 107 (found in the June 28, 1989, publication of the Comprehensive Plan), all Winchester Bay findings are either new or updated.

NATURAL FACTORS

Flooding

1. The Umpqua River shorelands within Winchester Bay are subject to regional flooding as a result of intense rain and snow melt runoff. These shorelands are also susceptible to ocean flooding which can result from severe weather conditions over the ocean. On rare occasions, these shorelands can experience a tsunami. These types of flooding can occur together and increase the impacts.

2. Regional flooding occurs on margins of river and boat basin shorelands in Winchester Bay. Most of the land area in Salmon Harbor is above flood height, and not affected by inundation that is less than the 100 year (regional) flood. Bottomlands along Winchester Creek are also subject to regional flooding.

3. The accuracy of the 100 year flood information is in question, due to discrepancies between this information and detailed topographic information for Salmon Harbor shorelands.

4. Maximum observed storm surge on the Oregon Coast is four feet above the level of predicted tides. The highest probable storm surge is four to seven feet above prevailing tidal elevations, which can add up to a possible flood crest of 13 feet above mean sea level. Storm surges can subject lowland areas to flooding, including Salmon Harbor shorelands and lowlands along Winchester Creek. Shoreland elevations on the east side of the east boat basin range from 10 feet to 14.5 feet. Roughly 80 percent of these shorelands are below the possible storm surge flood crest. Elevations on the middle peninsula range from 13 feet to 20.5 feet. Roughly 20 percent of this area is below the possible storm surge flood crest. Elevations on the western peninsula range from 8.5 feet to 17 feet, although most of this area is currently undeveloped and not necessarily at finished grade. Roughly 40 percent of this area is below the possible storm surge flood crest. There is no record, however, of a storm surge nearing the probable four to seven foot (above the tide) range in Winchester Bay. Local information is presently inadequate to assess this hazard.

5. Tsunamis (earthquake generated sea waves) are rare occurrences. The potential impact of the tsunami at Winchester Bay is relatively large because of the close proximity to the open ocean. The maximum wave height from the 1964 earthquake was registered at 14 feet above the tide at the mouth of the Umpqua. The historic record indicates possible amplitudes to 15 feet above the tide on the Oregon Coast. A tsunami wave of this amplitude in Winchester Bay at high tide would inundate virtually all of the shorelands. The elevation of the flood crest within Winchester Bay during the 1964 tsunami is not known although the effect resulted in damage to docks and boats. The construction of the training jetty has likely increased the potential impacts of the tsunami in Winchester Bay. The construction of the harbor peninsulas has created the potential for direct impacts on these shorelands. Better information is needed to adequately assess the potential impacts of such an event. In 2006, the County installed a series of tsunami warning sirens, two of

which are located in the Winchester Bay area. The first is located off Ork Rock Road on the center jetty and the second is located on Salmon Harbor Drive by the dune rescue building.

Earthquake

6. No epicenters have been recorded in Western Douglas County for over 100 years. However, earthquake hazard in this area is moderate due to the high seismicity area off the northern California coast and the proximity of a subduction zone to the Oregon coast.

Stability Hazards

7. Steep slopes in Winchester Bay are susceptible to forms of mass movement. Most of the steep slopes are sandstone formations mantled by sandy and silty loam soils, which are susceptible to debris flow and earthflow hazards. Debris flow is most prevalent on slopes of 45 percent or greater. Earthflow can occur on slopes as gentle as 20 to 30 percent. The hazard potential is substantially increased with ground saturation, excavation and vegetation removal.

8. Failure of unconsolidated geologic materials, i.e., stabilized dune sands, is also a hazard with site development on steep slopes. Slope failure of this type is generally confined to the development site.

9. Approximately 50 percent, or 61 acres, of the vacant private lands in Winchester Bay are on slopes greater than 25 percent. Slope stability is questionable in these areas.

10. Severe fluvial erosion hazards exist with land alteration on moderate to steep slopes, due to the high erodibility of soils, heavy rainfall, and runoff potential. Moderate to steep slopes account for about 65 percent of the vacant private lands. Dune formations are highly susceptible to wind erosion when vegetation is removed.

11. Unconsolidated deposits of alluvium, fill and spoils are susceptible to stability hazards. Alluvium is high in fine silts and organic material, and will subside under the weight of construction. Fill and spoils placed over alluvium and in wetlands are often subject to uneven settling due to the consistency of the fill as well as the underlying materials. Alluvium, fill and spoils are also extremely unstable in the event of an earthquake. Large areas of Winchester Bay are deposits of alluvium, fill and spoils, including Salmon Harbor's shorelands and the Winchester Creek bottomlands.

<u>Vacant Land Development Suitability</u>

12. Vacant private lands in Winchester Bay vary in development suitability and cost, due to slopes and wetland characteristics. Approximately 50 percent of the vacant private lands are on slopes greater than 25 percent, which may only accommodate sparse residential development. Slopes ranging from 8 to 25 percent account for 13 percent of the vacant private lands, and may accommodate low to medium residential densities. Slopes between 0 and 8 percent, without wetland characteristics, account for 24 percent of the vacant private lands and may accommodate residential and commercial development. Lands with wetland characteristics account for the remaining 13 percent of the vacant private land area, and may be expensive to develop under Federal and State wetland regulations.

13. Approximately 93 percent of the vacant public lands are on level or nearly level terrain without wetland characteristics. These lands are virtually all Salmon Harbor shorelands.

SOCIO-ECONOMIC FACTORS

Population

14. The population of Douglas County's Coastal Census Division, which includes Reedsport, Winchester Bay, Gardiner, Scottsburg and scattered rural residences, increased by an average of

17 percent per decade from 4634 in 1950 to 7415 in 1980. Between 1980 and 1990, the population of this area did not grow significantly. The estimated 1990 population is 7516.

15. Population forecasts to 2010 for the Coastal area range from a low of 7900 (assuming an exponential rate based on the 1980 to 1990 trend) to a high of 10,300 (assuming an exponential rate based on the 1950 to 1990 trend).

16. Winchester Bay's population has been estimated for the years 1980 and 1990 based on housing counts, assumed household sizes, and assumed vacancy rates. The year-round population increased by 12 percent, from 626 in 1980 to 702 in 1990. The peak season resident population increased by 12 percent, from 674 in 1980 to 757 in 1990.

17. Due to the significant changes in the economy and demographics, the population estimate for Winchester Bay should not be based on the historic trends or as a proportion of the larger coastal population. The 2010 Winchester Bay Residential Buildable Lands Inventory (BLI) estimated the population in 2010, using the 2004 Douglas County Comprehensive Plan Population Element annual growth rate projection range of low 1.29% and high 1.68%. By calculating the average of this adopted range and adding in a historical seasonal adjustment, the 2010 population was estimated to be 615 people. The BLI projected the population to 2030 using a growth rate representative of the slowing housing market but still optimistic of regional growth. The BLI projected the population of Winchester Bay to be 785 people, using the (2009) Population Element of Coastal area projected annual growth rate of 1.30% and adding in a seasonal adjustment.

18. According to the Population Element Findings, the median household size for families under 55 is 2.6 and for families 55 and over is 1.5. This recognizes that seniors typically have smaller households than younger people who typically have children or parents who reside with them. In Winchester Bay the average household size has followed the national trend toward smaller family sizes.

19. The average household size in Winchester Bay is smaller than that of the larger coastal population. The 2000 Census data shows Winchester Bay has a high percentage of households where the head of household is over 50 years of age. Census data shows that over 43% of the residents of Winchester Bay are 55 or older; therefore, the average household size in Winchester Bay has been bifurcated and the following is assumed

Age	Percentage of Total	Assumed Household Size
54 and Under	57%	2.06
55 and Older	43%	1.5

Housing

20. The total number of dwelling units in Winchester Bay increased by 12 percent, or 29 units, from 240 in 1980 to 269 in 1990.

21. The current housing mix in Winchester Bay is predominantly single family detached. These include manufactured homes on individual lots. Based on the 2010 Winchester Bay Residential Buildable Lands Inventory (BLI). no duplexes were found and only one multifamily unit was found in the Winchester Bay area. In the past decade there has been a shift toward single family

attached (condominiums) dwellings. although current economic conditions have stalled this trend for the current time. The current housing mix is as follows:

Structure Type	Existing Units (2010)	
	#	%
SF-Detached (including MH)	337	94%
SF-Attached (Condominiums)	18	5%
Duplex	0	0%
Multi-Family	3	1%
TOTAL	358	100%

22. Housing forecasts for Winchester Bay are based on population forecasts and vacant land build-out. As of January 2010, there were 358 dwelling units. The 2010 BLI estimated that by 2030 124 new dwelling units will be required to keep up with area demand. The current net vacant buildable residential lands within the Winchester Bay UUA is estimated at 26.52 acres, which falls short of the estimated 62 acres required to accommodate the growth of the area.

23. Housing vacancy in Winchester Bay occurs between fall and spring, primarily among the seasonal homes. Rental units are typically in demand and are full on a year-round basis.

Economy

24. Douglas County's coastal economy is driven by a mix of earned and non-earned income sources. The most recent analysis of these sources estimated that 54 percent of the total personal income is generated from earned income sources and 46 percent is generated from non-earned sources. The earned income sources include paper, timber, commercial fishing, tourism, boat repair, agriculture and miscellaneous others. The non-earned sources are transfer payments including retirement, social security, disability and other transfer payments, dividends, interest and rent.

25. Since the mid 1970's the coast has experienced low economic growth and amplified fluctuations in employment through economic cycles. This is largely due to the coast's reliance on natural resource based industries such as timber, commercial fishing and agriculture. These industries are greatly affected by changes in resource demand and availability.

26. Manufacturing industries including paper, lumber and other forest products still make the greatest contribution to the earned income portion of the coastal economic base. The total contribution of these industries amounts to about 23 percent of the coastal area's total personal income. Manufacturing industries are not currently showing growth.

27. Marine transportation is associated with coastal manufacturing activity. Marine cargo (other than commercial fish landings) which crosses the Umpqua River Bar includes exported forest products and sand and gravel, and imported fuel oil. The most recent report of these activities ranked the Port of Umpqua third among Oregon coastal ports in tonnage and fourth in value of total commercial commodities transported.

28. The current economic contribution of boat repair activity to the coastal economy has not been estimated. At Salmon harbor, most of the boat repair activity serves small and medium sized vessels associated with commercial and recreational fishing and the local Coast Guard facility. The potential for growth of this industry in Salmon Harbor is primarily related to development of additional moorage facilities and increased use of the harbor by small and medium sized boats.

Full development of the harbor will increase the moorage space by about 50 percent. Repair of large vessels on the Umpqua River will likely occur on the Reedsport waterfront.

29. Commercial fishing and associated processing contribute about 7 percent of the coastal area's total personal income. The significance of the fishing industry has declined from historic levels due to economic recession and concern for resource depletion from natural and man-induced factors. The viability of the industry appears to have stabilized in recent years. No significant growth of commercial capture fishing and associated processing is projected due to the lack of growth indicators.

30. Currently, no large fish processing facilities exist on the Umpqua River. Most commercial fish landed at Winchester Bay are transported to facilities in nearby ports for processing.

31. Small scale seafood processing and sales in support of tourist commercial activity are considered to have growth potential. Growth of this type of activity accompanies recreation and tourism growth, and is less affected by fishing quotas than larger industrial processing.

32. Aquaculture and associated processing and sales are expected to grow. The Umpqua estuary is noted for production of high quality oysters. Large areas which are believed to be suitable for shellfish production are presently unused.

33. The recreation and tourism industry is recognized as a growing industry and is a subject of local and regional economic development efforts. An assortment of recreation and tourism opportunities and attractions exist in the Winchester Bay vicinity. Recently, this industry has contributed an estimated 6 percent of the coastal area's total personal income.

34. The increase in motel and lodging employment indicates that tourism is growing locally and regionally. This growth is occurring more rapidly statewide than in southwestern Oregon, at an average annual rate of 2.65 percent statewide compared to 1.8 percent in Douglas County.

35. The increase in seasonal traffic to the beaches and dunes indicates that this localized tourism is growing at an average annual rate of 2.78 percent.

36. Recent studies of the recreational participation of tourists illustrate the popularity of various activities. A number of these activities occur at, and are of particular significance to the Winchester Bay area such as fishing, viewing wildlife, crabbing and clamming, dunes recreation, visiting the beaches, and general sightseeing. An assortment of other tourist activities occur within the region and contribute to the diversity of activities as well as the need for support facilities and services. These include activities such as picnicking, trail use, camping, dining, shopping, and numerous others.

37. Recent projections of demand have been made by Oregon State Parks for various outdoor recreation activities. These projections indicate that activities such as ocean fishing, RV camping, wildlife observation, general sightseeing and visiting the beaches are among the high and moderate growth activities. Numerous other growing activities offer potential for recreational development. No projections of demand are available for tourist activities not surveyed by Oregon State Parks.

38. Winchester Bay is noted for its excellent Salmon fishing opportunities. Recently, an estimated 38 percent of the total personal income generated from recreation and tourism in the coastal area was attributed to recreational fishing.

39. In terms of demand, recreational fishing is considered to be a high growth activity, although total fishing activity is subject to annual catch quotas. In recent years, total angler trips from Winchester Bay have increased by an average annual rate of 1.64 percent.

40. Charter angler trips from Winchester Bay have increased more rapidly than private angler trips, at an average annual rate of 4.77 percent.

41. Historically, Salmon catch rates (fish per anger trip) have been higher for Winchester Bay than for the Oregon Coast overall.

42. The significance of non-earned income is increasing, following similar trends at the regional and national scales. It was recently estimated that 46 percent of the coastal area's total personal income is attributable to non-earned sources. One half of this amount is from transfer payments, predominantly retirement-related income, and the other half is from dividends, interest and rent.

Aesthetic (Economic) Resources

43. Aesthetic resources in Winchester Bay are important recreational and economic resources. The importance of these resources to visitors is reflected in the findings and recommendations of the Reedsport/Winchester Bay Tourism Study and Market Plan and the Douglas County Tourism Analysis and Action Plan.

44. The most important types of aesthetic resources in Winchester Bay are views of Salmon Harbor, views of the Umpqua River, and views from major traffic corridors. Views of Salmon Harbor and the Umpqua River are important in the management of open space and scenic areas, coastal shorelands and recreational resources, as addressed in Goals 5, 17 and 8 respectively. Views from traffic corridors are important in the management of recreational and economic resources, as addressed in Goals 8 and 9.

45. Views from major traffic corridors are important to the economy of the community because they are the vantage points from which visitors get their "first impression" of Winchester Bay and Salmon Harbor. The most important corridors are Highway 101, 9th Street and Salmon Harbor Drive, 8th Street, and Beach Boulevard. Highway 101 is the gateway into Winchester Bay. Both 8th and 9th Streets are gateways that open out on to a vista of Salmon Harbor. Salmon Harbor Drive provides a linear view of the harbor and the Umpqua River, and is the primary route to the beaches and dunes, whale watching station, lighthouse, visitors center, and Umpqua Lighthouse State Park. Beach Boulevard provides a linear view of the harbor.

46. High quality views in Winchester Bay are generally associated with views of the harbor, the river and other natural landscapes. Much of the development which is seen from the travel corridors has resulted in lower quality views.

47. Harbor views are a basic resource of Winchester Bay, and are as much of an attraction as other visitor oriented and recreational resources. These views include the dynamic intermixture of water, shoreline, opposing spits, docks, boats, and wildlife.

48. Harbor views extend from numerous locations and directions along the harbor shorelands. These views are largely open and unimpeded. However, some views are partially blocked by existing commercial and industrial buildings along the shoreline and spits of the east basin. Additional development on these and other shorelines and spits can potentially block whole or partial views of the harbor view resource.

49. River views are a basic resource of Winchester Bay, and are as much of an attraction as other visitor oriented and recreational resources. River views include the dynamic intermixture of water, shoreline, opposing river bank, dunes, boats, and wildlife.

50. River views are made from vantage points at the northern end of the east peninsula (middle spit) and along the western shoreline of the west peninsula. Another view is made along Salmon Harbor Drive west of the harbor. At present, the views along Salmon Harbor Drive have the best access and the greatest use. River views on the east peninsula have the next best access but are in a relatively remote location. Views from the west peninsula are the least used because of the lack of easy access. Improved access to these areas will increase river view opportunities.

PUBLIC FACILITIES AND SERVICES

Recreation Facilities

51. Recreation facilities, opportunities and support services in the Winchester Bay area are provided from a mixture of local, state and federal agencies and businesses. Tourist activity in Winchester Bay is influenced by recreation facilities and opportunities within the surrounding coastal area, and to some extent, within the region. Coastal and regional tourist activity is influenced by Winchester Bay.

52. Salmon fishing is one of the primary recreational activities in the area. Salmon Harbor caters largely to recreational fishing boats. Existing moorage facilities in Salmon Harbor can accommodate 885 boats. The moorage slip sizes, including side slips and end ties, can accommodate boats ranging up to 100 feet in length. At full build-out, the harbor moorage will be able to accommodate between 400 and 560 additional boats.

53. Two boat refueling facilities are located in the harbor's east boat basin. The west basin has no fuel facilities.

54. One marine pump station exists in the harbor, located in the west boat basin.

55. Overnight lodging facilities in Winchester Bay consist of 85 motel units and 7 cabins. The weekend occupancy rate for these facilities is near 100 percent during the summer.

56. The most prevalent overnight facilities in Winchester Bay are RV camping areas. Private RV parks provide a total of 348 RV sites, of which 304 have full hookup facilities. The Douglas County Parks and Recreation Department provides a total of 68 sites, of which 66 have full hook-ups. Salmon Harbor permits self-contained RV camping in paved parking areas, with a total of 297 sites.

57. The weekend occupancy rate of the RV parks is near 100 percent during the summer. The weekend occupancy rate of the harbor RV parking areas is typically near 80 percent during the summer. Monthly and annual occupancies are substantially less, reflecting heavier use associated with weekend fishing and differences in amenities offered by RV camping facilities. The peak month occupancy of Windy Cove reaches as high as 93% while the annual occupancy is only 35%. The peak month occupancy of the harbor RV parking areas reaches only 32%, while the annual occupancy is only 7%.

58. One RV dump station exists in the harbor area, located on the middle spit. This facility was originally constructed by the County to serve the coastal community and the users of Windy Cove and Salmon Harbor. It is provided free of charge.

Water Service

59. Winchester Bay receives water service from the City of Reedsport. The service area encompasses Reedsport, Winchester Bay and Gardiner. Clear Lake is located about 3 miles from Winchester Bay and has a water surface area just over 300 acres (USGS, 1980). It contains approximately 16,600 acre feet of water when full and receives about 6,000 acre feet of water annually from runoff and direct precipitation, and looses about 600 acre feet by evaporation. The Clear Lake water shed is about 1,290 acres. Portions of the watershed have historically been logged. A segment of U.S. Highway 101 lies within the water shed and follows the western shoreline of the lake.

60. Clear Lake is the source of the coastal community's water system. At present, about two thirds of the maximum usable storage capacity of the lake is diverted for public use. Recent studies of the system and population forecasts indicate that Clear Lake's storage capacity will be adequate to satisfy the demand over the next 20 years, during years of normal rainfall, without modification of the supply intake. Periods of low rainfall could require water rationing or lowering of the supply intake pipe.

61. Lowering of the supply intake pipe would increase the usable water storage by at least 2500 acre-feet. The present annual usage is 2100 acre-feet. Lowering of the intake should not significantly alter the quality of water. However, the lower lake level could result in increased shoreline erosion.

62. Clear Lake's water is of good quality for public use. Presently, no filtration is required, although this may change with new amendments to the Federal Safe Drinking Water Act. The potential impacts of the new regulations on the present system design have been under consideration by the City of Reedsport. A filtration system will likely be installed, which will double the cost of water service.

63. Water mains in Winchester Bay are estimated at 35 to 45 years of age, and are believed to be in good condition. Two water storage tanks with capacities of 37,000 gallons each supplement the system in Winchester Bay.

Fire Protection

64. Fire protection in Winchester Bay is provided by the Winchester Bay Rural Fire District. The districts fire insurance rating has recently improved from a rating of 8 to a rating of 5, primarily due to improved equipment and training.

65. The district reports an average of 20 volunteer Fire Fighters and 2 Emergency Medical Technicians. The number of trained volunteers available to respond may be limited to as few as 4 or 5 during working hours.

66. The U.S. Coast Guard responds to dock and boat fires. All 36 of the U.S.C.G. personnel are trained in fire fighting.

67. The water line and hydrant system is inadequate to fight large fires in a few locations. Hydrants fronting the east boat basin are served by a four inch line, which produces low volume of flow. Hydrants in the Pacific Heights and Barview Heights Subdivisions and Umpqua Lighthouse area also produce low volumes. There are no hydrants in the Discovery Point area.

68. A new hydrant has been proposed for the northeast spit area, to be served by a six inch line connection.

Sewerage

69. Winchester Bay Sanitary District's sewage treatment plant and initial collection system were completed in 1974. Over the past decade, the treatment piant had degraded to the point where the District had issued a moratorium on new sewer hook ups. In 2009 the plant was replaced with a new facility and the moratorium lifted. A sewer collection system upgrade was also completed in 2006, which included the upgrade of 7 sewage pump stations. Many repairs have been done to the collection system piping to correct inflow and Infiltration problem since 2001. The District's collection service is available to all lands in the Winchester Bay Urban Service Area, although the collection system currently does not reach some developed and undeveloped areas.

70. The new wastewater treatment facility is designed for an average flow of 270,000 GPO (gallons per day) at Build-out. Peak instantaneous flow design is 640 GPO. In 2009, peak wastewater daily flow generation from residential, commercial and tourism amounted to 100,000 GPO. Treatment plant influent flows in late fall through winter season have ranged from 45,000 to 150,000 GPO, depending on weather conditions. The treatment facility upgrade doubled the treatment capacity for flow and loadings in comparison to the former treatment facility.

71. According to the District's revised facilities plan completed in 2003, District engineers used an annual population growth rate of 1.57 percent for planning purposes. Population projections used in a growth rate of 1.57 percent shows a population for Winchester Bay to be 1,727 at Build-out. At the growth rate used for facility planning purposes, the sanitary flow projections are 153, 000 GOP average dry weather flow and 168,000 GPO average wet weather flow.

72. The occupancy rates of Salmon Harbor's RV camping areas are lower than those of other RV campgrounds. Sewerage fees for RV camping are established as a flat rate per site. During summer months the district's sewage treatment facility experiences additional impacts from people using the system who are camping and recreating outside the district service area.

73. The collection system is a combination of gravity flow and pressurized force mains to collect and transport raw sewage to treatment plant located on Salmon Harbor Drive. This system is in good condition.

74. The District plans to extend service to the Pacific Heights Subdivision as funds become available. The District and the Department of Environmental Quality are working on increasing the capacity of the District.

Storm Drainage

75. Most storm drainage in Winchester Bay occurs as overland flow. A few storm drainage facilities exist in platted areas and on the harbor shorelands.

76. Most storm runoff from areas west of Highway 101 flows to the harbor without retention or filtration. Wetland areas adjacent to Winchester Creek provide natural retention and filtration of runoff from areas east of the highway.

77. Ponding of runoff is a problem along unimproved streets in the platted area east of the highway due to improper grading.

78. At present, EPA regulations for stormwater collection and discharge do not address runoff from small communities such as Winchester Bay. Storm runoff is a concern, however, due to the variety of pollutants typically carried by runoff and resulting impacts on water quality.

79. Storm drainage is not considered to be a problem in the portion of Winchester Bay west of Highway 101. The system for collecting and transporting storm runoff from streets is adequate except during extreme conditions.

80. The platted area east of Highway 101 is subject to standing water and poor drainage of streets due to road conditions. These problems could be alleviated by proper road grading surfacing.

81. Storm drainage in the area of Winchester Creek is poor. Soils in this area remain saturated throughout much of the year. Inadequate drainage through the culvert beneath Highway 101 seems to contribute to this problem.

Search and Rescue

82. The local U.S. Coast Guard unit is responsible for maritime search and rescue, law enforcement, and other emergency operations. This unit maintains equipment and staff proportionate with the amount of maritime activity occurring within their area of responsibility.

Oil and Hazardous Substance Contingencies

83. The potential for discharge of oil and hazardous substances exists wherever such substances are manufactured or extracted, used, stored, handled, transported or disposed of. The most likely sources of potential incidents are urban areas and major transportation routes, especially those which are proximate to the river system.

84. Marine transportation along the river between the river bar and the coastal communities constitutes a major source of potential spill incidents. Large quantities of fuel and other substances are transported via the Port of Umpqua as cargo and in the fuel holds of vessels. Marine transportation through offshore waters constitutes a potential threat to the Umpqua estuary with tidal action.

85. Fuel and other hazardous substances are stored and used in various locations such as marine refueling facilities and industrial sites based in Winchester Bay, Reedsport and Gardiner.

86. Clear Lake, which is the domestic water source of the coastal community, is vulnerable to spill incidents with the transport of various substances along the lakeshore via Highway 101.

87. A coordinated pollution response network exists, which involves local, state, regional and federal, and both public and private response resources. The level of resources which are activated during an incident is largely determined by the seriousness of the incident.

88. The U.S. Coast Guard has the primary responsibility of coordinating and directing pollution response activities in coastal waters throughout all response phases. The U.S.C.G. definition of "coastal waters" in Douglas County includes waters west of Highway 101 and the Umpqua River to a point 1.6 miles of east Reedsport.

89. Response to pollution incidents in the inland zone, which includes all areas not included as "coastal waters", is coordinated by different response agencies during different phases of the response. Generally, members of the local response organization, i.e., state or local police or local fire districts, are expected to coordinate response activities during the emergency phases of incidents. EPA is the designated on-scene coordinator for clean-up and site restoration phases, although DEQ generally assumes this role. Clear Lake, the domestic water source for the coastal community, is included in the inland zone.

90. Generally, the resources which are available locally, including trained personnel, equipment and supplies, are adequate to contain and clean up only minor spills. Medium or large incidents require activation of outside resources. Local agencies are cooperating in an effort to improve local preparedness for spill incidents. Salmon Harbor, the Port of Umpqua and the City of Reedsport are in pre-planning stages of developing a local response plan. The goal of these agencies is to develop a local emergency response plan and acquire resources that will protect the Clear Lake water supply and entrances to Salmon Harbor.

91. Douglas and Coos Counties have established a Hazardous Materials Response Team which responds to incidents involving substances which pose an immediate threat to human life or health. This team is based in Roseburg and Coos Bay.

TRANSPORTATION

Circulation

92. The existing circulation system in Winchester Bay utilizes the majority of public rights-of-way, although a few rights-of-way are unopened. Most roads and streets on the west side of Highway 101 are paved. Those on the east side of the highway are dirt and gravel.

93. State Highway 101 bisects Winchester Bay. Highway 101 is classified as a principal highway because of its function and traffic volume. Salmon Harbor Drive is classified as a major collector and connects with the highway along 9th Street. Beach Boulevard and 8th Street function as collectors and should be classified as minor collectors. Other developed County roads in Winchester Bay function as local roads and streets. (Revised 8/13/97)

94. Traffic hazards exist at the oblique intersections of several streets with Highway 101 within a relatively short distance along the highway. Opportunities exist for improvement of highway access points with safer approaches and more attractive and functional connections into Winchester Bay. The intersections of Salmon Harbor Drive (9th Street) and 8th Street with the highway are the primary connections. Both of these intersections have redevelopment potential. Opportunities exist for alignment of highway access points on the east side of the highway with the Salmon Harbor Drive and 8th Street connections.

95. Scattered highway approaches for individual developments along Highway 101 east of the platted areas add to highway traffic hazards.

96. Potential for development of on-street parking exists on many of the streets. Broadway and 8th Streets have 80 foot wide rights-of-way, which will allow angle parking on both sides together with sidewalks, bike lanes and planting strips. A number of streets have 60 foot wide rights-of-way which will allow parallel parking on both sides along with sidewalks and other amenities.

97. The platted area from 5th Street north has some traffic congestion problems during the tourist season and offers little potential for on-street parking. Traffic in this area occurs largely in conjunction with the northeast harbor spit development, where congestion and circulation problems are also present.

98. Salmon Harbor's east basin development includes large areas of public parking. A parking deficiency exists in this area during the peak tourist season. This deficit has been estimated at 65 spaces. Potentially, redesign of parking areas and travel lanes in this area may alleviate some of the parking shortage.

Roadway Conditions

99. All roads in Winchester Bay are under public ownership.

100. With the exception of 4th and 5th streets, Sunset Drive, Pacific Heights Drive and a portion of Beach Boulevard, all paved streets are County Maintained.

101. Roads east of Highway 101 have gravel surfaces and vary in conditions from fair to poor.

Bicycle and Pedestrian Transportation

102. The recreational nature and small size of Winchester Bay is conducive to pedestrian and bicycle transportation.

103. Bicycle lanes exist along Highway 101, Salmon Harbor Drive and around the west spit to accommodate the recreational bicyclists along the Oregon coast.

104. Pedestrian walkways and a view bridge exist along Salmon Harbor and Beach Front Boulevard to Ork Rock Road.

LAND USE

Residential Lands

105. Residential land uses currently occupy approximately 34 acres. Most of these residences are located within the 120 acres currently designated for residential uses. The exceptions are three mobile home parks located in conjunction with RV parks on lands designated for tourist commercial uses.

106. Currently, 95 acres of vacant private lands are designated for residential uses; however. the 2010 Residential Buildable lands Inventory (BLI) found 68 acres to be unbuildable, constrained or needed for public facilities leaving approximately 27 acres suitable for future residential development.

107. The 2010 Residential Buildable Lands Inventory (BLI) found 68 of the 95 gross residential acres to be unbuildable, constrained or needed for public facilities leaving approximately 27 acres suitable for future residential development

108. As of January 2010, there were 358 dwelling units in Winchester Bay. The total number of dwelling units projected, based on area population growth, to the year 2030 is 482 units. This number exceeds the current available vacant residential acreage by approximately 35 acres.

109. To provide for the varying housing needs identified and in recognition of existing areas which are subject to certain environmental hazards, three residential land use designations have been utilized. The designations are as follows:

> **Low Density Residential**: Up to 3 dwelling units per acre. This designation is intended to accommodate limited usage in areas where significant constraints to development exist.
>
> **Medium Density Residential**: Up to 7 dwelling units per acre. This designation is intended to accommodate the majority of future residential development including predominantly single family detached units, duplexes and mobile homes which are not contained within parks.
>
> **High Density Residential**: Up to 20 dwelling units per acre. This designation is intended to accommodate multi-family development and mobile homes contained within parks.

110. The Low Density designation has been applied only to those areas with identified steep slopes or where other natural constraints to development exist.

111. The Medium Density designation has been applied primarily to areas where it reflects the existing single family land use pattern. Portions of the platted area of Winchester Bay have been given this designation. In addition, the Medium Density designation has been applied to the areas east of the platted area and north of Highway 101. Portions of this area are undeveloped and others are underdeveloped. This area is considered necessary to meet future single family housing needs.

112. It is recognized that development of each lot in the platted area which has been assigned the Medium Density designation would result in an overall net density of 13+ dwelling units per acre exceeding the density range of the category. It is not intended that this designation restrict single family development on existing lots within this area, but rather to identify areas which should be preserved for this housing type.

Tourist Commercial Lands

113. Tourist commercial land uses currently occupy approximately 24 acres. Most of these uses are located within the 54 acres currently designated for such uses. These uses include private RV parks, motels and other tourist commercial uses.

114. About 26 acres of vacant private lands are designated for tourist commercial uses, which include about 10 acres of lands with wetland characteristics.

115. Approximately 20 acres in addition to the 24 acres currently used are projected for tourist commercial uses, for a total of 44 acres needed in 2010 (not including the proposed convention center). These additional acres include 12 acres projected for private RV parks, 4 acres projected for motels, and 4 acres projected for other tourist commercial uses.

116. Most of these commercial uses are oriented toward the tourist industry. The dependency of these businesses on the summer recreationist is evidenced by the closure of approximately 50% of the community's businesses through the winter months.

117. The 4 to 5 months tourist season and business closure during the remainder of the year create difficulty in profit realization and investment amortization. This situation has resulted in many of the businesses in the area being small in size and has the effect of discouraging larger business from locating in the area.

118. Most Tourist Commercial uses are grouped with marine commercial uses in the northern portion of the platted area on 4th and 5th Streets and Beach boulevard and on the adjacent breakwaters of Salmon Harbor. Other tourist commercial uses are located along Highway 101 where a greater

orientation toward through traffic is possible.

Community Commercial Lands

119. Community commercial land uses currently occupy about 0.6 acre. A total of 1.5 acres are designated for these uses.

120. About 0.5 acre of vacant private lands are designated for community commercial uses.

121. About 0.9 acre in addition to the 0.6 acre currently used is projected for community commercial uses for a total of 1.5 acres needed in 2010.

122. Commercial parking on 8th Street has created problems as none of the businesses in this area provide off-street parking. Parking normally occurs perpendicular to the traffic flow on unpaved portions of the street right-of-way. During summer months when traffic volumes are high, conflicts exist between parking and through traffic movements.

Marine Commercial Lands

123. Marine commercial land uses currently occupy approximately 1.5 acres of harbor shorelands. These uses include charter services, bait and fuel sales, and small scale seafood processing in conjunction with seafood sales.

124. A total of about 65 acres are currently designated for marine commercial uses, of which about 38 acres are actually vacant. (Another 24 of the designated acres are used for harbor-related parking and roadways and self-contained RV camping.) The 38 vacant acres include areas used for temporary open storage of boat trailers and other marine-related equipment, and the proposed convention center site.

125. Approximately 7 acres in addition to the 1.5 acres currently in marine uses are projected for marine commercial uses, for a total of nearly 9 acres needed in 2010.

Future Commercial

126. To accommodate existing commercial uses and provide for identified commercial need, 5 land use designations and general descriptions of the types of uses to be accommodated within each are as follows:

Community Commercial - allowing retail and personal service commercial uses which provide for the daily needs of local residents.

Tourist Commercial - allowing motels, restaurants, recreational vehicle parks, gift shops, gasoline stations, etc., catering to the recreationist or visitor to the area.

Urban Water Related Shorelands - allowing for commercial uses including chandleries, bait and tackle shops, boat charter operations, etc., which are intended to meet the needs of fishermen and pleasure boaters.

Water Oriented Commercial Recreation - allowing water oriented restaurants and lodging facilities to enhance the public enjoyment of public open space and view opportunities.

Water Oriented Tourist Commercial - allowing selected water-oriented tourist commercial uses that enhance and are enhanced by, and provide public access to waterfront amenities and views including restaurants, gift shops and bait and tackle shops.

127. It is intended that future Community Commercial uses be centered on 8th Street due to the existing concentration of such uses on 8th Street and existence of adequate off-site parking on Beach Boulevard.

128. Future Tourist Commercial uses should be located along Highway 101 and at Beach Boulevard.

Due to environmental factors, recreation vehicle parks are considered particularly appropriate for the area adjacent to and south of Highway 101.

Industrial Lands

129. Marine industrial land uses currently occupy about 3.5 acres of harbor shorelands. These uses include commercial fish buying and shipping stations and boat repair facilities.

130. A total of about 5 acres are currently designated for marine industrial uses, of which about 1.3 acres are vacant.

131. Approximately 6 acres in addition to the 3.5 acres currently in marine industrial uses are projected for marine industrial uses, for a total of nearly 10 acres needed in 2010.

132. About 9 acres are currently occupied by industrial uses (not including marine industrial), of the 12 acres currently designated for these uses. Industrial uses in Winchester Bay include heavy construction contracting and equipment yards, boat and mini storage facilities, and auto salvage.

133. Two industrial designations have been used to provide for existing and future industrial development. These designations and general descriptions of the type of use to be allowed within each are as follows:

Industrial - allowing for the full range of uses from storage of materials and machinery to manufacturing which utilizes primary materials. Standards within the Land Use Element of there Douglas County Comprehensive Plan provides guidance regarding the suitability of various uses for given locations.

Urban Water Dependent Shorelands - allowing only those industrial uses which are dependent on water such as boat building or repair, fish processing, etc. This designation has been applied to those lands assigned this designation in the Coastal Shorelands Element of the County Comprehensive Plan.

134. About 2 acres of vacant lands are designated for industrial land uses. No projection has been made for industrial lands. The Industrial Lands Inventory of Douglas County lists 14 industrial sites within the coastal area.

Public Reserve Lands

135. The Oregon Parks and Recreation Department have updated the Lighthouse Master Plan. The study area encompasses a large portion of coastal Douglas County. The facility development concepts show proposed recreation facilities. One of the proposals in this document are new primitive and full service campgrounds. These facilities may support, in part, all terrain vehicle camping opportunities.

136. Public and quasi-public facilities currently occupy approximately 37 acres of the 118 acres designated for public uses. Approximately 12 of these acres are occupied by public parks and recreation facilities, of which 6 acres are used for RV and tent camping in Windy Cove Park. Umpqua Lighthouse State Park has 20 acres adjacent to Lake Marie that are used for tent, cabin and yurt camping.

137. Currently, 63 acres of vacant public lands are designated for public uses. Fourteen acres are harbor shorelands and 49 acres are located in recently stabilized dunes.

138. With the exceptions of public parks and recreation facilities, expansion of public facilities, will not require additional land area. No projection has been made for public parks and recreation in general. A projection has been made for RV camping on publicly owned lands, which includes Windy Cove Park, harbor shorelands which are designated for marine commercial uses and within stabilized dunes in the deflation plain (generally north of the access to the Dunes National Recreation Area). (See findings on "RV Camping on Public Lands".)

RV Camping on Public Lands

139. To provide for existing and future public and semipublic uses in Winchester Bay, the Public/Semipublic plan designation shall be used. It is intended that this designation identify and reserve property which is presently under public or semipublic ownership for such uses. In addition, the Urban Other Shorelands overlay has been applied to those lands designated for public use which also are defined as coastal shorelands by the Coastal Resources Element of the comprehensive Plan. This overlay designation is intended to ensure that these public shorelands will develop in a manner consistent within the shorelands objectives of the Comprehensive Plan.

RV Camping on Public Lands

140. RV camping occupies approximately 13 acres of publicly owned lands. Developed RV facilities occupy about 6 acres of Windy Cove Park. Self-contained RV camping is permitted on about 7 acres of harbor shorelands which are designated for marine commercial uses. An additional 49 acres of the 74 acres of public lands currently owned in part by the Bureau of Land Management and the Oregon Parks and Recreation Department have been identified for a relocated staging area, new primitive and full service campground.

141. Approximately 54 acres in addition to the 13 acres currently used are projected for RV camping on public lands, for a total of 67 acres needed in 2010. The County may either accommodate this increase on public land, or divert the demand to the private sector. The only available public land in Winchester Bay, is on harbor shorelands and on the recently stabilized dunes in the deflation plain.

Vacant Private Lands

142. There are approximately 122 acres of vacant private lands. About 77 of these acres are on slopes in excess of 8 percent which preclude urban land uses other than residential uses. Approximately 16 acres are lands with wetland characteristics which may be expensive to develop under state and federal wetland regulations. Approximately 29 acres are on 0 to 8 percent slopes (other than wetlands), of which about 17 acres are on 0 to 3 percent slopes.

143. Projected acreages for tourist commercial and community commercial land uses total about 21 acres in addition to acreages currently used. These uses require lands with 0 to 8 percent slopes.

144. There is a surplus of about 8 acres of vacant private lands with 0 to 8 percent slopes (excluding wetlands) above what is projected for tourist commercial and community commercial needs by 2010. (In projecting residential acreage using a vacant land build-out scenario, it was assumed that these 8 acres would be developed at medium to high residential densities.)

Vacant Public Lands

145. There are approximately 107 acres of vacant public lands. About 103 of these acres are without topographic and wetland limitations.

146. Projected acreages for marine commercial and marine industrial land uses total about 13 acres in addition to acreages currently used. These uses require shoreland locations due to their water-dependent and water-related nature.

147. A large portion of the vacant shorelands will be needed for parking and roadways to serve additional development of harbor moorage and associated public recreation facilities. Currently, 14 acres of the vacant shorelands are designated for public parks. An additional 49 acres of vacant recently stabilized dunes are designated for Public/Semi Public use and under consideration for a future primitive and full service campground facility.

148. A large portion of the vacant shorelands are included in the proposed convention center site. A conditional use permit tentatively approved in 1988 for a convention center on this site included 15 acres. The applicant's lease option for this site (now expired) included 20 acres. In order to qualify as a small destination resort under Goal 8, the site must include at least 20 acres.

Land Ownership and Parcelization

149. The existing pattern of private land ownerships offers opportunities for planned development of large areas. The opportunities for acquisition of large parcels or consolidation of small parcels can expedite large scale development or redevelopment plans.

Development Standards

150. Lots in the platted portion of Winchester Bay are, on an average, 3,200 sq. ft. in area. This is substantially below the minimum 6,500 sq. ft. lot size established by County Ordinances. While construction of a single family home on one of these lots is permitted, development of multi-family housing in this area will require aggregation of 4 or more parcels.

151. A similar difficulty exists for tourist and community commercial development. The provision of required off street parking results in the same practical difficulty. Meeting the parking requirements for these types of uses without aggregation of 2 or more parcels is not feasible.

152. To facilitate development in this area consideration should be given to variance from these standards or establishment of specific standards applicable only to this area.

153. Lot sizes in other areas meet minimum County standards.

Urbanization

154. The projections for Winchester Bay to the year 2030 depict a growing community with a continued orientation towards tourism and considerably expanded housing stock.

155. This future growth of Winchester Bay will occur through development of the remaining properties within the Urban Unincorporated Area boundary and through potential future expansion of the boundary.

URBAN UNINCORPORATED AREA LAND USE POLICIES

It is intended that this chapter of the Land Use Element contain goals, policies and policy implementation statements which are applicable specifically to urban unincorporated areas of the County. These statements of County position are not intended to apply to rural areas. There are many policies applicable to UUAs which apply to rural areas as well. Such are contained in other elements of the Comprehensive Plan.

In conjunction with the policies contained in other sections of the Comprehensive Plan, the policies of this chapter of the Land Use Element represent the complete County position regarding the six urban unincorporated areas of the County. As such the direction provided in this and other elements of the Comprehensive Plan supersede the Goals, Policies, Policy Implementation Statements and Recommendations contained in the separate Dillard Comprehensive Plan, Gardiner Comprehensive Plan, Green Comprehensive Plan, North Umpqua Comprehensive Plan, Tri City Urban Area Comprehensive Plan and Winchester Bay Comprehensive Plan documents. As the policies of this chapter of the Land Use Element provide specific direction regarding the County's six urban unincorporated areas, they are intended to take precedence over the more general policies of other sections of the Comprehensive Plan which have Countywide applicability.

POLICIES COMMON TO ALL URBAN UNINCORPORATED AREAS

The following goals, policies and policy implementation statements have been developed in response to the issues and objectives identified previously in this chapter. These statements of County position are intended to apply equally to all urban unincorporated areas of the County. In a number of instances, policies in this section are a standardization of similar policies developed for two or more of the six UUAs. Wherever possible, the policies within the subarea plans have been standardized for ease of administration and equity in application.

PUBLIC FACILITIES

GOAL: To provide for an appropriate level of public facilities, utilities and services consistent with the land use plan.

POLICIES:

1. Expansion of a public facility, utility or service shall consider the Land Use Plan to ensure that any expansion is consistent with said Land Use Plan.

2. The extension of public facilities, utilities and services shall be discouraged in areas where distance, topography and other factors impose serious constraints to the efficient provision of such facilities, utilities and services.

3. Efficient utilization of existing investments in public facilities, utilities and services shall be encouraged by giving development priority to: first, areas where facilities, utilities and services already exist and are able to accommodate additional growth; second, in recognized growth areas adjacent to existing facilities, utilities and services; third, in designated growth areas where service expansion is planned.

4. The capacity of public facilities, utilities and services shall be considered in all land use decision matters.

Water Services

OBJECTIVE A: To promote the continued development of water systems in order to ensure safe and adequate water supplies within designated urban unincorporated areas.

POLICIES:

1. Prior to development of an area, or at the time of development approval, require water piping to be sized so as to meet the anticipated growth demands and fire protection requirements.

2. The provision of urban level water service shall occur only within designated urban service or growth boundaries, except when required to serve a public facility outside of such a boundary. In such instances, service may only be provided when it can be demonstrated that the service is needed for the general health, safety or welfare of the area or an essential economic need of the community.

Sanitary Sewer Services

OBJECTIVE B: To promote the continued development of sewerage systems in order to ensure safe and adequate sewerage disposal systems within designated urban unincorporated areas.

POLICIES:

1. An adequate sizing of sewer and interceptor lines should be required at the time of line extension or expansion so as to adequately serve anticipated growth of the area as a whole.

2. The provision of sewer service shall occur only within designated urban service or growth boundaries, except when required to serve a public facility outside of such a boundary. In such instances, service may only be provided when it can be demonstrated that the service is needed for the general health, safety or welfare of the area or an essential economic need of the community.

Fire Protection

OBJECTIVE C: To promote and facilitate appropriate levels of fire protection within urban unincorporated areas.

POLICIES:

1. Plans for subdivisions within urban unincorporated areas shall include provisions for the number and location of fire hydrants consistent with the specifications of the Insurance Service Office of Oregon or the local fire department or district.

2. Consideration shall be given to a balanced circulation system with all new subdivisions providing for a combination of through street patterns and cul-de-sac and loop streets which allow for adequate mobility of fire protection equipment.

Storm Drainage

OBJECTIVE D: To ensure storm water is properly drained within all designated urban unincorporated areas.

POLICIES:

1. Prohibit alteration of natural drainageways or ensure that alternate drainage is provided in instances where natural drainageways must be altered to accommodate development.

2. Areas within urban growth or service boundaries where storm drainage is a problem should be identified and master storm drainage plans for each area developed.

3. Prior to development approval and actual property excavation, water drainage plans shall be submitted and approved by the County.

4. Plans for public road improvements shall include storm drainage systems which shall be integrated with existing systems and patterns in the area.

RECREATIONAL FACILITIES

GOAL: To provide and develop recreational sites and facilities within urban unincorporated areas at levels appropriate with projected growth and recreational needs.

POLICIES:

1. Encourage expanded use of recreational facilities provided at schools within urban unincorporated areas.

2. Encourage capital improvements for further developing recreational opportunities at schools within these areas.

3. Encourage compatible recreational development in floodplain areas.

4. Encourage the establishment of park and recreation districts within urban unincorporated areas.

TRANSPORTATION

GOAL: To provide for and encourage a safe, convenient and economical transportation system throughout urban unincorporated areas.

POLICIES:

1. Consideration of the street design and area circulation shall be a part of the approval process for any partitioning or subdividing and appropriate conditions shall be applied as part of such an approval process.

2. Initiate a program for the paving of all unpaved streets in developed portions of urban unincorporated areas.

3. Conduct detailed studies of the circulation patterns within all urban unincorporated areas and adopt overall street plans including provisions for automobile, pedestrian and bicycle travel.

4. All future subdividing and partitioning in urban unincorporated areas shall include the installation of all necessary street improvements to meet County public street standards such that they may be incorporated

into the County street maintenance program, thereby ensuring their adequacy for public and emergency vehicle access. Variance may be considered only in instances where it can be demonstrated that a proposed subdivision or partition could not be further partitioned or subdivided and where no adjacent properties would require access through the subject subdivision or partition.

5. Assist, as possible, in the establishment of local improvement districts for the installation of street improvements in urban unincorporated areas.

6. All arterial and collector street extensions into developing areas should be designed so as to be compatible with existing street networks and officially adopted circulation plans for the area.

7. Assess the need for undeveloped street rights-of-way in all urban unincorporated areas and consider disposition, through vacation or sale, of unneeded land to facilitate efficient land utilization in these areas.

CIRCULATION PLANNING

INTENT:

The Objectives and Policies listed below are intended to formalize the County's position regarding the circulation plans for the Glide, Green, and Tri City areas; provide guidance to ensure their proper implementation; and, to establish general standards for street development in all urban unincorporated areas. These objectives and policies should be used as a supplement to the existing policy direction and regulation contained within other sections of the Comprehensive Plan and Land Use and Development Ordinance regarding vehicular circulation through urban unincorporated areas.

GOAL: To provide for safe, convenient and efficient vehicular circulation through the urban unincorporated areas of the County.

OBJECTIVE E: To establish overall circulation patterns for the Glide, Green, and Tri City areas and promote the proper flow of traffic through all urban unincorporated areas.

POLICIES:

1. The division of all properties which are contiguous to streets designated by this plan shall incorporate within the development design, street alignments consistent with the objectives of this plan and property access utilizing those alignments.

2. In recognition of their community-wide significance, all streets designated by the plan maps shall be public streets and be constructed or improved to meet the County standards such that they will be incorporated into the County road maintenance system.

3. Direct property access onto principal highways and arterial streets shall be restricted.

4. Direct property access onto major collectors shall be discouraged.

5. The County shall investigate means whereby direct property access onto minor and major collector streets may be limited.

6. Looping local streets shall be encouraged.

7. The creation of cul-de-sac streets with the potential to serve 20 or more properties shall be discouraged.

8. "Through" traffic should be discouraged from using local streets.

9. All streets in the plan areas should serve to connect streets of equal or lower classification to streets of equal or higher classification.

OBJECTIVE F: To establish the necessary mechanisms to ensure proper implementation of the circulation plans for the urban unincorporated areas of the County.

POLICIES:

1. The evaluation of all proposed plan amendments within urban unincorporated areas should include an assessment of the effect of the amendments on circulation in and through the areas.

2. As a condition of approval of the division of properties adjacent to rights-of-way within the plan areas including public roads, local access roads

or County roads, the property divider shall: (1) dedicate, irrevocably offer to dedicate or irrevocably offer to sell one-half of the additional right-of-way width needed for the adjacent designated route to reach its ultimate width (exceptions to this requirement may be necessary in instances where the planned future alignment would not follow the existing alignment precisely); and (2) improve the right-of-way to local or minor collector street standards, as appropriate, for a full or half street (as circumstances warrant) for the length of the street necessary to serve the lots or parcels being created. (Revised 11/29/95)

3. As a condition of approval of the division of property adjacent to or through which one or more of the streets designated by this plan, which is not dedicated or improved would pass, the property divider shall: (1) dedicate, irrevocably offer to dedicate or irrevocably offer to sell the rights-of-way necessary to develop the designated streets for their full length adjacent to or through the property to be divided; and (2) improve the rights-of-way to local or minor collector street standards, as appropriate, for the length of any street necessary to serve the lots or parcels being created. (Revised 11/29/95)

4. Any lot or parcel which is encumbered by an irrevocable offer to sell shall convert that offer to sell in to an irrevocable offer to dedicate as a condition of approval of a land division that has the net effect of subdividing the original parent parcel. (Added 11/29/95)

5. No building or mobile home placement permit shall be issued which would result in the location of a structure within the alignment right-of-way or required setback area of any street designated by the Plan. Exception to this provision may be granted if the permit applicant proposes an alternative alignment for the subject street which: a) has been prepared by a licensed engineer; b) which is found to meet County design standards and objectives of the circulation plan by the County Engineer and Planning Director; and c) does not increase the impact of the street alignment on any adjacent properties. The variance provisions of the Land Use and Development Ordinance may also be applicable to the issuance of permits under appropriate circumstances.

6. In instances where the improvement of streets within the plan areas is not practical at the time of property division, deed restrictions and other appropriate documents shall be recorded for all lots or parcels within the

division committing the owners of those properties to participate in any local improvement district which may be formed to improve the streets adjacent to the division. Circumstances under which street improvements are not practical at the time of division include: partitionings (not involving a public street) providing such divisions would not extend an existing public street which now meets appropriate County standards. In all cases, either right-of-way dedication, offer to dedicate or offer to sell would be required. (Revised 11/29/95)

7. The cost of installation of street improvements to a standard higher than that for minor collector streets shall be borne by the County.

8. The County shall encourage and participate in the formation of local improvement districts as a means to improve the streets designated by this plan.

9. In instances where acquisition of rights-of-way through undeveloped property does not seem likely through the property division process the County should seek to protect these rights-of-way prior to property development as a means of minimizing the cost of plan implementation. (Revised 11/29/95)

10. Where local roads serve the function of higher classifications (i.e. collectors) the County may, as an interim measure and prior to upgrading, limit on street parking to ensure safe, efficient, and convenient circulation.

11. In areas where the specific location of streets proposed by this plan may significantly impact the properties through which they would pass, the County should determine precise alignments. Such determinations will help to define the extent of such impacts and, in cases where street dedication could not occur as part of the property division process, the need for County acquisition.

12. In recognition of the possibility that unique situations may exist which would warrant exception to the standards contained in the policies under Objective F, it is intended that the variance provisions of the Land Use and Development Ordinance apply to these policies.

13. The County shall adopt a modified standard for major collector streets in urban areas which allows for a 74 foot right-of-way, two travel lanes

and a left turn lane in locations as specified by this plan.

14. The requirement for dedication of right-of-way must relate to the nature and extent of the impact of the proposed development and must be proportional to the impacts of the proposed development considering average daily traffic (ADT) in relation to planned densities, neighborhood circulation and the safe movement of people and traffic in urban areas. (Revised 11/29/95)

15. An irrevocable offer to sell right-of-way shall state the consideration to be paid by Douglas County for purchase of the right-of-way. The consideration shall be based on the market value, of that portion of the land to be purchased, as indicated by the tax assessment records for the year in which the preliminary land division was approved. Douglas County shall have the right at any time in perpetuity from the date the irrevocable offer to sell is made to accept the offer for the consideration identified in the offer to sell. Acceptance of the offer to sell shall not bind Douglas County to purchase the right-of-way. (Added 11/29/95)

LAND USE

GOAL: To promote the orderly and efficient development of urban unincorporated areas; to promote the stability of land values through the application of sound land use planning principles and practices; and to create balanced communities providing land uses in appropriate quantities in such locations necessary for the economic, environmental and social vitality of urban unincorporated areas.

Residential Land Use

OBJECTIVE G: To provide the opportunity for a variety of housing types and price ranges commensurate with the desire and economic means of Douglas County residents.

POLICIES:

1. In urban unincorporated areas, consideration should be given to provision of a variety of housing types to satisfy the differing housing needs of County residents.

2. Encourage the development of planned multi family developments to better utilize lands with topographic constraints.

3. Buffer residential areas from conflicting land uses that detract from the overall livability and value of residential neighborhoods.

4. Limit residential development in hazard areas to low densities and encourage development patterns which reserve hazard areas for open space uses.

5. Encourage location of high density residential development near major transportation corridors and commercial centers.

6. To promote a variety of housing densities within urban unincorporated areas consistent with the factors of location and need contained within the plan, three density standards shall be utilized for all areas except Glide as follows:

Low	- up to 3 units/acre*
Medium	- 3 to 7 units/acre*
High	- 7 to 20 units/acre*

Densities within the Glide UUA boundary shall be as follows:

1 dwelling unit/5 acres
1 dwelling unit/2 acres
1 dwelling unit/acre
2 dwelling units/acre
Low density Residential

* The range of dwelling units permitted per acre is intended to serve as a basis for determining minimum lot sizes within the various density ranges. In cases where development of a property would not require street dedication, these ranges approximate the number of units which may be constructed on an acre of land. In instances where street dedication is required, the overall density achieved may be somewhat less than the maximum permitted within the designation. The specific density achieved, in such cases, will be a function of the extent of street dedication required.

7. Upon substantiation by a licensed engineer or surveyor that a unit of land designated on the Land Use Plan maps for low density residential usage due to its location in an identified natural hazard area is not within such an area, that unit of land may be redesignated for more

intensive usage. When the acreage of land subject to such redesignation is not significant and the land is contiguous to property which carries the designation proposed for the subject land, redesignation will be considered as a map correction and accomplished administratively. When the acreage of land subject to redesignation is significant or is not contiguous to property which carries the designation proposed for the subject land, redesignation will occur through the plan amendment process.

8. Discourage flag lot parcelization.

Commercial Land Use

POLICIES:

1. To encourage development of a variety of types of commercial uses, appropriately located, eight commercial designations shall be established as follows:

   Commercial - accommodating both general and community commercial uses. Applied only in Green and Glide.

   Community Commercial - accommodating light retail and personal service uses;

   General Commercial or **General Commercial/Industrial** - accommodating heavy retail and service uses;

   Tourist Commercial - accommodating tourist, recreational, transitory and/or other highway oriented uses;

   Limited Commercial - accommodating Commercial uses which do not generate significant amounts of traffic or may have constraints to development. Such uses shall meet siting criteria and development standards set out in the Plan or implementing zoning;

   Water Related Commercial Shorelands - accommodating water dependent and water related commercial uses.

   Water Oriented Tourist Commercial - accommodating water oriented

commercial uses in Winchester Bay only. Refer to policies specific to Winchester Bay.

Water Oriented Commercial Recreation - accommodating water oriented commercial uses in Winchester Bay only. Refer to policies specific to Winchester Bay.

2. The General Commercial designation should be applied so as to minimize impacts on residential areas.

3. Encourage commercial development where feasible to utilize common parking and streets other than arterials for site access.

4. Residential uses in conjunction with a commercial use in designated commercial areas shall be permitted.

5. Residential uses, as secondary uses, within a commercial structure may be permitted conditionally in designated commercial areas.

6. Residential uses are not appropriate within areas designated as General Commercial/Industrial by the Comprehensive Plan.

7. Neighborhood oriented service commercial uses appropriately located within or adjacent to designated residential areas may be permitted in residentially designated areas when determined to be compatible with the residential nature of the area. Neighborhood oriented service commercial sites are not illustrated on the land use map and should be determined after review of specific requests within a neighborhood. If found to be appropriate, neighborhood oriented service commercial uses shall be implemented through a limited commercial implementing zone.

POLICY IMPLEMENTATION:

1. In siting neighborhood oriented commercial uses, the following criteria and conditions shall be applied:

    a. Siting: on arterials or collector streets, preferably at or near intersections, provide buffer between uses or density, and oriented toward serving only neighborhood needs.

b. Conditions: provide adequate landscaping to harmonize with surrounding residential uses, minimize outdoor lighting and signs, conduct business activity within an enclosed structure, and provide for adequate parking and setback standards.

Industrial Land Use

POLICIES:

1. To ensure that lands well suited for differing industrial uses are preserved for such purposes, three industrial designations shall be established as follows:

   Industrial - allowing a full range of industrial uses including manufacturing, processing and warehousing.

   Water Dependent Industrial Shorelands - allowing for industrial uses with a marine orientation.

   General Commercial/Industrial - allowing heavy retail and service commercial uses and light and medium industrial uses.

2. Industrially planned and zoned lands shall be preserved for such uses. Only those commercial uses operating in conjunction with an industrial use should be permitted to locate in such areas.

3. Designated industrial sites should be protected from the encroachment of residential uses through the application of other appropriate zones compatible with the surrounding area.

4. Encourage industrial park development.

5. Prior to the development of vacant industrial sites adjacent to areas designated for residential use, mitigation measures such as vegetative screening or earth berms may be required to reduce noise impact. Other factors considered should include a review of anticipated air quality problems (particulate matter, prevailing winds, airshed capacity, and nuisance value) and traffic circulation problems. In no case shall industrial truck traffic be channeled onto local streets in residential areas.

Public and Semipublic Land Use

POLICIES:

1. Future public and semi public land uses shall be accommodated in the Public or other appropriate land use designations.

2. Public and semi public uses should be located or developed so as to minimize impacts on adjacent or nearby land uses.

Urban Growth/Service Boundaries

1. Any change to the boundary surrounding an urban unincorporated area shall be based upon the standards contained within Goal 14 implementing rules and shall follow the procedures and requirements set forth in Goal 2.

POLICIES SPECIFIC TO EACH URBAN UNINCORPORATED AREA

The goals, policies and policy implementation statements contained in this section apply only to the specific UUA under which the statement is included. These statements have been extracted from the subarea plans to which they apply. Those plans should be consulted for more specific information regarding the basis for each particular policy.

DILLARD POLICIES

PUBLIC FACILITIES

Water System

OBJECTIVE: Promote the continued development of the Winston-Dillard Water District in order to insure a safe and adequate water supply within the designated service area.

POLICIES:

1. Encourage the upgrading of existing water lines to support all existing and future water needs (including fire protection).

2. Prior to a land use application being deemed complete for a Plan Map Amendment on parcels which are to be served by the Winston-Dillard Water District, Douglas County shall receive conformation from the District that water hook-ups for each potential parcel are available.

Sanitary System

OBJECTIVE: To insure development of parcels have provision for septic systems, consistent with the required area needed for septic system's design capability, and at a level necessary to alleviate identified health hazards.

POLICY:

1. Development of existing vacant lots and redevelopment of existing lots shall occur with the required area needed for septic system's design capability and necessary reserve area, until a community sewer system is available. The Suburban-Residential (RS) zone minimum parcel size accommodates the septic system standard.

TRANSPORTATION

OBJECTIVE: To insure traffic movement on Old Highway 99 South (County Road 387), consistent with the areas traffic needs, and at a level necessary to alleviate any traffic hazards.

POLICIES:

1. Transportation services and facilities shall support and be compatible with the land use designations shown on the Comprehensive Plan Map.

2. New access points to Old Highway 99 South (County Road 387) shall be at the discretion of the Douglas County Public Works Department, so as to provide for safe and orderly traffic movement.

3. The evaluation of all proposed Comprehensive Plan Map amendments should include an assessment of the effect of the amendments on transportation in and through the areas subject to the amendments.

POLICY IMPLEMENTATION:

1. New access points to Old Highway 99 South (County Road 387) shall be compatible with the traffic movement required by industrial uses in the Dillard Urban Unincorporated Area.

LAND USE

General

POLICIES:

1. Lands within the Dillard Urban Unincorporated Area Boundary shall serve as the predominant growth area for regional industrial development.

Residential

POLICIES:

1. Newly created parcels within the Urban Unincorporated Area Boundary shall have a minimum width of 100 feet except where designated as low density residential.

2. Densities within the Dillard Urban Unincorporated Area shall be as specified on the Plan Map: Residential Committed Lot of Record (RS) and Residential Committed (RC2) until community sewer system service or septic system areas are available.

POLICY IMPLEMENTATION:

1. Consider allowing a higher intensity of residential land use in the Dillard Urban Unincorporated Area Boundary when a community sewer system is available.

Commercial

POLICY:

1. Commercial uses requiring or proposing new points of direct access to Old Highway 99 shall provide for safe and orderly traffic movement.

Industrial

POLICIES:

1. Industrial areas shall be located where they can be economically served by major utility lines, such as electric power, water and sewer when available.

GARDINER POLICIES

PUBLIC FACILITIES

Water System

POLICY:

1. Work with the City of Reedsport to ensure continued provision of an adequate supply of water to meet the future needs of Gardiner.

LAND USE

Residential Land Use

POLICY:

1. Limit residential development in hazard areas to low densities with appropriate safeguards and, where feasible, encourage development patterns on individual parcels which comply with standards for identified hazard areas.

Mixed Land Use

1. Encourage commercial or residential redevelopment of the industrial land south of the IP Paper plant.

POLICY IMPLEMENTATION

1. Consider mixed used development designations for the old Bohemia Sawmill site. This concept utilizes complimentary commercial and residential uses. Some of the alternatives may consider -

    a. A “Main Street” approach for commercial development surrounding Highway 101.

    b. Consider the feasibility of focused limited commercial development off of the main highway.

2. All development proposals should encourage more bike and pedestrian opportunities, including a future pedestrian path located along the river.

GLIDE POLICIES

PUBLIC FACILITIES

Water System

OBJECTIVE: Promote the continued development of the Glide Water System in order to ensure a safe and adequate water supply within the designated service area.

POLICIES:

1. Encourage the upgrading of existing water lines to support all existing and future water needs (including fire protection).

2. The Glide Comprehensive Plan shall be the guiding document for the distribution of water hookups.

3. Prior to a land use application being deemed complete for a Plan Map amendment on parcels which are to be served by the Glide Water Association, Douglas County shall receive conformation from the Association that water hook-ups for each potential parcel are available.

Sanitary System

OBJECTIVE: To ensure the orderly, efficient and timely provision of sewerage service, consistent with the pressure sewer system's design capability, and at a level necessary to alleviate identified health hazards.

POLICY:

1. The Comprehensive Plan shall be the guiding document for the allocation of sewer hookups.

TRANSPORTATION

POLICIES:

1. New access points to Highway 138 shall provide for safe and orderly traffic movement.

2. Encourage the linking of roads to provide adequate "through" street access within the Glide Urban Unincorporated Area. (Revised 8/13/97)

RECOMMENDATION:

1. The speed limit on Highway 138 should be monitored between the Lone Rock and Little River bridges to provide safe commercial and residential access in Glide.

GLIDE CIRCULATION PLAN

OBJECTIVE: To recognize and address the specific circulation problems which exist in the Glide area.

POLICIES:

1. In recognition of the suburban and rural land use designations in the Glide area and the accompanying low traffic volumes generated, the County shall adopt street standards for this area which are appropriate to its unique land use pattern.

2. In the cases of Pike, Abbott, Park and West Estella Streets located within the Glide core area, the standard for incorporation of streets into the County maintenance system should be lessened to accept the 50 foot rights-of-way which presently exist if proper safety and maintenance can be achieved.

3. In that area of Glide which is served by Lone Rock Road and that portion of Terrace Drive which is south of Upper Terrace, no increase in Comprehensive Plan density should be considered without the provision of an alternate access to the area.

4. The County should coordinate with property owners in the Idleyld Park area in an effort to realign existing rights-of-way and develop a circulation pattern which provides logical access to properties in the area and improves vehicular safety.

5. As a condition of approval of the division of the 73± acre property bounded by the North Umpqua Highway on the north and the Bar L Ranch subdivision on the east, the installation of an emergency vehicle access to serve the Bar L Ranch subdivision should be required. This

access should consist of an established nonexclusive easement improved for use by emergency vehicles under all weather conditions. This access should either connect Overlook Road to the necessary local street shown on the subject property or connect Bar L Ranch Road to Terrace Drive.

6. As a means of promoting vehicular safety, the County shall place a high priority on the improvement of Glide Loop Road to the minor collector standard due to the volume and type of traffic it carries and the location of school and other public facilities located along it.

LAND USE

General

POLICIES:

1. Lands within the Glide Urban Unincorporated Area Boundary shall serve as the predominant growth area for regional commercial, industrial and residential development.

2. All future development within the Glide Urban Unincorporated Area Boundary shall further maintenance of the rural atmosphere of the area.

Agriculture

POLICY IMPLEMENTATION:

1. Agriculturally designated land (of Class I through IV soils) within the Urban Unincorporated Area Boundary should be considered to accommodate further growth. However, this land should be preserved and protected with an agriculture zoning on, at least, a temporary basis. The governing body or its designee should review the existing designation of this land during the biennial review and determine the need for converting it to a more intense use.

Residential

POLICIES:

1. Newly created parcels within the Urban Unincorporated Area Boundary shall have a minimum width of 100 feet except where designated as Design Residential.

2. Multiple-family housing shall be limited to designated land in the Glide Urban Service Boundary and shall furthermore be consistent with public facilities and the area's semirural atmosphere.

RECOMMENDATION:

1. Consider allowing a higher intensity of residential land use in the Glide Urban Service Boundary if and when sewer capacity is ever increased.

Commercial

POLICY:

1. Commercial uses requiring or proposing new points of direct access to Highway 138 shall provide for safe and orderly traffic movement.

Industrial

POLICIES:

1. New industrial sites should have direct access to Highway 138.

2. Industrial areas shall be located where they can be economically served by major utility lines, such as electric power, sewer and water.

RECOMMENDATION

1. Vegetative screening or fencing should be encouraged to serve as a buffer between industrial uses and other uses, including highways, schools and residential areas.

Design Review

OBJECTIVE: To enhance the aesthetic qualities and livability within the

Glide Urban Unincorporated Area Boundary.

POLICY:

1. New commercial and residential structures along Highway 138 through Glide are encouraged to be of conventional construction.

RECOMMENDATIONS:

1. Subdivisions and commercial establishments should be designed to minimize their impact upon the scenic resources of the area.

2. Glide area citizens and businesses are encouraged to work together to develop a set of architectural guidelines to be used to enhance the aesthetic qualities and livability of the community.

Glide Circulation Map

GREEN POLICIES

NATURAL HAZARDS

POLICY IMPLEMENTATION:

1. Due to the hazard of mass movement, restrict development activities below the Roberts Creek Water District tank located near the water plant. Apply the geologic hazards overlay zone to the area below this water tank to ensure that development in this area is appropriately planned to mitigate the threat to life and property. (Revised 6/28/89)

RECOMMENDATION:

1. To reduce the danger of mass movement to residents located within the vicinity of the Roberts Creek Water District tank in T28S, R6W, Section 15, a public body should purchase all land in which development could have an adverse effect on the stability of the ground on which the water tank is located.

PUBLIC FACILITIES

Water System

POLICY:

1. Develop a program to help expand the availability of water to the Roberts Creek Water District.

POLICY IMPLEMENTATION:

1. Expand the storage capacity of the district.

2. Investigate the feasibility of developing deep wells or springs to supplement river water supplies.

RECREATION

POLICIES:

1. Consider the acquisition and development of a park within the floodplain area north of Happy Valley Road and west of Roberts Creek to help meet recreational demand in that area and to make more beneficial use of the floodplain. (Revised 6/28/89)

2. Consider the acquisition and development of land in the western portion of the UGB to help meet future recreational demand in that area. (Revised 6/28/89)

TRANSPORTATION

POLICIES:

1. Encourage the development of sidewalks and pedestrian and bicycle paths throughout the Green Urban Area.

2. Encourage landscaping along arterials to enhance the visual appearance of the Green Urban area.

POLICY IMPLEMENTATION:

1. Priority should be given to construction of sidewalks and walkways to those areas most frequently used by pedestrians. These areas include Carnes Road, Happy Valley Road and Rolling Hills Road. (Revised 12/5/01)

2. Require new subdivisions, multi-family residential development, planned development, or commercial uses to construct sidewalks along arterials, major collectors and minor collectors. When houses are placed in existing subdivisions along collectors and above a waiver of remonstrance to the creation of a Local Improvement District will be required. In some areas were topography does not facilitate pedestrian flow, sidewalks may be required on only one side of the road. (Revised 12/5/01)

3. The requirement for sidewalks along minor collectors and above is

applicable to the Green UUA only. Sidewalks on local streets in Green and pedestrian access in other UUA's in the county will be considered on a community by community basis at or before the County's next periodic review. (Revised 12/5/01)

GREEN CIRCULATION PLAN

OBJECTIVE: To recognize and address the specific circulation problems which exist in the Green area.

POLICIES:

1. Happy Valley Road (west from Carnes Road), Roberts Creek Road, and Carnes Road (between Linnell Avenue and Happy Valley Road) shall be developed to the lesser standard for major collector streets utilizing a 74 foot right-of-way. The 84 foot major collector standard shall be applied to Carnes Road (between Highway 42 and Linnell Avenue) and to the Happy Valley Road extension (east from Carnes Road). (Revised 12-5-90)

2. Those portions of Green Avenue, Circle Drive, Hebard Avenue, and Stella Street, which are designated as minor collector streets and which are improved to include pavement, curbs and gutters shall be recognized as meeting an adequate standard and no additional improvement to these streets and street segments shall be required. Parking restrictions or other limitations may be imposed along these streets or street segments in the future, should traffic volumes warrant such action. (Revised 8/13/97)

3. Primary access to the potential commercial or industrial sites east of I-5 should be either directly from the freeway or by way of Grant Smith Road. (Revised 8-17-89 QJ)

4. Speedway Road should only be considered for limited and secondary access to the potential commercial or industrial sites east of I-5. (Revised 8-17-89 QJ)

5. The County should continue to monitor intersections in the Green UUA to assure volume to capacity ratios for each road classification is maintained. Specifically, the Old Highway 99/Speedway Road

   intersection is anticipated to require signalization with an interconnect to the Happy Valley signal and the addition of a left turn lane onto Old

Highway 99. (Revised 12/5/01)

6. The Exit 119/120 Interchange Area Management Plan is a part of Douglas County's TSP and by reference adopted as a support document to the Comprehensive Plan. (12/9/09)

7. Douglas County will coordinate with ODOT in evaluating land use actions that could affect the function of interchanges 119 and 120. (12/9/09)

8. Douglas County will coordinate with ODOT prior to amending its transportation system plan or proposing transportation improvements that could affect the function of interchanges 119 and 120. (12/9/09)

9. Consistent with County policies that seek to ensure the balance between land use and transportation, the IAMP contains policies that outline the steps that define ODOT's role in protecting the function of the interchanges. (12/9/09)

10. The IAMP Access Management language notes ODOT concern regarding coordination on an Access Management Plan. If ODOT has identified a safety issue, that improvement should be completed regardless of other perceived planning deficiencies. (12/9/09)

11. ODOT has an access management plan for the routes within their jurisdiction. The County has an access permitting process to obtain rights of access onto County roadways. For those areas under the jurisdiction of Douglas County, the access permitting process will remain unchanged. (12/9/09)

12. Douglas County, subject to applicable law, the standards of the Dolan Decision and the limitations of Measure 37 and Measure 49, will assist ODOT in achieving the following access management objectives of the IAMP:

    - Encourage redevelopment opportunities that consolidate access points,

    - Encourage sharing of access points between adjacent properties,

    - Use access management spacing standards to the extent possible to offset driveways at proper distances to minimize the

number of conflict points between traffic using the driveways and through traffic.

- Minimize driveway widths and driveway access via local roads where possible,

- Interconnect traffic signals with adjacent signals to create a coordinated timing system. (12/9/09)

13. The IAMP for Exit's 119 and 120 is a part of Douglas County's TSP and by reference adopted as a support document to the Comprehensive Plan. (12/9/09)

LAND USE

POLICIES:

Residential

1. Encourage open space dedication or parks in new residential developments.

2. In the area bounded by Happy Valley Road on the south, Little Valley Road on the east and the urban growth boundary on the north and west, zoning should be limited to a density of one dwelling per two acres or less on each parcel until such time as sewer service is available to it.

Commercial

3. Future commercial development should be located along Carnes Road, at Kelly's Corner, and along Grange Road. (Revised 6/28/89)

Commercial/Industrial

4. A mix of light industrial and heavy commercial uses are encouraged in the designated portions of the area bounded by Carnes Road, Highway 42, and I-5. (Revised 6/28/89)

Industrial (Revised 7/21/93)

5. Prior to industrial development of the 65 acre industrial site located

within the Green Urban Growth Boundary east of I-5 at interchange 119, the following shall occur:

a. The owner of the variable width strip of land fronting the County road to be dedicated for the widening of Grant Smith Road (County Road No. 188) to 60' width along the subject property frontage shall submit a preliminary title report issued by a title insurance company in the name of the owner of the interest in the land. The report shall reveal that the owner has marketable title in the land.

b. The owner of the strip to be dedicated shall prepare a warranty deed dedicating the land to the public to the extent of a 60' right-of-way or 30' from centerline for Grant Smith Road (County Road No. 188).

c. The developer will either install improvements on the Grant Smith Road frontage to urban minor collector one half road standards or bond the improvements.

d. The developer shall agree to participate in any local improvement district which may be formed under ORS 371.605 to 371.660 or the Douglas County Local Assessment Ordinance to improve Grant Smith Road (County Road No. 188) to County urban minor collector road standards, or to improve the Grant Smith Road/State Highway 42 intersection. The developer shall execute any documents required by the approving authority, including a waiver of objection to assessment to ensure such participation.

e. Drainage plans shall be submitted and approved by the County.

At the time of development of the site, the following shall occur:

f. Berms shall be required, satisfactory to the Douglas County Public Works Department, between the subject property and the agricultural residence to the south of the subject property.

g. Screening and landscaping, satisfactory to the Douglas County Planning Department, shall be accomplished at the time of

development and prior to commencement of the developer's use.

HISTORIC

POLICY:

1. Encourage the preservation of historic sites along the Glengary-Roberts Creek Road and the Roberts Mountain Stage Road.

Green Circ Map

SHADY POLICIES

PUBLIC FACILITIES

Water System

OBJECTIVE: To promote the continued development of the Roberts Creek Water District in order to insure a safe and adequate water supply within the designated service area.

POLICIES:

1. Encourage the upgrading of existing water lines to support all existing and future water needs (including fire protection). (12/9/09)

2. Prior to a land use application being deemed complete for a Plan Map amendment on parcels which are to be served by the Roberts Creek Water District, Douglas County shall receive confirmation from the District that water hook-ups for each potential parcel are available. (12/9/09)

Sanitary System

OBJECTIVE: To ensure development of parcels have provision for septic systems, consistent with the required area needed for septic system's design capability, and at a level necessary to alleviate identified health hazards.

POLICY:

1. Development of existing vacant lots and redevelopment of existing lots shall occur with the required area needed for septic system's design capability and necessary reserve area, until a community sewer system is available. At such time that community sewer becomes available in the Shady UUA, the Suburban-Residential (RS) zone designation will be the minimum parcel size to accommodate~~s~~ sanitary sewer in the area. (12/9/09)

TRANSPORTATION

OBJECTIVE: To ensure traffic movement on Old Highway 99 South (County Road 387), consistent with the area's traffic needs, and at a level necessary to alleviate any traffic hazards.

POLICIES:

1. Transportation services and facilities shall support and be compatible with the land use designations shown on the Comprehensive Plan Map. (12/9/09)

2. New access points to Old Highway 99 South (County Road 387) shall be at the discretion of the Douglas County Public Works Department, so as to provide for safe and orderly traffic movement. (12/9/09)

3. The evaluation of all proposed Comprehensive Plan Map amendments should include an assessment of the effect of the amendments on transportation in and through the areas subject to the amendments. (12/9/09)

POLICY IMPLEMENTATION:

1. New access points to Old Highway 99 South (County Road 387) shall be compatible with the traffic movement required by industrial uses in the Shady Urban Unincorporated Area. (12/9/09)

LAND USE

General

POLICIES:

1. Lands within the Shady Urban Unincorporated Area Boundary shall serve as the predominant growth area for regional industrial development. (12/9/09)

Residential

POLICIES:

1. When a community sewer system is available, housing density should be adjusted to include the opportunity for multiple-family housing in the Shady Urban Unincorporated Area Boundary. (12/9/09)

2. Densities within the Shady Urban Unincorporated Area are limited on the Plan Map to Residential Committed Lot of Record and/or one dwelling unit per acre until community sewer system service or site specific septic system are available. (12/9/09)

POLICY IMPLEMENTATION:

1. Consider allowing a higher intensity of residential land use in the Shady Urban Unincorporated Area Boundary when a community sewer system is available. (12/9/09)

Commercial

POLICY:

1. Commercial uses requiring or proposing new points of direct access to Old Highway 99 South shall provide for safe and orderly traffic movement. (12/9/09)

Industrial

POLICY:

1. Industrial areas shall be located where they can be economically served by major utility lines, such as electric power, water and sewer when available. (12/9/09)

Shady Circulation map

TRI CITY POLICIES

PUBLIC FACILITIES

POLICY IMPLEMENTATION:

Water System

1. Develop a program to help expand the availability of water to the Tri City Water District.

2. Investigate the potential for emergency water inter-tie between the water distribution systems of Tri City and Myrtle Creek to determine the feasibility of a cooperative project.

3. Encourage the Tri City Water District to notify District residents of possible future limitations on water usage.

4. Encourage the development of a water impoundment project which would provide a sufficient amount of potable water to meet the future needs of Tri City and be constructed in a location consistent with the needs of Douglas County residents.

Sanitary System

5. Assist the Tri City Sanitary District and the City of Myrtle Creek in development of a written agreement designating each jurisdiction's share of the capacity of the sewage treatment plant, and establish the point at which plans and funds for plant expansion will be sought.

6. Encourage expansion of the Sanitary System across the river at the Weaver Road bridge to accommodate future expansion of the Myrtle Creek Airport and related industrial use area.

Fire Protection

7. The County shall assist the Tri City Fire District as possible in an effort to lower the District's fire rating.

TRI CITY STORM DRAINAGE PLAN

GOAL: To guide the development of storm drain systems that will protect the public health, safety, and welfare in the Tri City Urban Growth Boundary.

OBJECTIVE A: To establish overall storm drain alignments, sizes, capacities, and types in Tri City for existing and proposed systems.

POLICIES:

1. The division of all properties that contain or are contiguous with storm drainage alignments designated in this plan shall incorporate within the development design, storm drainage easements consistent with the objectives of this plan.

2. Alignments, sizes, capacities and types indicated in this plan shall be the standard for storm drain development in Tri City.

OBJECTIVE B: To establish the necessary mechanisms to ensure proper implementation of the storm drain plan for lands within the Tri City Urban Growth Boundary.

POLICIES:

1. Review of all proposed plan amendments within the Tri City Urban Growth Boundary should include an assessment of the effects of the amendment on existing and planned storm drains.

2. As a condition of approval for division of property where a designated storm drainage alignment(s) either passes through or is contiguous, the property divider shall: (1) Grant the appropriate drainage easement width (or a portion thereof) for its full length through the property to be divided; and, (2) where appropriate, construct the planned storm drain for the length necessary to serve all lots or parcels being created.

3. No building or mobile home placement permit shall be issued that will result in the location of a structure within the storm drainage easement, setback or alignment designated by the Plan. Exception to this provision may be granted if the permit applicant proposes an alternative alignment for the subject storm drain facility which: a) has been

prepared by a licensed engineer; b) is found to meet County design standards and objectives of this drainage plan by the County Engineer and Planning Director; and, c) does not increase drainage impacts on any adjacent properties. The variance provisions of the Land Use and Development Ordinance may also be applicable to the issuance of permits under appropriate circumstances.

4. In instances where the installation of storm drainage improvements are not practical at the time of property division, deed restrictions and other appropriate documents shall be recorded for all lots or parcels within the division committing the owners of those properties to participate in any local improvement district that may be formed to develop the storm drainage system adjacent to, or within, the division. Circumstances under which storm drain development is not practical at the time of division include: 1) situations where Class I storm drain facilities within the Old Pacific Highway right-of-way and downstream are not developed; and, 2) partitionings, providing such divisions will not require the extension of an existing storm drain that now meets appropriate County standards. Subdivisions are not a part of this exception. In all cases, the granting of drainage easements will be a required condition of approval.

5. In instances where the granting of storm drainage easements through undeveloped property does not seem likely through the property division process, the County should seek to protect storm drainage alignments prior to property development as a means of minimizing the cost of plan implementation.

6. In areas where the specific location of storm drainage alignments designated by this plan may result in a significant adverse impact to the properties through which they would pass, the County shall determine precise alignments on a case by case basis. An alignment survey may be initiated upon the request of a property owner of the County. Such determination will help to define the extent of such impacts and, in cases where easement granting could not occur as part of the property division process, the need for County acquisition.

7. Recognizing the possibility that unique situations may exist that warrant an exception to the standards contained in the policies under Objective B, it is intended that the variance provisions of the Land Use and Development Ordinance apply to these policies.

8. Incorporate applicable amendments into the Douglas County Land Use and Development Ordinance to implement the Tri City storm drainage policies.

9. Encourage public development of major storm drainage facilities in accordance with the following Class I project priority schedule:

PRIORITY	PROJECT
1.	Construct all storm drains in Old Pacific Highway right-of-way ($810,000);
2.	Clean and slope major ditches ($161,950)
3.	Construct all storm drains in subbasin 4 ($291,350);
4.	Construct all storm drains in subbasin 5 ($175,600);
5.	Construct storm drains in the lower reaches of subbasin 3 ($442,500); and,
6.	Construct storm drains in the lower reaches of subbasin 6 ($120,050).

OBJECTIVE C: To recognize and address the specific problems of storm drains in Tri City.

POLICIES:

1. Encourage the construction of properly sized storm drainage facilities under and along Old Pacific Highway.

2. Encourage the construction of, and give the highest priority to, drainage facilities in the densely developed areas in the northern part of the Urban Growth Boundary.

3. Encourage the cleaning and shaping of existing drainage ditches.

TRANSPORTATION

POLICIES:

1. Discourage direct vehicular access onto Old Pacific Highway and other arterial and collector streets when feasible.

2. Encourage the combining of accesses into commercial and industrial development from Old Pacific Highway wherever feasible.

3. Encourage the development of sidewalks or pedestrian paths and bicycle lanes along Old Pacific Highway and elsewhere in the Tri City Urban Area as appropriate.

4. Encourage signalization of the intersection of Chadwick Lane and Old Pacific Highway.

TRI CITY CIRCULATION PLAN

OBJECTIVE: To recognize and address the specific circulation problems which exist in the Tri City area.

POLICIES: (Revised 7/21/93)

1. In the Tri City UGB, additional points of access to Old Pacific Highway shall be restricted. In locations where property division requires access to Old Pacific Highway, that access shall be limited to a maximum of two points for properties which are currently vacant and one additional point for properties which have currently established access to the Highway.

2. Encourage the installation of a continuous left turn lane on Old Pacific Highway through Tri City. (Revised 11/12/86)

3. Promote the development of an arterial connection between Old Pacific Highway and Interstate 5 at the Weaver Road interchange.

4. Douglas County recognizes the importance of Interstate 5 in the movement of people and goods to and from the region and is committed to protecting the function of interchanges 103, 106, and 108 to provide access to I-5. The function of these interchanges, as defined in the I-5 Interchange 103, 106, 108 Interchange Area Management Plan, is to safely and efficiently accommodate the future traffic demands associated with current rural and urban land uses in the planning area and the expected state and regional growth. (12/9/09)

5. The County supports land uses in the vicinity of interchanges 103, 106, and 108 consistent with the adopted improvements in the Interchange Area Management Plan for these interchanges. Consistent with this, the County supports continued agricultural use of land in the Interchange 106 interchange study area, except where identified in the IAMP for expansion of the Myrtle Creek Urban Growth Boundary. (12/9/09)

6. Douglas County will coordinate with ODOT in evaluating land use

actions that could affect the function of interchanges 103, 106, and 108. (12/9/09)

7. Douglas County will coordinate with ODOT prior to amending its transportation system plan or proposing transportation improvements that could affect the function of interchanges 103, 106, 108. (12/9/09)

8. Douglas County will not rely on interchanges 103, 106, or 108 for providing additional capacity to support future land use actions in the County that are not consistent with the planned improvements to these interchanges. (12/9/09)

9. Consistent with County policies that seek to ensure the balance between land use and transportation, the IAMP contains policies that outline the steps that define ODOT's role in protecting the function of the interchanges. The IAMP also provides policy language that describes under what circumstances the State and County will need to undertake amendments to the IAMP in order to ensure that land use changes do not impact the planned capacity at Interchange 103. (12/9/09)

10. If future County initiated changes to the land use designations or uses allowed in the IAMP Planning Area result in the need for additional capacity at the interchange, Douglas County will prepare amendments to the IAMP. Proposed IAMP amendments shall be coordinated with ODOT staff and the revised IAMP and funding plan shall be submitted to the OTC for approval. (12/9/09)

11. Douglas County, subject to applicable law, the standards of the Dolan Decision and the limitations of Measure 37, will assist ODOT in achieving the following access management objectives of the IAMP:
    - Encourage redevelopment opportunities that consolidate access points.
    - Encourage sharing of access points between adjacent properties.
    - Use access management spacing standards to the extent possible to offset driveways at proper distances to minimize the number of conflict points between traffic using the driveways and through-traffic.
    - Minimize driveway widths and provide driveway access via local roads where possible.
    - Interconnect traffic signals with adjacent signals to create a coordinated timing system. (12/9/09)

12. The IAMP for Exit's 103, 106, and 108 is a part of Douglas County's TSP and by reference adopted as a support document to the Comprehensive Plan. (12/9/09)

13. The standard for incorporation of the following streets into the County street maintenance system shall be lessened to accept 50 foot rights-of-way if proper safety and maintenance can be achieved: Seeley, Cornutt, Laura, Adams, and Conrad Streets and the portion of Cook Street which is part of the Briggs Acres Fourth Addition subdivision.

14. Chickering, Chadwick and Clark Streets shall be recognized as meeting an adequate standard for minor collector streets. No additional improvements to these streets shall be required. Parking restrictions or other limitations may be imposed along these streets in the future should traffic volumes warrant such action.

15. Due to topographic and developmental limitations, right-of-way width for the Old Pacific Highway arterial north of Wecks Road shall be 84 feet. Parking restrictions may be imposed when full development of this arterial roadway occurs. (Revised 11/12/86)

16. Street Improvement Test Project: Douglas County shall initiate a street improvement test project in Tri City with the overall purpose of enhancing mobility, improving the urban setting, and facilitating and stimulating new urban development. Subject to budget approval, the County will construct six streets in Tri City, with the public expenditure being reimbursed by developers as they create new lots or parcels accessing one of the six identified streets. Under this policy, the County will construct the following six streets in the following order of priority. Each street construction project shall begin at Old Pacific Highway and end at the planned minor collector which runs parallel to, and east of, Old Pacific Highway.

Highest priority for development:	Klimback Street Gael Lane
Medium development priority:	Woodcrest Drive Meadow Lane Aker Drive Celestial Way

a. Construction Plan: Streets constructed under this test project shall be designed and funded by Douglas County, with right-of-

way acquisition and completion of construction for each street to occur within 10 years from the date this policy is adopted (all six streets to be completely constructed by December 17, 2013), subject to budget approval. The budgeting, design, right-of-way acquisition, contracting and construction of each road shall be under the authority of the County Engineer.

1) Street alignments shall be in accordance with the Tri City Circulation Plan.

2) Sidewalks shall be required for each minor collector street (all but Celestial Way).

3) If severe constraints are encountered in the design or right-of-way acquisition phases, the County Engineer has the authority to remove a street (or streets) from further consideration or work under this Street Improvement Test Project.

b. Reimbursement Plan: This Street Improvement Test Project is designed to recover a portion of the public cost for development of the six identified streets. Individuals or businesses who receive approval through the development review process for a subdivision, partition, or planned development that will gain access from one of the six identified streets, shall reimburse Douglas County for the cost of improving 12 feet of roadway for each lot or parcel created.

1) To further stimulate and encourage new development, the private reimbursement shall be paid at 80% of the public cost. The public cost for each constructed street shall be calculated by the County Engineer, and shall include all costs including design work, right-of-way acquisition, and construction.

17. Alternate standards for new local streets: New local streets which will have direct access onto one of the six streets identified in the Street Improvement Test Project or which will access any County maintained collector street in Tri City, may be constructed using alternate street standards as long as the new local street will be privately maintained by a homeowners association or similar entity. To be eligible for the alternate street standards, the new local street must be in the Tri City urban area, and have direct access to a collector street that is currently

in the County maintenance system, or have direct access to one of the six streets planned for construction under the Street Improvement Test Project.

a. A developer may choose to receive the benefits of being accepted into the County Maintenance System. To be accepted into the County Maintenance System, new local streets shall be constructed in conformance with the design standards for urban local streets.

b. Local streets that accommodate more than 1500 ADT do not qualify for the alternate street standards and must be constructed in conformance with the design standards for urban local streets.

c. Alternate local street standards: The following alternate standards shall be the minimum requirement for development of new local streets that will be maintained by a qualifying homeowners association or other similar private entity.

Right-of-way:	50'
Roadbed:	28'
Travel way:	12'
Shoulder:	2'
Sidewalk:	none required up to 800 ADT sidewalk on one side for 800 to 1500 ADT

LAND USE

POLICIES:

General

1. Coordinate land use decisions, where appropriate, with Myrtle Creek and other affected governmental agencies.

Residential

2. Coordinate the County housing program with the City of Myrtle Creek to ensure that all of the housing needs of the residents of the Myrtle Creek/Tri City area are met.

3. Encourage a residential land supply that is sufficient to accommodate the twenty year residential land supply needs of Tri City.

Commercial

4. Establish a commercial center for the Tri City Urban Area by concentrating community commercial development around the Old Pacific Highway, Chadwick Lane intersection.

5. Tourist commercial uses shall be concentrated in the general vicinity of Riddle Highway 20 and I-5.

6. Future general commercial uses shall be incorporated with light industrial uses in a combined land uses designation, located in the north part of the area adjacent to the Myrtle Creek urban growth boundary.

7. Strip commercial development along Old Pacific Highway shall be discouraged.

8. The provision of additional retail and professional service commercial uses shall be encouraged.

9. Encourage commercial development to utilize streets other than Old Pacific Highway for access. The Design Review Overlay is applied to all Commercial development along North Old Pacific Highway from the Weaver Road Bridge to Myrtle Creek City Limits (north of Fir Street) to promote safe vehicular access and review detailed site plans as part of building development to implement this policy. (12/9/09)

10. As part of new development and reuse of Commercial sites, landscaping is encouraged to be a part of the site plan and development. (12/9/09)

11. Commercial development shall use shared access points in the corridor to reduce congestion, provide for safety and enhance area movement on North Old Pacific Highway unless waived due to special access requirements by the County Public Works Director in site plan design review. (12/9/09)

12. Require as provided in the Land Use and Development Ordinance paved access points (driveways and entrances) onto North Old Pacific Highway. (12/9/09)

13. On behalf of the citizens of Tri City, coordinate with the City of Myrtle Creek on Public investment in gateway treatments for the corridor including; soliciting design concepts, the search for funding sources,

and jointly implementing City-County Gateway measures, such as improvements and signs. (12/9/09)

14. Encourage new tourist oriented signage for I-5 exit 106 and for the North Old Pacific Highway corridor. Coordinate signage with the Oregon Department of Transportation and the City of Myrtle Creek. (12/9/09)

15. Promote a new Gateway brochure/handout to be used for tourist information and for economic development promotion. (12/9/09)

16. Commercial development at the I-5/Pruner Road interchange shall be given priority consideration in future commercial plan amendments for the Tri City area. (Revised 11/12/86)

17. Prior to the granting of a building permit or conditional use permit for development at the Briggs exception site (identified as Tax Lot 1300 and part of Tax Lots 1200 and 1500, all within T30-R5-S7), the property owner shall agree to grant the adjacent resource land owner a perpetual nonexclusive resource management easement that waives (for the grantor) all common law rights to object to normal and necessary resource management activities legally conducted on adjacent resource lands.

18. The priority for development at the Briggs exception site (southwest quadrant of the I-5/Pruner Road interchange) is for tourist commercial uses. The property has been historically used for commercial purposes. Residential uses at the site are not appropriate. Accordingly, for the Tourist Commercial (CT) zone applied to the Briggs exception site, tourist oriented condominiums and mobile home parks shall not be allowed. (Revised 3/30/88)

19. Establish a highway related Commercial Center for Tri City at the intersection of Weaver Road and Old Pacific Highway.

Industrial

20. Encourage future industrial uses to locate adjacent to existing industrial uses and to be aggregated with heavy commercial uses in the northern portion of the area to minimize the impact on residential areas.

21. Encourage industrial development to utilize arterial or collector streets other than Old Pacific Highway for site access.

22. Dedication and improvement of Fir Street should be a prerequisite of future industrial development requiring that street for vehicular access.

23. Encourage future heavy industrial uses to locate in the County Industrial Park.

24. Encourage expansion of the Myrtle Creek UGB for Airport related industrial uses adjacent to the Airport.

25. Provide urban services for full utilization of industrial designated properties adjacent to the Myrtle Creek Airport, which enhance airport activity and promote economic development consistent with the Interchange Area Management Plan for Interchange 106.

26. Coordinate with Myrtle Creek and the Tri City Water and Sewer Authority on infrastructure needs when development occurs.

map - 119

map - 120

map - 121

map - 122

WINCHESTER BAY POLICIES

Note: The Winchester Bay Comprehensive Plan was last revised December 2010. All policies have been retained from the June 28, 1989, publication of the Comprehensive Plan, except Natural Hazards Policy 1 and Transportation Policies 1 and 2.

NATURAL HAZARDS

POLICIES:

1. The County is encouraged to solicit the help of Federal agencies with expertise (NOAA, U.S. Army Corps, etc.) in studying the potential impacts of ocean flooding, including tsunamis, at Winchester Bay. Consideration should be given to these hazards prior to west peninsula development.

2. The County's Geologic Hazards (GH) Overlay (LUDO Section 3.35.500) shall be applied to lands on slopes greater than 25 percent.

3. The County is encouraged to continue its coordination with F.E.M.A. to provide the best available information for flood hazards in the Winchester Bay Community.

ECONOMIC

POLICIES:

Design Review

1. As an implementation of the revised and updated Winchester Bay Comprehensive Plan the County should develop clear and objective Design Review standards for the highly visible and heavily traveled areas at Winchester Bay.

2. The Design Review standards should be developed in cooperation with local community members and any implementing process should be designed to provide for a ministerial review process.

Community Character

3. In order to enhance visual quality along Highway 101, the County should negotiate with ODOT for maintenance of a vegetative buffer along the highway in the highway right-of-way in all areas where the right-of-way width, safety considerations, and utility easements will permit.

4. The Salmon Harbor Management Committee should evaluate the existing design review policies and standards for Salmon Harbor development. Consideration should be given to possible policy revisions for the purpose of future enhancement of the harbor area, consistent with importance of visual quality and the intended character of the harbor.

Commercial Growth

5. In order to preserve and enhance the economic viability of Winchester Bay's commercial core, Community Commercial and Tourist Commercial businesses should generally be located in and adjacent to the existing commercial areas between Highway 101 and the east boat basin. Exceptions to this policy are other areas suited for RV parks, tourist lodging and restaurants.

6. In order to provide for efficient use and expansion of public facilities in Salmon Harbor, and to maximize harbor revenues from RV camping and land leases, growth of water-dependent and water-related uses should generally occur in designated areas where these uses exist, prior to development of new areas.

PUBLIC FACILITIES

POLICIES:

Sanitary Sewer

1. The County shall work with the Winchester Bay Sanitary District to continually provide adequate sewage treatment capacity to serve the anticipated growth in this area.

2. The Winchester Bay Sanitary District should monitor the need to increase sewage treatment capacity, and options for funding expansion of the treatment facility as future demand requires.

Water Service

3. Work with the City of Reedsport to ensure continued provision of an adequate supply of water to meet the needs of Winchester Bay.

Storm Drainage

4. The County shall work with the State and private property owners to improve Winchester Creek drainage east of Highway 101.

5. Winchester Bay Sanitary District should monitor the long term impacts of storm drainage and wastewater discharge on the viability of the estuary of aquaculture and fisheries resources.

Fire Protection

6. Douglas County, the City of Reedsport, and Salmon Harbor in their respective areas of responsibility, should evaluate the water supply components in areas of inadequate fire flow. Consideration should be given to future growth and to cost effective means of upgrading water delivery in these areas. Individual improvement projects should be prioritized and scheduled as funding will allow.

Oil and Hazardous Substance Contingencies

7. With guidance from the U.S. Coast Guard and Department of Environmental Quality, the Salmon Harbor Management Committee, Port of Umpqua and City of Reedsport should continue to evaluate the need to acquire resources to respond to oil and hazardous substance contingencies.

Recreation Facilities

8. The Salmon Harbor Management Committee should evaluate the need for, and benefits of, adding additional RV dumping and marine pumping stations at Salmon Harbor.

Salmon Harbor Development

9. A 50 foot setback shall be required on all shorelines on the outer edges of the western and middle peninsulas of Salmon Harbor to provide access for shoreline maintenance, emergency vehicles and public recreation.

10. Douglas County and the Salmon Harbor Management Committee should cooperate in a site planning effort for public parking, roads, and park facilities on the west spit. This effort should consider the possible mutual benefits of a boundary adjustment for Children's Fort Park, the convention center site, and multiple use concepts.

Mitigation Bank

11. The County should continue working with the appropriate agencies in an effort to establish a wetlands mitigation bank to offset impacts on wetlands from public works projects. If a mitigation bank is established, the County should set policy regarding the possible participation of private developers in using, and recovering the cost of, this resource.

TRANSPORTATION

POLICIES:

Circulation

1. Douglas County should reduce County Road access to Highway 101 through the platted portion of Winchester Bay in order to improve traffic safety. Highway 101 access should be reduced to the following locations: 8th and 9th Streets on the highway's west side; 9th Street on the highway's east side (see Map No. 10). In closing the other access points, consideration should be given to the need to retain emergency service access in necessary locations.

2. The County should realign the intersections of 8th and 9th Streets with Highway 101 for safer access. Design of these projects should include planning for amenities which will identify and enhance these intersections as the gateways to Salmon Harbor. Two land parcels

   should be considered for public acquisition in undertaking these projects. These are identified on Map No. 10.

3. Beach Boulevard and 8th Street shall be classified as Minor Collectors. (Presently, Salmon Harbor Drive, including 9th Street, is classified as a Major Collector and Highway 101 is classified as a Principal Highway.) (Revised 8/13/97)

4. Douglas County should develop a Local Street System Plan for Winchester Bay. In this process, the Planning Department, Public Works Department, and Salmon Harbor Management Committee should cooperate in a parking and road plan for possible redesign of these facilities in the east harbor and middle peninsula areas. As part of this effort, consideration should be given to traffic circulation and parking in the northeast spit area. The appropriate agencies should consider, as part of this effort, the potential for public street parking in the platted areas of Winchester Bay; in particular, 8th Street and Broadway. Consideration should also be given to bike lanes, sidewalks, and other amenities as part of the overall Local Street System plan. (Revised 8/13/97)

5. The County should continue working closely with the Oregon Department of Transportation in planning for development of properties to the east along Highway 101 to be consistent with highway access hazard limitations. Regardless of land use designation, uses of these lands will be determined largely by highway access safety considerations. The development potential of lands abutting the south side of the highway is largely contingent upon development of a frontage road or common access points. The development potential of lands abutting the north side of the highway, including large areas of hillside and some bottomland areas, is subject to ODOT approval for common access permits. The number of access points should be minimized. Access points should be directly aligned with access on the opposite side of the highway whenever possible.

6. Douglas County should work with, and solicit the help of, the Oregon Department of Transportation in an effort to beautify the Highway 101 corridor through Winchester Bay and improve highway safety. ODOT should consider development of the corridor using a Parkway concept. Consideration should be given to the need for turn lanes, sidewalks, bike lanes and planting strips. Existing individual highway access permits from private properties should be renegotiated and diverted to common access points and, where possible, to County Road access points.

Relocation of Ork Rock Road

7. In order to provide adequate land area for existing and additional water-dependent and water-related uses along the east shore of the middle peninsula of Salmon Harbor, the County should relocate a portion of Ork Rock Road to the middle of the peninsula as illustrated by Map No. 10. Relocation of this portion of road may occur in phases as the need for these shorelands arises.

Bicycle Transportation

8. Bicycle lanes along Salmon Harbor Drive and Beach Boulevard should be installed to facilitate use of this mode of transportation.

LAND USE

POLICIES:

General

1. All new development in the platted area of Winchester Bay located on blocks west of Broadway Avenue and which are south of 5th Street and north of 9th Street shall be less than 25 feet in height to ensure view protection for all properties in this area of Winchester Bay.

Residential

2. Limit residential development in hazard areas to low densities with appropriate safeguards and, where feasible, encourage development patterns on individual lots which comply with standards for identified hazard areas.

    a. To fulfill this policy, in 2008 the Design Review Overlay was applied on a 4± acre portion of an 8.18± acre parcel on Lighthouse Road described as Tax Lot 1500 in Section 13BA of T22S, R13W, as a policy implementation statement to require that:

        (1) development in the RHD designation is limited to no more than fifty (50), single-family dwelling units;

(2) development impacts on the jurisdictional wetlands present on the subject property will be mitigated; and

(3) Construction, including structural fills, erosion control, drainage management, foundation design, public utility connections, and vegetation preservation, will follow the guidelines of the geotechnical reports submitted by the applicant, and will occur under the supervision of a geotechnical engineer.

3. When it becomes necessary to expand the Winchester Bay Urban Service Boundary, first consideration shall be given to allowing development in the area of Cornwall Point.

Commercial

4. Future Tourist Commercial uses should be located along Highway 101 and Beach Boulevard.

5. Variance to the off-street parking requirements for Community and Tourist Commercial uses adjacent to 8th Street and Beach Boulevard should be considered favorable due to the proximity and adequacy of the existing parking facilities located on Beach Boulevard.

6. Future Water Related Commercial Shorelands uses should be located in Salmon Harbor and water related and dependent uses encouraged in that area.

7. Upon establishment of a 100 year floodplain in the Winchester Creek area, development within the designated floodplain shall be consistent with the floodplain overlay requirements of Douglas County's Land Use and Development Ordinance. Until such time that a 100 year floodplain is established, care should be taken to ensure that development is located in a manner that will not result in property damage or create safety hazards.

Water-Oriented Tourist Commercial (WOCT)

8. Uses which are permitted in the WOCT designation shall be limited to selected uses which make use of waterfront amenities for the enjoyment of the tourist and recreation public. The type of use and site design should harmonize with the intended character of the waterfront area. The uses may include water-oriented restaurants and cafes, gift shops, art galleries, and museums. Lodging facilities shall not be permitted within this designation. (Tourist lodging is provided for in the Tourist Commercial (CT) and proposed Water-Oriented Commercial Recreation (WOCR) designations.)

9. The size of individual uses in the WOCT designation should be small in order to provide for optimum diversity in the limited space, reduce parking needs, conserve harbor views from the second story of buildings on adjacent private lands, and cause minimum impacts on the visual character of the waterfront area. Building heights shall be limited to one story. (Revised 2/16/94)

10. Uses within the WOCT designation shall be designed to provide public entrance from the waterfront side of the building, and provide a view in the waterfront direction. Public access along the waterfront between the building and the water shall be provided.

11. The west end of the southeast spit shall be reserved for uses within this classification which maximize the advantage provided by the site's view opportunities and water-orientation, such as a restaurant or other use which people typically patronize because of the view and water orientation.

12. The development of uses in this classification shall not preclude opportunities for water access along the associated waterfront.

13. Lease rates for the Salmon Harbor shoreland areas should be established by the Salmon Harbor Management Committee according to the market values of waterfront properties in order to retain the values of proximate private lands and encourage their development for designated uses.

Water-Oriented Commercial Recreation (WOCR)

14. Uses in the (WOCR) designation shall generally be limited to tourist lodging and restaurant facilities which make use of waterfront amenities for the enjoyment of the tourist and recreations public. The use and site design should harmonize with the intended character of the waterfront area.

15. Uses within this designation shall be designed to provide maximum view opportunities and public access to the waterfront.

16. A 20 acre site on the west peninsula designated WOCR shall be reserved for a convention center which may include recreation facilities, meeting rooms, lodging and restaurant facilities.

17. Portions of the convention center site, which front the west boat basin and are suitable for water dependent uses, shall be reserved as open space, water-dependent or water-related uses associated with convention center development. Development of the convention center shall not preclude opportunities for water access.

Industrial

18. Future industrial development of properties along Highway 101 should provide visual buffer between such uses and that major scenic transportation route.

Public Designation over Harbor Shorelands

19. Uses and activities on shorelands designated "Public" shall comply with Goal 17 requirements. The shorelands overlay zone shall be placed on all shorelands that are designated Public Reserve.

DOUGLAS COUNTY COMPREHENSIVE PLAN

The Douglas County Comprehensive Plan was prepared for the Douglas County Board of Commissioners under the guidance of the Planning Commission. The Committee for Citizen Involvement, Planning Advisory Committees, agencies and interested citizens participated in the planning process through provision of data, review and comments.

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Brian Parkinson, Planning Commission Representative

Contained within this document are textual summaries, findings and policies from each of the following Plan Elements:

Citizen Involvement
Forest
Agriculture and Rural Lands
Water Resources
Air, Noise and Land Resources Quality
Natural Features
Cultural and Historic Resources
Energy
Parks and Recreation
Population
Economic
Housing
Transportation
Public Facilities
Land Use Element
Land Use Maps

Prepared by the Douglas County Planning Department
Keith L. Cubic, Planning Director