

# Deschutes County Comprehensive Plan

## Chapter 1: Comprehensive Planning

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# Introduction

## Background

A comprehensive plan contains the general, long range goals and policies that provide the framework for more specific County land use regulations and decisions. Deschutes County's first comprehensive plan, *Comprehensive Plan to 1990*, was adopted in June of 1970. In response to changes in state planning law, a new plan was adopted in 1979, *Deschutes County Year 2000 Comprehensive Plan* (Comprehensive Plan). In 1981, this plan was acknowledged by the Oregon Land Conservation and Development Commission as being in compliance with Statewide Planning Goals.

Over time the plan has been amended, with changes initiated by the State, local policy makers and property owners. Periodic Review, a state initiated update process, was initiated in 1988 and completed in 2003. Periodic Review included major additions and amendments to the plan that were intended to keep the plan current with evolving State planning regulations. In 2000, as part of periodic review, the plan was codified as Title 23 in the Deschutes County Code.

As of 2008, the additions, amendments and codification of the plan have led to a document that is no longer cohesive or user friendly. Much of the information in the text is outdated and the plan chapters are not uniformly formatted. In response, the plan is being edited and reformatted for clarity. Note that this editing will not make any changes to the Plan's goals and policies, which were written based on a broad public involvement program that included extensive data collection and analysis. The goals and policies represent the community's vision for development and conservation in the County and before they can be amended the County would need to initiate another widespread community discussion.

The Comprehensive Plan document undergoing format revision is just one part of the total plan. Also important are the *Deschutes County Comprehensive Plan Resource Element* (Resource Element) and the Deschutes County Comprehensive Plan Map (Map). The Resource Element was also adopted in 1979 and provides the background information on the goals and policies. It contains extensive data about the people, places and natural resources in Deschutes County. The Resource Element has been amended over time by the addition of separate documents, such as the *Geothermal Element* (January 1985) and the *Deschutes County/City of Bend River Study* (April 1986), as well as by amendments to the primary document itself. The Map is the on-the-ground interpretation of the goals and policies and is the basis for county zoning designations. The Map has also been amended over time.

## Purpose

The purpose of the Deschutes County Comprehensive Plan is to provide general guidance on land use decisions, in order to promote the greatest land use efficiency and equity. The preparation of this plan responded to a statewide comprehensive planning initiative that was developed to provide an open and objective land use decision making process. The plan was intended to respond to the dramatic growth and change the County was experiencing that was putting pressure on the land as well as on the economic, social and governmental structures.

## Process

Many State requirements for comprehensive planning originated in Oregon land use laws passed in the early 1970s. Those laws created the Land Conservation and Development Commission (LCDDC), which was given the responsibility for regulating Oregon's statewide land use program. That agency developed a set of Statewide Planning Goals and required all local jurisdictions to prepare and maintain comprehensive plans and implementing regulations that were in compliance with those goals.

The comprehensive planning process developed by LCDDC provided for the gathering of information, the prudent review of alternatives and the development of reasonable policies based on background information and public input. Consideration of the sociological, economic and environmental consequences of alternative actions was required.

For Deschutes County, the process of creating a comprehensive plan was oriented not towards ending growth, but rather toward guiding growth for the general welfare of the public. The planning process included identifying a land use plan, but also recognized that planning can include issues beyond the physical use of land. Factors other than those of a strictly local nature were considered, because the plan was intended to serve not only as an internal guide, but also as a way of relating to the larger society.

## Community Involvement

In Deschutes County, as well as throughout the State of Oregon, there is a strong commitment to citizen participation in the planning process. This is consistent not only with state regulations, but also with standard planning practice and common sense, because citizen involvement improves the quality of the plan and ensures greater acceptance of the final document since it is the direct product of the people's involvement.

When the Comprehensive Plan was written, Deschutes County's citizen involvement program involved hundreds of participants representing the

various geographic areas and range of interests in the county. Thousands of hours were spent by citizens in the preparation of the plan. Many of the issues discussed were controversial and remain that way today. Public involvement continues to be an important tool to ensure the plan meets the needs of the greater community.

## Plan Objective

The 1979 Comprehensive Plan reflects the needs and desires of the people at the time it was written. Amendments have been made to ensure the plan continues to reflect community interests. Yet, the basic intent of the plan has not changed significantly. From the beginning the plan acted to protect the important resources identified by the community, such as agriculture, wildlife and forest lands.

A comprehensive plan must be a compromise between the need for protecting existing resources and the demand to accommodate a growing population. Intermixed in this process is the complexity of individual rights and public welfare. This plan attempts to reflect the interests of the community, to guide growth in the most equitable and efficient manner and to be flexible enough to accommodate changing circumstances.

# Background Data

Before a plan can be prepared for a community, background data must be collected and analyzed. This includes information on the natural and man-made environments and the trends that are shaping change. Further, it is important to an understanding of the problems and issues facing the area. The background data for this plan is, for the most part, located in the Resource Element. In fact, there has been considerable change in the County since this plan was written in the late 1970s and the data collected at that time is largely outdated. The section below includes the one piece of data that has been officially updated, the population forecast.

## Population Growth and Projections:

The population of the County has increased significantly since the adoption of the comprehensive plan in 1979.

**Population Growth in Deschutes County: 1980 to 2000**

	1980	1990	2000
<i>July 1 estimates*</i>	62,500	75,600	116,600
<i>April 1 census counts**</i>	62,142	74,958	115,367

Source: \* Population Research Center \*\* U.S. Census Bureau

ORS 195.025(1) requires counties to coordinate local plans and population forecasts. In 1996, Bend, Redmond, Sisters and the County reviewed the most recent population forecasts from the Portland State University Population Research Center and U.S. Census, the Department of Transportation, Woods and Poole, the Bonneville Power Administration and the State Department of Administrative Services Office of Economic Analysis. After review of these projections, the cities and Deschutes County agreed on a coordinated population forecast with the County adopting Ordinance 98-084 in 1998.

The results of the 2000 decennial census and subsequent population estimates prepared by the Population Research Center (PRC) at Portland State University revealed that the respective populations of the County and its incorporated cities were growing faster than contemplated under the 1998 coordinated forecast. The cities and the County engaged in a coordination process between 2002 and 2004 that culminated with the County adopting a revised population forecast that projected population for the cities and the County to the year 2025. The following table displays the 2004 coordinated population forecast for Deschutes County and the urban growth boundaries of the cities of Bend, Redmond, and Sisters from 2000 to 2025:

**2000-2025 Coordinated Population Forecast**

<i>Year</i>	<i>Bend UGB</i>	<i>Redmond UGB</i>	<i>Sisters UGB</i>	<i>Unincorporated County</i>	<i>Total County</i>
2000	52,800	15,505	975	47,320	116,600
2005	69,004	19,249	1,768	53,032	143,053
2010	81,155	23,897	2,306	59,127	166,572
2015	91,158	29,667	2,694	65,924	189,443
2020	100,646	36,831	3,166	73,502	214,145
2025	109,389	45,724	3,747	81,951	240,811

Source: Deschutes County Coordinated Population Forecast 2000-2025

The process through which the County and the cities coordinated to develop the 2000-2025 coordinated forecast is outlined in the report titled "Deschutes County Coordinated Population Forecast 2000-2025: Findings in Support of Forecast," dated August 25, 2004 and incorporated herein by reference. The following table displays the 2004 numbers compared to those adopted with the 1979 Comprehensive Plan and the 1998 coordinated population forecast.

**Deschutes County Population Forecasts from 1979, 1998, and 2004**

<i>Year</i>	<i>1979 Forecast*</i>	<i>1998 Forecast**</i>	<i>2004 Forecast***</i>
1980	53,400	-	-
1985	66,600	-	-
1990	82,900	74,958	-
1995	103,400	94,100	-
2000	128,200	113,231	116,600
2005	-	132,239	143,053
2010	-	151,431	166,572
2015	-	167,911	189,443
2020	-	182,353	214,145
2025	-	-	240,811

Source: \*Deschutes County 1979 Comprehensive Plan, \*\*1998 coordinated population forecast, \*\*\*2004 coordinated population forecast

# Comprehensive Planning Process

## Citizen Involvement in the Planning Process

To prepare a comprehensive plan, it is necessary to have an organizational structure which outlines tasks and assigns responsibilities within the bounds set by the available resources and the applicable State laws. In the preparation of this plan, Deschutes County chose to develop a structure that relied upon citizen involvement and initiative.

Citizen participation in land use planning started in Deschutes County in 1968. This was reinforced by the passage of Senate Bill 100 in 1973, which made citizen involvement in planning mandatory throughout Oregon. Under that bill, local governments were required to develop, publicize and adopt a citizen involvement program containing the following:

- Provision for widespread citizen involvement;
- Assurance of effective two-way communication with citizens;
- Provision of opportunities for citizens to be involved in all phases of the planning process;
- Assurance that technical information is available in an understandable form;
- Assurance that citizens will receive a response from policy makers;
- Assurance that there will be funding for the citizen involvement process.

The program must provide for a citizen advisory committee broadly representative of geographic areas and interests relating to land use. Further, the law requires that federal, state and local agencies, as well as special districts, coordinate their planning efforts and make use of existing citizen involvement programs.

The Deschutes County citizen involvement program experienced a dramatic expansion during the 1970s. The planning process for preparing this comprehensive plan was largely based upon citizens participation, agency involvement and both local and outside professional analysis. The extensive participation ensured consistency with the State Planning Goals.

## 1979 Comprehensive Plan Process

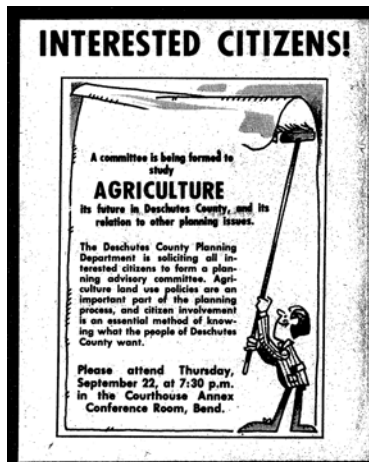
The public involvement program began with a well-publicized educational meeting at a community college to acquaint Deschutes County residents with citizen involvement in land use planning and the upcoming opportunities for participation. One hundred and fifty persons attended a slide show on the statewide planning goals, heard an explanation of the program, filled out an

attitude survey (later compiled by college students) and received several handouts. For a month thereafter, people volunteered for advisory committee membership and were accepted without restrictions.

The Board of County Commissioners, as the committee evaluating the citizen involvement program, appointed an Overall Citizens Advisory Committee, as well as 17 technical and area advisory committees. There were a total of 326 officially appointed members with up to 300 additional persons indirectly involved.

The Overall Citizens Advisory Committee (OCAC) was the largest committee and the one most broadly representative of the various interests and areas of the County. Their primary function was to resolve conflicts between the recommendations of the different committees. In addition, they also reviewed committee recommendations to assure they met State goals and guidelines. The OCAC also initiated many of the recommendations regarding development in urbanizing and rural areas of the County, thereby tying together the various elements of the plan. It was their direction to County planning staff which served as the basis for the preliminary plan.

The technical committees functioned as a panel of experts (often including federal, state, local and district agency personnel) and interested citizens. These committees covered the following topics: minerals and aggregates, agriculture, forest lands, fish and wildlife, historic and cultural, economy, transportation, public facilities and services, recreation, housing and energy. The technical committees faced the challenge of an initially weak database as well as a demanding time schedule for plan completion.



Each technical committee was given a general work program to collect information, identify needs and problems and prepare recommendations. Committees met two to four times per month and 10 to 20 times totally. Each group prepared a detailed and factual preliminary report which was then submitted to the Overall Citizens Advisory Committee for comment. Revisions to each report were made and submitted as a final report to the OCAC and



Planning staff. Their detailed reports were often used word for word in the preparation of the resource element and preliminary plan.

The area committees involved interested citizens from the three major rural service centers: La Pine, Terrebonne and Tumalo. An attempt was also made to form a Sunriver committee but little interest was expressed by residents of that area. The committees addressed each of the LCDC goals and developed a list of programs, needs and directions for future community growth. Their reports were reviewed by the OCAC in the same manner as the technical reports and eventually incorporated in the preparation of the preliminary plan.

There were also three urban area advisory committees appointed to work with each city planning staff in order to prepare urban area plans for each municipality and its surrounding urbanizing area. While the Bend Urban Area Plan was largely completed by the time the OCAC was formed, Redmond and Sisters planning staff periodically reported to the Overall Citizens Advisory Committee to assure communication and coordination.

County planning staff also contributed, writing several reports to provide information to the OCAC covering geology, geomorphology, soils, areas of special interest, climate, hydrology, history and population. The OCAC also considered this information in its deliberations.

During the citizens' committee stage of the process, over 200 meetings were held and in excess of 10,000 hours of time were spent by volunteers working on the plan. Many steps were taken to provide everyone, whether directly involved in the process or not, with access to up-to-date information on where the plan was heading. More than 5,000 newsletters were mailed to interested citizens and thousands of letters, mailings, posters and flyers were also distributed. Radio, television and newspaper coverage was extensive with the largest local newspaper printing an explanatory article on each of the committees and staff reports.

Once in the preliminary plan stage, the document was brought to the County Planning Commission for review. The preliminary plan was available to the community from a variety of sources. A newspaper supplement describing the major elements of the plan was placed in the major newspaper in Deschutes County and the local news media were very cooperative in disseminating information. Copies of the plan were placed in local libraries and made available to everyone interested. The Planning staff also spoke to various groups in the community. The Planning Commission held a number of hearings on the preliminary plan and then provided recommendations to the Board of County Commissioners.

The County Commissioners also held hearings on the plan. These hearings generated large turnouts and spirited testimony. Using public testimony (both written and verbal) and the recommendations of the Planning Commission and staff, the Board compiled a working draft of the Comprehensive Plan. This

working draft was then sent to outside legal and planning consultants for review and comment. Earlier, the preliminary plan had been given to an outside reviewer to determine the adequacy of the energy elements of the plan. All these reports were then delivered to the Board of County Commissioners. Their determination was that the Planning staff should take additional time to use these studies to improve the plan where necessary.

A new draft was then taken to the Overall Citizens Advisory Committee and Planning Commission for comment, before the Board took any final action. The Board also determined that an additional public hearing would be held to hear testimony on planned exceptions to be taken to agricultural and forest land planning goals.

The use of such an extensive citizen involvement program, as well as the utilization of specific professional assistance, was a complex but extremely useful combination. The preparation of the plan was not only completed more rapidly, but the quality of the overall document was significantly improved. It was expected that this would produce a document that would effectively serve as a basis upon which to build land use regulations for the people of Deschutes County.

## Future Growth

Choosing a course into the future is a difficult task. In 1979 to assist in understanding the consequences of the local decisions being made, a number of different options were considered. First, each of the citizen advisory committees reviewed and discussed a variety of different policies, each with varying impacts, and chose the recommendations most likely to achieve the desired result. After their deliberations, the policies were sent on to the Overall Citizens' Advisory Committee, where decisions had to be made about tying the various elements of the plan together into a cohesive document. To tie the parts of the plan together required shaping a consistent philosophy and direction for future development in Deschutes County.

In determining a direction for growth, it is important to first understand how much growth is expected. This can be found through an examination of current and projected population. The following two tables represent the population and housing forecasts forecast adopted with the Comprehensive Plan in 1979.

The decision which had to be reached was what population projection to use in preparing for the future. The Portland State University Center for Population Research and Census (CPRC, now called the Population Research Center) prepared a population estimate indicating Deschutes County would grow at an approximate rate of 2.8 percent annually. A study by the Economic Citizen Advisory Committee (CAC) indicated the present growth rate (1970-77) was 6.3 percent annually. The committees felt that CPRC's estimate was not adequate and should not be used since the present growth rate would exceed

the actual growth because of economic fluctuations and a declining percentage gain near the end of the planning period (Planning Period = 1979 to the year 2000). The preferred alternative was a 4.5 percent annual growth rate which would yield 128,200 people in Deschutes County by the year 2000.

**1979 Deschutes County Population Projections**

	<i>PSU* 2.8%</i>	<i>Present Rate** 6.3%</i>	<i>Preferred Rate*** 4.5%</i>
<i>1980</i>	50,500	56,324	53,400
<i>1985</i>	56,700	76,298	66,600
<i>1990</i>	60,700	103,557	82,900
<i>1995</i>	63,900	140,554	103,400
<i>2000</i>	65,700	190,770	128,200

Source: \* Portland State University, \*\* Economic Citizen Action Committee research \*\*\* Economic Citizen Action Committee chosen alternative

Recognizing the need for a single target population and in light of the Economic CAC's research and expertise, the 4.5 percent annual growth was chosen as the "best guess" option and the one to be used in the preparation of comprehensive plans in Deschutes County. Ultimately, this resulted in allocations of population to different parts of the County with the Bend Urban Area receiving 84,000, the Redmond Urban Area obtaining 23,093, the Sisters Urban Area having 2,135, and the unincorporated areas of the County receiving 18,972.

Once the population figure was chosen, it was possible to determine housing needs to the year 2000 by making some assumptions about household size and rehabilitation. (Note: as of 2008 the assumptions behind this table are not known.)

**1979 New Housing Units**

<i>1980</i>	3,185
<i>1985</i>	6,339
<i>1990</i>	7,740
<i>1995</i>	9,669
<i>2000</i>	11,753
	38,682

The question still remaining was how to allocate this new population and housing throughout the County. Several different alternatives were directly and indirectly discussed by members of the OCAC.

Underlying all of the alternatives were a number of basic assumptions:

- LCDC will require some protection and coordination.
- Energy will become increasingly expensive and relatively more scarce.
- Much of the area's growth is tied to amenities.
- Federal agencies will continue to use public lands for multiple uses.

## Future Growth Alternatives

### **Alternative One - Current Trends**

*Land Uses:* Continue with the present trends without modification of the dispersed housing pattern that was developing in Deschutes County. Anticipate that most people would live in the urban areas but that many would choose to reside in rural areas. Recognize that much of the agricultural and forest lands of the County would be lost or replaced by hobby farms. Expect a less than stringent enforcement of regulations to protect unique historic and environmental areas.

*Environmental:* Anticipate the loss of additional scenic and natural amenities. Recognize that deer winter ranges would likely be developed and the wildlife lost. Prepare for increasing problems with air and water quality.

*Social and Economic:* Continue the strong economic growth of the area, particularly in the service, trade and construction industries. Expect more cultural amenities. Anticipate increasing social problems such as crime.

*Public Services and Facilities:* Expect to see an expanding road system and a growing demand for other public services. Recognize that these services will continue to lag behind demand, requiring taxes to rise rapidly to provide necessary services.

*Other:* While there will be some improvement in land use controls and increasing city and county cooperation there is likely to be continued state review and occasional intervention. Ultimately, population increases are expected to decline as the environmental amenities of the area degrade.

### **Alternative Two - Unrestricted Development**

*Land Uses:* Greater amount of urban sprawl from all growth centers. In addition, rural sprawl also occurs in the vicinity of the Rural Service Centers as they rapidly develop. Some protection is given to the most dramatic and publicly supported historic and environmental sites. Agriculture ceases to exist as a viable industry.

*Environmental:* Moderate to severe pollution problems in parts of the County ultimately require some areas to be mandated to install expensive centralized sewer and water facilities. The growing development on private lands interspersed within the public lands severely reduce the beauty and usefulness of the public lands.

*Social and Economic:* Continued high employment, particularly in construction, for the next 10 to 15 years with the development ultimately resulting in a loss of amenities which sharply reduce unemployment in the non-manufacturing

industries. Cultural amenities increase in conjunction with the population, but there are serious social dislocations resulting from the inequitable tax burdens created by the growth and loss of esthetics.

*Public Facilities and Services:* Serious problems with providing adequate services, resulting in higher taxes and public dissatisfaction. Recreation demands continue to grow and demand expands rapidly as the formerly available outdoor areas become fragmented due to development. Finally an expensive mass transit system must be constructed to bring people into the urban centers as gasoline prices continue to climb.

*Other:* Energy costs locally continue to increase finally leading to some outward migration. There is little effective coordination or local authority to control unnecessary subdivision and construction. Increasingly, the State intercedes in Deschutes County to assure State interests and public welfare are protected.

### **Alternative Three – Strict Growth Controls**

*Land Uses:* No further residential, commercial or industrial construction is permitted in rural areas and ultimately the rural population begins to decline. Urban areas grow rapidly but the restrictiveness of the regulations result in a slower growth rate. Historic and environmental sites receive strict protection. Increasingly, apartments and higher densities are common.

*Environmental:* Pollution levels rise only slightly and the natural amenities are protected. Public lands receive heavy use but are protected from the more serious effects of development.

*Social and Economic:* Housing and land costs rise rapidly because of the relative shortage of buildable land. Lower and middle-income families find themselves effectively excluded from the community. Cultural amenities rise. Employment suffers to some extent and many of the higher paying construction jobs are replaced by lower paying service employment. This situation leads to considerable social and economic dissatisfaction.

*Public Facilities and Services:* Few new roads are constructed and an emphasis on alternative transportation methods provides effective transit and freight movement. Public facilities, such as sewer and water, catch up and keep pace but may be more expensive due to a reduced tax base.

*Other:* Energy costs are down. There is considerable concern over government regulations, such as zoning and environmental controls, as well as mandated local government coordination.

## **Alternative Four – The Chosen Alternative**

After considering the various alternatives available, the citizens chose a compromise between current trends and strict growth control. The emphasis was on restricting sprawl and protecting resources while accommodating new population in adequately large urban boundaries and Rural Service Centers.

*Land Uses:* Major growth occurs in urban areas of the County. Rural development is largely restricted to rural service centers and on existing rural lots. An active housing program seeks to offset the costs created by the regulations. Some hobby farming occurs and the existing agriculture and forest areas are protected.

*Environmental:* Wildlife and vegetative areas particularly vulnerable to damage are protected from excessive development. Pollution increases are small. Public lands continue to be adequate to meet the demand. There is some loss of visual amenities but it is minimal.

*Social and Economic:* Taxes increase but not so rapidly as in the other alternatives because a more efficient growth pattern exists as does a growing tax base. Jobs continue to increase with some shift from construction to services. Manufacturing grows, but not as rapidly as the commercial sector. Cultural amenities continue to increase.

*Public Facilities and Services:* Few new roads are constructed and a greater emphasis on transit alternatives reduces automobile use. Energy costs rise but within the capabilities of area residents. Most public facilities catch up with the growth and provide adequate services.

*Other:* Continuing controversy over how much land use control to use, but general acceptance of local ordinances and minimal state intervention. Coordination is mandated and controls are strict but oriented to achieving a specified result rather than being a routine and/or arbitrary mechanism.

The process by which the final alternative was chosen was not a smooth one. Many meetings were required and the alternatives listed here are more clear than those discussed by the committees. Yet, as the process continued, it became increasingly apparent that people generally wanted to see growth guided but not stopped. The exceptions were where development was proceeding too rapidly or where important natural or cultural resources needed protection. People were convinced that the inefficient sprawled pattern of development needed to be curtailed to restrict additional subdivisions while permitting existing development. To do that, the philosophy of Alternative Four was used as the framework for the goals and policies that are contained within this plan.

# Comprehensive Plan Summary

The plan alternative chosen for Deschutes County was one which emphasized accommodating anticipated growth primarily in the urban areas, with some rural development taking place in Rural Service Centers (now unincorporated communities) and in existing subdivisions. This pattern was intended to provide greater efficiency in the provision of public services and to foster energy savings, particularly in transportation. This development model was also intended to protect scarce resources, while permitting compatible improvements. The plan goals and policies summarized below were written to support the chosen development model. These goals and policies must be read as a whole, since the County will grow as a single unit not in separate pieces or aspects.

As part of the 2008 Comprehensive Plan tune-up, this section has been updated. The 1979 summaries have been labeled and retained, while each chapter has an added section, labeled 2008, that identifies significant changes to the chapter goals and policies. Additionally, summaries have been added for the goals and policies in chapters added since this plan was adopted. These summaries have been structured to match the reorganization of the plan.

## Citizen Involvement

*1979:* The Citizen Involvement section of this plan shows that planning is a dynamic process and one that does not stop with its initial adoption. More study to keep the plan functional and up-to-date will be required. The County's efforts will continue to be aimed at involving the public, in meaningful ways, with the preparation of future plans and studies. There is also an emphasis on explaining land use planning, its purposes and techniques, so that it will be better understood and more usable by county residents.

*2008:* No goal or policy changes.

## Agriculture

*1979:* Agriculture has been one of the more controversial resource chapters. The policies in this plan seek to protect identified agricultural land, while recognizing that marginal agricultural conditions are present in some areas. Some hobby farming is permitted in the more marginal areas so as to increase agricultural productivity, while a program to research local marginal lands and determine how they may be utilized while agricultural production is preserved, is mandated for future updates of the plan.

2008: The policies in this section were changed considerably after a 1992 study of County agriculture that defined 7 agricultural sub-zones representing distinct agricultural groupings. These subzones use the number of irrigated acres per farm unit as the principal standard for defining what size of tract constitutes a commercial farm parcel.

## Forest Lands

1979: Forest Land designations seek to protect existing areas with timber capability, while permitting compatible development on non-productive lands that foster other aspects of the local economy. The loss of much of La Pine to development is recognized (see Exceptions Statement) but in those areas where larger lots exist, small woodlot management is encouraged and commercial timber is protected where it remains feasible (primarily the national forest and commercial timber tracts).

2008: In 1992 the County updated this section in response to a Department of Land Conservation and Development administrative rule setting criteria for allowed uses, siting conditions and minimum lot sizes in forest zones. The policies were rewritten to comply with the new rules and the F-3 zone was subsequently eliminated.

## Open Spaces

1979: The local economy and environment are very dependent on the protection of scenic and natural areas. Because of that, the Open Spaces chapter identifies the policies required to protect those resources for area tourism, recreation and quality of life, while recognizing the appropriateness of flexibility when dealing with individual property owners.

2008: The major policy changes in this chapter are that a landscape management area study has been completed and additional lands have been added to the 1979 proposal. Also as proposed in the 1979 plan, development restrictions were added for rimrocks along streams and waterways.

## Fish and Wildlife

1979: Fish and Wildlife seeks to balance wildlife needs of the area against the needs of a growing population. Important economic and lifestyle qualities are recognized and irreplaceable wildlife areas protected, while conditions that permit limited development are identified.

2008: This chapter was updated during periodic review in the early 1990s. Tables were added listing an existing wildlife inventory. A new goal was added



promoting the maintenance of wildlife diversity and habitat. Policies were strengthened and expanded.

## Water Resources

*1979:* Water is the resource without which there will be no future growth in Deschutes County. Preservation of existing water quality and greater efficiency in delivering available water supplies is being sought. New and existing residents will need all the water that is presently identified. Agriculture, new employment opportunities and maintenance of the tourism/ recreation industry all require water. This plan seeks to improve coordination and planning for water resources.

*2008:* No goal or policy changes.

## Energy

*1979:* The Energy section emphasizes more local independence in providing energy, protection of future energy resources and better coordination with energy providers. Information and education about energy and local opportunities are stressed. As the population continues to grow and because of the importance of tourism, energy will play an ever more dominate role in local planning efforts. These policies seek to emphasize the need for greater efficiency in development patterns and construction, while surveying available options.

*2008:* The current plan includes stronger, more detailed policies on the use of geothermal resources. It also has a policy encouraging the County to incorporate energy efficiency and the use of renewable resources into all operations. There has been a change to the recycling policy to reflect the implementation of a recycling plan that did not exist in 1979. Finally, a policy has been added that requires the County to encourage conservation throughout the region.

## Surface Mining

*1979:* The Surface Mining chapter seeks to preserve known mining resource sites for ultimate mining activity and to permit mining as needed in the County. There is also recognition of the County's responsibility to protect adjoining residents (safety and health hazards) and the general public (excessive construction costs and hazards created by a shortage of building materials as well as loss of scenic qualities and pollution).

*2008:* The policies in this chapter are all new and include policies tied to the Goal 5 analysis process. The current policies echo concerns noted above but

have stronger environmental protections. A list of existing mineral and aggregate sites has also been added.

## Historic and Cultural

*1979:* One of the most non-controversial chapters is Historic and Cultural, which seeks to protect the ever dwindling supply of historic and cultural sites.

*2008:* No significant goals and policies changes.

## Rural Development

*1979:* This section serves as the basis for the rest of the plan. Basic guidelines are included to do away with the former inefficient development pattern and to accommodate the anticipated 7,050 new rural residents. Emphasis is placed on maintaining the existing rural character of the county, while acknowledging that Deschutes County is becoming more urban, for example, by concentrating new rural development in Rural Service Centers. In that way people desiring a rural lifestyle may do so without unduly increasing the costs to others or utilizing resource lands. The only exception to this rural pattern is in the La Pine area where emphasis is placed on the incorporation of the community and improvements in local services. The La Pine rural area is also likely to receive many of the over 3,000 new rural homes which will be built, because so many lots already exist in that area.

*2008:* A number of minor changes have been made to the Rural Development goals and policies regarding cluster development. Additionally, new standards have been defined for locating destination resorts on specified farm lands. A major change in the Rural Development chapter is that the Rural Service Center policies (and maps) have all been updated and moved to a new section on Unincorporated Communities. Finally note that La Pine, previously an Unincorporated Community, incorporated in November of 2006. As of this writing they are still using County land use regulations, under an intergovernmental agreement. This will continue until they are able to write their own comprehensive plan and zoning codes.

## Natural Hazards

*1979:* The Natural Hazards chapter seeks to guide development away from identified hazards, such as wildfire, while allowing some use of areas that need to be protected from development. The protection of the 100-year flood plain is an example of an area where development shall be prohibited but wildlife and recreation opportunities will be fostered.

2008: The current plan includes stronger more detailed policies regarding flooding, including the completion of a Federal Emergency Management Act approved Hazard Mitigation Plan.

## Public Facilities and Services

1979: To accommodate existing and future populations and land uses the Public Facilities and Services chapter provides basic guidelines for the construction of new facilities, while fostering urban rather than rural development.

2008: No significant goal or policy changes.

## Transportation

1979: The Transportation chapter seeks to aid movement of people and goods between communities, and to improve the ability of the communities to efficiently deal with new residential, commercial and industrial uses. Greater public safety is promoted, as is preparation of a shift from automobile dependence to public transit and other transportation alternatives.

2008: The Transportation and Transportation System Plan chapters in the plan have been combined into one chapter. The Transportation chapter contains goals and policies on all facets of transportation planning. The goals and policies have the aim of moving people and goods effectively and safely.

## Economy

1979: The Economy chapter discusses the need to protect existing timber, agriculture, mining and scenic resources for future prosperity. It also provides policies to help Deschutes County in its metamorphosis from a rural resource economy to a regional employment center, providing between 7,700 and 16,000 new manufacturing jobs and 27,000 to 32,000 new non-manufacturing positions.

2008: No goal or policy changes.

## Recreation

1979: Recreation seeks to accommodate both a growing local population and tourist industry. New facilities and cooperative plans are identified and, while the County seeks to provide primarily a facilitator function, greater commitments to recreation and associated activities are made.

2008: The initial policy recommending a county-wide parks plan has been dropped. Policies have been strengthened regarding the provision of bicycle and pedestrian trails between destinations such as schools and shopping, as well as multi-use recreational trails.

## Housing

1979: Housing emphasizes the need for flexibility in housing styles and costs so as to provide adequate homes for all segments of the community. Also encouraged are programs to help rehabilitate existing homes and to accommodate low and moderate-income families through government programs and reduced development costs.

2008: No goal or policy changes.

## Urbanization

1979: The chapter on Urbanization links this plan to those of the three incorporated communities. It provides parameters for the establishment and expansion of urban boundaries and provides common guidelines to the cities to help them accommodate the 71,450 new residents that will need approximately 35,600 homes and up to 35,000, new jobs. Sufficient land must be allocated and managed to serve these new residents.

2008: Significant changes were made to the Goals and Policies in 2006 in conjunction with the adoption of the Sisters urban Growth Boundary, the Redmond Urban Growth Boundary and the Redmond Urban Reserve Area.

## Chapters Added after 1979

### 1986, Deschutes River Corridor

This chapter provides the County with a role in preserving and revitalizing the Deschutes River Basin. The various goals and policies are aimed at working with government agencies and other interested parties to enhance the river environment for wildlife and recreation.

### 1992, Destination Resorts

Destination resorts are defined in State Planning Goal 8 as a positive economic boost for rural communities. The goals and policies in this chapter encourage the development of destination resorts, in a manner that will be compatible with the rural environment. The policies outline the basic conditions a proposed resort must follow.

## 1997, Unincorporated Communities

This chapter was added during periodic review to address changes in state regulations that defined specific types of unincorporated communities. The new chapter defines four types of unincorporated communities and identifies where in Deschutes County these can be found. There are no goals in this section of the plan, but there are distinct policies for each of these communities to implement the new state rules. The four types and locations are listed below. This chapter also includes policies for rural commercial and rural industrial lands.

- Urban Unincorporated Communities: La Pine, Sunriver
- Rural Communities: Terrebonne, Tumalo
- Rural Service Centers: Wickiup Junction, Alfalfa, Brothers, Hampton, Milliken
- Resort Communities: Black Butte Ranch, Inn of the 7th Mountain/Widgi Creek

## 1998, Regional Problem Solving for South Deschutes County

This chapter was added in response to ground water pollution problems identified in the La Pine area. The goals and policies are worded to protect the environment, especially the water quality, through focusing development into specifically defined areas.

# Use of this Plan

## Implementation

A comprehensive plan provides general guidelines that are implemented through more specific regulations and other related mechanisms. Zoning and subdivision ordinances are the most widely recognized tools, but not the only ones as can be seen from the list below.

*Comprehensive Plan Maps:* Comprehensive plan maps show generally how various uses will be allocated throughout the jurisdiction and serve to implement the goals and policies of the comprehensive plan.

*Zoning Ordinances:* Zoning Ordinances contain a series of categories (land use zones) which specify what uses are allowed within those categories. The uses listed are those felt to be compatible with each other. In addition, a number of conditional uses are usually also included. These activities are allowed only by special permit after conditions have been attached which mitigate the probable impacts associated with the proposed use.

*Subdivision Ordinances:* In Oregon the process of dividing the land into smaller parcels is done within three categories. Minor partitions are the creation of two or three lots, where formerly only one existed, without the establishment of a street or right-of-way. Major partitions create two or three lots with a street or right-of-way. Subdivisions create four or more lots with or without a street or right-of-way. Predictably the requirements become increasingly stringent, from minor partitions to subdivisions. Subdivision regulations establish requirements for public facilities to be provided, allow review of the design to assure the safety and general welfare of the future residents, and permit the requirement of deed restrictions (protective covenants) to enable neighborhoods once established to retain their character. The subdivision ordinance very often will do more to determine the long term character of an area than will the zoning ordinance.

*Planned Developments:* Many jurisdictions offer an opportunity for planned developments (PDs), which allow a less than strict adherence to both zoning and subdivision regulations. These developments are intended to create better overall designs which still meet established policies. They most often occur in places where unusual conditions exist such that a conventional development would not be able to efficiently utilize the site. This may be true because of characteristics such as rock outcrops or because the area contains significant wildlife habitat, agricultural land, unique historical remains, or other resources that must be protected from development.

*Other Ordinances:* In some areas local governments do not establish all their land use restrictions within the zoning ordinance. Floodplain, mobile home,

design review and airport ordinances are often created separately and administered in addition to the requirements of the zoning ordinances. In Deschutes County these regulations were joined into the zoning ordinance to provide ease of access and understanding for the public.

*Capital Improvements Plans:* Capital improvement plans are another method used to implement a comprehensive plan. Capital improvement plans lay out for a defined period how and where streets, sewers, and other public facilities will be constructed. The provision of these services often determines the feasibility of numerous types of community growth patterns.

*Easements:* Conservation easements, or other types of land acquisition less than fee acquisition, are becoming increasingly popular. An easement, lease, or purchase of a certain right can often be obtained from a property owner and thereby a specific use may be prohibited or some special resource protected. The purchase of this easement is less expensive than the purchase of the property, and for certain uses may even be granted without cost to the public.

*Coordination Agreements:* Coordination agreements are another common tool for implementing a plan. Often local governments (cities and counties) have overlapping interests within certain areas, such as urban growth areas, as well as overlaps with other public bodies, such as special districts (i.e., school and irrigation districts) and federal agencies. Establishment of cooperative arrangements reduces the probability of conflicts and assures that all these public agencies are working toward common goals, thereby increasing efficiency and the likelihood of achieving mutual goals.

*Tax Incentives:* Use of tax incentives to promote appropriate use of land is also receiving increased attention. Exclusive Farm Use zoning is an example of this. Land set aside and used for farm use may only be taxed for that farm value, rather than any potential development value. This enables the farmer to better afford remaining on the farm.

*Land Trading:* Another implementation tool is the trading of land. Deschutes County is fortunate to have available County lands which can be traded with private individuals and public agencies to better achieve the goals of the plan.

*Performance Zoning:* Innovative methods are used in some communities which permit greater flexibility while assuring appropriate standards are met. Performance zoning is an example of this type of regulation. With this type of ordinance a zone is established but instead of stating the type of uses that will be permitted, it sets a number of performance standards that must be satisfied. These criteria set limits on pollution, traffic generated, noise, population density, height, etc. The developer is then free to construct any use as long as the performance standards are met. Should the use not comply it will have to be modified or be shut down. Unfortunately, performance zoning requires a relatively large staff using sophisticated equipment if it is to be

successful, and it is therefore used mostly in larger jurisdictions where sufficient budgets exist.

*Administrative Policies:* Not only are there ordinances and plans adopted by official action of the governing body but administrative decision makers, like Planning staff, Hearings Officer, or Planning Commission, often establish criteria for use in reviewing certain applications. These criteria are consistent with existing regulations, plans and policies. They simply serve as a way for assuring equitable treatment of all applicants and that all pertinent issues are addressed.

## **Implementation Plan for Deschutes County**

Deschutes County's implementation program, as specified in this plan, will include at minimum, a combination of zoning, subdivision and other necessary ordinances. Other implementation tools will be used as needed. Efforts will be made to keep planning processes as simple as possible and provide for the expeditious handling of all applications.

## **Plan Flexibility and Updating**

Flexibility in plan administration and regular updating are two ways communities seek to assure that their comprehensive plans continue to accurately reflect local conditions. Flexibility assures that there is some discretion in the application of the plan, providing guidelines, not detailed directions. Updating those guidelines ensures that the plan remains relevant with goals and policies that are current, useful, and reflective of the people's interests.

There are two questions always asked when a new plan is prepared. First, how flexible will the plan be after it is adopted? Second, how will changing conditions be incorporated into the plan?

### **Flexibility**

The answer to the first question is that all land use plans reduce the flexibility with which land may be used. That is, after all, one of the purposes of preparing a plan. However, considerable study is conducted during the preparation of the plan in order to assure that the needs and desires of the community are considered.

In addition, there may be specific instances when, due to the unique character of the question at issue, the policies listed under the goals do not apply. As a result, new regulations may be adopted or exceptions not otherwise granted may be given. Perhaps most importantly, this evaluation and review will occur



in public view and subject to written guidelines so that the process is open and understandable to all interested persons.

## Updating

As for the second question, a comprehensive plan should be updated as needed to assure that the changing character of the people and the land are reflected in appropriate goals and policies. Usually these changes are adjustments to boundaries on the plan map or establishment of new policies.

Since adoption, the Deschutes County Comprehensive Plan has undergone numerous updates. Some of the updates were site specific, such as changes to the listed Surface Mining Sites, while others were more extensive. Since adoption, to address state requirements and local concerns, the County has added the following chapters:

- Preface (incorporated into the Introduction in 2008)
- Unincorporated Communities (broken into separate sections in 2008)
- Regional Problem Solving for South Deschutes County
- Transportation System Plan
- Destination Resorts
- Deschutes River Corridor

## Things Yet to be Done

The completion of a comprehensive plan is never the end of the planning process, there are always things yet to be done. Not only are there issues where insufficient time existed for them to be adequately considered, but entirely new questions are often raised based on an improved understanding of the community. The 1979 plan included a list of projects for the County to work on over the years. However, that list is now outdated and no longer useful in providing future guidance.

# Goal Exceptions

## Introduction

This section of the Comprehensive Plan identifies lands where Deschutes County has requested the Oregon Land Conservation and Development Commission grant an 'exception' to meeting the requirements of the statewide planning goals. The Oregon land use system contains protections for farm and forest resource lands. The exception process is intended to address situations where the protection of those resource lands through the application of the Statewide Planning Goals would not be practical. There are three reasons a local government can use to take an exception: if the land is physically developed, if the land is irrevocably committed to other uses or if the land fits a defined set of 'reasons' criteria.

In 1979 the exceptions were for Goal 3 (Agricultural Lands) or Goal 4 (Forest Land). Cities were not included in the consideration of exception lands because all of the lands within an urban growth boundary are considered urban, non-resource lands. However, it was apparent that many of the rural areas in the County had already received substantial development and were committed to non-resource uses. Rural Service Centers, for example, provided services to rural residents. Since this plan was adopted, additional exceptions have been granted, to Goals 3 and 4 but also to Goal 11 (Public Facilities and Services) and Goal 14 (Urbanization).

## 1979 Exceptions Analysis and Plan

The Comprehensive Plan written in 1979 included county-wide goal exceptions to Goals 3 and 4 as well as an exception for the Bend Airport. The complete text of these exceptions are incorporated herein by reference (PL 20 pg. 160-179).

To determine where an exception to the State goals was required it was first necessary to obtain information on the location of the farm and forest resource lands. To determine which lands were already committed to development, aerial photography at a scale of 2"=1 mile were obtained and used as a base map. Areas of concern not covered by the aerial photography were few and in these instances other maps were obtained.

Land was determined to be committed to residential use, resource use or uncommitted. La Pine, greater Redmond and Bend areas were analyzed and a plan for the exception lands completed. The Rural Service Centers were also analyzed and planned. A total of 41,556 acres were excepted as

residentially developed, committed to development or needed for Rural Service Centers.

In the 1979 exceptions analysis, Deschutes County did not propose large areas for rural development, but rather acknowledged existing development and attempted to seek reasonable ways to deal with those lands. Many areas which had some development, but not enough to justify identification as committed lands, were placed in resource zones which will permit non-resource uses only by conditional use on non-productive sites.

### **Bend Municipal Airport Exception**

An exception to Statewide Planning Goal 3 was taken as part of the 1979 Comprehensive Plan (PL-20) to accommodate the Bend Airport. The Bend Airport Master Plan, as approved by the Federal Aviation Administration, set forth the basic policies relating to the Bend Airport. These policies are on equal footing with other policies within the Deschutes County Comprehensive Plan, and are to be used by the decision makers as they interpret the plan and weigh various alternatives.

The Bend Municipal Airport was determined to be a necessary facility for Deschutes County. Based on the long-standing existence of the Bend airport, an exception for the Airport was not required. However, the Airport's ability to expand needed to be provided for, which led the County to take an exception to Goal 3.

### **La Pine UUC Boundary**

In conjunction with approval of PA 9-7 and ZC 97-4, a plan amendment and zone change for an area of land zoned exclusive farm use and physically developed with the Mid State Electric Co-op, Inc. Facility, exceptions to Statewide Planning Goal 3, Agricultural Land, Goal 11, Public Facilities and Services and Goal 14, Urbanization were taken. The goal exceptions allowed the subject land to be included in the La Pine UUC boundary and planned and zoned for commercial use. Findings to support the goal exceptions for this land are set forth in Exhibit "C" to Ordinance 98-001, incorporated herein by reference.

### **Spring River Rural Service Center**

A reasons exception was taken from Goal 14 to allow for the establishment of the Spring River Rural Service Center on residential-designated lands for which an exception had already been taken from Goals 3 and 4. (note: Spring River as of 2008 is designated Rural Commercial.) The rural service center was approved because the Board of County Commissioners found that it

would primarily serve the needs of the residents of nearby subdivisions, such as Deschutes River Recreational Homesites. Findings to support the reasons exception to Goal 14 were made in Paragraph 7 of the Board of County Commissioners' decision (attached to Ordinances 90-009 and 90-010) and those findings are incorporated by reference herein. Findings to support the reasons exception accompanying Ordinances 96-022 were made on Pages 12 - 18 of the Hearings Officer's findings supporting that decision and those findings are incorporated herein by reference.

To ensure that uses in the rural service center would be limited in a manner to comply with a Goal 14 exception, a limited use combining zone was imposed, by which the allowed uses were limited to a list of specific uses. Those uses are listed in the Rural Service Center section of Chapter 4 of this comprehensive plan and also in the zoning ordinance. Additional uses were added to the Zone by Ordinances 96-022 and 96-045. Findings to support the reasons exception accompanying Ordinance 96-045 were made on pages 12-18 of the Hearings Officer's findings supporting that decision and those findings are incorporated herein by reference.

## Burgess Road and Highway 97

In conjunction with approval of CU-94-44, for the construction of a road improvement project at the intersection of Burgess Road with Highway 97, an exception to Statewide Planning Goal 4, Forest Lands, was taken to allow for the subject road improvement on forest land. Reasons justifying why the state policy embodied in Goal 4 should not apply in this situation are as set forth in Exhibit C to Ordinance 97-060, which findings are incorporated herein by reference.

## Rural Industrial Zone

In conjunction with approval of PA-98-2/ZC-98-1, an "irrevocably committed" exception to Statewide Planning Goal 3, Agricultural Lands, and a reasons exception to Goal 14 was taken to allow for the comprehensive plan and zone change on agricultural land. The plan amendment and zone change will allow a Rural Industrial plan and zoning designation with a Limited Use Combining Zone for the specific use of storage, crushing, processing, sale and distribution of pumice only. Reasons justifying why the state policy embodied in Goal 3 should not apply in this situation are set forth in Exhibit "D" to Ordinance 98-081, which findings are incorporated herein.

## Prineville Railway

In conjunction with approval of PA 97-9/ZC 97-5, an exception to Statewide Planning Goal 3, Agricultural Lands, was taken to allow for the subject

comprehensive plan and zone change on agricultural land. The plan amendment and zone change will accommodate the relocation of the Redmond Railway Depot to the subject property and the use of this site for an historic structure to be utilized in conjunction with the Crooked River Dinner train operation. Reasons justifying why the state policy embodied in Goal 3 should not apply in this situation are set forth in Exhibit "D" to ordinance 98-017, which findings are incorporated herein by reference.

## Resort Communities

In conjunction with approval of PA-98-5 and TA-98-9, an exception to Statewide Planning Goal 4, Forest Lands, was taken for the Black Butte Ranch and The Inn of the Seventh Mountain / Widgi Creek resort communities. These exceptions were taken at the same time that both resorts were designated "Resort Communities" under the State rules for unincorporated communities, OAR 660-022.

A "reasons" exception was taken for Black Butte Ranch (the Ranch) to justify the addition of 80 acres of land to the resort community boundary. A "physically developed" exception was taken for The Inn of the Seventh Mountain/Widgi Creek (the Inn/Widgi) in recognition that this resort is for all practical purposes fully developed.

The 80-acre addition to the Ranch is now zoned as a Surface Mining /Limited Use Combining District (38 acres) and a Utility /Limited Use Combining District (44 acres). The uses allowed are limited to those indicated in the County Zoning Ordinance, DCC 18. Any additional uses will only be allowed if an additional plan amendment (including exceptions findings) and text amendment are approved that justify such uses.

The findings to support these exceptions are set forth in Exhibit "H" to Ordinance No. 2001-047. These findings are incorporated herein by reference. The uses allowed in these communities are set forth in Exhibit "B" to Ordinance No. 2001-048.

## Barclay Meadows Business Park

In conjunction with approval of PA-99-4/ZC-99-1, a "reasons" exception to Statewide Planning Goal 3, Agricultural Lands, was taken to include certain property within the City of Sisters Urban Growth Boundary (UGB). Reasons justifying why the state policy embodied in Goal 3 should not apply in this situation are set forth in Exhibit "C" to Ordinance 2003-010, which findings are incorporated herein by reference.

## Sisters School District #6

In conjunction with approval of PA-99-5/ZC-99-3, a “reasons” exception to Statewide Planning Goal 3, Agricultural Lands, was taken to include certain property within the City of Sisters Urban Growth Boundary (UGB). Reasons justifying why the state policy embodied in Goal 3 should not apply in this situation are set forth in Exhibit “C” to Ordinance 2003-013, which findings are incorporated herein by reference.

## Sisters Organization of Activities and Recreation and Sisters School District #6

In conjunction with approval of PA-01-4/ZC-01-4, a “reasons” exception to Statewide Planning Goal 4, Forest Lands, was taken to include certain property within the City of Sisters Urban Growth Boundary (UGB). Reasons justifying why the state policy embodied in Goal 4 should not apply in this situation are set forth in Exhibit “C” to Ordinance 2003-016, which findings are incorporated herein by reference.

## Oregon Water Wonderland Unit 2 Sewer District

In conjunction with the Board’s approval of County file nos. PA-02-5/ZC-02-3, a “reasons” exception to Statewide Planning Goals 4, Forest Lands, and 11, Public Facilities & Services, was taken for certain property. The plan amendment changed the plan designation to Rural Residential Exception Area and the zone change changed the zoning to Rural Residential with a Limited Use Combing Zone to allow only the uses approved through the Board’s decision on PA-02-5/ZC-02-3. Reasons justifying why the state policies embodied in Goals 4 and 11 should not apply in this situation are set forth in Exhibit “C” to Ordinance 2003-012, which findings are incorporated herein by reference.

## City of Bend Urban Growth Boundary Amendment (Juniper Ridge)

In conjunction with approval of PA-04-2, for the amendment of the City of Bend urban growth boundary to include 513 acres of land for industrial purposes, an exception to Statewide Planning Goal 3, Agriculture, was taken to allow for the subject amendment of the city’s urban growth boundary. Reasons justifying why the state policy embodied in Goal 3 should not apply in this situation are as set forth in Exhibit D to Ordinance 2004-017, which findings are incorporated herein by reference.

## Joyce Coats Revocable Trust Johnson Road and Tumalo Reservoir Road Properties

In conjunction with approval of PA-04-4/ZC-04-2, an “irrevocably committed” exception to Statewide Planning Goal 3, Agricultural Lands was taken to allow for the rezoning of Surface Mine Sites 306 and 307 from Surface Mining (SM) to Multiple Use Agriculture (MUA10) and change of comprehensive plan designation from Surface Mine (SM) to Rural Residential Exception Area (RREA). Additionally, the County determined that Surface Mine Site 306 is non-resource land. Reasons justifying why the state policy embodied in Goal 3 should not apply in this situation are set forth in Exhibit “E” to Ordinance 2005-031, which findings are incorporated herein.

## Watson/Generations Development Inc.

In conjunction with approval of CU-04-97/RC-05-2, an exception to Statewide Planning Goal 3, Agricultural Lands, was taken to include a portion of a certain property zoned Exclusive Farm Use Tumalo/Redmond/Bend Subzone (EFU-TRB). Reason, justifying why the state policy embodied in Goal 3 should not apply in this situation are set forth in Exhibit “B” to Ordinance 2005-015, which findings are incorporated herein by reference.

## Oregon Department of Transportation

In conjunction with approval of CU-04-113, an exception to Statewide Planning Goal 3, Agricultural Lands, was taken to include a portion of a certain property zoned Exclusive Farm Use Tumalo/Redmond/Bend Subzone (EFU-TRB). Reasons justifying why the state policy embodied in Goal 3 should not apply in this situation are set forth in Exhibit “B” to Ordinance 2005-019, which findings are incorporated herein by reference.

## Conklin / Eady Property

In conjunction with approval of PA05-3, an exception to Statewide Planning Goal 3, Agricultural Lands, was taken to include a portion of a certain property zoned Exclusive Farm Use Sisters-Cloverdale (EFU-S/C). Reasons justifying why the state policy embodied in Goal 3 should not apply in this situation are set forth in Exhibit “C” to Ordinance 2005-035, which findings are incorporated herein by reference.

## City of Sisters Property

In conjunction with approval of PA05-3, an exception to Statewide Planning Goal 4, Forests Lands, was taken to include a portion of a certain property zoned Forest 1 (F1). Reasons justifying why the state policy embodied in Goal 4 should not apply in this situation are set forth in Exhibit “C” to Ordinance 2005-037, which findings are incorporated herein by reference.

## McKenize Meadows Property

In conjunction with approval of PA05-3, an exception to Statewide Planning Goal 4, Forests Lands, was taken to include a portion of a certain property zoned Forest 2 (F2). Reasons justifying why the state policy embodied in Goal 4 should not apply in this situation are set forth in Exhibit “C” to Ordinance 2005-039, which findings are incorporated herein by reference.



# Citizen Involvement



## Goals

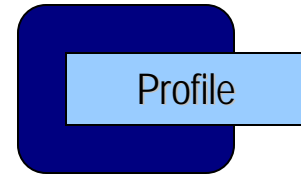
1. To promote and maintain better communication between the community's various segments (i.e., governmental agencies, business groups, special districts and the general public).
2. To provide the opportunity for the public to identify issues of concern and encourage their involvement in planning to address those issues.
3. To serve as a liaison between elected and appointed bodies and citizens of the county.
4. To provide educational opportunities for the people to learn about planning and how it may be used to assist their community and themselves.

## Policies

1. To assure that county and appointed officials are aware of citizen needs and attitudes and to permit effective two-way communication, the County shall perform the following:
  - a. Conduct surveys as needed regarding citizen needs, attitudes and characteristics;
  - b. Sponsor workshops and presentations by known specialists and experts;
  - c. Prepare pamphlets explaining routine planning procedures;
  - d. Write and distribute information newsletters;
  - e. Prepare and present slide shows and/or films on such topics as growth versus conservation, the subdivision process, and the usefulness of planning; and
  - f. Make presentations to special groups and school children.
2. The County Planning Commission will be the Citizen Involvement Committee to review and change the County's Citizen Involvement Program so as to ensure its continued efficiency and usefulness.
3. Between updates, special committees representative of geographic areas or possessing special knowledge of specific topic shall be formed to assist with planning studies.
4. The County Planning Commission shall be kept aware of the activities and results of the special committees and will be informed of studies and activities of the County Planning Division which will assist them in the role as advisors.
5. Primary responsibility for coordination between the County, public, and other agencies shall be the county local coordinator. It shall also be the Planning Director's responsibility to assure the Planning Division studies are provided to members of the County Planning Commission.

6. During each plan update process, a committee broadly representative of the county's areas and interests shall be formed. The actual make-up of the committee will be determined by the Board of County Commissioners based upon a report by the County Planning Director regarding the issues and concerns needing addressing during the update process. If during the update process, additional issues are raised, the Board of County Commissioners may change the composition of the update committee to assure those new concerns are adequately addressed.
7. The plan update process shall occur at least every five years and be open to public view and involvement; public hearings to ascertain citizen views shall be held at the beginning and end of the process.
8. The County may, as required, change its Citizen Involvement Program to assure public involvement and access to information at all stages of the planning process and provide for an efficient and effective planning program.

# Citizen Involvement



## Background

The preparation of a comprehensive plan requires great amounts of time and involvement by the public if the plan is to be truly reflective of the people's needs and desires. Deschutes County was fortunate to have had such an extensive community involvement in the preparation of this plan. However, it is equally important to have continued public involvement in the updating and implementing of the comprehensive plan and its attendant ordinances.

Deschutes County needs to continue to productively involve people in the ongoing planning process.

*This Section  
implements Statewide  
Planning Goal 1:  
Citizen Involvement*

# Deschutes County Comprehensive Plan

## Chapter 2: Resource Management




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# Agricultural lands



Goals & Policies

## Goal

1. To preserve and maintain agricultural land.

## Policies

1. All lands meeting the definition of agricultural lands shall be zoned Exclusive Farm Use, unless an exception to State goal 3 is obtained so that the zoning may be Multiple Use Agriculture or Rural Residential.
2. Lands not meeting the agricultural lands definition but having potential for irrigation according to the Bureau of Reclamation Special Report - Deschutes Project, Central Division, Oregon, although presently without water, shall receive exclusive farm use zoning.
3. Public lands meeting the criteria for EFU zoning shall be so zoned unless some other resource (i.e., forest) or public use exists on the land.
4. No more than 25 percent of a given agricultural subzone shall be composed of lands not of the same agricultural type. Any agricultural lands not zoned EFU agriculture shall be identified in the County Exception Statement. Zoning districts shall be at least 40 acres in size.
5. Zones and minimum parcel sizes shall be established to assure the preservation of the existing commercial agricultural enterprise of the area.
6. For purposes of profiling the existing commercial agricultural enterprises of the County, the County shall consider as one land unit all tracts in contiguous ownership (including those parcels separated only by a road) zoned EFU.
7. The County will consider as its pool for profiling the nature of the existing agricultural enterprises of the area those farms that make the highest 90% contribution to the local agricultural economy.
8. In recognition that irrigated acres per farm unit is the key variable identifying commercial agricultural enterprises in the County, the County shall use the median number of irrigated acres per farm unit in the area or subzone as its principal standard for defining what size of tract constitutes a farm parcel.
9. Following from the June 1992 Oregon State University(OSU) Extension Service completion report detailed in the resource element, the County has identified 7 subzones representing distinct groupings of agricultural types. The County's EFU zoning shall reflect those identified subzones, generally described as follows and as more particularly detailed in the Resource Element of the Comprehensive Plan:

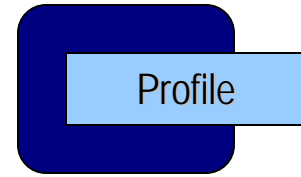
**Exclusive Farm Use Subzones**

<i>Subzone Name</i>	<i>Profile</i>
Lower Bridge	Irrigated field crops, hay and pasture
Sisters/Cloverdale	Irrigated alfalfa, hay and pasture, wooded grazing and some field crops
Terrebonne	Irrigated hay and pasture
Tumalo/Redmond/Bend	Irrigated pasture and some hay
Alfalfa	Irrigated hay and pasture
La Pine	Riparian meadows, grazing and meadow hay
Horse Ridge East	Rangeland grazing

Source: Deschutes County Resource Element

10. For the purposes of determining relevant characteristics (i.e., farm use values, multipliers, irrigated acres and assessed farm use values) of commercial farms, the County will rely on those farms and those statistics identified in the completion report prepared by the OSU Extension Service dated June 1992 and set forth in the Resource Element of the Comprehensive Plan.
11. In order to provide some flexibility in the zoning and to assist farmers who may need to sell an isolated unproductive piece of land in order to assure continued operation of the farm, individual isolated partitions (creation of one or two new nonfarm parcels) establishing parcels less than the EFU irrigated minimum lot size in EFU areas shall be permitted. The remaining farm parcel must be at least the irrigated minimum established by the EFU subzone.
12. In order to provide some flexibility in the zoning, while still maintaining the rural character of the area and limiting the costs of providing services to rural residents, the county shall allow non-farm residential divisions on nonirrigated land, in accordance with state law, with a minimum lot size of five acres.
13. So that a farmer who has lived on his land for 10 years or more may retire and sell his property while retaining the use of his existing home, a homestead exception may be permitted which allows the homesteader to retain a life estate lease on the home and some of the surrounding land. The lease will end with the death(s) of the homesteader and spouse. This exception shall not permit the creation of another residence on the property in question.
14. A division of land for non-farm uses, except dwellings, may be approved as long as the parcel for the non-farm use is no larger than the minimum size necessary for the use. The parcel shall be at least one acre in size.
15. Parcel size exceptions may be granted because of survey errors when original section lines were established, so that standard section divisions may be achieved (i.e., 160, 80, 40, 10, etc., acres). Man-made barriers such as roads or canals, over which the applicant has no control, may serve as adequate justification for granting a parcel (lot) size variance.

16. Normal agricultural practices (i.e., aerial pesticide applications, machinery dust and noise, etc.) shall not be restricted by non-agricultural interests in exclusive farm use zones. The County shall consider requiring noise, dust, fly, etc., easements to be granted to adjoining farmers where non-agricultural uses are permitted.
17. Coordination between public and private landowners to encourage farm use shall be encouraged. And projects to increase productivity and to bring new land into agricultural production shall be fostered.
18. Control of noxious weeds through educational programs should be continued.
19. Farm and non-farm uses in rural areas shall be consistent with the conservation of soil and water.
20. Prior to the next periodic review of its comprehensive plan and to the extent allowed by state law, the County Planning Department shall initiate a study of EFU-zoned lands to develop a recommendation as to whether marginal lands or secondary lands would be appropriate.



# Agricultural lands

## Background

In Oregon, Statewide Planning Goal 3 sets farmland protection standards which must be met by local governments. Oregon Revised Statute 215 and 197 and Oregon Administrative Rule 660, Division 33 set forth the criteria for compliance. The primary concept is that standards in the Exclusive Farm Use (EFU) zones must provide protection for the continuation of commercial-scale agriculture in the County, including farm operations, marketing outlets and the agricultural support system.

State Statutes define which lands should be considered farm lands and what uses are permissible on those lands. In Deschutes County, where some lands have severe limitations for the commercial production of agricultural products, this has resulted in considerable debate between those who do not wish to protect what they see as marginal agricultural land and those who are adamant that agricultural land is a non-renewable resource that must be preserved.

Commercial agriculture in the County consists primarily of field crops (alfalfa, other hay, some peppermint, potatoes and seed crops) and livestock operations. The high elevation (2700-3500 feet) and low rainfall make difficult conditions for crop farming. A short growing season and the risk of crop damage from frost or mid-summer hailstorms must be factored into agriculture investment planning. Without irrigation, little soil is classified better than Soil Conservation Service (SCS) Soil Capability Class IV. These factors, along with limited marketing alternatives, often produce a frustrating experience for local farmers, although some do manage to be successful.

*This Section implements State Planning Goal 3: Agricultural Lands*

Still, agriculture remains an important economic element of the County, contributing significantly to the local economy. Agriculture also provides secondary benefits such as open space and scenic appearance; benefits which may also pay economic returns in the form of tourist dollars.

## Agricultural Lands 1979

Agricultural land is defined initially through soils classification. When this plan was written in 1979, detailed soils mapping existed only for a portion of the County. Consequently it was necessary to develop a more elaborate definition than that found in the Goal 3. The definition finally agreed to by the County



used the available information on agricultural lands and allowed for future additions or deletions as better soils information became available.

Agricultural lands were defined as those lands possessing Soil Conservation Service Agricultural Capability Class I-VI soils (SCS Land Capabilities Classification Map) or, where detailed soils information was not available, land identified by having been listed as on Farm Tax Deferral within the five years preceding the adoption of the 1979 plan (as indicated on the Existing Land Use Map compiled from County Assessor's records) and/or by the fact that the land was indicated on the County Planning Department's Irrigated Lands Map.

Having a definition was only the first step, as it was then necessary to differentiate between the various types of agriculture to be found locally and to identify the various areas they characterized. Members of the Planning Staff, the Agricultural Citizen Advisory Committee and the Overall Citizen Advisory Committee identified seven types of agriculture and the areas characterized by such agriculture. These types included:

1. High Desert Sagebrush and Juniper Land: located east of Horse Ridge and characterized by extensive livestock grazing;
2. Riparian Meadows: located along the Upper Deschutes River, the Little Deschutes River and in the Sisters area and characterized by sub-irrigated pasture and meadow hay;
3. Irrigated Commercial Crop Land: located in Lower Bridge and characterized by field crops;
4. Irrigated Marginally Commercial Land: located in the Alfalfa, Cloverdale and Terrebonne areas and characterized by pasture and forage;
5. Dry Rangeland: located near Odin Falls and characterized by dry land grazing;
6. Marginal Farm Land – Undeveloped: located east of Bend and near Redmond, Tumalo and Sisters and characterized by pasture and forage; and
7. Marginal Farm Land – Developed: located in the Bend, Plainview and Tumalo areas and characterized by pasture and forage.

## Periodic Review Revisions

As part of periodic review in 1992, the County conducted a study of commercial agriculture in Deschutes County. The purpose of the study was to ensure that EFU zone boundaries and standards for farm divisions and dwellings were consistent with Goal 3 and relevant administrative rules. The results of the study are detailed in the completion report dated June 1992, and are incorporated into the Resource Element of the Comprehensive Plan. The study identified seven agricultural subzones: Lower Bridge, Sisters/Cloverdale, Tumalo/Redmond/Bend, Terrebonne, Alfalfa, La Pine and Horse Ridge East. For each subzone, standards were determined for minimum parcel sizes for

farm divisions. The standards are designed to protect the commercial agriculture land base.

One of the primary findings of the study was that in Deschutes County the controlling variable for defining commercial agriculture was irrigated acres. Therefore, the standard for defining what constitutes a farm parcel was keyed to the number of irrigated acres typically found on commercial farms in each subzone. The study also found that farms in Deschutes County usually contained a mix of irrigated and nonirrigated land, as well as a mix of soils of different classes. Since the assessed farm use value was linked to the productive capability of property, it provided a surrogate for irrigated acres by acknowledging the presence and role of unirrigated soils in farm operations. The assessed farm use value could be used in place of the irrigated acreage figure where the land value was set to equal that of the irrigated land (i.e., median irrigated acres in subzone x farm use value of best irrigated land in subzone = threshold assessed land value).




Notwithstanding the preceding, the La Pine Subzone was seen as somewhat different from the other subzones, in that farm sales were less than farm use values. In general, this was due to agricultural practices that depended to a much greater

degree than in the other subzones on livestock grazing on non-irrigated pasture. To address this situation, median irrigated acreage and median assessed farm use value were used to set the basic commercial standards.

Following the completion of the 1992 farm study and submission of the County's periodic review package to the Land Conservation and Development Commission (LCDC), the Oregon legislative session and LCDC amended the statutes and rules governing uses in the farm zones. The County's ordinances and the policies that follow were amended as necessary to conform to those changes.

# Forest Lands



Goals & Policies

## Goal.

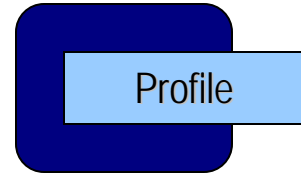
1. To conserve forest lands for forest uses.

## Policies.

1. Deschutes County shall designate forest lands on the comprehensive plan map consistent with Goal 4 and OAR 660, Division 6.
2. Deschutes County shall zone forest lands for uses allowed pursuant to OAR 660, Division 6. In addition to forest practices and operations and uses auxiliary to forest practices, as set forth in ORS 527.722, Deschutes County shall allow in the forest environment the following general types of uses:
  - a. Uses related to, and in support of, forest operations;
  - b. Uses to conserve soil, air and water quality and to provide for fish and wildlife resources, agriculture and recreational opportunities appropriate in a forest environment;
  - c. Locationally dependent uses such as communication towers, mineral and aggregate resources use, etc.;
  - d. Dwellings authorized by ORS 215.720 to 215.750; and
  - e. Other dwellings under prescribed conditions.
3. In order to conserve and maintain the unimpacted forest land base for forest use the County shall identify and zone as F-1 those lands which have the following characteristics:
  - a. Consist predominantly of ownerships not developed by residences or non-forest uses.
  - b. Consist predominantly of contiguous ownerships of 160 acres or larger in size.
  - c. Consist predominantly of ownerships contiguous to other lands utilized for commercial forest or commercial farm uses.
  - d. Accessed by arterial roads or roads intended primarily for forest management.
  - e. Primarily under forest management.
4. In order to conserve and maintain impacted forest lands for forest use the County shall identify and zone as F-2 those lands which have the following characteristics:
  - f. Consist predominantly of ownerships developed for residential or other non-forest uses;
  - g. Consist predominantly of ownerships less than 160 acres in size;

- h. Consist of ownerships generally contiguous to tracts containing less than 160 acres and residences, or adjacent to acknowledged exception areas;
    - i. Provided with a level of public facilities and services, including roads, intended primarily for direct services to rural residences.
5. Except as identified in this plan non-forest uses shall be discouraged in existing forested areas.
6. Forest management in Deschutes County shall be governed by the Oregon State Forest Practices Act.
7. Better coordination and cooperation between the U.S. Forest Service and Deschutes County shall be fostered, particularly as it relates to restrictive use of such Forest Service lands as Mt. Bachelor Ski Area and the Bend Watershed. As a basis for mutual cooperation and coordination, the Land Management Plan for the Deschutes National forest shall be used.
8. Notwithstanding any other quasi-judicial plan or zone change criteria, lands designated as Forest under the Plan and zoned Forest Use 2 under the zoning ordinance may upon application be redesignated under the Plan from Forest to Agriculture and rezoned under the zoning ordinance from Forest Use 2 to Exclusive Farm Use if such lands:
  - a. Do not qualify under state law for forestland tax deferral,
  - b. Are not necessary to permit forest operations or practices on adjoining lands and do not constitute forested lands that maintain soil, air, water and fish and wildlife resources,
  - c. Have soils on the property that fall within the definition of agricultural lands as set forth in Goal 3,
  - d. Are a tract of land 40 acres or less in size,
  - e. Do not qualify under state law and the terms of the Forest Use 2 Zone for a dwelling, and;
  - f. Were purchased by the property owner after January 1, 1985 but before November 4, 1993. Such changes may be made regardless of the size of the resulting EFU-Zoning district. Such changes shall be processed in the same manner as other quasi-judicial plan or zoning map changes.

# Forest Lands



## Background

When this plan was adopted in 1979, much of the beauty, as well as the employment, in Deschutes County was directly related to the large expanse of forestland. This resource was of particular importance to the County's two major industries, timber/wood products and tourism. The great majority of the timber harvested consisted of Ponderosa and Lodgepole pine.

However, there was an increasing threat to local timber supplies created by scattered developments occurring in forested areas, especially where fire protection was unavailable. State Planning Goal 4: Forest Lands, was intended to address those concerns.



In order to meet the Goal 4 requirement for an adequate inventory of forest lands site capability, the County Planning Department worked with the State Department of Forestry. The resulting capabilities map is found in the Resource Element. As shown on the map, most of the land with high through moderate capability lies in the Deschutes National Forest.

## Periodic Review Revisions

Subsequent to the acknowledgement of the County's plan in 1981, the Department of Land Conservation and Development initiated an administrative rule setting forth allowed uses, siting conditions and minimum lot sizes in forest zones (forest rule). Previous to that enactment, there was no uniform criteria embodied in state law other than Goal 4's general policy guidance regulating forest zones. The rule required that Counties implement its provisions no later than the time set for periodic review.

In 1992, as part of periodic review of its comprehensive plan and zoning ordinances, the County proceeded to implement the forest rule by revising its forest zones. At the same time, the Forest Lands Goals and Policies in the

Comprehensive Plan were reviewed and revised to conform to the forest rule provisions. The Forest Goal and Policies, as amended by Ordinance 92-024 and 94-037, reflect the forest rule.

***This Section implements  
State Planning Goal 4:  
Forest Lands***

# Open Spaces, Areas of Special Concern, and Environmental Quality



(see also the Deschutes River Corridor section on page 2-25 for additional policies)

## Goals

1. To conserve open spaces and areas of historic, natural or scenic resources.
2. To maintain and improve the quality of the air, water and land resources of Deschutes County.

However, despite general consensus that the environmental quality and amenities are important to this area's people, as well as to people statewide, there is also concern that regulation and policies to protect that environment could become too restrictive. The following policies have been developed with the intent of reaching the identified goals, but in ways that restrict only as is necessary and with consideration of the individuals who may be affected by the needs of the public.

## Policies

1. On lands outside urban growth boundaries and rural service centers along Highway 97, 20 and 126, as well as along Century Drive, South Century Drive, portions of Three Creeks Lake Road, Fall River Road, roads from Highway 97 to Smith Rocks, Pine Mountain Road and roadways for which landscape management is prescribed on the 1990 Comprehensive Plan, a case-by-case site plan review shall be required. This area is to extend 1/4 mile on either side from the centerline of roadways, and shall include all areas designated as State and Federal Wild, Scenic or Recreational Waterways and within 660 feet from either side of designated rivers and streams as measured from the ordinary high water level.
2. Deschutes County shall include areas outside of the urban growth boundaries and rural service centers and within 1/4 mile of the centerline of the following roads in the Landscape Management Zone.
  - a. U.S. Highway #97
    - i. North County Line to Redmond UGB
    - ii. Redmond UGB to Bend UGB

- iii. Bend UGB to South County Line
  - b. U.S. Highway #20-126: North County Line to Sister UGB
  - c. U.S. Highway #126: Sisters UGB to Redmond UGB
  - d. U.S. Highway #20: Sisters UGB to Bend UGB
  - e. Smith Rock Road: Highway #97 to Smith Rock
  - f. Sisemore Road: From Cloverdale to Bend UGB
  - g. Skyliner Road
  - h. Century Drive: Bend to Mr. Bachelor
  - i. South Century Drive
  - j. Cascade Lakes Highway
  - k. Waldo Lake Road
  - l. Cultus Lake Road
  - m. Little Cultus Lake Road
  - n. Twin Lakes Road
  - o. Keefer Road (East Crane Prairie Road)
  - p. East Deschutes Road
  - q. Deschutes Road
  - r. Wickiup Road
  - s. Pringle Falls Loop
  - t. La Pine Recreation Area Access Road
  - u. Pauline-East Lake Road
  - v. Lava Cast Forest Road
  - w. Highway #20 East to the County Line
  - x. Pine Mountain Road
  - y. Ford Road
  - z. Three Creek Lakes Road
  - aa. Three Trappers Road
  - bb. Dillon Falls Road
  - cc. Matsen Road
  - dd. State Highway #31
  - ee. Road to Benham Falls
  - ff. State Highway 242 McKenzie Highway
3. Within the Landscape Management Zone, new structures or additions to existing structures (excluding fences or structures less than \$1,000.00 in total value) shall be subject to landscape management site plan review by the County prior to issuance of a building permit.
  4. Approval of any such development in the Landscape Management Zone will be dependent on site screening by existing natural cover and/or compatibility with the landscape as seen from the river, stream or road.
  5. Outdoor advertising signs should be informational only and oversized displays discouraged.
  6. The primary purpose of the landscape management site plan review shall be to obtain a structure as compatible with the site and existing scenic vistas as is possible, rather than to establish arbitrary standards for appearance or to otherwise restrict construction of appropriate structures.

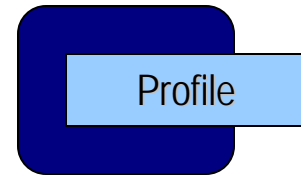
7. Rimrocks, along streams shall receive special review to assure that visual impacts of structures viewed from rivers or streams are minimized. A 50-foot setback shall be required from rimrocks on all newly created lots. Existing lots may receive exceptions to rimrock setbacks subject to conformance with criteria which individually review the structure, location and consider impacts in a manner which minimize the visual impact of the structure when viewed from the river or stream.
8. Public ownership of scenic, open space and historic areas should be maintained and increased where feasible, and a variety of open space and recreational sites should be maintained to protect the existing natural diversity and to serve the varying needs of both tourists and residents. The natural capabilities of each site should determine its level of use.
9. The concepts of developmental rights transfer, tax credits and conservation easements as ways to protect open space should be studied and encouraged at both local and State levels.
10. As part of subdivision or other development review the County shall consider the impact of the proposal on the air, water, scenic and natural resources of the County. Specific criteria for such review should be developed. Compatibility of the development with those resources shall be required as deemed appropriate at the time given the importance of those resources to the County while considering the public need for the proposed development.
11. Because management of State and Federal lands affects areas under the County's jurisdiction and vice versa, better coordination of land use planning between the County, U.S. Forest Service, State Land Board, Bureau of Land Management and other agencies shall be sought.
12. Zoning should be established to protect areas of special interest such as eagle nests, endangered species areas or points of geologic interest.
13. Because of their slow growth and usefulness as a visual and noise buffer and their relationship to air quality, tree removal from utility lines, sewers, roads and other construction shall be minimized by planning for the continued maintenance of the streets in the development. All development proposals will be reviewed for this factor by the County Planning staff before approval of the applicant's development.
14. Although DEQ has existing environmental standards with which the County shall coordinate, in instances where such standards are inadequate or non-applicable because of local conditions, the County may establish more stringent regulations. Noise regulations are an example of such program.
15. Deschutes County shall prior to December 21, 1994 complete a Goal 5 review in accordance with OAR 660-16-000 for the "1B" Areas of Special Concern identified in the Areas of Special Concern inventory of the Resource Element, adopted by Ordinance 92-052.
16. The County shall conduct an inventory of outstanding scenic resources not sufficiently protected by the Landscape Management Zone. The



inventory shall be conducted in accordance with OAR 660-16. Comprehensive Plan policies and implementing ordinances to protect resources identified in the inventory shall be adopted prior to Department of Land Conservation and Development initiation of the next periodic review process, pursuant to ORS 197.633(3)(a).

17. The County shall encourage the formation of nonprofit land trusts for the protection of open space, scenic and natural areas. The County should provide support and assistance when deemed appropriate by the Board of County Commissioners.

# Open Spaces, Areas of Special Concern and Environmental Quality



## Background

### Open Space and Areas of Special Concern

When this plan was adopted in 1979, the scenic and natural environmental qualities of the County were a major factor driving both population growth and the local economy. Residents and tourists alike came here for the natural beauty and high quality of the air and water. Equally appreciated were the numerous and diverse areas of scenic, geological, archeological and biological significance. Two major economic sectors, timber and agriculture, were also connected to a healthy natural environment.

Areas considered open spaces included a wide variety of land uses. Parks, agricultural and forest lands, natural areas, mining sites and historic areas as well as scenic waterways and other locations of unique scenic, environmental, social or cultural character were all counted. The interest in protecting scenic views from roads, trails and waterways was instrumental in creating policies that set standards for development along major roadways, rivers and streams.

Private lands suitable for open space designation were and continue to be eligible for special property tax consideration (ORS 308A.300-330), because they maintain high quality scenic environments for the benefit of the public.

In recognition that some areas in the County contain special assets, segments of the Deschutes River in Deschutes County were designated as a State Scenic Waterway. Additionally, segments of the Deschutes River and Whychus (Squaw) Creek were designated as Federal Wild, Scenic or Recreational River.



## Environmental Quality

The Federal Environmental Protection Agency (EPA) and the Oregon Department of Environmental Quality (DEQ) have existing standards and


programs affecting air and water quality as well as noise levels. DEQ has historically maintained an air and water quality-sampling program in Deschutes County, which contributes to our understanding of existing and changing conditions.

Air quality, when this plan was adopted, was generally good. However there were a number of identified concerns such as surface inversions, topographic conditions, certain activities (i.e., slash and field burning), wind-carried soils and increasing population which were understood to have significant potential for degrading local air quality without proper management.

*This Section implements part of State Planning Goal 5: Open Spaces, Scenic and Historic Areas and Natural Resources and State Planning Goal 6: Air, Water and Land Resources Quality*

Some water pollution problems were identified, specifically in the La Pine core area and in Terrebonne. These two areas were looking at developing sanitary sewer systems and treatment facilities.

# Fish and Wildlife



## Goals & Policies

(see also the Deschutes River Corridor section on page 2-25 for additional goals and policies)

## Goals

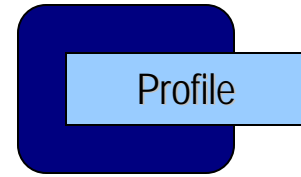
1. To conserve and protect existing fish and wildlife areas.
2. To maintain all species at optimum levels to prevent serious depletion of indigenous species.
3. To develop and manage the lands and waters of this County in a manner that will enhance, where possible, the production and public enjoyment of wildlife.
4. To develop and maintain public access to lands and waters and the wildlife resources thereon.
5. To maintain wildlife diversity and habitats that support the wildlife diversity in the County.

## Policies

1. In light of the need to protect deer winter range and to be consistent with plan policies restricting rural sprawl, the Metolius, North Paulina, Tumalo and Grizzly deer winter ranges shall be protected by special zones. The winter ranges shall be as designated on the Big Game Habitat – Wildlife Area Combining Zone Map contained in this plan’s Resource Element. Within the winter ranges the minimum lot size shall be 40 acres, except that in the Rural Residential Zone and the Multiple Use Agricultural Zone planned or cluster developments are required for new land divisions. In planned and cluster developments man’s activities must be limited to 20 percent of the development’s lands with 80 percent left as open space. The density of planned and cluster developments shall be determined by the underlying zone.
2. The County shall enforce an animal control ordinance which prohibits dogs to be at large or not under the complete control of a capable person.
3. In the Bend/La Pine deer migration corridor identified in the Comprehensive Plan Resource Element, new land divisions, where the underlying zone is Rural Residential – 10, shall be cluster developments.
4. Because public access to fish and wildlife areas is so important to the economic and livability aspects of Deschutes County, walking easements and periodic boat access points shall be provided in areas where public river access is limited, as determined appropriate by the County and State Department of Fish and Wildlife.

5. Consistent with Policy 4 and in order to protect the sensitive riparian areas, as well as to protect people and property from flood damage, the zoning ordinance shall prohibit development (except floating docks) within 100 feet of the mean high water mark of a perennial or intermittent stream or lake. Exceptions may be permitted on lots created prior to November 1, 1979 where adherence to the 100-foot setback would cause a hardship.
6. In addition to State and Federal laws, County ordinances shall require all identified nesting sites for eagles, ospreys, prairie falcons or other species listed on the Oregon State or Federal threatened or endangered species list shall be protected.
7. Sensitive bird habitat sites (bald eagle, golden eagle, osprey, great grey owl, prairie falcon nests, great blue heron rookeries, and sage grouse leks) and mammal habitat sites (Townsend's big-eared bat hibernating and nesting caves) identified in the Resource Element of this plan shall be protected by a Sensitive Bird and Mammal Overlay Zone. A protection program acceptable to the Oregon Department of Fish and Wildlife for the nests or sites shall be submitted by the applicant for a development or land use permit and used implemented during and after construction of the development.
8. The antelope range and antelope winter range identified on the Big Game Habitat-Wildlife Area Combining Zone Map included in the Resource Element of this plan shall be protected by a wildlife area combining zone. The minimum lot size for new parcels shall be 320 acres. The Rural Service Centers of Brothers, Hampton and Millican shall be exempt from the provisions of the Wildlife Area Combining Zone.
9. The areas containing land identified as significant elk habitat on the Big Game Habitat Map – Wildlife Area Combining Zone Map included in the Resource Element of this plan shall be protected by a wildlife area combining zone. The minimum lot size for new parcels shall be 160 acres in the combining zone.
10. The County shall notify the Oregon Department of Fish and Wildlife of all land use applications for lands located in the WA Combining Zone or the Sensitive Bird and Mammal Overlay Zone.
11. The County shall work with ODFW and the Deschutes Basin Resource Committee to review existing protection of riparian and wetland area vegetation and recommend comprehensive plan and ordinance amendments, if necessary, by December 31, 1993.
12. When site specific information is available to the County on the location, quality and quantity of threatened and endangered fish and wildlife species listed by State or Federal wildlife agencies and the Oregon Department of Fish and Wildlife develops protection criteria for the species, the County shall proceed with a Goal 5 ESEE analysis in compliance with OAR 660 Div.16.
13. The County shall review the La Pine and Bull Flat elk habitat areas and the Metolius deer migration corridor designated as "1B" Goal 5 resources

- during the next periodic review or as additional information on the location, quality and quantity of the habitat areas becomes available.
14. The County shall maintain an inventory of County-owned property in the Bend/La Pine deer migration corridor. Prior to sale or exchange of County owned property in the corridor, the County shall consult the Oregon Department of Fish and Wildlife to determine the value of the land for deer migration and make reasonable efforts to consolidate properties to maintain habitat characteristics important to preserving the migration corridor.
  15. The County shall work with ODFW to identify specific areas where the County and ODFW shall encourage public retention and acquisition of land or seek conservation easements for the protection of the deer migration corridor.
  16. The County shall retain and encourage public ownership of significant fish and wildlife habitat and riparian areas.
  17. County-owned land shall be managed to protect and enhance fish and wildlife habitat except where a conflicting public use outweighs the loss of habitat.
  18. The County shall notify the Oregon Division of State Lands and the Oregon Department of Fish and Wildlife of any development applications for land within a wetland identified on the National Wetlands Inventory maps.
  19. The County shall encourage the formation of nonprofit land trusts for the protection of fish and wildlife habitat, wetland, riparian and natural areas. The County should provide support and assistance when deemed appropriate by the Board of County Commissioners.



# Fish and Wildlife

## Background

When this plan was written in 1979, the protection of fish and wildlife resources was an on-going controversy in Deschutes County. Both those committed to the protection of the fish and wildlife and those who wished to develop in sensitive wildlife areas, pressed their positions, sometimes resulting in court action to resolve the conflict.

In committee discussions and public testimony, the community expressed concern that local fish and wildlife resources be protected. It was recognized that failure to protect fish and wildlife resources would result in loss of habitat, loss of endangered species, declining tourist expenditures, loss of recreational opportunities and loss of quality of life. Already, Deschutes County had witnessed the serious degrading of the cold-water fishery by irrigation withdrawals, loss of sensitive deer winter rangelands to development and the disturbance of deer migration corridors due to residential and recreational construction.

Oregon Department of Fish and Wildlife representatives indicated that their studies showed significant deer migration from the Deschutes National Forest west of the Deschutes River, to wintering ranges east of the river, identified as the North Paulina, Devil's Garden and Hole in the Ground Ranges. They further noted that rural housing at a density of more than one residence per 40 acres could seriously threaten deer winter survival. Wildlife was also threatened by dogs owned by rural residents, especially if the dogs were allowed to roam in packs.

Of particular concern were riparian areas or wetlands along streams and lakes. These areas not only served as essential habitat for many species and as migration corridors for big game, but were particularly in need of protection because of their limited nature.

Yet, it was not just the wetter, more forested areas of the County that provided wildlife habitat. The dry high plains in the eastern portion of the



County had large populations of sage grouse and antelope. These wildlife species were known to be highly dependent on the open, relatively undeveloped character of this area for their survival.


## Periodic Review

*This Section implements part of State Planning Goal 5: Open Spaces, Scenic and Historic Areas and Natural Resources*

As part of the County periodic review in the 1990s the goals and policies in this chapter were reviewed by the public, the Oregon Department of Fish and Wildlife, the Planning Commission and the Board of County Commissioners. During periodic review the County also updated the fish and wildlife inventories and completed economic, social, environmental and energy analysis of conflicting uses and developed programs to protect the significant Goal 5 wildlife resources. (see the Resource Element for details)



# Water Resources



## Goals & Policies

(see also the Deschutes River Corridor section on page 2-25 for additional goals and policies)

## Goals

1. To maintain existing water supplies at present quality and quantity.
2. To improve the efficiency with which water is supplied to meet the growing needs of Deschutes County residents.

## Policies

In order to achieve the desired results three general policy directions have been determined, each general topic composed of several specific policies.

## Resource Study

To obtain better information than that presently available so as to assure the safe use of the area's water resources the following policies shall be adopted:

1. Obtain funding to conduct a complete County-wide hydrology study. Particular emphasis shall be placed on study of urban areas, irrigation water seepage into local water tables, stream flow and limits to water availability.
2. The County, in conjunction with appropriate State and Federal agencies, shall conduct a study on the location and characteristics of local aquifers and streams, emphasizing the La Pine area first.
3. The County shall conduct a study of the legal, economic and environmental consequences of the use of irrigation water for non-agricultural uses.
4. When information is available on the location, quality and quantity of groundwater resources, the county will determine the significance of the resource and complete the Goal 5 process for groundwater resources in accordance with OAR 660-16.

## Water Supply

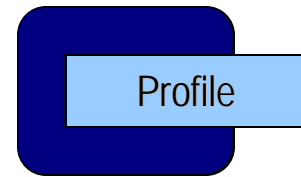
The second general topic is the protection and improvement in efficiency of local water supplies.

5. The County shall work with local irrigation districts, private and municipal water suppliers as well as adjacent Counties and the State to assist water management planning.
6. Consistent with acceptable environmental, social and economic impacts, the County shall cooperate with State and Federal agencies in irrigation canal lining, reservoir construction and watershed management.
7. The County shall continue to serve as a sponsor for Federal and State grants for water system improvements.

## Water Quality

The final general policy direction is the protection and improvement of the area's water quality so that the County's new population can be safely accommodated without serious public safety, environmental and economic costs.

8. The County shall work with State and Federal agencies in planning for water quality (i.e., Sections 208 and 303e) and in the enforcement of anti-pollution regulations. Also, if found necessary, create and enforce local anti-pollution ordinances.
9. The County, through educational programs and other similar activities, should encourage the use of non-toxic, rapidly biodegradable chemicals.
10. Plans, ordinances, cooperative agreements and other legal and educational tools shall be fostered by the County to protect watersheds, reduce erosion and inappropriate run-off, and otherwise preserve local water quality from undesirable building, agriculture or other practices.
11. Any project which would endanger the purity of local ground water shall be vigorously discouraged.
12. To protect the public's health and safety irrigation ditch water shall not be an approved domestic water source for subdivisions, partitions or other developments after adoption of this plan. This will not affect existing legal subdivisions, partitions or other developments.



# Water Resources

## Background

Water in adequate quality and quantity is important to all communities, but in a semi-arid region such as Deschutes County, it is of particular importance. Drought is a recurring natural phenomenon which has done much to direct the County's growth and to determine its economic base.

In 1979 inadequate information existed on water supplies and water quality. Since that time, the County Environmental Health Division, Oregon Health Division, Oregon Department of Environmental Quality, and U.S. Geological Survey have cooperated on studies or ongoing programs to provide a greater understanding of the area's water resources. Given the expected continued growth of the area and the existing water quality and quantity problems, the results of these studies are expected to prove useful in updating this plan and safely accommodating the new growth while protecting existing industries and residents.

*This Section implements part of State Planning Goal 5: Open Spaces, Scenic and Historic Areas and Natural Resources*

In 1979 it appeared that little additional water for agricultural expansion could be expected locally, except for some new wells in such areas as Lower Bridge and Cloverdale. The use of irrigation water for domestic purposes had not only reduced available water supplies for agriculture but also raised questions about possible health hazards resulting from people drinking from irrigation ditches. Some water quality problems were

identified as resulting from domestic effluent and agricultural operations. The domestic effluent was clearly a more pressing concern than agricultural activities (because of local soils, climate, topography and farm operations). The continued use of drill holes for sewage disposal was noted as a subject of particular concern.

In 1986 a separate, but related, chapter was added to this Comprehensive Plan to identify specific goals and policies for the Deschutes River Corridor.

# Deschutes River Corridor



Goals & Policies

Note: The goals and policies in this section were written separately and do not match the formatting of the rest of the comprehensive plan.

## Water Resources Goals and Policies (see also Water Resources Section page 2-22)

### Goal

1. Stabilize the flow regime of the upper Deschutes River Basin so as to maintain or enhance a healthy aquatic and riparian environment while providing for irrigation and recreation needs. The minimum streamflows recommended by the Oregon Department of Fish and Wildlife should be considered as target minimum flows for the respective river reaches.

### Policy

1. Deschutes County shall establish a water conservation committee including, but not limited to, local representatives from the irrigation districts, Department of Water Resources, Department of Fish and Wildlife (ODFW), United States Forest Service (USFS), Deschutes County and City of Bend Planning Departments, and Deschutes County and City of Bend Planning Commissions to provide an ongoing forum regarding water management on the Deschutes River and its tributaries and to make recommendations to appropriate agencies. The committee should:
  - a. Request assistance through Bonneville Power Administration's (BPA's) technical assistance program for technical improvements in methods of irrigation and means of conservation of both water and energy.
  - b. Request assistance from the Water Resources Department, Bureau of Reclamation, and Soil and Conservation Districts to initiate an in-depth study of, and to set priorities for, actions that should be taken to improve the irrigation districts' delivery systems.
  - c. Assist the County and City of Bend in the implementation of the Deschutes River goals and policies.

### Goal

2. Support the designation of instream use of water as a beneficial use.

## **Policies**

1. Deschutes County shall petition the Water Resources Department to amend the appropriate provisions in the Deschutes River Basin Plan to reflect the recommendations of the River Study Task Force and the committee established under Goal 1.
2. Deschutes County shall petition the State Legislature to amend state law to designate instream use as a beneficial use to ensure that rights designated to instream use shall not be subject to downstream appropriation by holder of equal or junior rights, and petition the Water Resource Department to adopt a uniform, easily-accomplished process for the transfer of water rights in the Deschutes River Basin to instream use.

## **Goal**

3. Increase streamflow in the Deschutes River below Wickiup Dam during the non-irrigation season. Establish a flow release during the irrigation season that will reduce bank erosion while providing for irrigation, fisheries, wildlife and recreation needs.

## **Policies**

1. Deschutes County shall petition the Bureau of Reclamation to conduct a feasibility study on the Monner Reservoir site, including: (a) the non-irrigation flow required for filling, (b) to what extent gravity feed irrigation would be possible, and (c) to what extent low flows below Wickiup Dam could be augmented during the non-irrigation season.
2. Deschutes County shall petition the Bureau of Reclamation, USFS, United States Geological Survey (USGS), and the Oregon Department of Environmental Quality (DEQ), to establish a bedload sediment monitoring program and to determine an appropriate maximum discharge from Wickiup Dam, which program addresses the effects of bank erosion on rehabilitation of spawning habitat, riverfront property, recreation, and scenic values, and accomplishes the determination of flow regime through interagency cooperation with the affected irrigation districts.
3. Deschutes County shall petition the Bureau of Reclamation to determine what the consequences would be to irrigation districts, recreation use, and the stabilizing of water releases below Wickiup Dam by maintaining a lower level of water in Crane Prairie Reservoir, and diking off known high loss areas within the reservoir to minimize excess seepage.

## Goal

4. Implement and enforce incentives for water conservation.

## Policies

1. Deschutes County shall encourage the Water Resources Department, irrigation districts, and municipalities utilizing diverted waters to enforce the "without waste" provision in appropriated water rights.
2. Deschutes County shall support efforts by the irrigation districts to provide financial incentives to conserve water, such as a water use fee on the minimum amount of water required (commensurate with the plant/soil requirements determined by the soil and water conservation districts) and an excess charge for water used over the base amount.
3. Deschutes County and the irrigation districts should explore the development of an intergovernmental agreement to provide that developers partitioning land and attendant water rights shall be responsible for the affected irrigation district's approval before final plat approval by the County. The irrigation district shall not deliver water to the subdivision greater than that which would have been due to the parcel as a whole (i.e., the district shall not replace water lost by subdivision distribution).
4. Deschutes County shall request the irrigation districts to continue to give consideration to shortening the summer irrigation season when soil moisture conditions and cistern reserves allow.
5. Deschutes County shall support efforts by the irrigation districts within the upper and middle Deschutes River Basin to allow expansion of irrigated land within a district's boundaries, as part of a means to share conserved water, for those districts that implement water conservation and instream flow enhancement programs.
6. Deschutes County shall encourage irrigation districts to discontinue the policy of winter water runs.

## Goal

5. Maintain streamflows in the Little Deschutes River and its tributaries that will provide for irrigation, fisheries, wildlife and recreation needs.

## Policy

1. Deschutes County shall encourage ODFW and Tumalo Irrigation District to negotiate a minimum release out of Crescent Lake.

## Goal

6. Increase instream flow below the North Canal Dam during periods of water diversion.

## Policy

1. Deschutes County shall encourage examination by irrigation districts and the Water Resources Department of options for providing additional flows below the North Canal Dam during the irrigation season. These additional flows shall not take the place of the current 30 CFS spilled by agreement with Central Oregon Irrigation District (COID) and North Unit Irrigation District (NUID). Options that might be considered include shared conserved water, public participation in irrigation district improvement, public "buy down" of interest rates on improvement loans, and public or private purchase/transfer of water rights for instream use.

## Goal

7. Increase streamflow below the irrigation diversions on Tumalo Creek during periods of water diversion.

## Policies

1. Deschutes County shall encourage the City of Bend to continue to implement a water conservation program that emphasizes enforcement, metering, and other methods to avoid wasting water.
2. Deschutes County shall encourage the City of Bend to continue to replace the Tumalo water supply pipeline and, when this pipeline is complete, to install gates at the intake, which would help stabilize withdrawals from Tumalo Creek,
3. Deschutes County shall encourage the City of Bend and Tumalo Irrigation District to explore options to improve instream flows in Tumalo Creek, including apportionment of water draws to maximize the use of the Tumalo Feed Canal rather than the Columbia Southern Canal, in order to increase water flows through Shevlin Park and minimize the excessive water losses that now occur in the Columbia Southern Canal.
4. Deschutes County shall encourage the Tumalo Irrigation District to explore means to eliminate the Columbia Southern Canal and to revert a portion of the water saved to instream use to maintain a minimum flow in Tumalo Creek below the Tumalo Feed Canal diversion.

## Goal

8. Increase streamflow below the main irrigation diversion on Whychus (Squaw) Creek during periods of water diversion.

## Policies

1. Deschutes County shall encourage the Whychus (Squaw) Creek Irrigation District and the Water Resources Department to help explore options for providing additional flow below the irrigation diversions on Whychus (Squaw) Creek, including shared conserved water, public participation in irrigation district improvements, public "buy down" of interest rates on improvement loans, and public or private purchase/transfer of water rights for instream use.
2. Deschutes County shall request the ODFW to petition the Water Resources Department to withdraw Whychus (Squaw) Creek from any further appropriations.

## Energy Goal and Policies (see also Energy Section page 2-41)

### Goal

9. Encourage development of hydroelectric resources when they are consistent with:
  - a. fish, wildlife, recreation, open space, and scenic resource values, and
  - b. state and regional energy plans.

### Policies

1. Deschutes County shall continue to strongly support and promote the conservation of all forms of energy resources through cooperation with the Northwest Power Planning Council, BPA program, recycling, solar ordinances, energy-efficient building standards, and appropriate development of geothermal resources.
2. Hydroelectric projects that are not physically connected to an existing dam, diversion, or conduit are prohibited.
3. Deschutes County shall develop a program to assure that hydroelectric projects located within existing man-made transmission systems and using existing flow regimes, or physically connected to an existing dam, diversion, or conduit, but not using existing flow regimes, are subject to the following provisions:
  - a. Are consistent with federal and state law.



- b. Hydroelectric projects shall not increase the maximum surface area of an impoundment behind an existing dam or diversion.
  - c. Shall not be located in significant/sensitive fish or wildlife areas unless it can be demonstrated that the project, if constructed, would restore significant/sensitive fish or wildlife habitat in the reach affected by the project.
  - d. Hydroelectric projects shall stabilize streamflows, restore degraded trout habitat, and provide public access to as great an extent as practical.
4. Hydroelectric projects shall avoid adverse impacts if possible. Where not practicable, impacts shall be minimized, while providing for restoration on already adversely impacted areas along the river or stream. Restoration does not necessarily have to be in the immediate project vicinity.
  5. Hydroelectric projects shall have no adverse impact to water-related and water-dependent recreation unless it can be shown that existing water-related and water-dependent recreation of the same type, quality, and quantity as that which may be lost can be restored or enhanced in the project vicinity. Recreation activities include those activities which occur now and which may reasonably be expected to occur in the future.
  6. Hydroelectric projects shall include a river restoration/enhancement plan documenting both on-site and off-site restoration and enhancement strategies consistent with adopted goals and policies. The plan shall identify costs, time schedules, and coordination actions with all affected parties. The plan shall address, but not be limited to, stabilizing water flows, trout habitat restoration, and public access. No hydroelectric project shall be permitted until the plan has been approved through the public review process.
  7. Hydroelectric projects shall post a performance and restoration bond to ensure implementations of the approved restoration/ enhancement plan.
  8. Hydroelectric projects shall be consistent with the provisions of the Columbia River Fish and Wildlife Program and the Northwest Power Plan as adopted by the Northwest Power Planning Council.
  9. The County shall advise the Northwest Power Planning Council and Oregon Department of Energy as to the potential hydroelectric resource in Deschutes County.

## Fish Goals and Policies (see also Fish and Wildlife Section, page 2-17)

### Goals

10. Increase the number of wild trout through restoration of degraded habitat, enhancement of tributary spawning areas, and stabilized flows.
11. Increase public access along rivers and streams for fishing.
12. Increase public awareness of riparian habitat protection.

## Policies

1. All spawning areas for trout shall be considered significant habitat and shall be protected.
2. To the extent funds are available, Deschutes County shall retain in public ownership, after foreclosure, tax delinquent lands located near or adjacent to rivers and streams.
3. Deschutes County shall support efforts by the ODFW and local trout clubs to continue spawning habitat enhancement work.
4. Deschutes County shall encourage and assist DEQ in developing a program to prevent surface water pollution due to inadequate or failing septic systems along rivers and streams.
5. Deschutes County shall encourage the ODFW to develop a program for state acquisition of fishing easements along rivers and streams.
6. Deschutes County shall encourage the ODFW and the Parks and Recreation Division of the Department of Transportation to develop a joint program for increasing fishing access at and adjacent to Cline Falls, Tumalo, and La Pine State Parks,
7. Deschutes County shall adopt regulations pertaining to fill-and-removal of material in waterways and adjacent wetlands.
8. Deschutes County shall support efforts by the ODFW, Bureau of Reclamation, Warm Springs Indian Tribe, Portland General Electric, and the USFS to begin efforts to identify ways to assure that steelhead and salmon juveniles are able to travel downstream over the dams. A pilot program for steelhead should be initiated on Whychus (Squaw) Creek.
9. Deschutes County shall support efforts by the ODFW to manage appropriate reaches of rivers and streams for wild (naturally reproducing) trout.
10. As part of the ODFW's effort to develop a wild trout management plan for the upper Deschutes River Basin, Deschutes County shall petition the Bureau of Reclamation to participate in the planning and, if appropriate, financing of habitat restoration and improvement of those rivers and streams affected by water facilities designed and/or financed by their agency, through coordination with the ODFW, USFS, irrigation districts, and other public and private interests.
11. Deschutes County shall encourage and assist in the education of river property owners on the State Riparian Tax Incentive Program and other programs that would benefit fish and wildlife.
12. Deschutes County, in cooperation with the irrigation districts, USFS, ODFW, and Bureau of Reclamation, should explore means to restore and stabilize riparian and wetland habitats. Emphasis should be on stabilizing flows caused by water regulations. Consideration should also include, but not be limited to, bank erosion control, revegetation programs, and elimination of inappropriate levels of riparian livestock grazing along rivers and streams.

13. Deschutes County shall request the ODFW to ensure that all irrigation diversions are properly screened. The irrigation districts should be encouraged to conduct the studies to monitor screen efficiency and to make necessary improvements.
14. Deschutes County shall continue to use conservation easements to protect riparian habitat.

## Wildlife Goals and policies (see also Fish and Wildlife Section, page 2-17)

### Goal

13. Ensure the long-term protection and enhancement of wildlife sensitive riparian habitat, and natural plant and animal communities along the Deschutes River and its tributaries.

### Policies

1. Deschutes County, in cooperation with the ODFW and USFS, shall modify land use practices and consider acquiring land or development rights where conflicts arise with any of the following:
  - a. Sensitive wildlife habitats necessary for feeding, nesting, reproduction or rearing.
  - b. Sensitive elk and deer winter range habitat.
  - c. Sensitive elk and deer migration corridors.
2. Deschutes County, in cooperation with the ODFW and USFS, shall consider wetlands and riparian areas as sensitive wildlife habitat due to their scarcity and unique characteristics to serve a wide range of wildlife species and shall protect them. Modification/ alteration of these areas may only be permitted in unique situations and after consultation with the ODFW.
3. Deschutes County shall support periodic or seasonal closures of roads, trails or areas in sensitive wildlife areas to motorized vehicles. The County should also request the USFS to continue to support these closures in order to minimize human disturbance.
4. Deschutes County, in cooperation with the USFS and ODFW, shall protect and enhance lands containing sensitive wildlife habitat.
5. Deschutes County shall petition the Oregon Fish and Wildlife Commission to close the Sheep Springs area to hunting during the bald eagle migration and feeding period.
6. Deschutes County shall promote and support educational programs on riparian natural history, river maintenance and courtesies, impacts of habitat alteration and habitat disturbance by domestic animals and human activities.

7. Deschutes County shall request that the USFS and ODFW adopt a winter elk management plan for the Benham Falls elk herd. Emphasis should be given to identification of their sensitive habitat in order to minimize potential conflict with development and recreation activities.
8. Deschutes County shall support the continued consumptive and non-consumptive use of wildlife.
9. Deschutes County shall support efforts by local conservation clubs to develop a waterfowl and wetlands habitat improvement program along the Deschutes River.
10. Deschutes County shall encourage and assist citizens, the Department of Forestry, USFS and private landholders in adopting forest management practices along rivers and streams that consider the needs of wildlife, such as preserving snags, riparian cover, and other habitat characteristics that will maintain optimal use by wildlife. Desired changes in habitat conditions resulting from forest management practices should concurrently avoid adverse impacts to water quality and visual quality for the specific reach.
11. Deschutes County shall continue to use conservation easements as a means to preserve wildlife habitat.
12. Deschutes County shall adopt regulations pertaining to fill-and-removal of material in waterways and adjacent wetlands.

## Open Space Goals and Policies (see also Open Spaces, Areas of Special Concern, and Environmental Quality Section, page 2-11)

### Goal

Existing goals sufficient.

### Policies

1. Deschutes County shall include areas along the Deschutes River, Little Deschutes River, Crooked River, Spring River, Fall River, Tumalo Creek, Paulina Creek and Whychus (Squaw) Creek into the Landscape Management (LM) zone. In these areas, the LM zone may include all riparian areas, wetlands and canyons.
2. Deschutes County shall support a greenway project whose purpose would be to identify appropriate segments of river frontage that should be acquired for public use and benefit.
3. Deschutes County shall encourage the creation and assist in the operation of a non-profit, private organization to facilitate the acquisition of river property to further the goals of preserving areas for their scenic, recreational, fish and wildlife values.

4. Deschutes County may require public access for any land use action adjacent to the Deschutes River, Little Deschutes River, Crooked River, Spring River, Fall River, Tumalo Creek, Paulina Creek and Whychus (Squaw) Creek limited to foot traffic only.
5. Deschutes County shall include in all access easements provisions addressing safety, security, vandalism, litter and any other maintenance concerns expressed by the landowner. The cooperation of the State Police and County Marine Patrol should be sought in working with these landowners and in maintaining the easement agreement.
6. Deschutes County shall explore the possibility of property tax relief when public access is required by the County.
7. Deschutes County may accept, by donation, full fee title ownership to any riparian land for which public access is required. If the County refuses to accept ownership, any required public access shall be waived.
8. Deschutes County may grant exceptions to the public access requirement where access would be near the nest sites of protected or sensitive wildlife species. In such cases, the County shall instead require a conservation easement to protect the nest sites from harassment and disturbance, using the assistance of the USFS, ODFW, and citizens knowledgeable of the nesting requirements of these species prior to drafting the easement.
9. Deschutes County shall request the Legislature to allow the County Assessors to recognize public access easements in their assessment policies.
10. Deschutes County shall cooperate with the Parks and Recreation Division, USFS, and BLM during the State's Scenic Waterways Study.
11. Deschutes County shall prohibit or restrict development on reaches of rivers that are being studied or recommended for inclusion in either the State or Federal Scenic Rivers System unless construction would not preclude inclusion of the reach in the state or federal system.
12. Deschutes County shall request the USFS to preserve or continue to preserve appropriate areas within the vicinity for their scientific and educational value.
13. Deschutes County, in cooperation with the Nature Conservancy, USFS, and Parks and Recreation Division, shall encourage that appropriate reaches of the Deschutes River in the vicinity of the La Pine State Recreational Area are incorporated into the Oregon Natural Heritage Plan.

## Recreation Goals and Policies (see also Recreation Section, page 3-29)

### Goals

14. Secure designation of appropriate segments of the Deschutes River, Fall River, Little Deschutes River and Crooked River under the Federal Wild and Scenic Rivers Program and the State Scenic Waterways Program.
15. Increase the opportunity for people to enjoy and appreciate undeveloped river and stream corridors.
16. Maintain, when appropriate, a semi-primitive recreation development standard along the banks of rivers and streams that are in public ownership.

### Policies

1. Deschutes County shall support the 1) removal of fences from the river, and 2) donation of the County of portage/walking easements that increase opportunities by the public to fully enjoy water recreation on rivers and streams.
2. Deschutes County shall regulate recreation-related land uses and density levels to accommodate the needs of wildlife where the recreation activity interferes with sensitive wildlife habitat.
3. Deschutes County shall encourage the BLM and USFS to prohibit the use of motorized vehicles, including motorbikes, ATV's, and snowmobiles, adjacent to rivers and streams where they conflict with non-motorized recreation activities.
4. Deschutes County shall encourage and participate in the USFS planning process to eliminate specific vehicular access points to and along the Deschutes River.
5. Deschutes County shall encourage the USFS and Parks and Recreation Division to acquire private property in the La Pine State Recreation Area adjacent to the Deschutes River and Fall River.
6. Deschutes County shall encourage the BLM to consolidate ownership of public lands along the Deschutes River, Little Deschutes River, and Squaw Creek.
7. Deschutes County shall support the USFS in controlling permitted levels of commercial whitewater boating.
8. Deschutes County shall support wilderness designation of the Steelhead Falls Wilderness Study Area on the Deschutes River and lower Wychus (Squaw) Creek.
9. Deschutes County shall request the BLM to designate Big Falls as an "Outstanding Natural Area" if a mutually agreeable land exchange program can be developed.

10. Deschutes County shall advise the State Marine Board of public concerns regarding safety with respect to the use of motorboats on the Deschutes River.
11. Deschutes County should recommend that the Transportation Commission include in the State Scenic Waterways Programs the Deschutes River from below Wickiup Dam downstream to the first COI diversion, and from Sawyer Park north to the County line.
12. Deschutes County shall support the designation of appropriate segments of Fall River, Little Deschutes River, and Crooked River as state and/or federal scenic waterways.

## Archaeological Goal and Policies (see also Historic and Cultural Section, page 2-63)

### Goal

17. Maintain an ongoing program of archaeological inventory, investigation, interpretation, and education and preservation.

### Policies

1. Deschutes County shall request the BLM and USFS to complete archaeological inventories along the river and stream corridors within or adjacent to federal land.
2. Deschutes County shall request the BLM and USFS to postpone logging, campground, trail, and road development along rivers and streams until archaeological site review and determination of site value has been made.
3. Deschutes County shall continue to conduct archaeological survey work and excavation on private lands based on the availability of private/public contributions and grant funds.
4. Deschutes County may require archaeological site review of any development activity (including residential development), to be conducted with the assistance of archaeologists familiar with Central Oregon archaeology, and with the cooperation of landowners and developers. Plans for archaeological site review shall be submitted to the Historical Landmarks Commission for approval.
5. Deschutes County shall support efforts by the Deschutes County Historical Society, Oregon High Desert Museum, BLM, and USFS to educate the public on the history and significance of native American culture.
6. Deschutes County shall encourage and assist law enforcement agencies in the prevention of vandalism and enforcement of laws designed to protect archaeological sites on non-federal land.

7. Deschutes County shall encourage private landowners to have significant archaeological sites nominated to the National Register of Historic Places.
8. Deschutes County shall investigate potential incentives (in addition to those offered by the National Register program) for private landowners who would allow scientific and/or educational study of archaeological sites on their property.

## Historic and Cultural Goal and Policies (see also Historic and Cultural Section, page 2-63)

### Goal

Existing goals sufficient.

### Policies

1. Deschutes County shall encourage private landowners to have significant historic and cultural sites nominated to the National Register of Historic Places.
2. Deschutes County shall encourage and assist the landowner of the Tetherow Crossing site to preserve this area for its outstanding archaeological, historic, and educational value.
3. Deschutes County shall review any excavation work proposed for the Camp Polk site and shall assist the landowners to work out a means of preserving this area for its outstanding historic and educational value.
4. Deschutes County shall encourage and assist the landowner in preserving the Vandever Homestead for its outstanding historic and educational value.
5. Deschutes County shall encourage and assist the landowner in preserving the Shevlin-Hixon Lumber Mill for its outstanding historic and educational value.
6. Deschutes County shall encourage and assist the USFS in preserving the Benham Falls site for its outstanding historic and educational value.
7. Deschutes County shall support the creation of a private, non-profit land trust as a means of helping landowners preserve property of historic and cultural significance.



## Deschutes Basin Resource Committee

### **Purpose**

The purpose of the Deschutes Basin Resource Committee is to recommend to the Deschutes County Board of Commissioners and the Bend City Commission the means to accomplish the water resource goals and policies contained within the River Study and to provide an ongoing forum for direction and policy for maintaining and enhancing the Deschutes River Basin.

Because many of the goals and policies are beyond the scope of City or County jurisdiction and require action by state agencies or the Legislature, the committee's purpose is to review and monitor state laws and to recommend to the County Planning Commission and the Bend Urban Area Planning Commission changes in such laws necessary to carry out the goals and policies contained in the River Study.

### **Authority**

The Water Conservation Committee is an advisory committee charged with making recommendations to the governing bodies of Deschutes County and the City of Bend on how to implement the water resources goals and policies of the River Study and other matters dealing with the Deschutes River and its tributaries.

### **Committee Members**

The Water Conservation Committee shall be made up of the following members, to be appointed by the Deschutes County Board of Commissioners and the Bend City Commission:

1. A representative from each of four irrigation districts.
2. One representative from the Oregon Department of Water Resources.
3. One representative from the Oregon Department of Fish and Wildlife.
4. One representative from the U.S. Forest Service.
5. One representative from the Deschutes County Planning Commission.
6. One representative from the Bend Urban Area Planning Commission.
7. One representative from a non-consumptive water resource user (e.g., recreator).
8. One representative from a local environmental organization.
9. Two representatives from the public at large.
10. The County and City shall provide adequate staff and material support for the committee.

## **Responsibilities**

1. Consultation: In providing advice to the governing bodies, the Water Conservation Committee should:
  - a. Request assistance through Bonneville Power Administration's (BPA's) technical assistance program for technical improvements in methods of irrigation and means of conservation of both water and energy.
  - b. Request assistance from the Water Resources Department, Bureau of Reclamation, and the soil and conservation districts, to initiate an in-depth study and priority of actions that should be taken to improve the irrigation districts' delivery system.
2. Review and study of state laws.
3. Study and make recommendations consistent with policies of comprehensive plans related to water resources.
4. Reporting to County/City Planning Commissions at least semi-annually.

# Deschutes River Corridor

## Background

This section was added to the Comprehensive Plan in 1986 to provide goals and policies specifically for the Deschutes River Corridor. Many of the goals and policies in this chapter were recognized to be beyond the scope of county jurisdiction, requiring action by state agencies or the Legislature. Yet, these goals were included in the plan because they were deemed to have a crucial role in the preservation and revitalization of the Deschutes River Basin.




There was little text originally included with this chapter, with the goals and policies speaking for the County interest in protecting the river corridor. Additionally, this chapter was written in a different format than the original plan. Instead of a list of goals followed by a list of policies, generally this chapter has a goal followed by related policies, followed by another goal and its related policies. It is also a bit confusing since the goals and policies are broken up into areas such as energy or fish, which might be a better fit in the Energy and Fish and Wildlife sections of this plan.

During the 2008 Comprehensive Plan clean-up, it was determined that clarity would be lost if the goals and policies were reformatted to more closely match the rest of the plan. Additionally assigning parts of this section to other chapters in the plan, such as moving the water resources goals under the Water Resources section, was confusing due to the formatting differences.

Consequently, this section has been retained, and comments have been added to identify where additional information and goals and policies may be found.

*This Section implements part of State Planning Goal 5: Open Spaces, Scenic and Historic Areas and Natural Resources*

# Energy



Goals & Policies

(see also the Deschutes River Corridor section on page 2-25 for additional goals and policies)

## Goals

1. To protect local natural energy sources.
2. To manage land uses to maximize the conservation of all forms of energy.
3. To assist, as appropriate, in the provision for adequate local energy supplies.

## Policies

### General

1. The County shall review and promote the development and use of local alternative energy sources in order to prepare for future shortages and to reduce the outflow of local dollars to buy energy.
2. Coordinated planning between local energy providers, particularly electrical, and the County Planning Department shall be sought. This planning is to be directed at determining energy needs in all parts of the County and assisting in the provision of adequate supplies and capital facilities.
3. Construction of large thermal or nuclear plants locally should be discouraged unless approved by a public vote.
4. Energy Assessment: During major plan updates, or more often as necessary, the County shall assess its energy use and the potential for energy conservation. The County shall use information available from the state and federal governments and utility companies.

### Alternative energy sources - Geothermal resources

5. Public involvement
  - a. The Planning Division shall ensure that citizens, land owners, and lease holders are given ample opportunity to be involved in all phases of geothermal planning and decision-making that occur under the County's jurisdiction. This involvement program shall provide for continuity of citizen participation, and for information that enables citizens to identify and comprehend geothermal issues.

- b. Federal and state agencies exercising geothermal responsibilities in the County shall be expected and encouraged to make use of the County's existing citizen involvement program whenever appropriate.
6. Intergovernmental coordination
- a. The County shall encourage the formulation of federal and state land and resource management policies which are consistent with the County's geothermal policies. In this regard the County shall endeavor to become a partner with the federal and state governments in determining the future of geothermal energy in the County.
  - b. In view of the multiplicity of governmental jurisdiction over geothermal resources, the County shall seek close coordination with all affected local, state, and federal agencies. In this regard the Planning Division shall maintain regular communications with federal and state agencies that are exercising geothermal responsibilities in the County, and shall keep local officials informed of federal and state actions accordingly.
7. Resource assessment
- a. In order to identify and protect the undefined values of its geothermal resources, the County shall support continued resource assessment activities by the public and private sectors. In this regard, the Planning Division shall monitor such activities and collect additional resource data wherever possible for inclusion in the Geothermal Element during updates or amendments.
  - b. In recognition of the public benefit derived from greater resource knowledge, the County may undertake its own resource assessment activities where such work is expected to ultimately benefit the local economy. The results of County-sponsored resource assessment will be given the widest possible dissemination in order to facilitate further geothermal development consistent with County policies.
8. Resource Utilization
- a. The County supports utilization of geothermal resources, either with heat pumps, direct applications, or for purposes of generating power. However, such support is conditioned on the determination that the proposed use can be developed in a timely, orderly, and environmentally-sound manner, and that adequate protection of the resource is provided so as to ensure its continued availability and productivity over time. Further, such support is limited to those resource areas where conflicting uses are not considered predominant, as identified in Policy 6 of this section.
  - b. When County facilities are to be renovated or newly constructed, consideration shall be given to the use of geothermal resources in these facilities when such use is technically and economically advantageous. The County shall encourage other local entities to conduct similar geothermal evaluations during their facility planning processes.

9. Economic development
  - a. The County's support for geothermal development shall be closely coordinated with its economic development program. The County believes that its low and moderate-temperature resources may offer a significant comparative advantage to business and industry, and it shall support geothermal projects that serve to retain or create employment opportunities in the County.
10. Land-Use
  - a. For purposes of compliance with Statewide Planning Goal 5, the County believes its geothermal resources and the conflicting uses identified in Section 4 of the Element should be balanced according to site-specific relative merits. Implementation measures shall provide protection for conflicting uses by conditionally allowing geothermal exploration and production, thereby balancing the benefits to the County from both geothermal resources and conflicting uses. This policy shall apply to all resource areas inventoried in Section 2 of the Element, except in those areas where the conflicting uses listed in Table 4.1 of the Element shall be fully protected as follows:
    - i. Exploration and Production Prohibited
      - That portion of the Newberry Volcano resource area lying within the exclusion area boundary shown in Exhibit "B."
      - Those areas presently defined by the Deschutes National Forest Land & Resource Management Plan, incorporated hereby reference, as ineligible for leasing, specifically: Wilderness, Research Natural Areas, Experimental Forest, Bend Municipal Watershed, Developed Recreation Areas, and Dispersed Recreation Unroaded Winter Areas.
    - ii. Production Prohibited (Exploration Allowed).
      - Those areas presently defined by the Deschutes National Forest Land & Resource Management Plan, incorporated hereby by reference, as being limited to no surface occupancy, specifically: Experimental Forest, Dispersed Recreation Unroaded Areas, Dispersed Roaded Areas, Developed Recreation Areas, Protection Management Areas, Special Management Areas, Potential Research Natural Areas, and Threatened and Endangered Species Areas. The County has determined that conflicting uses shall be fully protected in the foregoing areas because of the greater economic, social, and environmental benefits that accrue from the conflicting uses. In researching this determination, the County has relied upon the discussion of conflicting uses and their consequences contained in Sections 4 and 5 of the Geothermal Element; the Rural Development, Economy, and Recreation sections of the Growth Management Element of the Comprehensive Plan; the Forest Lands, Open Spaces, Fish & Wildlife, and Historic & Cultural

sections of the Resource Management Element of the Comprehensive Plan; the Recreation, Fish & Wildlife, Special Uses, Visual Quality, Economy, Employment, and Forest Dependent Community Concept sections of the Deschutes National Forest Land & Resource Management Plan; and the Oregon Department of Economic Development 1983 Annual Economic Report for Deschutes County. It is the County's determination that the conflicting use information contained in these references constitutes sufficient evidence of the greater importance of the conflicting uses to the County, thereby warranting exclusion of geothermal exploration and/ or production in the areas cited above.

- The County recognizes that if utilization of geothermal energy is to be optimized, the designation of land-uses for areas overlying geothermal resources must accommodate those uses to which the resources can be applied. In this regard, the County shall incorporate geothermal utilization as a determinant in land-use planning; and, where appropriate, shall review permitted uses that can utilize geothermal resources if and when suitable resources are confirmed in an area. However, geothermal end-uses shall be permitted only where their compatibility with surrounding land-uses can be demonstrated with certainty.

11. Environmental protection

- a. In all cases the County's support for geothermal development shall be conditioned upon satisfactory evidence that sufficient environmental safeguards are provided. Environmental concerns of the County shall include, but not be limited to: air quality, water quality, noise, subsidence, induced seismicity, water consumption, fish and wildlife, vegetation, historic and cultural resources, visual and scenic qualities, erosion and earth stability, waste disposal, and public safety and health.

12. Public facilities and services

- a. In addition to Policy 7(a), in all cases the County's support for geothermal development shall depend on the extent of impacts to public facilities and services. In this regard, the County's concerns shall include, but not be limited to: roads, drainage, schools, law enforcement, fire protection, water supply, sewage disposal, solid waste disposal, and general administrative services.
- b. The Planning Division, in consultation with the Public Works Department, shall monitor geothermal activities in order to forecast impacts to public facilities and services; and shall prepare capital improvement or related plans accordingly so as to support geothermal development in a timely and orderly manner with a level of facilities and services appropriate to such development.

13. Fiscal responsibilities

- a. In recognition of specialized administrative demands that may be placed on the County by geothermal developers, the County shall require said developers to defray County expenses associated with processing a geothermal permit request, or conduction related studies or monitoring programs, directly required by a geothermal project. This Policy shall also extend to any government agency engaged in geothermal development.

## **Alternative energy sources**

14. Wind: Because the wind is a non-polluting, renewable energy source, major wind devices and associated facilities shall be conditional uses in agricultural, forest and other rural zones. Also, small scale (less than 20 KW) private use of wind generators or pumps shall be encouraged.
15. Wood and slash wood: Given the availability and usefulness of waste and slash wood the County shall maintain a waste wood dump for processors where the material shall be made available to the public, and shall encourage U.S. Forest Service projects which make slash wood available.
16. Solar: Because it is renewable and in plentiful supply locally the County shall encourage the use of solar energy by:
  - a. Promoting the construction of housing with its long axis in the east-west direction and having solar access three hours before and after solar noon (variances because of topography, rock outcroppings or alternative solar access means may be permitted);
  - b. Providing avenues for establishing solar property rights (see ORS 215.110) by such methods as solar sky space protective covenants in new developments and creating standard methodology for adjacent properties to establish solar sky space easements; and,
  - c. Allowing for future centralized solar generation of electricity in the large vacant areas in the eastern portions of the County (particularly on BLM lands).
17. Internal Operations: The County shall, when practicable, make energy efficiency and the use of renewable resources a regular practice in its design and operation of buildings, equipment and public facilities and services.

## **Recycling**

18. Recycling is an effective method of energy conservation. The County has adopted a County-wide recycling program in compliance with Senate Bill 405. The primary responsibility for this program is through the County Solid Waste Division. The ongoing recycling program will provide for the following:
  - a. Identify projects and methods to achieve the specific goals; and



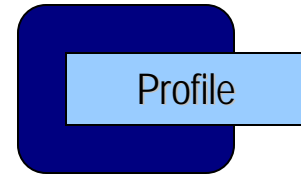
- b. Require and annual review of program status.
19. The County shall consider the designation of a County employee as Recycling Coordinator who is responsible for:
  - a. Encouraging recycling throughout the County;
  - b. Fostering communications about recycling among local governmental agencies, organizations and the public; and,
  - c. Providing assistance to the County Solid Waste Advisory Committee in considering and implementing ways to increase local recycling activities.
20. The County shall also consider recycling when enacting ordinances, issuing contracts and franchises and when purchasing supplies.
21. The County shall study the possibility of initiating pilot projects regarding source separation of recyclables and their collection in existing or new garbage franchises.
22. The County shall seek funds to provide staff assistance and resources for developing recycling drop-off and storage centers in the Bend, Redmond, Sisters and La Pine areas.

## **Conservation**

23. All homes constructed in Deschutes County shall meet State insulation standards. The County shall consider more stringent standards (both prescriptive and equivalent performance criteria) and encourage innovative building design which meets the intent of the prescriptive standards.
24. To assist the public in understanding energy conservation in their homes the County will rate the "thermal effectiveness" of new or existing dwellings, if an owner requests, based on such factors as window placement, shading, insulation values and thermal mass, and other factors similar to the City of Davis, California, Community Development Department Standards.
25. Because multi-family housing and other types of common wall construction is more energy efficient the County shall encourage such development in urban areas.
26. Since "leapfrog" and scattered development is wasteful of energy in the provision of services (school buses, fire protection, utilities and transportation) these patterns shall not be permitted (see Rural Development and Urbanization chapters), and future development should occur in higher densities along existing corridors in urban areas.
27. Public/Private Actions: The County shall encourage local residents and businesses to conserve energy, to use renewable resources and to recycle materials. The County shall coordinate its efforts with those of local organizations, special districts, utility companies and state and federal agencies.
28. At the time of subdivision review, the County shall see that: Covenants which prevent energy conservation, such as roofline requirements

- precluding solar panels, bans on clotheslines and prohibitions on street motorcycles, shall not be established in proposed developments.
29. The County shall account for its 1% bicycle funds from the State Highway Funds, and shall provide this accounting to the Bicycle Advisory Committee on an annual basis. The 1% funds shall be the minimum spent to provide bicycle and pedestrian facilities within the County. The County shall establish methods for funding pedestrian and bicycle facilities that are not within the public right-of-way and therefore are not eligible for the 1% funds.
  30. The County shall consider setting aside monies which might otherwise be used for expanding motorized traffic ways and apply them toward a non-motorized transportation system which accesses educational, recreation, employment and shopping areas as well as connects to new development.
  31. Oregon imports 45% of its energy as fuel for motorized vehicles. Nonmotorized transportation is recognized as an important way to conserve energy. The County shall provide bicycle and pedestrian connections between schools, residential areas, parks and other recreation attractions, shopping centers, and other commercial and industrial centers. In addition, the County shall encourage nonmotorized modes through the use of techniques such as designating nonmotorized areas (pedestrian malls), installing traffic cells and traffic calming designs, allocating a greater share of street space to nonmotorized modes, restricting motor vehicle parking, and other pedestrian and bicycle-oriented land use patterns.
  32. As much as possible non-motorized systems should be favored over motorized transportation systems.
  33. New major consumers of energy, such as commerce and industry, shall be located whenever possible near established energy distribution centers.
  34. The County should set an example by weatherizing its buildings and considering passive or active solar heat, perhaps with assistance from retrofit grants.
  35. To promote public awareness of the reasons and need for energy conservation the County shall develop an educational program for use County-wide.

# Energy



## Background

In 1979 when this plan was written, Deschutes County was an importer of energy. The Bonneville Power Administration had stated that after 1983 they would no longer assure 100 per cent distribution of electrical power. As with the rest of the nation, Deschutes County anticipated increasingly expensive gasoline and possibly even shortages. Therefore, it was considered likely that the County would face serious problems in the near future unless precautions were taken in time.

## Energy Sources

At that time, hydropower generation in the County was limited to two sites which were operating at capacity, with another potential site at Wickiup Dam. Another possible energy source was fossil fuel development in the eastern portion of the County, which while infeasible at the time, was seen as possible in the future. There was also the prospect for an increase in local natural gas supplies through the construction of a second and even third natural gas pipeline through Central Oregon

*This Section implements  
State Planning Goal 13:  
Energy*

Some geothermal investigation was occurring near Newberry Crater and also near the Three Sisters Mountains. Environmental impact statements to permit appropriate exploration in the Cascades had already been prepared. Problems with objectionable smells from released gases, possible groundwater contamination, earth subsidence or quakes were all hazards to be considered in geothermal energy use. Loss of recreational lands and aesthetic qualities also needed to be considered.

At the time, a State-wide Siting Task Force Report showed few, if any, appropriate sites for coal or natural gas thermal generation plants in the County.

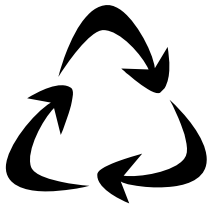
The County did see some possibility for other types of energy production. Wind generation was thought to be feasible if it could be tied to the existing power grid. Waste wood burning was popular and feasible and one local manufacturer had constructed a 9000 KW facility, while another had the possibility of saving 6.9 million cubic feet of natural gas each year using waste wood. County Pollution Control Bonds were thought to be able to finance conversion from fossil fuels to wood waste, because that conversion would

reduce a major solid waste problem, reduce energy costs to local industries and slow the outflow of local money for imported energy.

Solar energy was another source considered a real possibility for Deschutes County. Proper siting of housing with a solar orientation was thought to permit critical sunlight access. Passive solar methods, such as proper window placement and seasonal shading, were also believed to have significant impact.

## **Conservation and Recycling**

Energy conservation was seen as another important idea that could reduce pollution, free existing energy resources for other uses and decrease the outflow of money for energy. Education was determined to be the most obvious way to promote conservation and could be achieved through coordination with the Extension Service and establishing a paid coordinator. Another conservation method considered was regulation, such as establishing higher building and subdivision standards. Education and regulation could be combined to require thermal ratings for new buildings and to promote more efficient lay-outs. Another idea was to require the heat loss analyses performed by utility companies to be kept on file for public review.



Recycling was also determined to be an energy saver. For example, at that time, aluminum when reclaimed took only four percent of the energy required to process raw ore, including handling and transportation costs. Recycled copper required only 11 percent of the energy needed to obtain the metal from raw ores. Some recycling already existed locally but much more was thought possible.

## **Transportation**

In 1979 one of the biggest energy issues to face Deschutes County was transportation. Transportation consumed 36 percent of total Statewide energy use, and it constituted 56 percent of an average household's energy use. As a rural area, Deschutes County was heavily dependent on automobiles and thereby consumed considerable gasoline. The difficulty of reducing motorized vehicles was understood, but the effect would be lower energy use, pollution levels and expenses. Just the reduction of road construction and maintenance (re-sealing, snowplowing, etc.) would save considerable energy.

## **Geothermal Element**

A study of geothermal resources was completed and adopted as part of the Resource Element in 1985. New Goals and Policies were added to the plan based on that study.

# Surface Mining



## Goal

1. To protect and utilize appropriately, within the framework established by Statewide Land Use Planning Goal 5 and its implementing administrative rules, the mineral and aggregate resources of Deschutes County, while minimizing the adverse impacts of mineral and aggregate extraction and processing upon the resource impact area.

## Policies

### General

1. These policies set forth the general guidelines under which the County will implement the Goal 5 process for mineral and aggregate resources, and assure compliance with all other applicable statewide land use planning goals. More specific policies relating to utilization of mineral and aggregate resources under particular circumstances and at particular sites may be adopted by and set forth in the County's zoning ordinance provisions.
2. For purposes of these policies, where applicable, the terms used shall have the same meaning as those terms in the administrative rules implementing Statewide Land Use Planning Goal 5.
3. The mineral and aggregate goal and policies outlined in the comprehensive plan are intended to reflect the requirements of Goal 5 and the implementing administrative rules. Where a policy or interpretation conflicts with Goal 5 or the rules, the provisions of the Goal or rules shall control.

### **Surface Mining Identification and Designation.**

4. The County shall encourage resource conservation.
5. The County shall encourage the use of materials which can be substituted for sand and gravel.
6. Land use decisions of the County shall be based upon balanced consideration of the location, availability and value of mineral and aggregate resources, and conflicting resources and uses as designated in the comprehensive plan.
7. The County shall review, as part of each periodic review process, the status of mineral and aggregate resources in the County.

8. Sufficient SM (Surface Mining) zoning shall be maintained by the County to satisfy, at a minimum, the demand for mineral and aggregate resources of the County as reflected by the data contained in the comprehensive plan. The County shall not deny SM zoning for any mineral and aggregate resource site for the sole reason that the demand of the County for that resource has been satisfied by the SM zoning of other sites.
9. The County shall retain ownership of County-owned lands which are zoned SM pursuant to this plan and the Goal 5 process. The County may permit private operators to mine County-owned resources.
10. A mineral and aggregate resource site not on the current inventory shall be placed on the inventory and zoned SM when the following conditions are met:
  - a. A report is provided verifying the location, type, quantity and quality of the resource; and
  - b. The Goal 5 conflict identification and resolution (ESEE) process results in a determination that the resource is of sufficient importance relative to conflicting resources and uses, if any, to require protection.
11. The County shall identify and protect sites for the storage, extraction and processing of mineral and aggregate resources within the framework of Goal 5 and its implementing administrative rules.
12. If the Goal 5 process does not identify resources or uses which conflict with inventoried mineral and aggregate resource sites, such resource sites, whether or not they are actively being utilized at the time of plan amendment, shall be zoned SM.
13. If conflicting resources or uses are identified through the Goal 5 process, a mineral and aggregate resource site shall be zoned SM if it is determined to be of such importance relative to conflicting resources or uses as to require protection. Uses which would interfere with the present or future use of the SM site shall not be allowed, or shall be limited so as not to preclude use of the SM site, until the mineral and aggregate resource has been depleted.
14. SM zoning shall be prohibited in critical and sensitive resource areas (such a fish and wildlife habitats, wetlands and riparian areas, recreation and open space areas, and archaeological and historic sites) when such areas and resources have been evaluated in light of all comprehensive plan goals and policies, and are determined through the Goal 5 process to conflict with the SM site and to be of such importance relative to an inventoried mineral and aggregate resource site as to require complete protection.
15. Although extraction of mineral and aggregate resources is considered by this plan to be a transitional land use, interim uses (prior to extraction) and secondary uses (after depletion) compatible with the development of lands in the impact area of an SM site shall be designated as allowed uses on SM sites. Such interim and secondary land uses shall be

identified prior to extraction so uses inconsistent with the plan are avoided.

16. As part of the periodic review, the County will evaluate the economic, social, environmental and energy (ESEE) consequences of conflicting resources identified as significant Goal 5 resources in the ESEE analysis for surface mining sites and will develop programs(s) to achieve the Goal (OAR 660, Division 16). The ESEE analysis and program(s) for protecting each 'significant' Goal 5 resource will be consistent with the ESEE analysis and OAR 660, Division 16. If upon further examination, the County determines that a resource, described as a conflicting resource in an ESEE analysis for a 3(b) or 3(c) surface mining site is not a "significant" Goal 5 resource or that the level of protection is not consistent with the level of protection for the conflicting resource adopted under a surface mining ESEE analysis, the County will re-evaluate its ESEE analysis to be consistent with the new determination for the conflicting Goal 5 resource. Consistent with OAR 660, Division 16, the County will reconsider its decisions pursuant to any revised ESEE analysis for surface mining sites. Where impacts upon a Goal 5 resource are identified as a social consequence of conflicting residential uses (e.g., scenic and wildlife amenities or rural lifestyles) and the amenities are not identified as significant Goal 5 resources conflicting with the mining site, the evaluation process described above is not required to be undertaken. The County will document the reason for not conducting the evaluation described above.

## **Surface Mining Operations.**

17. Uses permitted outright or conditionally in the SM zone shall include:
  - a. Extraction, processing and storage of mineral and aggregate resources; and
  - b. Necessary ancillary activities related to the uses listed in Policy 17(a) above.
18. If timber or other similar renewable resources are identified in the Goal 5 process as existing on an SM site, the utilization of such other resources before use of the mineral and aggregate resources shall be encouraged.
19. Extraction and processing of mineral and aggregate resources shall be conducted in accordance with all applicable County, state and federal standards.
20. Increased setbacks, insulation, screening and other similar conditions, required as a result of a site-specific Goal 5 ESEE analysis, shall be required for approval of any new residential, recreational or other conflicting development or use on lands in the impact area of SM sites.
21. The County may establish additional standards and procedures to minimize visual impact, noise, air and water pollution, natural and operating hazards and other environmental impacts of the extraction and processing of the impact area, where required as a result of a site-

- specific Goal 5 ESEE analysis. The County shall adopt and apply more stringent operating standards, if required by a site-specific Goal 5 ESEE analysis, where lands in the impact area are zoned residential, landscape management, wildlife or other similar overlay zones, or where such impact area has particularly sensitive resources or uses identified in the comprehensive plan, such as wildlife nesting or spawning sites or intensive recreational uses.
22. Where operating standards and procedures are established for a surface mining site through a site-specific ESEE analysis, and such site-specific standards and procedures conflict with standards and procedures in the surface mining provisions of the County's zoning ordinance, the standards and procedures in the site-specific ESEE analysis shall control.
  23. Surface mining sites which on the effective date of this Ordinance have a valid permit or exemption from the State Department of Geology and Mineral Industries (DOGAMI) and/or the County shall be registered with the County. Once registered, such sites shall be subject to the standards and procedures in the site-specific ESEE analysis and/or the surface mining provisions of the County's zoning ordinance only when the surface mining activity on such sites is expanded beyond the boundaries of the area covered by the existing DOGAMI and/or County permit or exemption.
  24. Mineral and aggregate resource sites zoned SM, except those with a valid DOGAMI permit or exemption and/or County permit on the date that SM zoning is applied, shall not be operated for extraction or processing unless a site plan and reclamation plan, including mitigation measures where required, have been approved in writing by the County and DOGAMI, respectively. Site plans shall be developed with citizen participation. Site plans shall, at a minimum, comply with all DOGAMI reclamation plan requirements, and may include additional requirements.
  25. Identified conflicts between mineral and aggregate resource sites and resources and uses in the impact area where the conflicting resources and uses have been determined to be of equal importance relative to the mineral and aggregate resource, shall be minimized by plans developed under the Goal 5 conflict resolution process and which utilize methods including, but not limited to:
    - a. Requiring the surface mining operator to comply with all applicable requirements of County, state and federal agencies;
    - b. Planning the development of lands in the impact areas so as to minimize disruptions in the beneficial use of both the mineral and aggregate resource and the uses in the impact area.
    - c. Imposing appropriate conditions on land use permits and approvals.
  26. Extraction of mineral and aggregate resources for non-commercial uses shall conform to the same environmental and regulatory standards as are applicable to commercial operators, when necessary to protect land

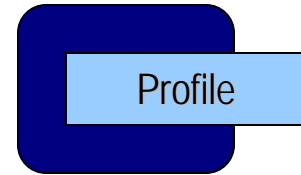


uses adjacent to the resource site. On lands not zoned SM, such non-commercial extraction may be allowed as a conditional use.

27. The County shall have the authority to enforce conditions of approval and provisions of the County zoning ordinances, and to the extent otherwise provided by law, the regulations of other governmental agencies, relating to the extraction and processing of mineral and aggregate resources, and the reclamation of surface mining sites, to prevent violations thereof.

### **Non-Goal 5 Aggregate Resources.**

28. The County shall develop a mineral and aggregate resource list that includes mineral resource sites exclusive of those intended for protection under Goal 5.
29. A mineral and aggregate resource site may be placed on the inventory when the following conditions are met.
  - a. A report is provided verifying the location, type and quantity of the resource.
  - b. The mineral and aggregate resource does not meet the Goal 5 significance criteria listed in OAR 660-023-0180(3) for a significant mineral and aggregate site.
30. Mineral and aggregate resource sites listed on the non-significant inventory shall not be operated for extraction unless a conditional use permit, including mitigation measures where required, has been approved by the County.



# Surface Mining

## Background

In 1979, the mining of mineral and aggregate resources was considered an important local industry. The removal of non-renewable resources, such as pumice, cinders, building stone, sand, gravel and crushed rock, provided employment as well as products important to local economic development.

Yet, the increasing demand for mineral and aggregate resources led mining operations to come into direct conflict with adjacent land uses, particularly residential uses. Surface mines are often incompatible with residential areas because of their environmental impacts. This condition can be aggravated by delayed or incomplete reclamation of the land.

*This Section implements part of State Planning Goal 5: Open Spaces, Scenic and Historic Areas and Natural Resources*

Both the population and the demand for resources were expected to grow, leading to increased conflicts between surface mines and residential communities. A balance was needed between allowing the mining of identified aggregate resources and protecting residents from its impacts.

## Mineral and Aggregate Demand and Inventory

When this plan was adopted a thorough analysis of historic and projected demand for, and supply of, mineral and aggregate resources was completed. The demand numbers were updated in the 1990s, based on population projections at that time. As of 2008 the demand numbers are outdated and of minimal use.

Unlike the projected demand, the supply inventory of mineral and aggregate sites has been continuously updated and can be found in the following table.

**Goal 5 Inventory – Mineral and Aggregate Sites**

<i>Site #</i>	<i>Legal Description</i>	<i>Name</i>	<i>Type</i>	<i>Quantity*</i>	<i>Quality</i>	<i>Access/Location</i>
246	11010-00-00205, 207, 300, 302, 303	Tewalt	S & G	10,000	Good	Hwy 20
248	151012-00-00100	Cyrus	Cinders	30.2 M	Excellent	Cloverdale Road
249	151025-00-02502,2505	RL Coats	Rock	250,000	ODOT specs	
251	151211-D0-01400,151214-A0-00800	Cherry	S & G	125,000	Good	
252	151200-0-04700,04701	Thornburgh	Rock	2.5 M	Good	
271	151036-00-00800	Deschutes County	S & G	2 M	Mixed	Harrington Loop Rd.
273	151117-00-00100	Deschutes County	S & G	75,000	Excellent	Fryrear Rd/ Redmond-Sisters
274	151117-00-00700	Deschutes County	S & G		Excellent	Fryrear Rd.
275	151100-00-02400	Deschutes County	S & G	175,000	Good	Fryrear Landfill
277	151011-00-01100	Oregon State Hwy	S & G	100,000	ODOT Specs	
278	151140-A0-00901, 151211-D0-01200	State of Oregon	S & G	18,000	ODOT Specs	
282	171000-00-00100	Crown Pacific	Cinders	100,000	Fair	
283	171000-00-00100	Crown Pacific	Cinders	50,000	Fair	
288	171111-00-00700	Tumalo Irrigation	S & G	250,000	Good	
292	171112-00-00900	RL Coats	S & G	326,000	ODOT Specs	
293	17112-00-00500, 600, 700, 800	RL Coats	S & G	3 M	ODOT Specs	
294	171113-00-00817	Bend Aggregate	S & G	777,000	Excellent	Klippel Acres/Bend
296	171100-00-02702	Crown Pacific	Cinders	100,000	Excellent	Shelvin Park/Johnson Rd.
297	171123-00-00100	Crown Pacific	Cinders	60,000		Johnson Rd/Tumalo
303	171207-00-00300	Cascade Pumice	Pumice	750,000	Good	
303	171207-00-00300	Cascade Pumice	S & G	10,000	Good	
313	171433-0-00600	Deschutes County	S & G	100,000	Good	
313	171433-0-00600, 120	Deschutes County	Storage			Dodds Rd./Alfalfa
314	171332-00-01100	Deschutes County	Dirt	150,000	Good	
315	140900-00-02100	Stott	Rock	93,454 tons	ODOT Specs	Hwy. 20
316	140900-00-00202	Black Butte Ranch	S & W	7 M	Good	
317	140900-00-01300	Willamette Ind	Cinders	1.2 M	Good	
322	141200-00-01801	Fred Gunzner	S & G	1.5 M	Mixed	Lower Bridge /Terrebonne

**Goal 5 Inventory – Mineral and Aggregate Sites**

<i>Site #</i>	<i>Legal Description</i>	<i>Name</i>	<i>Type</i>	<i>Quantity*</i>	<i>Quality</i>	<i>Access/Location</i>
322	141200-00-01801	Gunzner	Diatomite	500,000	Good	Lower Bridge /Terrebonne
324	141200-00-00702	ODVA	S & G	490,000	Good	Lower Bridge /Terrebonne
326	141236-00-00300, 301	US Bank Trust	S & G	1.5 M	Good	
330	141328-00-00702, 703	Larry Davis	Cinders	50,000	Good	
331	141329-00-00100, 103	Ed Moore	Cinders	100,000	Good	
332	141329-00-00102	RL Coats	Cinders	2 M	Good	Northwest Way /Terrebonne
333	141329-00-00104	Robinson	Cinders	2.7 M	Good	
335	141333-00-00890	Erwin	Cinders	100,000	Excellent	Pershall Way/Redmond
336	141333-00-00400, 500	US Bank Trust	Cinders	4.5 M	Good	Cinder Butte/Redmond
339	141132-00-01500	Deschutes County	Dirt	200,000	Fill	Goodard Loop/Bend
341	161000-00-00106	Young & Morgan	S & G	1 M	Good	
342	220900-00-00203	Crown Pacific	Cinders	200,000	Good	
345	161000-00-01000	Crown Pacific	Cinders	50,000	Good	
346	161000-00-01000	Crown Pacific	Cinders	50,000	Good	
347	161101-00-00300	Deschutes County	Dirt	10,000	Good	
351	161112-00-01401, 1700, 2000	Gisler/Russell	Cinders	150,000	Good	Innes Mkt/Innes Butte
357	161136-D0-00100, 161100-00-10400, 10300	Tumalo Irrigation	Cinders	1 M		Johnson Rd/Tumalo
357	161136-D0-00100, 161100-00-10400, 10300	Tumalo Irrigation	S & G	500,000	Good	
357	161136-D0-00100, 161100-00-10400, 10300	Tumalo Irrigation	Pumice	500,000	Good	
358	161231-D0-01100	Gisler	S & G	100,000	ODOT Specs	Hwy. 20/Tumalo
361	161222-C0-02800	Oregon State Hwy	Cinders	700,000	Good	
366	161230-00-00000	Oregon State Hwy	S & G	40,000	ODOT Specs	
368	161220-00-00200	Bend Aggregate	S & G	570,000	Excellent	Twin Bridges/Tumalo
370	161231-D0-00400	Bend Aggregate Plant Site	Storage			
379	181100-00-01600	Oregon State Hwy	S & G	500,000	ODOT Specs	
381	181125-C0-12600, 181126-00-01600	Pieratt Bros	Cinders	50,000	Good	
390	181214-00-00500, 100	Deschutes County	Dirt	2 M		Landfill

**Goal 5 Inventory – Mineral and Aggregate Sites**

<i>Site #</i>	<i>Legal Description</i>	<i>Name</i>	<i>Type</i>	<i>Quantity*</i>	<i>Quality</i>	<i>Access/Location</i>
391	181221-00-00200	Central Or Pumice	Cinders	500,000	Good	
392	181223-00-00300	Rose	Rock	10 M Est	Mixed	
392	181223-00-00300	Rose	Dirt	7.5 M	Good	
393	181225-00-01400	LT Contractors	Cinders	12.5 M	Good	Arnold Mkt Rd/SE of Bend
394	181200-00-04400, 04411	Windlinx	Cinders	270,000	Course	Hwy 97/South of Bend
395	181200-00-04300	Oregon State Hwy	Cinders	100,000	Good	
400	181300-00-04501, 04502	Eric Coats	S & G	2.5 M	ODOT Specs	
404	191400-00-00200	Moon	S & G	1.3 M	Good	
404	191400-00-00200	Moon	Rock	800,000-2 M	Good	Hwy 20/East of Bend
405	191400-00-00600	Oregon State Hwy	Aggregate	50,000	ODOT Specs	
408	191600-00-01500	RL Coats	S & G	3 M	Good	
413	201500-00-01400	Deschutes County	S & G	30,000	Good/Excellent	Hwy 20/ East of Bend
414	201500-00-01500	Deschutes County	S & G	30,000	Good/Excellent	Hwy 20/ East of Bend
415	201716-00-00700	Deschutes County	S & G	30,000	Good/Excellent	Hwy 20/ East of Bend
416	201716-00-00200	Deschutes County	S & G	30,000	Good/Excellent	Hwy 20/ East of Bend
417	201716-00-00900	Deschutes County	S & G	30,000	Good/Excellent	Hwy 20/ East of Bend
418	201716-00-01000	Deschutes County	S & G	30,000	Good/Excellent	Hwy 20/ East of Bend
419	201716-00-01300	Deschutes County	S & G	30,000	Good/Excellent	Hwy 20/ East of Bend
421	212000-00-00900	RL Coats	S & G	500,000	Excellent	Hwy 20/Tumalo
423	211106-C0-00700	Ray Rothbard	S & G	100,000	Good	
426	211100-00-00702	La Pine Redi-Mix	S & G	1 M	Good	
427	211100-00-00701	Bill Bagley	S & G	40,000	Good	
431	221100-00-00600	Russell	Cinders/Rock	12 M/1.2 M	Good	Finley Butte
432	221100-00-00500	State of Oregon	Cinders	160,000	Good	
433	211300-00-00101	La Pine Pumice	Lump Pumice	10 M	Excellent	
441	150903-00-00300	Willamette Ind	S & G	11 M	Good	
442	150909-00-00400	Willamette Ind	S & G	6 M	Good	
443	150917-00-00600	Willamette Ind	Rock	150,000	Fair	
453	161209, 10-00-00600, 301	Robert Fullhart	S & G	704,000	ODOT Specs	
459	141131-00-05200	Deschutes County	Cinders	50,000	Good	

**Goal 5 Inventory – Mineral and Aggregate Sites**

<i>Site #</i>	<i>Legal Description</i>	<i>Name</i>	<i>Type</i>	<i>Quantity*</i>	<i>Quality</i>	<i>Access/Location</i>
461	141300-00-01500, 1501, 1502, 1503, 1505	Nolan	S & G	350,000	Good	
461	141200-00-01501, 1502, 1503, 1505, 1600	Franklin Nolan	Diatomite	2 M	Good	
465	141333-00-00900	Oregon State Hwy	Cinders	10,000	Good	
466	141333-00-00600	Fred Elliott	Cinders	5.5. M	Good	
467	141333-00-00601	Knorr Rock Co	Cinders	5 M	Good	
469	141131-00-00100	Deschutes County	Cinders	2 M	Fair	
475	151012-00-00600	Deschutes County	Cinders	200,0000	Good	Cloverdale Rd
482	151300-00-00103	Deschutes County	Dirt	2 M	Good	Negus Landfill
488	161230-00-00100, 600, 2000, 2100	Bend Aggregate	S & G	400,000	ODOT Specs	
496	191400-00-00500	Taylor	S & G	1.8 M	Mixed	Hwy 20
498	191400-00-02200	Oregon State Hwy	S & G	200,000	ODOT Specs	
499	191533-00-00200	Oregon State Hwy	S & G	50,000	ODOT Specs	
500	191500-00-00099	Oregon State Hwy	S & G	130,000	ODOT Specs	
501	191500-00-01600	Oregon State Hwy	S & G	50,000	ODOT Specs	
503	191600-00-01300	Oregon State Hwy	S & G	200,000	ODOT Specs	
505	201600-00-00400	Oregon State Hwy	S & G	275,000	ODOT Specs	
506	201600-00-00600, 700, 800	Oregon State Hwy	S & G	36,000	ODOT Specs	
508	201700-00-01000	State of Oregon	S & G	100,000	ODOT Specs	
515	201801-00-00100	Oregon State Hwy	S & G	100,000	ODOT Specs	
522	211900-00-01000	Oregon State Hwy	S & G	300,000	ODOT Specs	
524	212000-00-01900	Oregon State Hwy	S & G	300,000	ODOT Specs	
528	222110-00-00600	Oregon State Hwy	S & G	45,000	ODOT Specs	
529	221100-00-00300	Oregon State Hwy	S & G	31,000	ODOT Specs	
533	222100-00-00800	Oregon State Hwy	S & G	1 M	ODOT Specs	
541	141035-00-02000, 2100, 2200, 2300, 2400, 2500, 2600	Cyrus	Aggregate	528,000	Good	Inc Portions of TL 1800/1900
542	151001-00-02700	Swarens	Aggregate	80,000	Good	
543	151013-00-00100	Cyrus	Aggregate	1.1 M	Good	
600	191400-00-00700	Robinson	S & G	3.8 M	Good	Hwy 20/East of Bend

**Goal 5 Inventory – Mineral and Aggregate Sites**


<i>Site #</i>	<i>Legal Description</i>	<i>Name</i>	<i>Type</i>	<i>Quantity*</i>	<i>Quality</i>	<i>Access/Location</i>
601	211100-00-00700	La Pine Redi Mix	S & G	479,000	DEQ Specs	Paulina Lake Rd

\* Quantity in cubic yards unless noted

**Non-Significant Inventory – Mineral and Aggregate Sites**

<i>Site #</i>	<i>Legal Description</i>	<i>Name</i>	<i>Type</i>	<i>Quantity</i>	<i>Comments</i>
100	15-10-13-700	Whychus (Squaw) Creek Irrigation District – Watson Reservoir I	Silt, Sand, Dirt	200,000 cy	Reservoir size is 80 acres
101	15-10-13-700	Whychus (Squaw) Creek Irrigation District – Watson Reservoir II	Sand, Dirt	600,000 cy	Reservoir size is 40 acres
102	14-11-33-500	Whychus (Squaw) Creek Irrigation District - McKenzie Reservoir	Silt, Sand, Dirt	100,000 cy	Reservoir size is 12 acres
103	14-11-33-500	Whychus (Squaw) Creek Irrigation District – McKenzie Reservoir Expansion	Sand, Dirt	250,000 to 300,000 cy	Reservoir expansion size is 20 acres

# Historic and Cultural



## Goals & Policies

(see also the Deschutes River Corridor section on page 2-25 for additional goals and policies)

## Goal

1. To preserve and protect historic and cultural resources of Deschutes County.

To achieve the identified goal a number of policies were developed. These policies reflect concerns that there be a specific agency responsible for protecting historic and cultural resources and that the agency's specific authority and duties needed to be identified. Also, that appropriate means by which the new agency, the cities and the County could protect the resources had to be found.

## Policies

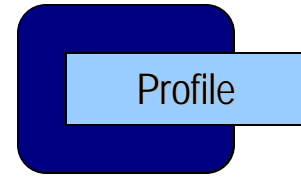
1. A joint Cities/County Historical Landmarks Commission shall be created by the incorporated cities and Deschutes County. The joint commission is meant to assure greater coordination in regard to identifying historical and cultural resources, protecting those resources, being fully representative of the various communities, serving in an advisory capacity to all local governing bodies and their agents, as well as promoting greater efficiency and better information in protecting the resources. The duties of the commission would be to:
  - a. Create a local register and priority value for historic and cultural resources of the County.
  - b. Review applications for designation of historical sites.
  - c. Advise governing bodies on ordinances and permits for demolition or alteration of historic or archeological sites.
  - d. Advise and help resolve land use conflicts affecting such resources.
  - e. Devise standards for historical markers.
2. Preservation of historic and cultural sites of high priority rating or that have been identified on the Deschutes County Inventory of Historical Places should take precedence over other developmental uses.
3. Emphasis shall be on preservation of the exterior appearance of historic buildings. Interior modifications and exterior changes compatible with the continued maintenance of the historic appearance of the structure shall be approved upon such findings of compatibility by the Historic Landmarks Commission.
4. Plans for the protection of an identified historic or cultural site shall be



submitted to the Historic Landmarks Commission for approval with any application for subdivision or development of such site or area.

5. Incentives should be developed to encourage private preservation and utilization of historical resources.
6. Redevelopment, Neighborhood Improvement Projects and other similar mechanisms shall be encouraged for areas of significant historical or architectural interest.
7. If funding is available, the County shall complete the Goal 5 process required for the Tumalo Grange, Terrebonne Grange, Central Oregon Irrigation District (numerous locations) and Rock O' the Range Bridge sites in accordance with OAR 660-16 by the end of the 1994-95 State Historic Preservation Office grant period.

# Historic and Cultural



## Background

Deschutes County's rural area represents a proud heritage of exploration, settlement and agriculture. Deschutes County's countryside is a rich and descriptive historical document that tells us how generations of people from vastly different backgrounds adapted to and exploited a land of lakes and rivers, mountains and hills, forests and high deserts.

As part of that heritage, buildings teach us valuable lessons. They show us how and why the area developed and what building materials were available. The ways in which they were constructed tell us about their functions and the influence of the land and elements. In addition to buildings, significant information is provided by rock shelters, cemeteries and individual graves, ranches, trails, wagon train routes, islands, townsites, mill sites, fish hatcheries, river crossings, bridges, canals, dams, historic roads and other unique resources.

In 1979 when this plan was adopted, historic and cultural areas were identified as lands with sites, structures or objects with local, regional, statewide or national historical significance or that refer to an area characterized by evidence of an ethnic, religious or social group with distinctive traits, beliefs or social forms. At the time, rapid growth and the subsequent loss of such sites and areas made the protection of the County's important historic and cultural resources locally significant. The program and policies recommended by the Historic and Cultural Areas Citizen's Advisory Committee received support and approval throughout the committee reviews and public hearings and changed little during the planning process.

As originally adopted, this plan included goals and policies for protection of historic resources as well as provisions that the County establish a Historical Landmarks Commission and adopt an ordinance to protect designated historic sites. Approximately 140 "potential historic sites" were identified and listed based on information provided by the Oregon State Historic Preservation Office and the Deschutes County Historical Society along with input provided by the Historic and Cultural Areas Citizen Advisory Committee.

*This Section implements part of State Planning Goal 5: Open Spaces, Scenic and Historic Areas and Natural Resources*

The Citizen's Advisory Committee wrote a goal

and set of policies based on the following findings:

1. Public awareness of our history and cultural background has been and will continue to be an important source of knowledge, pride, education and enjoyment for this and future generations.
2. Rapid growth and development make it imperative that the County's historic and cultural resources be identified and protected.
3. Lack of private owner incentive for preservation has led to historic site deterioration or loss.
4. Inventorying, assessment and recording of historic and cultural resources are an ongoing process which must be kept current, particularly in the face of rapid growth and development.
5. Properly preserved and utilized historical or cultural resources enhance the economy of the area.
6. There exist State and Federal laws which protect cultural resources from disturbance or distraction and in light of the chosen alternative which seeks to enhance cultural amenities as well as housing policies encouraging housing rehabilitation, the citizens committee accepted the recommended goal.

## **Subsequent Actions**

On September 17, 1980 the Board of County Commissioners adopted Ordinance PL-21, which established a Historical Landmarks Commission. This ordinance set forth a designation process and provided for regulation of additions, exterior alterations and demolitions of designated structures and landmarks. PL-21 was subsequently amended by Resolution 82-001.

In September 1981 Oregon Administrative Rules, Chapter 660, Division 16, established the Goal 5 Rule for a wide variety of resources, including historic and cultural resources. The Rule was later revised, but still regulates historic and cultural resources.

From 1983 to 1985 the Historical Landmarks Commission systematically evaluated nearly 300 potential historical sites, approximately half of which were newly identified sites with little or no previous information. Sites found to be significant were recommended to the Board of County Commissioners for historic designation. In this process, potential conflicting uses were identified through discussions with property owners during site visits and through testimony in public hearings. The analysis required under Goal 5 was prepared by staff and decisions regarding how each site was to be protected were made by the Commission. Certain sites required additional analysis regarding significance, conflicting uses and other Goal 5 requirements. Analysis for those sites was postponed to a later date.

In 1988 PL-21 was amended by the Historic Preservation Ordinance - Ordinance 88-008. This ordinance was developed as the County's Goal 5

program. The ordinance outlines designation of historic buildings, sites and districts. It also defines standards and procedures for additions, exterior alterations and demolitions, reviews of redevelopment and neighborhood improvement projects, inventory processes and other functions and duties. Historic designation hearings were to be held before the Historical Landmarks Commission with final action the Board of County Commissioners approval of a text amendment to the Comprehensive Plan.

In 1990 the Historical Landmarks Commission initiated another site review, similar to that done from 1983 to 1985. Over 100 sites in the County and cities that had been identified between 1983 and 1985 were reviewed. Of 54 sites in the unincorporated area, three were recommended for historic designation.

On December 18, 1991 the Board of County Commissioners held the initial public hearing to consider designating sites recommended by the Historic Landmarks Commission under the Goal 5 Rule. On March 18, 1991 the Board designated as historic those sites found significant that lie within the unincorporated area and outside of lands managed by the United States Forest Service and the Bureau of Land Management.

Since 1997, all historic and cultural designations are initiated by the property owners through the Comprehensive Plan text amendment process. One property was added in 2005. The following list contains a current inventory of historic resources.

## Goal 5 Inventory - Historic resources.

1. Alfalfa Grange: Grange building and community center, built in 1930, located on Willard Road, Alfalfa. 17-14-26 TL 400.
2. Allen Ranch Cemetery: Oldest cemetery in Deschutes County. 30' by 40' fenced cemetery plot. Situated 100 yards west of South Century Drive, one-half mile south of Road 42. Two marble gravestones, two wooden markers. 20-11-7 TL 1300.
3. Fall River Fish Hatchery "Ice House": The hatchery "Ice House" dates from the beginning of fishery management in Oregon, circa 1920. It is an 18 foot by 18 foot improvement, the only original building remaining on the property, and the only significant building or structure on the site. Located at 15055 S. Century Drive, E½; NE¼; Section 32, Township 20S, Range 10 E, Tax Lot 100. (Ordinance 94-006 §1, 1994).
4. Long Hollow Ranch – Black Butte: Headquarters complex of historic ranch, located on Holmes Road in Lower Bridge area, including headquarters house, ranch commissary, equipment shed, barn and bunkhouse. 14-11-1 TL 101.
5. Swamp Ranch – Black Butte: The present day site of the Black Butte Ranch was part of the vast holdings of the Black Butte Land and Livestock Company in 1904. No buildings from the period exist. 14-9-10A, 10B, 15B, 15C, 16A, 21A, 21B, 21C, 22A, 22B.
6. Brothers School: Only one-room schoolhouse currently in use in Deschutes County, located on Highway 20 in Brothers. 20-18-00 TL 3200.
7. Bull Creek Dam: The Bull Creek Dam, a component of the Tumalo Irrigation Project was constructed in 1914 to form a water storage reservoir to increase the amount of irrigated acreage at Tumalo. It is a gravity type of overflow dam. Two cut off walls are extended into solid formation, one at the upper toe and the other at the lower toes of the concrete dam. The dam proper is about 17 feet high from the foundation, although the completed structure is about 25 feet. Located on Tumalo Reservoir-Market Road. 16-11-33 TL 2700 SW-¼; SW-¼.
8. Bull Creek Dam Bridge (Tumalo Irrigation Ditch Bridge): Built in 1914, the bridge, which spans the dam, consists of five continuous filled spandrel, barrel-type concrete deck arch spans, each 25 feet long. The concrete piers are keyed into notches in the arch structure. The structure is the oldest bridge in Deschutes County. On Tumalo Reserve-market Road. 16-11-33 TL 2700/ SW-¼; SW-¼.
9. Camp Abbot Site, Officers' Club: Officers' Club for former military camp, currently identified as Great Hall in Sunriver and used as a meeting hall. 20-11-5B TL 112.
10. Camp Polk Cemetery: One of the last remaining pioneer cemeteries, located off Camp Polk Road near Sisters. The site is composed of a tract of land, including gravestones and memorials, containing 2.112 acres in

the Southwest Quarter of the Southeast Quarter of Section 27, Township 14 South, Range 10 E.W.M., TL 2100, described as follows: Beginning at a point North 20 degrees 06' 20" West 751 feet from the corner common to Sections 26, 27, 34 and 35 in Township 14 South Range 10 E.W.M. and running thence South 88 degrees 30' West 460 feet; thence North 1 degree 30' East 460 feet; thence South 1 degree 30' 200 feet to the point of beginning.

11. Camp Polk Military Post Site: One of the oldest military sites in Deschutes County. Located on Camp Polk Cemetery Road. Site includes entire tax lots, listed as follows 14-10-34 TL 100, 300.
12. Cline Falls Power Plant: Early hydropower site on the Deschutes River, located off Highway 126 on White Rock Road west of Redmond. Site includes dam, penstock and powerhouse. 15-12-14 TL 901.
13. Cloverdale School: One-room school building in Cloverdale, located near 68515 George Cyrus Road. First building built in Cloverdale. 15-11-7 TL 600.
14. Eastern Star Grange: Grange hall for earliest grange organized in Deschutes County, located at 62850 Powell Butte Road. 17-13-19 TL 1900.
15. Enoch Cyrus Homestead Hay Station and Blacksmith Shop: The Enoch Cyrus Homestead was the original homestead of Oscar Maxwell, built in 1892 and purchased in 190 by Enoch Cyrus. Important stage/store stop for early travelers. The homestead house, including a back porch and cistern, and the Blacksmith Shop are designated. 15-11-10 TL 700.
16. Fremont Meadow: A small natural meadow on Tumalo Creek in Section 34, Township 17 South, Range 11 East, lying within Shevlin Park. TL 5900. Campsite for 1843 Fremont expedition. 17-11-34 TL 5900.
17. Harper School: One-room schoolhouse, located west of South Century Drive, south of Sunriver, moved halfway between the Allen Ranch and the Vandeventer Ranch from the former townsite of Harper. 20-11-17 TL 1900.
18. Improved Order of Redmond Cemetery: Historic cemetery used by residents of La Pine/Rosland area. Located on Forest Road 4270, east of Highway 97. A 40-acre parcel described as: The Southwest one-quarter of the Southeast one-quarter (SW-¼; SE-¼) Section 7, Township 22 south, Range 11, East of the Willamette Meridian, Deschutes County, Oregon.
19. Laidlaw Bank and Trust: One of the few remaining commercial buildings from the community of Laidlaw, located at 64697 Cook Avenue, Tumalo. 16-12-31A TL 2900.
20. La Pine Commercial Club: Building was built in 1912 as a community center, serving as a regular meeting place for civic organizations and occasionally served as a church. One of the oldest and continuously used buildings in La Pine. Located at 51518 Morrison Street, La Pine. 22-10-15AA TL 4600.
21. Lynch and Roberts Store Advertisement: Ad advertising sign painted on

- a soft volcanic ash surface. Only area example of early advertising on natural material. Lynch and Roberts established mercantile in Redmond in 1913. Roberts Field near Redmond was named for J. R. Roberts. Site includes the bluff. 14-12-00 TL 1501.
22. Maston Cemetery: One of the oldest cemeteries in County. Oldest grave marker is 1901. About one-half mile from site of Maston Sawmill and Homestead. Site includes the gravestones and memorials and the entire tax lot, identified as 22-09-00 TL 1800.
  23. George Millican Ranch and Mill Site: Ranch established in 1886. Well dug at or near that date. Remains of vast cattle ranching empire. 19-15-33 TLs 100, 300.
  24. George Millican Townsite: Town established 1913. Site includes store and garage buildings, which retain none of the architectural integrity from era. 19-15-33 TL 500.
  25. Petersen Rock Gardens: The Petersen Rock Gardens consist of stone replicas and structures erected by Rasmus Petersen. A residence house and museum are part of the site. The site has been a tourist attraction for over 60 years. Located at 7930 SW 77th, Redmond. Site includes entire tax lot. 16-12-11 TL 400.
  26. Pickett's Island: After originally settling in Crook County, Marsh Awbrey moved to Bend and then homesteaded on this island in the Deschutes River south of Tumalo. The site was an early ford for pioneers. Located in Deschutes River near Tumalo State Park. 17-12-6 NE-¼ TL 100. Portion between Deschutes River and Old Bend Road is designated.
  27. Rease (Paulina Prairie) Cemetery: Historic cemetery on Elizabeth Victoria Castle Rease and Denison Rease's homestead. Earliest known grave is of their son, George Guy Rease, born in 1879, who was also a homesteader on Paulina Prairie. George Guy Rease died of smallpox on the Caldwell Ranch on May 2, 1903. Other known burials are William Henry Caldwell, 1841-October 15, 1910, died on the Caldwell Ranch of injuries sustained on a cattle drive; Melvin Raper, 1892-1914, died in a tent of tuberculosis; Addie Laura Caldwell, 1909-November 16, 1918, died of the Spanish influenza epidemic; and Emma Nimtze Deedon, 1886-April 15, 1915, died of complications from a pregnancy. There are several unmarked graves. The cemetery is a county-owned one-acre parcel on the north edge of Paulina Prairie, two miles east of Highway 97. 210-11-29, SE-¼; NW-¼ TL 99.
  28. Terrebonne Ladies Pioneer Club: The Club was organized in 1910. The building has been a community-meeting place since 1911. Located at 8334 11th Street, Terrebonne. 14-13-16DC TL 700.
  29. Tetherow House and Crossing: Site is an excellent example of an early Deschutes River crossing. Major route from Santiam Wagon Road to Prineville. Tetherow House was built in 1878. The Tetherows operated a toll bridge, store and livery stable for travelers. Oldest house in County. Site includes house and entire tax lot. 14-12-36A TL 4500.
  30. Tumalo Creek – Diversion Dam and Headgate of Feed Canal:

Constructed in 1914, the Feed Canal's purpose was to convey water from Tumalo Creek to the reservoir. The headworks of the Feed Canal consist of a low overflow weir dam, 94.2 feet in length. The entire structure is of reinforced concrete. 17-11-00 TL 5900.

31. Tumalo Community Church: The building is the oldest church in the County, built in 1905. It stands in the former town of Laidlaw, laid out in 1904. Located at 64671 Bruce Avenue, Tumalo. 16-12-31A TL 3900.
32. Tumalo Project Dam: Concrete core, earth-filled dam 75 feet high. First project by State of Oregon to use State monies for reclamation project. On Tumalo Creek. 16-11-29.
33. William P. Vandever Ranch Homestead House: The Vandever Ranch House stands on the east bank of the Little Deschutes River at 17600 Vandever Road near Sunriver. The homestead was established in 1892, and has been recently relocated and renovated. Vandever family history in the area spans 100 years. 20-11-00 TL 1900.
34. Kathryn Grace Clark Vandever Grave: Kathryn Grace Vandever, daughter of William P. Vandever, died of influenza during the epidemic of 1918. Her grave is located across a pasture due south of the Vandever House, 50 feet east of the Little Deschutes River. Site includes gravestone and fenced gravesite measuring is approximately 15 feet by 25 feet. 20-11-00 TL 1900.
35. Young School: Built in 1928, it is an excellent example of a rural "one-room" school which served homesteaders of the 1920s. Located on Butler Market Road. 17-13-19 TL 400.
36. Agnes Mae Allen Sottong and Henry J. Sottong House and Barn. House and barn are constructed with lumber milled on the property in a portable sawmill run by the Pine Forest Lumber Company in 1911. Henry was awarded homestead patent 7364 issued at The Dalles on Dec 1, 1904. Henry was president of the Mountain States Fox Farm. A flume on the Arnold Irrigation District is named the Sottong Flume. The structures are also associated with William Kuhn, a president of the Arnold Irrigation District; Edward and Margaret Uffelman, who were part of the group that privatized and developed the Hoo Doo Ski Resort; and Frank Rust Gilchrist, son of the founder of the town of Gilchrist and Gilchrist Mill and president of the Gilchrist Timber Company from the time of his father's death in 1956 to 1988. Frank R. Gilchrist served on the Oregon Board of Forestry under four governors and was appointed by the governors to serve as a member of the Oregon Parks and Recreation Advisory Committee. He served on the Oregon State University's Forest Products Research Lab and was a director and president of the National Forest Products Association. T18 R12 Section 22, 00 Tax lot 01600.
37. Inventory note: Unless otherwise indicated the inventoried site includes only the designated structure. No impact areas have been designated for any inventoried site or structure.



## **Sites with insufficient information**

Central Oregon Irrigation District – numerous locations; Terrebonne Grange - 14-13-16DC TL 700 (south half); Rock O' the Range Bridge- Bowery Land where it crosses the Swalley Canal; Tumalo Grange - 16-12-31A TL 3900.

# Regional Problem Solving for south Deschutes County

## Goals & Policies

(see also the Water Resources Section on page 2-22 and the Deschutes River Corridor section on page 2-25 for additional goals and policies)

### Goals

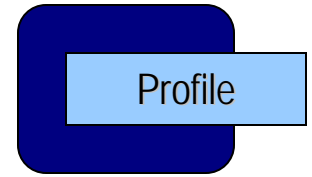
1. To preserve water and air quality, reduce wildfire hazards and protect wildlife habitat.
2. To ensure that domestic water derived from groundwater meets safe drinking water standards.
3. To develop an equitable, market-driven system, that reduces the potential development of existing lots in floodplains, wetlands, mule deer migration corridors and areas susceptible to groundwater pollution.
4. To create a new neighborhood, primarily residential in character, between La Pine and Wickiup Junction, that provides services efficiently, sustains economic development and reduces adverse impacts to groundwater quality in South Deschutes County.
5. To explore innovative sewage treatment and disposal methods.

### Policies

1. The County shall continue to work with landowners, citizens, community organizations and governmental agencies at the local, state and federal level to:
  - a. Continue collaborative work on the Regional Problem Solving project.
  - b. Develop, review and implement land use policies and development standards that will ensure that agreed-upon solutions from the RPS project are enacted to the maximum extent possible.
  - c. Acquire land from the BLM between La Pine and Wickiup Junction, west of Highway 97, to develop as a new neighborhood.
  - d. Conduct feasibility studies regarding development of a new neighborhood. Such studies may include, but are not limited to: a master design plan, development costs and funding options, water and sewer system feasibility, traffic impacts, and zoning codes and governance issues.
  - e. Install and monitor innovative on-site sewage treatment and disposal (septic) systems on privately owned parcels in the RPS project area as part of the La Pine National Decentralized Wastewater Treatment Demonstration Project funded by the U.S. Environmental Protection

- Agency and in cooperation with the Oregon Department of Environmental Quality.
- f. Work cooperatively with the U.S. Geological Survey and Oregon Water Resources Department during well water sampling and analysis to advance three-dimensional groundwater and nutrient fate and transport modeling in the south Deschutes County area.
  2. The County shall implement and monitor in accordance with DCC 23.44.030(D), a Transferable Development Credit program as a means to redirect potential growth away from residential lots in subdivisions throughout the region into the La Pine Neighborhood Planning Area. The County shall establish a TDC Review Committee to assist in analyzing and recommending any changes deemed appropriate to the TDC program.
  3. The County shall continue to evaluate means to reduce nitrate loading from on-site sewage disposal systems by exploring innovative on-site sewage treatment and disposal technology, retrofitting of existing substandard or inappropriately located disposal systems, expansion of sewer systems, development of standards such as an effective lot area or variable lot area requirements, or other measures that will accomplish the goals.
  4. New residential subdivisions and partitions in the La Pine Urban Unincorporated Community shall be connected to a community water system and either the La Pine Special Sewer District sewage treatment system or a community waste water treatment facility that meets Oregon Department of Environmental Quality standards. be processed in the same manner as other quasi-judicial plan or zoning map changes.

# Regional Problem Solving for south Deschutes County



## Background

This chapter was added to the Comprehensive Plan in 1998 in response to potential water quality issues that were identified in south Deschutes County. It has not been amended as part of the 2008 tune-up of this plan because as of 2008, there was an active and on-going public discussion of these issues.

## Overview

In the 1960s and early 1970s, before statewide planning occurred in Oregon, over 15,000 lots were created in subdivisions platted south of Sunriver. Most of these parcels are less than two acres in size and use on-site septic systems to dispose of sewage. Many of them are located in areas where development is now restricted, such as floodplains, wetlands and areas with a high groundwater table where septic approval is unlikely.

Since 1989, Deschutes County has been the fastest growing county in the state on a percentage basis. The rural character, attractive location on or near the Deschutes and Little Deschutes Rivers, and relatively inexpensive land prices in South Deschutes County have led to a burgeoning population. The current estimated population of up to 16,000 residents (over 10,000 permanent) would make this area the second largest city in Oregon east of the Cascades were it incorporated, exceeded only by the city of Bend. Impacts to groundwater, the source of drinking water in this area, air quality, wetlands and mule deer migration and the risks to human life and property from wildfires have increased significantly over time.

In 1996, Deschutes County and the Department of Land Conservation and Development recognized that significant consequences could occur from the pattern of development and began a collaborative project known as Regional Problem Solving Project for South Deschutes County. The Regional Problem Solving (RPS) project area encompasses approximately 42 square miles between Sunriver to the north and La Pine to the south, and includes thousands of small-subdivided lots, and some larger parcels, throughout southern Deschutes County. The attached map identifies Study Areas 1, 2 and 3 within the project area.

The RPS project area is a landscape with a geologic history that produced sediments of volcanic origin that were deposited in a basin over past eons. These conditions are the result of lava flows from the west (Cascades) and east (Newberry) that periodically dammed and shifted the course of the

Deschutes River, creating the La Pine Basin, where the deposition of sediments has occurred, sometimes burying older forests. Volcanic eruptions such as the one at Mt. Mazama (Crater Lake) approximately 6,800 years ago have contributed significantly to the volume of sediment deposited in the basin. The Mt. Mazama eruption is the source of volcanic material that has formed the predominant soil in the area.

At an elevation of 4200 feet, the climate in the region is one of cool nighttime temperatures with a short frost-free summer that averages less than 100 days annually and a winter period of five or six months where snow can reside on the ground at any time. The rivers receive significant input from cool spring fed waters. The groundwater is mostly derived from snowmelt in the high Cascades to the west, and is also relatively cool.

The development of thousands of small lots in the RPS project area is therefore superimposed upon highly permeable, rapidly draining soils and a high groundwater table with relatively cold-water temperatures. The overwhelming majority of the lots are served by on-site sewage disposal systems (septic systems), including standard drain fields, cap and fill systems, and more recently sand-filter systems. Nitrates, a by-product of septic systems and an indicator of human pathogens, are poorly retained in the fast draining soils and do not easily break down due to the cool groundwater temperature. As a result, loading of nitrates occurs in the shallow groundwater aquifer that underlies this region. The presence of a high level of nitrates is of great concern because this same aquifer is the source of drinking water for the residents in the area.

A recent US Geological Survey study of groundwater in Central Oregon concludes that groundwater in the area is connected to nearby surface waters, including the Deschutes and Little Deschutes Rivers. Through the sampling of numerous wells in the RPS project area the Oregon Department of Environmental Quality (DEQ) is predicting that nitrate in the groundwater will approach unsafe levels, principally as a result of the cumulative effect of sewage disposal with on-site septic systems, in the near future. Levels of nitrate are elevated in several localized areas within the RPS project area. However the majority of wells show very low nitrate levels at this time and surface water contamination has not been documented.

Due to the existing pattern and density of development DEQ is predicting that nitrate levels will continue to increase over time, even if measures were taken now to alter the development pattern in the RPS project area. If measures are delayed much longer, the consequences could become more serious, possibly resulting in unsafe levels of nitrates in groundwater and drinking water.

More definitive information is expected to be available in the next few years, regarding the timing of nitrate movement in groundwater and the overall impact of nitrate from septic systems to groundwater and possible surface water pollution. The DEQ and Deschutes County will complete additional

groundwater investigations and testing of innovative sewage treatment and disposal systems to reduce the impact on groundwater from nitrogen in household sewage, with grants from the US Environmental Protection Agency. The results from these studies will not be known for several years. Studying different approaches to on-site sewage treatment and disposal may lead to affordable technological advances that can be applied to new and possibly existing systems. In the meantime, the region will continue to grow and nitrate loading from on-site systems will continue to increase.

Some measures may need to be implemented in the future to address groundwater pollution and other impacts that could result from the development of the thousands of small size subdivided lots in South Deschutes County. The creation of a new neighborhood between La Pine and Wickiup Junction as an alternative to building fewer houses on the remaining vacant small lots appears to hold much promise. A market-driven transferable development credits program could assist in the redirection of growth from the existing subdivisions into this new neighborhood.

A development standard or sewage disposal rule that requires an effective lot area of 1.5 acres for new dwellings served by an on-site septic system may need to be considered. The acreage requirement would need to be based on the long-term balance between nitrate loading from septic systems and dilution from precipitation that infiltrates the land. An effective lot area should include contiguous or non-contiguous vacant land within a specified distance from the proposed building site.

For these reasons, Deschutes County has determined that it is appropriate to adopt comprehensive plan goals and policies to recognize the importance in protecting groundwater and other resources and the need to continue to work on the Regional Problem Solving project for South Deschutes County.

## **Nitrates - Health and groundwater impacts; septic system impacts and studies**

High levels of nitrates in drinking water are a cause of methemoglobinemia (blue baby syndrome) in infants and have been linked to cancer and weakening of immune system in the elderly. Recent epidemiologic studies indicate that chronic long-term exposure to low levels (2.5 mg/L) of nitrates can increase the risks for certain types of cancers. Nitrate levels are often used as an indicator for the transmission capabilities of other pathogenic agents. Surface waters are very sensitive to eutrophication by the addition of nutrients; nitrate is an indicator of nutrient loading.

A natural background level of nitrates would be less than 1 mg/L. The Environmental Protection Agency (EPA) has set the safe water drinking standard (Maximum Contaminant Level or MCL) for nitrate at 10 mg/L. The DEQ is required to declare a region a Groundwater Management Area if

nitrate concentration reaches 7 mg/L. This would require a plan to protect and restore groundwater quality. Deschutes County Planning and Environmental Health are only slightly ahead by starting and developing their plans proactively.

On-site septic systems are the only significant source of nitrates in the La Pine sub-basin. The La Pine sub-basin has many conditions that allow for little denitrification of wastewater to occur: rapidly draining soil, shallow, well oxygenated groundwater, very short growing season, cold temperature, not much hydraulic gradient. Most of the development has taken place in the very bottom of the sub-basin over shallow groundwater and on small lots served by wells from an unconfined aquifer.

In 1980-81 contamination of the aquifer from septic systems had already occurred in the La Pine core area. (La Pine Aquifer Management Plan, Century West, 1982). A community sewer system was required to remedy the situation. A 1995 well monitoring study by DEQ showed that after 11 years of sewer, the nitrate levels in the La Pine core area had receded but were still at “unsafe levels.” This is an indication that the recovery time for the aquifer is lengthy.

The 1995 monitoring study also revealed the existence of five areas in the RPS project area, not including the core area of La Pine, where nitrate levels are greater than usual background levels. Nitrate levels are as high as 4.8 to 5.9 mg/L in three of these areas and as high as 3 mg/L in the other two.

The 1995 monitoring study was part of a modeling effort by the DEQ to estimate the impact of septic systems on the groundwater. The initial results of the model indicate that at existing (1994) development the aquifer would reach nitrate levels of 7 mg/l by 2005. Since the collection of samples in 1994 there are approximately 700 additional residences in the RPS project area using on-site septic systems. The model is limited because it is two-dimensional and does not account for flow in or out of its boundaries.

A grant from the US Environmental Protection Agency will allow significant work to begin in 1999 to help with a solution to the problem of high nitrate levels. The primary purpose of the grant is to study new technologies in on-site septic systems. Part of the grant will be used to continue increasing the groundwater monitoring network and complete additional analysis of nitrate movement in the groundwater using a three dimensional model.

The innovative septic system program was started in 1998 through the RPS project and DEQ grant funding and is expected to increase significantly with the new federal grant. The purpose is to try new technologies that appear to be capable of reducing nitrate levels. Besides nitrate reduction there are many other aspects of new technology that need to be examined before widespread applications for the general public can occur.

Over the past five years the US Geological Survey (USGS) has developed a groundwater flow model of the entire Upper Deschutes Basin. The model will be used as the basis for an analysis of the impacts of nitrates from on-site systems to help answer the following three questions:

1. Where should additional monitoring wells be set up for continuous monitoring of nitrate plumes from residential development?
2. What density does development need to be set at to minimize impact on groundwater quality?
3. What variations of impact due to location are there in the La Pine sub-basin?

The DEQ rules require a minimum of an acre for standard system and a half-acre for pressure or sand filters in rapidly draining soils. This is a statewide rule and the authors were probably looking at rainfall amount from a typical Willamette Valley year to provide dilution.

Mixing wastewater from a typical single-family residence with the recharge provided by yearly precipitation in Southern Deschutes County, it requires 2.5 acres for a standard system and 1.5 acres for a sand filter to maintain a recharge concentration at or below 7 mg/l. This estimate is on the conservative side because it does not account for inflow, outflow, or upflow from other areas.

Areas such as Fall River Estates, Wild River and Ponderosa Pines do not require as much acreage to achieve an adequate amount of mixing and dilution of nitrates because they are located in areas of higher precipitation at the western edge of the aquifer. Also, the aquifer gradient is steeper resulting in more dilution due to higher groundwater flow rates. La Pine and portions of Oregon Water Wonderland and Stage Stop Meadows subdivisions served by sewer systems are also not contributing to the overall nitrate-loading problem in the region.

## Legislation

In October 1998, Congress passed legislation to assist Deschutes County in purchasing a 540-acre tract of land from the Bureau of Land Management. This tract is located between La Pine and Wickiup Junction, west of Highway 97 and east of Huntington Road. A sewer line between the communities of La Pine and Wickiup Junction runs through the property.

This property is intended to be the site of a new neighborhood that will be serviced by sewer and water systems, and paved roads. Residential use will predominate, although community needs such as a senior center, library, assisted living facility and limited neighborhood commercial uses may be developed. A design process known as a “charette” occurred in November



1998. This design workshop occurred over a three-day period with the participation of over 80 people from the community.

The initial design encompasses a neighborhood primarily residential in character with sewer, water and a road network of paved streets and access roads without curbs. A setback of 300 feet from Highway 97 has been incorporated into the eastern boundary of the design. A senior center and assisted living facilities are included in the southern part of the property adjacent to the community of La Pine. This preliminary design will be evaluated to determine lot sizes and density, development costs, phasing of development and the ability to use transferable development credits as a tool for the overall development of the new neighborhood.

## **Transferable development credits**

A TDC (Transferable Development Credit) Program has been developed to redirect some of the future development of residential dwellings from lots served by on-site sewage disposal (septic) systems to the residentially zoned districts in the Neighborhood Planning Area in the La Pine UUC that will be connected to water and sewer systems.

A TDC is a severable interest in real property that represents the right to construct a single-family dwelling and an on-site sewage disposal system. The TDC program code has been adopted in compliance with the provisions of ORS 94.531.

The essential elements of the TDC program are to be codified in DCC Title 11, County Owned Land and Property, of the County Code. The TDC program is intended to redirect some of the future residential growth from existing subdivisions in South Deschutes County, also identified as the “sending area” where TDC's are allocated to eligible lots, into the Neighborhood Planning Area, also referred to as the “receiving area” where TDC's are required to be redeemed based on a net developable acreage formula. If successful the TDC program will reduce the overall impact from development in flood plains, wetlands, deer migration corridors and areas susceptible to groundwater pollution from nitrates. It will also help to maintain open space and preserve the rural character of the area by reducing the overall density of development that would otherwise exist in the future if a dwelling were built on every legal lot. In the sending area the TDC program will operate in a voluntary, market-driven manner. Those property owners who choose to sell their TDC's will retain ownership of the underlying land on which certain uses, such as camping, wood cutting, vegetation management, agricultural use and construction of a small storage structure will be allowed. A Conservation Easement will be placed on the property that will prohibit the construction of a single-family dwelling and on-site sewage disposal system on the property. Property owners who sell their TDC's and enter into a Conservation Easement

restricting future uses on their property may elect to sell the deed for the underlying property to a willing buyer.

## **Public participation**

The RPS project has involved all aspects of the community, including property owners, interest groups, public agencies and government at the local, state and federal levels. Over 20 stakeholder meetings and 5 public forums were held. Eight newsletters and other mailings have been sent out to an extensive mailing list of property owners and other interested individuals, community organizations and local governments. The local press has covered this topic with a number of articles and news reports on several occasions.

According to written surveys the top three priorities for the residents of South Deschutes County are: 1) to retain open space to maintain the rural character of the area; 2) to not allow septic systems in areas of high groundwater; and, 3) to allow for experimentation with alternative methods of sewage disposal. Among the least favored options was extending sewer throughout the region due to the high cost associated with this expansion. However, several small sewer systems exist in the region and people commented and testified at public meetings and hearings that the option of using sewer systems to dispose of sewage should continue to be explored.

To ensure that public involvement was as great as possible regarding proposed amendments in 1998 to the comprehensive plan and zoning ordinance, an additional newsletter was mailed that contained a notice of public hearings before the Deschutes County Planning Commission and the Board of County Commissioners. The newsletter also described various aspects of the RPS program, characterized design elements of the new neighborhood as a result of the design charette and encouraged people to attend a community workshop held in early December to learn more about the amendments. This newsletter was mailed to over 5,000 property owners, including the owners of all lots in the RPS project area which are zoned RR-10 and less than 2 acres in size, and the stakeholders, interest groups, agencies, etc., who had previously participated or expressed an interest in the RPS project.

More detailed information about the RPS project including information on nitrates, experimental on-site technology, alternative solutions, transferable development credits and a bibliography of the studies and other sources of information used to analyze the region's problems and to formulate solutions was made available at the hearings.

## **LCDC Acknowledgement**

In September 2000 the Oregon Land Conservation and Development Commission (LCDC) conducted a hearing and approved the County's request to expand the La Pine UUC to include the area formerly recognized as the Wickiup Junction Rural Service Center and the New Neighborhood area. The Neighborhood area includes a tract of land the County purchased from the Bureau of Land Management and a privately owned parcel.

LCDC also approved the County's comprehensive plan designation and rezoning of the area added to the La Pine UUC from resource lands zoned exclusive farm use to various planning districts that allow for the creation of a residential subdivision served by municipal water and sewer systems and paved roads.

# Deschutes County Comprehensive Plan

## Chapter 3: Rural Growth Management



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# Rural Development



## Goals

1. To preserve and enhance the open spaces, rural character, scenic values and natural resources of the County.
2. To guide the location and design of rural development so as to minimize the public costs of facilities and services, to avoid unnecessary expansion of service boundaries, and to preserve and enhance the safety and viability of rural land uses.
3. To provide for the possible long-term expansion of urban areas while protecting the distinction between urban (urbanizing) land and rural lands.

## Policies

The policies needed to accomplish the identified goals were largely developed by the Overall Citizen Advisory Committee during its deliberations on the preliminary plan. It was obvious that some policies were needed to pull the various resource and management chapters together and to fill in some gaps so that an integrated and cohesive plan was available.

Rural Development policies are meant to pertain to all non-urban areas (areas outside urban growth boundaries) and are the basic policies to be followed in guiding rural growth. Specific resource or management policies from other chapters shall augment these policies so that the plan must be viewed as an integrated whole rather than a series of individual chapters.

### **Residential and recreational development.**

1. Because 91 percent of the new County population will live inside an urban area, with only 3,039 new rural lots required, and in light of the 17,377 undeveloped rural tracts and lots as well as the energy, environmental and public service costs, all future rural development will be stringently reviewed for public need before approval. As a guideline for review if a study of existing lots within three miles of the proposed development indicates approximately 50 per cent or more of those lots have not had structures constructed thereon, then the developer shall submit adequate testimony justifying additional lots in that area. This will permit development in areas where such is needed (other policies considering energy, public facilities, safety and other development aspects shall also be considered) while restricting future division in areas where many undeveloped lots already exist.

2. To further restrict subdivision outside urban areas the minimum parcel size shall be 10 acres, except where other policies supersede this minimum (see Unincorporated Communities, Rural Service Centers, Agriculture and Forest Lands).
3. Cluster or planned development offers significant savings to the developer because of reduced roadway, utility and construction costs. Public costs to serve cluster developments are also usually lower. Therefore, to encourage cluster and planned developments, rather than parcelization, the county shall permit smaller lot sizes and the continued use of special lot size requirements in cluster and planned developments in rural residential exception areas.
4. Cluster and planned developments shall maintain a minimum of 65 per cent of the land in open space, forest or agricultural uses compatible with the surrounding area and the development area. The open space of the development may be platted as a separate parcel or in common ownership of some or all of the clustered units; however, the open area shall not be subject to development unless the whole development is brought inside an urban growth boundary. Also, service connections shall be the minimum length necessary and underground where feasible. Roads may be private roads and shall meet County standards.
5. Destination resorts are important elements of the local economy. These developments shall not be permitted in exclusive farm use districts except in EFU-20 and EFU-40 zones pursuant to the County's Destination Resort Siting Map and Destination Resort Siting Combining Zone and in forest districts only in the F-2 zone pursuant to the County's Destination Resort Siting Combining Zone. They may be allowed in the County's rural areas if compatible with the environmental capabilities of the site, near existing transportation and utility facilities, consistent with the rural character of the area, and unlikely to create undue public service burdens.
6. Other than as outlined in Policy 5 and the Goals and Policies set forth for Destination Resorts, no further recreational (seasonal) subdivision will be approved in rural areas.
7. Parcels legally existing at the time of this plan's adoption shall continue to function as legal lots and will not be unduly affected by the new lot size.

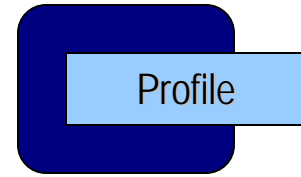
## **Commercial and industrial development**

8. Within one mile of acknowledged urban growth boundaries, use of the planned or cluster development concepts shall permit development in Multiple Use Agriculture or Rural Residential zones (not under a combining zone which would prevent such) with a minimum lot size or equivalent density of one unit per five acres.
9. Temporary on-site processing and storage of either mineral and aggregate materials or agricultural products shall be permitted as

- appropriate, in order to support the continued productivity of the County's natural resources.
10. Certain industrial uses, such as research and development facilities (requiring quiet and open surroundings) and manufacturers of hazardous materials (requiring long distances between the plant and neighbors) are more suitably located in rural areas. The County shall consider making provision for such uses as the need is found to exist (see Tumalo).
  11. Certain industrial uses, such as research and development facilities (requiring quiet and open surroundings), wrecking or salvage yards and manufacturers of hazardous materials (requiring long distances between the plant and neighbors) are more suitably located in rural areas. The County shall consider making provision for such uses as the need is found to exist (see Tumalo).
    - a. To ensure that the uses in the Rural Industrial zone on tax lot 16-12-26C-301 are limited in nature and scope, the Rural Industrial zoning on the subject parcel shall be subject to a Limited Use Combining Zone, which will limit the uses to storage, crushing, processing, sale and distribution of pumice.
  12. Because large scale recreation facilities cannot normally be accommodated in urban areas, uses such as motor cross tracks, rodeo grounds and livestock arenas shall be conditional uses which may be approved in rural areas adjacent to existing highways and other public facilities.

## Other

13. Construction on open lands shall be in a manner least intrusive to the aesthetic and natural character of those lands and neighboring lands (fences and access roads shall not be considered structures).
14. Because there have been problems in obtaining community centers in some areas, centers approved on the original subdivision plat or development plan shall be permitted uses in rural residential zones.
15. Due to the more dispersed pattern of dwellings in rural areas the notice requirement area for public hearings on quasi-judicial land use actions shall be larger than in urban areas.
16. More effective dog control program should be considered by the County to counter existing problems.
17. Pre-existing status shall be granted to subdivisions and partitions with at least preliminary approval and buildings with at least an issued building permit at the time of plan adoption by the Board of County Commissioners.
18. All development in Deschutes County shall comply with all applicable state and federal rules, regulations and standards.



# Rural Development

## Background

The primary duty of this comprehensive plan is to guide growth and development in rural Deschutes County. The Rural Development section is intended to promote an integrated plan by tying together other specific plan sections that deal with resource lands and growth management. (Urban growth management is found in the comprehensive plans of Bend, Redmond and Sisters, in conjunction with the Urban Growth Management chapter of this plan.)

## Growth

When this plan was written in 1979, Deschutes County was the fastest growing county in Oregon. This provided positive changes, such as improved social, cultural and economic opportunities. However, there were also negative changes, such as traffic congestion, loss of scenic views, and rising taxes to pay for public services.

By the year 2000 the county expected to have about 128,200 residents. The population was anticipated to be distributed with 84,000 in the Bend Urban Area, 23,093 in the Redmond Urban Area and 2,135 in the Sisters Urban Area. La Pine was expected to have incorporated and reached an urban area population of 3,620. That left a rural population of 15,350 people, up from an estimated 1979 rural population of 8,300.

To accommodate the new rural population 3,039 lots (assumes 2.32 persons per household) were determined to be required. As of January 1, 1979, there were 17,377 undeveloped rural tract and recreational lots in the county. The majority of those lots were in the La Pine area, so it was understood that new lots may be needed in other rural locations. Still, the number of existing undeveloped lots indicated that the County should give serious review to any proposal for further rural development.

## Land use

The predominant rural land uses in 1979 were open spaces, pasture and limited crop production, livestock production, natural resource utilization and wildlife cover. There was also residential use and some commercial and industrial activity in the rural service centers. Unfortunately, the unrestrictive zoning permitted in the rural service centers allowed incompatible adjacent



land uses and did not provide the needed services for the surrounding rural areas.

In 1979 much of the development that occurred locally was the standard parcelization of land into small (less than 10 acres) lots. It was noted that this dispersed pattern was often costly to serve, wasteful of energy, land and resources, unaesthetic and destructive to rural character. Demand for rural recreational or residential land was seen as being provided most efficiently through planned developments.

Resorts such as Black Butte Ranch, or dude ranches, were thought to be economically and socially desirable land uses, when located and developed consistent with the capabilities of the land and the abilities of various public and private agencies to serve that area.


*This Section implements part of State Planning Goal 14: Urbanization*

Originally, recreational subdivisions were also seen as a benefit to the County, since the non-resident landowners would be contributing to the county tax base. This probably resulted in areas like La Pine subsidizing other portions of the county. However, by 1979 the recreation subdivisions were filling up with retirees and younger people seeking less expensive building lots. The result was a need for services in areas far from existing service facilities and in subdivisions where roads and other improvements were meant only for seasonal and limited use. The concern was that the recreational subdivisions might need to be subsidized by other areas of the county.

Meanwhile, with the exception of La Pine rural service center, residents were expressing concern that higher levels of development would be incompatible with the existing rural nature of the area. The residents recognized the need for limited and controlled growth, but wanted to maintain the rural character of their communities.

Based on an understanding of the effects of sprawl and the state requirements to focus growth in urban areas, the Overall Citizen Advisory Committee that was participating in the writing of this plan, determined that the comprehensive plan would have to address the issues of containing urban sprawl and protecting the rural character of the county. Goals and policies were created to guide development into appropriate patterns.

# Natural Hazards



## Goals & Policies

### Goal

1. To protect life and property from natural disasters and hazards.

In order to accommodate the new population anticipated for Deschutes County in a safe and beneficial manner, a number of policies have been prepared for implementation.

### Policies

#### Review

1. Provision shall be made in County land use regulations to assure proposed developments will receive a review of potential natural hazards (stream flooding, flash flooding, landslides, wildfires, etc.) and that sufficient authority exists to modify or deny applications where such hazards exist.

### Flooding

The flood hazard areas of Deschutes County are subject to periodic inundation which may result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

These flood losses are caused by the cumulative effects of obstructions in areas of special flood hazards, which increase flood heights and velocities, and when inadequately floodproofed, elevated or otherwise protected from flood damage, also contribute to the flood loss.

2. In order to accomplish the purposes of this plan, the Zoning Ordinance shall provide for:
  - a. Restricting or prohibiting uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increase in erosion or in flood heights or velocities.
  - b. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.

- c. Controlling the alteration of natural flood plains, stream channels and natural protective barriers, which help accommodate or channel floodwaters;
  - d. Controlling filling, grading, dredging and other development which may increase flood damage; and
  - e. Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or may increase flood hazards in other areas.
3. No structures shall be allowed in areas except areas of shallow flooding. Fill should be allowed in the flood plain only to the extent that it is necessary to allow for utility facilities and stream bank stabilization which cannot be located outside of the flood plain. All uses which could have any effect upon the hazards set forth above shall be conditional uses and subject to rigorous review to insure that use of the flood plain is only a last resort to allow necessary facilities and some beneficial use of pre-existing lots of record.
  4. No new parcels shall be created which would allow the construction of new dwelling units in the flood plain.
  5. Only variances to dimensional standards of a lot or setback restrictions shall be considered. No use variance or variances to the minimum standards established by the Federal Emergency Management Agency shall be allowed.
  6. The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Deschutes County", with accompanying Flood Insurance Maps, is hereby adopted by reference and declared to be a part of this Ordinance. The Flood Insurance Study is on file at the Deschutes County Community Development Department Planning Division.
  7. The Flood Plain Zone shall include all areas designated as "Base Flood" areas by the Flood Insurance Study for Deschutes County. When Base Flood data has not been provided in accordance with the Flood Insurance Study for Deschutes County, the basis for establishing the Flood Plain Zone shall be based upon any base flood information or floodway data reasonably available from a federal, state or other source.

## **Drought**

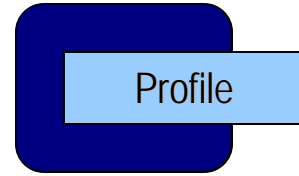
8. Plans (public and private) shall consider and reflect the effect of drought on the proposed projects.

## Fire

9. Design public use areas, such as parks, recreation sites and picnic areas, so that fires starting in them cannot escape to development or to surrounding wildlife.
10. In timber, rangeland or other appropriate areas subdivisions and other types of development should plan for fire truck access to within 16 feet of lakes, ponds, streams or other water sources.
11. For easy resident evacuation and ready access for fire and emergency equipment all new subdivision or other major land development shall provide at least two different ingress-egress routes.
12. To accommodate heavy firefighting equipment, cul-de-sacs shall be limited to 600 feet in length and terminated by a paved turnaround not less than 38 feet in diameter, unless another equally protective alternative is provided which is acceptable to the County and fire fighting agencies responsible for fire control in that area.
13. Bridges shall be constructed to meet the requirements of the appropriate fire district, as to width and weight standards, so as to assure access for heavy firefighting equipment.
14. All existing roads shall be maintained by either the appropriate public or private agency or by the development residents unless an adequate alternative route is provided so as to not deny access beyond the subdivision for firefighting equipment.
15. To avoid delays in responding to fire calls all roads, streets, and buildings shall be designated by name or number clearly visible from the main travel roadway, before occupants move in. This will include the installation of street and road signs of durable and permanent materials at all intersections in the subdivision.
16. The Uniform Building Code provides adequate fire protection for residential construction but the County should adopt the Uniform Fire Code to assure adequate fire protection for commercial and industrial construction and support establishment of fire protection facilities in accordance with recommendations of the National Board of the Fire Underwriters in appropriate areas.
17. When subdivision or developments are created in the County, a minimum width for a fuel break, as determined by the local fire authority, shall be required by the County to be constructed and maintained around all buildings or structures, so as to reduce structural exposure to flames and radiant heat.
18. During preliminary subdivision review, the Planning staff, in coordination with the fire district and/or other firefighting agencies, shall indicate whether or not the development plan has adequately provided for fire protection. Annexation to or contract with a fire district or creation of a new fire district or private firefighting agency may be required conditions for development approval.

19. All development in Deschutes County shall comply with all applicable state and federal rules, regulations and standards. Additional standards for firefighting facilities can be found in the Public Facilities and Services Chapter.

# Natural Hazards



## Background

When this plan was written, Statewide Planning Goal 7: Natural Hazards, was seen as an appropriate goal for the County. Natural hazard areas may be defined as areas subject to natural events that are known to result in death or to endanger works of man, such as stream flooding, wildfire, ground water, erosion and deposition, landslides, earthquakes, weak foundation soils and other hazards unique to local or regional areas.

When this plan was written in 1979 Deschutes County had identified only a few areas of geologic or topographic hazard. At that time it was noted that the two most likely hazards in the county were stream flooding and wildfire. Floods had done significant damage along the Little Deschutes River and Whychus (Squaw) Creek with similar potential along the Deschutes and Dry Rivers. In 1988 stronger flooding policies were added to address flooding concerns.

*This Section implements State Planning Goal 7: Areas Subject to Natural Disasters and Hazards*

In 1979 it was noted that the most obvious natural hazard was wildfire. Each year, several fires occurred locally. Some were nature-caused (lightning) but many were human induced. The subdivisions scattered throughout the forested areas of the county, particularly in the Lodgepole Pine stands, increased the likelihood of fire and

the risk of people being hurt or killed. Inadequate access, inappropriate building materials, insufficient fire-fighting equipment and personnel and a naturally dry climate exacerbated wildfire hazards being a serious threat to residents of Deschutes County.

The major fault which runs through the county (Brothers Fault) was believed by state geologists to be stable. Landslides were scarce and largely located in the national forest, although there was some potential in the Hampton Butte area. Rarely, rockfalls had been noted in rimrock areas. Some potential for flash flooding existed near Millican and Brothers, however little conflicting development was anticipated in those areas. Finally, drought was a little understood hazard. Central Oregon is a semi-arid climate subject to many years without adequate precipitation. Planning which does not consider the effects of these dry years could create serious problems.

In this plan, further discussion of water issues can be found in the Water Resources section (page 2-22) and the Deschutes River Corridor section (page 2-25).

# Public Facilities and Services

## Goal

1. 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, and thereby a system or plan that coordinates the type, location and delivery of public facilities and services in a manner that best supports the existing and proposed land uses.

## Policies

### General

1. Public facilities and services shall be provided at levels and in areas appropriate for such uses based upon the carrying capacity of the land, air and water, as well as the important distinction that must be made between urban and rural services. In this way public services may guide development while remaining in concert with the public's needs.
2. While clear distinctions are not always possible between urban and rural services, those facilities (such as sewage treatment plants, water systems, schools and fire stations), which are necessary to service concentrations of people shall be known as key facilities and shall be located in urban areas or in rural service centers, if necessary, to meet the needs of existing rural residents. Key facilities shall be built to encourage urban, rather than increased rural, residential development. Rural services such as sheriff's patrol, snowplowing, schools and school busing shall be kept at levels adequate to meet public needs but not in excess to encourage additional development. Rural Service Centers are a logical location for future rural key facilities so that services may be used and constructed in as efficient a manner as possible (see Rural Development Chapter). Key facilities outside urban areas or Rural Service Centers shall be discouraged unless the facility is needed to serve existing development, is at the most efficient and economic location and is consistent with the capabilities of the land and the planned growth of the County.
3. Future development shall depend on the availability of adequate local services in close proximity to the proposed site. Higher densities may permit the construction of more adequate services than might otherwise be true. Cluster and planned development shall be encouraged.

4. The County shall prepare a Capital Improvements Plan which considers the costs and benefits of construction at various sites. Sites which are less expensive in the long run shall be given priority to less efficient sites.
5. Deschutes County shall encourage the formation of special service districts to serve rural needs rather than becoming involved with serving those needs. The County will foster coordination and mutual planning between the County, special districts, utility companies and service corporations. This shall include common trenching where appropriate.
6. Deschutes County shall coordinate with the cities and other service providers in urban areas to assure that all urban services are provided in an equitable manner and construction phased, based upon the time required to provide the service, the reliability of the service, the financial cost, and the levels of service needed. All services shall be provided consistent with the provisions of all other required services.
7. Because of the increasing cost of development which must be borne by local residents, the County shall investigate various methods to control or obtain funds for providing new public service levels. This investigation is to include review of a Systems Development Charge. The County shall conduct a review of systems development charges for areas outside the urban growth boundary by January 1, 1995.

## Utilities

8. Utility companies shall be offered an opportunity to comment on their ability to serve proposed developments.
9. New development shall not be located so as to overload existing or planned facilities, and developers or purchasers should be made aware of potentially inadequate power facilities in rural areas.
10. When feasible all utility lines and facilities shall be located on or adjacent to existing public or private rights-of-way so as to avoid dividing existing farm units, and transmission lines should be located within existing corridors as much as possible.
11. Power generation sites shall be landscaped and the site plan reviewed as part of the conditional use applications.
12. Electrical substations shall be a permitted use in all appropriate zones with final approval based upon County Planning Department acceptance of a detailed site plan. Minimum lot sizes shall not apply to substations, but adequate area for equipment, storage, buffer and potential expansion shall be required.
13. All new development shall be consistent with adopted sewage plans, and new community systems in urban areas shall be designed to fit into the municipal system. Also, in urban areas, where connection to a sewer system is not appropriate now but will be required in the future, dry sewer lines may be required for future use (this does not apply in larger lot subdivisions where no future sewers are anticipated).



14. Mutual agreements between the County and the cities shall assure sewer and water systems are extended in a planned manner.
15. Sewage treatment plants offer both problems and opportunities. To decrease the impact of noise and odor a large buffer area shall be required. The treated sewage (both septic tank sludge and municipal water) should be used as a resource and drill hole disposal discouraged.
16. Well marked recreational vehicle dump stations are needed locally and the County shall encourage such facilities in parks, service stations and other appropriate locations.
17. The capability for County land to be annexed into a city shall depend upon the availability of adequate services, such as water.
18. Metering of existing and future water systems shall be fostered.
19. Oregon Water Wonderland Unit 2 Sewer District. Through County file nos. PA-02-5 and ZC-02-3, the Board of County Commissioners approved a zone change for certain property in Section 25 of Township 20 South, Range 10 E.W.M. to Rural Residential with a Limited Use Combining Zone. The Board adopted the Limited Use Combining Zone to limit the uses that could be established on the subject property to those approved through its written decision dated March 28, 2003 and listed as follows: a sewage treatment facility, effluent ponds, ground application of treated effluent, agricultural use, and propagation and harvesting of a forest product.

## **Solid Waste**

20. Existing solid waste sites should be protected and either expansion areas or new sites found. The Solid Waste Management Plan shall serve as the major document for site determinations.
21. In order to discourage open burning and to encourage recycling the County shall continue to offer a no-cost dump service and to consolidate dumping.

## **Law enforcement**

22. Because of the difficulty in providing County-wide sheriff's patrol all future development shall be reviewed for the adequacy of police protection.
23. The County will seek to improve rural police protection, including the development of sheriff's substations, where feasible.

## **Schools**

24. In light of existing problems with providing school facilities all new development shall be reviewed for its impact on the schools. Substantial expansion of school bus routes shall be discouraged, and the County shall require the dedication of adequate land for new schools required to

meet the needs generated by major new developments. In addition, the County shall consider designating appropriate County lands for school sites.

- 25. Plans for schools shall consider the policies within the Oregon State Standards.

**Oregon State School Standards**

	<i>Enrollment</i>	<i>Minimum Site (acres)</i>
<i>Elementary Schools</i>	550	10
<i>Intermediate Schools</i>	800	20
<i>Senior High Schools</i>	1300	30

Source: 1979 Deschutes County Comprehensive Plan

- 26. School districts shall cooperate with other affected agencies for efficient construction of recreation facilities (i.e., bike paths) and other public facilities.
- 27. School district boundaries should be regularly reviewed to best serve County residents.

**Fire**

- 28. Land for a fire station shall be dedicated in large developments.
- 29. The minimum diameter for water distribution mains on which fire hydrants are located shall be six inches.
- 30. Hydrant spacing should not exceed 1000 feet with minimum fire flow of 500 gallons per minute on subdivisions or developments with a population density of 2 or less single family units per acre; on subdivisions or developments where population density exceeds two single family dwellings per acre, hydrant spacing should not exceed 500 feet with a minimum fire flow of 750 gallons per minute. Where structural considerations warrant, additional requirements should be considered. Urbanizing area standards shall be those of the incorporated city. In rural fire protection districts final determination of standards will be made after discussion with the R.F.P.D.
- 31. Water source or storage shall have a capacity to support the required fire flow for a period of two hours in addition to maximum daily flow requirements for other consumer uses. Refer to "Water Supply Systems for Rural Fire Protection" NFPA Pamphlet #1231, 1975.
- 32. Fire protection and law enforcement agencies should strictly enforce solid waste disposal ordinances.
- 33. Fire stations should be built in an architectural style that will blend into the area of location.

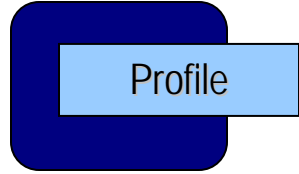
## Health

34. Assured health care for Deschutes County residents is an important public and private service. The County shall encourage and support public health programs for low income families and regular school health programs, as well as services like Home Health Care, and services to the elderly, disabled, blind and juveniles such as day care and foster homes. County support may be in the form of allocations from the County budget, political support, appropriate zoning or other useful action.
35. Adequate hospital and medical facilities shall be encouraged and County plans will consider the effect of incompatible land uses, noise and pollutants, as well as transportation and other factors, on these services.
36. Provisions for adequate cemetery sites shall be made, and alternative designs which conserve lands shall be encouraged.

## Other

37. Adequate access to good public library service is important to many residents of Deschutes County and actions to assure such access shall be fostered.
38. Any major irrigation waterway within 100 feet of a proposed development shall be placed in a pipe at the developer's cost to protect young children from the hazard, subject to engineering feasibility and approval by the irrigation district.
39. All development in Deschutes County shall comply with all applicable state and federal rules, regulations and standards.

# Public Facilities and Services



## Background

When this plan was written in 1979, the high growth rate made the provision of public services a major issue. Adequate services at the right locations result from planning, hard work and money. Yet, the growth rate at that time made it difficult to keep up with the demand. This was aggravated by a growing reluctance to pay the higher taxes necessary to obtain public services. In addition, the scattered low-density development that had occurred in some areas was inefficient in supplying services, which meant that the needed facilities were excessively expensive or could not be provided.

## Utilities

In 1979 it was noted that utility services could be provided most easily and least expensively when development occurred in and around areas with existing utility lines. The plan also discussed large lots, which required long lines and higher costs. Large lots were also seen as often discouraging later re-division into smaller lots.

Of all public facilities (aside from roads) the extension of sewer and water service was considered the most important to planning in 1979. Decisions as to where and when services would be provided could significantly reduce the costs of these, and other, services.

Small community sewage systems were seen as having problems because of isolated peak use, which resulted in a discontinuity of waste. Often these systems were not properly operated or maintained. Once a breakdown occurred, correction of the problem was difficult or uncertain. However, places such as Black Butte, Sunriver and Juniper Utilities were working well because many homesites were served and the expense was acceptable to the families involved.

*This Section implements State Planning Goal 11: Public Facilities and Services*

Water is crucial to public health and safety and must be protected from contamination by waste discharge, poor well construction and high concentration of septic tank systems. When this plan was written this protection had not always been in place. Additionally, small water systems

were thought to have difficulty with maintenance and operation. One proposal which was discussed was the idea of metering water to reduce use and costs.

## **Law enforcement**

In 1979 there were frequent complaints about inadequate police protection and a check of national averages indicated that in 1978 the County was eight officers short of equaling the national average of 1 officer per 1,000 citizens. At the rate of growth being experienced, and especially in the light of the construction of such facilities as shopping centers, many additional officers and support personnel were thought to be needed. In 1977 alone all types of crimes increased 12 percent for the County Sheriff's Department. Increases in the cities were even higher. Yet, levies to obtain more Sheriff's officers were rejected by the voters.

## **Schools**

One of the basic problems with larger amounts of residential development is that it rarely pays in property taxes for the services that must be provided. This is particularly true for the most expensive public facility--schools. Additional permanent residences require more facilities and teachers. When this plan was written, much of the new development had been provided for seasonal recreation and was therefore not likely to require schools. However, the County was realizing that much of the seasonal development was becoming full-time residences. This forced the school districts to seek additional funds for new buildings and more teachers. In addition, costs rose because many of the new residences were in rural areas and required ever more expensive busing.

## **Fire (Also see Natural Hazards Section page 3-7)**

In many areas of the County in 1979 no fire agency was responsible for fires. To solve this problem fire districts were often formed in rural areas or fire protection contracts signed with fire protection agencies. However, even when fire districts existed, the annexation of new developments could take over a year and the Bend Fire District had at times been forced to put a moratorium on any new annexations because of facility shortages.

Many people assumed fire protection was available from Federal or State agencies, but these offices have no authority or responsibility on private lands. Usually they are not trained to fight structural fires, and in the winter their firefighting equipment is drained and stored away.

The lack of proper controls to reduce fires in subdivisions, the inadequacy of firefighting equipment and training, and the need for more cooperation and mutual aid agreements between the various agencies was an increasing

concern to firefighting agencies. Proper planning and subdivision control was seen as critical in dealing with the situation.

## Health

County health departments have important impacts on local development. Concern about water quality and available health facilities, as well as needs generated by different types of development, were seen to bring the health and planning functions together. To maintain timely approvals, new employees were required. Sometimes people can be substituted for facilities as when Home Health nurses provide older people an opportunity to stay at home rather than requiring the construction of new hospital or nursing home units. When this plan was approved, there was a sufficient supply of local nursing home units.


Hospitals were also being affected by new community growth, such as the traffic impact on St. Charles Hospital emergency operations from Mountain View High School. In 1979, each of the County's hospitals were preparing master plans to guide growth.

## Solid Waste

In 1992 the County added text to this plan related to solid waste. Historically, the County had six landfills. Three of the landfills (Alfalfa, La Pine and Fryrear) were closed in 1988, 1989 and 1990 and replaced with transfer and recycling stations. A fourth landfill, Negus, was slated to be closed in 1992 and replaced with a transfer recycling station. The two remaining landfills, Knott and Demolition, were intended to remain open and were expected to have a useful life until approximately 2010.

The Knott landfill receives the transfer and recycling waste from the four transfer stations. The Demolition landfill receives wood and demolition material. According to the Public Works Department's 1992 calculations, 24 percent of the waste stream was being diverted from burial at the landfills through composting at the landfill site, the bottle bill, and the recycling of tires, cardboard, aluminum, oil, glass, newsprint, appliances, office and computer paper and plastic milk jugs.

# Transportation



## Goals & Policies

Note: The goals and policies in this section were written separately and do not match the formatting of the rest of the comprehensive plan. The goals here are numbered sequentially and the policies are sequential under each goal.

## Coordination and Implementation of the Transportation System Plan (TSP)

### Goals

1. Achieve an efficient, safe, convenient and economically viable transportation and communication system. This system includes roads, rail lines, public transit, air, pipeline, pedestrian and bicycle facilities. The Deschutes County transportation system shall be designed to serve the existing and projected needs of the unincorporated communities and rural areas within the County. The system shall provide connections between different modes of transportation to reduce reliance on the single-occupancy vehicle.
2. Have an ongoing transportation planning process and maintain a transportation plan that meets the needs of the County and its residents. The transportation plan and facilities of Deschutes County shall be coordinated with the plans and facilities of incorporated cities within Deschutes County, adjacent counties and the State of Oregon.

### Policies

1. Deschutes County shall:
  - a. Identify local, regional and state transportation needs;
  - b. Develop a transportation plan that shall address those needs;
  - c. Review and update the plan every three to five years;
  - d. Continue to coordinate transportation planning with local, regional and state plans by reviewing any changes to Deschutes County local transportation plans, regional transportation plans, the Oregon Transportation Plan and ODOT's State Transportation Improvement Plan (STIP); and
  - e. Continue public and interagency involvement in the transportation planning process.
2. Deschutes County shall notify ODOT concerning:

- a. All land use proposals or actions that would create access onto a state highway or add >100 ADT to any County road intersection with a state highway;
  - b. Any proposed land use or development within 500 feet of a state highway or public use airport within the County; and
  - c. Required ODOT road approach permits.
3. Deschutes County shall protect approved or proposed transportation project sites through:
- a. Access control measures;
  - b. Review of future large development and transportation projects that significantly affect the County's transportation system; and
  - c. The imposition of conditions of approval on developments and transportation projects that have a significant effect on the County's transportation system.
4. Deschutes County shall coordinate local plans and land use decisions with state transportation plans, including the Oregon Transportation Plan, modal plans and corridor plans. These plans provide ODOT policies and performance standards for statewide highways within Deschutes County. The statewide plans also provide the framework for access management on state facilities to protect the capacity and function of the highways.
5. The lead agency for transportation project review in Deschutes County shall be:
- a. Deschutes County for projects outside UGBs;
  - b. The affected city for projects within the UGBs; and
  - c. The State of Oregon, Deschutes County and affected cities on projects involving state-owned facilities.

The County shall have a list of transportation projects, adopted by the Board of County Commissioners in accordance with the policies set forth below.

6. The initial Transportation Project List shall be set forth in Table 5.11.T1 of the Transportation System Plan adopted as part of the Resource Element of the Comprehensive Plan. The Board shall update the Transportation Project List periodically by resolution adopted by the Board, without need of a formal amendment to the TSP.
7. New transportation projects shall be included on the County's Transportation Project List. A transportation project proposed for addition to the list shall be subject to an individual land use review only if applicable administrative rules or land use regulations require such review.
8. Transportation or development projects that require a plan text amendment or a conditional use permit may be required to fulfill conditions or implement mitigation measures before approval is granted. Mitigation and conditions may include, but are not limited to:
  - a. Improvement of surrounding roads;
  - b. Limits on level of development;



- c. Revision of development placement;
  - d. Addition or redesign of access;
  - e. Addition of traffic management devices such as traffic signals, medians, turn lanes or signage; and/or
  - f. Improvements that reduce transportation impacts.
9. Deschutes County acknowledges that land use designations have a significant impact on the overall transportation system and any alterations shall be completed with consideration to traffic impacts on the County road system.
  10. The findings of compliance with applicable statewide planning goals, acknowledged comprehensive plan policies and land use regulations, shall be coordinated with the preparation of any Environmental Impact Statement (EIS) required for a proposed transportation facility that is identified on the Deschutes County Transportation System Plan.

## Arterial and Collector Roads - General

### Goal

3. Establish a transportation system, supportive of a geographically distributed and diversified industrial base, while also providing a safe, efficient network for residential mobility and tourism.

### Policies

1. Deschutes County shall:
  - a. Consider the road network to be the most important and valuable component of the transportation system; and
  - b. Consider the preservation and maintenance and repair of the County road network to be vital to the continued and future utility of the County's transportation system.
2. Deschutes County shall not add any miles of new road to the system unless the following issues are satisfied:
  - a. The need for the road can be clearly demonstrated;
  - b. The County can financially absorb the additional maintenance requirements;
  - c. The condition of the road proposed for acceptance into the County system must meet County road standards;
  - d. An accrued benefit can be shown to the County's economic growth; and
  - e. An overall increase in efficiency in the County road network can be demonstrated.
3. Deschutes County shall make transportation decisions with consideration of land use impacts, including but not limited to, adjacent land use

- patterns, both existing and planned, and their designated uses and densities.
4. Deschutes County shall consider roadway function, classification and capacity as criteria for plan map amendments and zone changes to assure that proposed land uses do not exceed the planned capacity of the transportation system.
  5. Roads in Deschutes County shall be located, designed and constructed to meet their planned function and provide space for motor vehicle travel and bike and pedestrian facilities where required.
  6. Deschutes County shall manage the development process to obtain adequate street right-of-way and improvements commensurate with the level and impact of development. New development shall provide traffic impact analysis to assess these impacts and to help determine transportation system needs. The guidelines for traffic impact analysis shall be located within the Deschutes County Road Standards and Specifications document upon its adoption.
  7. Transportation system improvements in Deschutes County shall comply with the Americans with Disabilities Act.
  8. Transportation safety in Deschutes County shall improve for all modes through approved design practice and sound engineering principles.
  9. Deschutes County shall acquire the necessary right-of-way through the development process to correct street intersections, substandard road geometry or other problems in order to improve the safety of a road alignment, consistent with constitutional limitations.
  10. Deschutes County shall support efforts to educate the public regarding hazards related to travel on the transportation system.
  11. Deschutes County shall support public and private efforts to acquire right-of-way for new secondary access roads to isolated subdivisions.

## Arterial and Collector Roads - Access Management

### Goal

4. Establish an access management system adequate to protect the quality and function of the arterial and collector street system.

### Policies

1. Deschutes County shall designate access and land uses appropriate to the function of a given road.
2. Deschutes County shall require new development to minimize direct access points onto arterials and collectors by encouraging the utilization of common driveways.

3. Wherever practical, access to state highways shall be provided via frontage roads, alternative local roads or other means, rather than direct access to the highway.
4. A non-traversable median on state highways shall be installed by ODOT when operational or safety issues warrant installation. Directional breaks in the median shall be provided as needed to allow safe traffic operation.
5. Access requests onto Deschutes County arterials and collectors for new partitions, subdivisions and commercial and industrial development shall be processed with the following access management classification system in mind:
  - a. Public road access spaced at no less than every 500 feet on arterials and 300 feet on collectors.
  - b. If either safety or environmental factors, or the unavailability of adequate distance between access points requires placing access points at lesser intervals, then access will be denied or the best alternative placement will be chosen. On road segments that are already severely impacted by numerous access points or on road segments which abut exception areas, adherence to the above standards may be either unreasonable or counterproductive to infill of exception areas. In such cases, these standards may be relaxed by the County Road Department Director to accommodate the aforementioned special conditions.

## Arterial and Collector Roads - Functional Classification

### Goal

5. Designate access and land uses appropriate to the function of a given road.

### Policies

1. Deschutes County shall coordinate the County Transportation System Plan with the transportation system plans of the cities of Bend, Redmond and Sisters. The County shall emphasize continuity in the classification of roads and appropriate design standards for roads that link urban areas with rural areas outside the urban growth boundaries. Prior to the finalization of any UGB amendment, the County and affected city shall agree on the functional classification and design standards of County roads within the proposed UGB area.
2. Deschutes County shall request the transfer, or an agreement to transfer with specific timelines and milestones, jurisdiction of County roadways within the urban growth boundaries to their respective cities at the time of

annexation. County policy also directs that any developer of property who proposes annexation and who has frontage on a road that does not meet city standards shall have the primary responsibility for upgrading the road to applicable city specifications. Roads shall be upgraded prior to or at the time of annexation, or the developer shall sign an agreement with the city to upgrade the road, at the time of development. Transfer of road jurisdiction shall require the approval of both the County and affected city in accordance with the provisions in ORS 373.270.

## Arterial and Collector Roads - Road and Street Standards

### Goals

6. Develop and adopt a document or chapter of Road Standards and Specifications that shall control all aspects of construction related to roads, pedestrian walkways and bicycle facilities occurring outside designated urban growth boundaries in Deschutes County.
7. Develop and adopt criteria for the requirement of various levels of traffic analysis for each new rural development. The traffic analysis requirements shall be located in the Road Standards document.

### Policies

1. After County adoption of the Deschutes County Road Standards and Specifications document, all new Deschutes County rural roads and reconstructed rural roads shall be built to those identified standards. In the interim, rural road dimensions outside of the unincorporated communities of Terrebonne and Tumalo shall match the requirements set forth in Table 5.2.T1, which replaces current Table “A” located in Title 17 of the Deschutes County Code. The City of Sisters Road Development Standards shall apply within the Sisters Urban Area. The Road requirements for the unincorporated communities of Tumalo and Terrebonne are governed by the previously adopted tables included in Appendix G of the Transportation System Plan located in the Resource Element.
2. Road, pedestrian and bicycle projects occurring in unincorporated areas within urban growth boundaries shall be governed by the respective city’s road and street standards. Those requirements shall be coordinated between the city, the County and the applicant during the land use process according to procedures to be identified in the Deschutes County Road Standards and Specifications document.

## Arterial and Collector Roads - Road Management System

### Goal

8. Maintain the County road network pavement in good to excellent condition.

### Policies

1. Deschutes County shall continue to maintain and preserve the County road network through its pavement management system which guides a program of paving, repairing, reconstruction, drainage clearance and vegetation control.
2. After safety-related issues, the highest volume road segments shall be the next priority for County road maintenance and repair.
3. If and when gravel or dirt roads are paved by the County, the main controlling criteria shall be: density of surrounding development, traffic volumes, road classification, gap filling, potential school bus routing efficiency and emergency evacuation potential.

## Arterial and Collector Roads - Level of Service

### Goal

9. Maintain a level of service of “D” or better during the peak hour throughout the County arterial and collector road system over the next 20 years.

### Policy

1. Deschutes County shall continue to monitor road volumes on the County arterial and collector network. The County Road Department shall continue to be the department responsible for monitoring volumes and shall strive to count each arterial and collector at least once every four years. The Road Department shall periodically examine the traffic volumes to identify level of service deterioration.

## Arterial and Collector Roads - ODOT State Highways

### Goal

10. Maintain the current arterial and collector system in the County and prevent degradation of the capacity of the system.

### Policies

1. Deschutes County shall monitor County arterials and collectors to help in the determination of when road improvement projects are necessary.
2. Deschutes County shall continue to work with the ODOT and the Cities of Bend, Redmond and Sisters to coordinate solutions to highway and non-highway road issues that cross over jurisdictional boundaries.
3. The County shall establish requirements and adopt standards for secondary access roads to isolated rural subdivisions.

## Arterial and Collector Roads - Bridges

### Goal

11. Maintain a safe and efficient network of bridges on County roadways.

### Policy

1. Deschutes County shall monitor the condition of County bridges on a regular basis, and perform routine maintenance and repair when necessary. The County shall also explore additional funding sources when major reconstruction or replacement of bridges is necessary

## Arterial and Collector Roads - Truck Routes

### Goal

12. Develop a plan of designated truck routes.

### Policy

1. Deschutes County shall require that long-haul, through trucks be limited to operating on Principal Arterial and Rural Minor Arterial roads as designated in the County transportation network, except in emergency

situations and when no reasonable alternative arterial road is available for access to commercial or industrial uses.

## Arterial and Collector Roads - Hazardous Material Routes

### Goal

13. Develop a plan of designated hazardous materials (NRHM) routes.

### Policy

1. Deschutes County shall work with ODOT to determine the feasibility of designating NHRM route(s) through Deschutes County.

## Arterial and Collector Roads - Facility Safety Improvement

### Goal

14. Maintain a safe and efficient network of roadways.

### Policy

1. Deschutes County shall maintain a prioritized inventory of safety-deficient facilities on the County road network and give highest priority to correcting safety issues.

## Public Transportation – Special Transit Services

### Goals

15. Enhance the opportunity for intermodal connections throughout the County transportation system.
16. Increase the existing level of special services provided.
17. Establish rural transit service for Deschutes County residents.
18. Decrease barriers to the use of existing services.

## **Policies**

1. Deschutes County shall work with ODOT, the cities of Bend, Redmond and Sisters, and transit service providers to study countywide rideshare facility needs, and investigate public transit possibilities including potential transit stops for a regional or commuter-based transit system. Those possibilities shall include bus and rail, and if economically feasible, the County shall seek such services as are found to be safe, efficient, and convenient in serving the transportation needs of the residents of Deschutes County.
2. Deschutes County shall continue to work with special service providers, ODOT, and the cities of Bend, Redmond and Sisters to secure additional funding as well as increase promotion of those special transit services that may be underutilized.
3. Deschutes County shall monitor the needs of the transportation disadvantaged and attempt to fill those needs.

## **Bikeways and Pedestrian – General**

### **Goals**

19. Adopt a Countywide system plan for bike and pedestrian facilities which provide access to various destinations within unincorporated communities and between urban areas and unincorporated communities.
20. Provide and maintain a safe, convenient and pleasing countywide bicycle and pedestrian system that is integrated with other transportation systems.
21. Establish bicycle safety, education and enforcement programs for all ages, improve riding skills, achieve observances of traffic laws, increased awareness of cyclist's and pedestrian rights, and monitor and analyze bicycle accident data to determine safety problem areas.

### **Policies**

1. Deschutes County shall coordinate local plans for pedestrian and bicycle facilities with the 1995 Oregon Bicycle and Pedestrian Plan. The statewide plan provides a framework for a local bicycle and pedestrian system and design standards.
2. Deschutes County shall require bike facilities at locations that provide access within and between residential subdivisions, schools, shopping centers, industrial parks, and other activity centers when financially feasible.
3. Deschutes County shall:
  - a. Balance the plan with a variety of facilities to meet the needs of different cyclists;



- b. Plan for bicycle access between the County’s urban and rural areas;
- c. Develop a bikeway system, to be updated yearly and including a map for the public that describes the opportunities for bicycling in Deschutes County;
- d. Establish priorities for facility construction and maintenance based on need and resource availability;
- e. Evaluate the plan regularly to monitor how well the facilities meet the goals of the Plan;
- f. Upgrade rural road shoulder widths to County standards during road modernization or maintenance projects involving overlays as funding allows;
- g. Require bicycle and pedestrian facilities to satisfy the recreational and utilitarian needs of the citizens of Deschutes County;
- h. Make potential use, safety and the cost of bikeway construction, the primary considerations when designing specific bikeways;
- i. Emphasize the designation of on-road bikeways, where conditions warrant due to safety reasons and the cost of construction and maintenance of separate bike paths;
- j. Expend resources for the maintenance of existing bikeways and to keep pace with the development of new bikeways;
- k. Designate that the Deschutes County Bicycle and Pedestrian Advisory Committee facilitate the coordination of all bicycle and pedestrian planning in the County to assure compatibility;
- l. Designate that the Deschutes County Bicycle and Pedestrian Advisory Committee assure that the Plan remains up-to-date and that implementation proceeds according to the Plan;
- m. Work with affected jurisdictions to acquire, develop and maintain a series of trails along the Deschutes River, Tumalo Creek, and the major irrigation canals so that these features can be retained as a community asset; and
- n. Adopt standards for trail system right-of-ways and trail improvements that are based on the type of planned trail use and reflect the standards of the 1995 Oregon Bicycle and Pedestrian Plan.

## Bikeways and Pedestrian - On-Road Route Selection

### Goal

- 22. Coordinate on-road County bikeways with known existing and proposed state and city bikeways.

## **Policies**

1. New public and private land developments in Deschutes County shall accommodate and tie into the bicycle system, and shall provide their residents and employees with appropriate bicycle facilities.
2. County arterials and collectors may use shoulder bikeways or shared roadways. These bikeways shall be upgraded to bike lanes when highway reconstruction occurs and the traffic volumes warrant lanes.
3. Deschutes County shall facilitate safe and direct bicycle and pedestrian crossings of arterial roads.
4. On-road bikeways shall be constructed in accordance with the specifications set forth in the 1995 Oregon Bicycle and Pedestrian Plan.

## **Bikeways and Pedestrian - Off-Road Route Selection**

### **Goal**

23. Identify a system of off-road paved multiple use paths to be included in the County transportation system.

## **Policies**

1. Developers in Deschutes County are encouraged to design paths that connect to the countywide bikeway system and that provide a direct route for commuters. In some cases, it may be appropriate to relax a requirement, such as for a sidewalk on one side of a residential street, in favor of a comparable bike path in the development. However, the use of a bike path shall not change the on-road bikeway requirement for arterials and collectors.
2. Deschutes County shall facilitate mountain bike routes and the creation of paved off-road multiple-use paths. The County shall identify routes and incorporate them into its transportation system where appropriate. Particular attention shall be given to obtaining and keeping rights-of-way for uninterrupted routes linking areas within the County. Natural corridors such as rivers, irrigation canals, ridges and abandoned roadway and rail lines shall receive special attention. Proposed developments may be required to provide such identified rights-of-way as part of their transportation scheme in order to maintain the integrity and continuity of the countywide system.
3. The County shall work with local agencies and jurisdictions to acquire, develop and maintain those sections of trail that are located outside of UGBs, but are part of a trail plan or map that has been adopted by the local jurisdiction and the County.

4. Off-road paved multiple use paths shall be constructed in accordance with the specifications set forth in the 1995 Oregon Bicycle and Pedestrian Plan.

## Bikeways and Pedestrian - Facility Requirements

### Goal

24. Maintain the existing development requirements for bicycle facilities in Deschutes County.

### Policy

1. Deschutes County shall maintain and update as necessary the existing ordinance requirements for bicycle facilities found in Title 18.116.031, or such other location that it may be moved to within the Deschutes County Development Code.

## Airports

### Goal

25. Protect the function and economic viability of the existing public-use airports, while ensuring public safety and compatibility between the airport uses and surrounding land uses for public use airports and for private airports with three or more based aircraft.

### Policies

1. Deschutes County shall protect public-use airports through the development of airport land use regulations. Efforts shall be made to regulate the land uses in designated areas surrounding the Redmond, Bend, Sunriver and Sisters (Eagle Air) airports based upon adopted airport master plans or evidence of each airports specific level of risk and usage. The purpose of these regulations shall be to prevent the installation of airspace obstructions, additional airport hazards, and ensure the safety of the public and guide compatible land use. For the safety of those on the ground, only limited uses shall be allowed in specific noise impacted and crash hazard areas that have been identified for each specific airport. Protecting the privately owned, private-use airports, with three or more based aircraft, will be accomplished by development of specific land use regulations for these types of airports. The function and economic vitality of privately owned, private-use

airports with two or fewer based aircraft will also be accomplished through land use planning. Each airport's specific level of risk and usage shall be used to guide the continued safe aeronautical access to and from these airports considering the type of aircraft approved to use the airfield.

2. Deschutes County shall:
  - a. Continue to recognize the Redmond (Roberts Field) Airport as the major commercial/passenger aviation facility in Deschutes County and an airport of regional significance. Its operation, free from conflicting land uses, is in the best interests of the citizens of Deschutes County. Incompatible land uses shall be prohibited on the County lands adjacent to the airport;
  - b. Cooperate with the cities of Bend, Redmond and Sisters in establishing uniform zoning standards, which will prevent the development of hazardous structures and incompatible land uses around airports;
  - c. Through adoption of appropriate zoning restrictions, take steps to ensure that any proposed uses shall not impact airborne aircraft because of height of structures, smoke, glare, lights which shine upward, radio interference from transmissions or any water impoundment's or sanitary landfills which would create potential hazards from waterfowl to airborne aircraft;
  - d. Through adoption of appropriate zoning restrictions, allow land uses around public-use airports that will not be adversely affected by noise and safety problems and will be compatible with the airports and their operations;
  - e. Work with, and encourage airport sponsors to work with the Federal Aviation Administration (FAA) to enforce FAA-registered flight patterns and FAA flight behavior regulations to protect the interests of County residents living near airports.
  - f. Adopt zoning restrictions to ensure that developments in the airport approach areas will not be visually distracting, create electrical interference or cause other safety problems for aircraft or persons on the ground. In addition, efforts shall be made to minimize population densities and prohibit places of public assembly in the approach areas;
  - g. Continue efforts to prevent additional residential encroachment within critical noise contours or safety areas without informed consent;
  - h. Specifically designate any proposed airport facility relocations or expansions within County jurisdiction on an airport master plan or airport layout plan map, as amended, and establish the appropriate airport zoning designation to assure a compatible association of airport growth with surrounding urban or rural development;
  - i. Maintain geographic information system (GIS) mapping of the Airport Safety Combining Zones and provide timely updates;

- j. For those airports in Deschutes County without adopted master plans, the County shall, as a minimum, base any land use decisions involving airports on LCDC airport regulations, upon adoption of those regulations by LCDC, which implement HB 2605;
- k. Participate in and encourage the County-adoption of airport master plans for all public use airports and at least an airport layout plan for the remaining ODOT-recognized airfields in Deschutes County;
- l. Encourage appropriate federal, state and local funding for airport improvements at public-owned airports; and
- m. Discourage future development of private landing fields when they are in proximity to one another, near other public airports and potential airspace conflicts have been determined to exist by the Federal Aviation administration (FAA) or ODOT Aeronautics.

## Railroads

### Goals

- 26. Maintain the existing levels of freight rail activity throughout the County while also encouraging expanded usage by commercial and industrial companies.
- 27. Increase the safety of existing at-grade crossings and work towards the eventual replacement of all at-grade crossings with gate-protected or grade-separated crossings.

### Policies

- 1. Work cooperatively with affected local jurisdictions and railroad operators to reduce land use conflicts and increase safety at all at-grade crossings;
- 2. Encourage efforts to improve the condition of rail lines throughout the County in order to retain the effectiveness and competitiveness of freight rail;
- 3. Not endorse the abandonment of any rail lines unless they are to be converted to trail use through the federal “Rails to Trails” program. Once converted, the trails will be incorporated into the County Bikeway/Trail System;
- 4. Not endorse any activities that would diminish existing rail service; and
- 5. Work cooperatively with affected local jurisdictions, businesses and railroad operators to protect all rail spurs that currently serve businesses or have the potential to serve freight rail uses from abandonment or incompatible zoning.

## Transportation System Management (TSM)

### Goal

28. In order to optimize the carrying capacity of the County road system, provide cost effective transportation improvements and implement strategies that shall improve the efficiency and function of existing roads.

### Policies

1. Deschutes County shall adopt land use regulations to limit the location and number of driveways and access points on all collector and arterial roads.
2. Deschutes County shall ensure that land use actions support the access management policies of the Oregon Department of Transportation (ODOT) along state highways.
3. Deschutes County shall implement transportation system management measures to increase safety and reduce traffic congestion on arterial and collector streets, and protect the function of all travel modes.
4. Deschutes County shall promote safety and uninterrupted traffic flow along arterials via the following planning considerations:
  - a. Clustering of all types of development and provisions for an internal traffic circulation pattern with limited arterial access shall be encouraged;
  - b. A minimum setback of 50 feet from arterial rights-of-way shall be required;
  - c. Recommendations on speed limits shall be forwarded to the State Speed Control Board.

## Transportation Demand Management (TDM)

### Goal

29. Reduce peak hour traffic volumes on County roads and diminish the exclusive use of single-occupant vehicles

### Policies

Deschutes County shall:

1. Encourage businesses to participate in transportation demand management efforts through the development of incentives and/or disincentives. These programs shall be designed to reduce peak hour traffic volumes by encouraging ridesharing, cycling, walking,

- telecommuting, alternative/flexible work schedules and transit use when it becomes available;
2. Work with business groups, large employers and school districts to develop and implement transportation demand management programs;
  3. Continue to support the work of non-profit agencies working towards the same TDM goals as Deschutes County;
  4. Encourage programs such as van or carpooling (rideshare) to increase vehicle occupancy and reduce unnecessary single-occupant vehicle travel;
  5. Continue to pursue the development of park and ride facilities and consider the siting of a rideshare facility, based on identified needs, when realigning County roadways, considering the sale of surplus property, or reviewing land use applications for developments that could benefit from such a facility;
  6. Pursue the development and utilization of telecommunication technologies that facilitate the movement of information and data;
  7. Support efforts to educate the public regarding the actual costs related to travel on the transportation system and encourage transportation demand management alternatives; and
  8. Establish and make available a transportation demand management program to County employees, to serve as a role model for the community.

## Deschutes County Transportation Project List

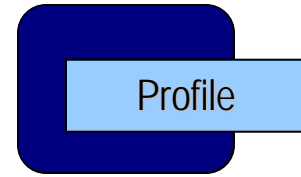
### Goal

30. Have an annual review of the Transportation Project List for the purposes of prioritizing, adding or deleting projects.

### Policies

1. The Deschutes County Board of Commissioners shall review the Transportation Project List annually to add, delete, and/or reprioritize projects, and may do so by adoption of a resolution.
2. The County Board of Commissioners has the authority to add projects to the list at any time if whole or partial private sector (developer) funding becomes available through the land use process, and the potential financial benefit to the County can be demonstrated to the satisfaction of the Board.

# Transportation



## Background

The State of Oregon requires cities and counties to prepare 20 year plans for their transportation facilities. These Transportation System Plans (TSPs) assess existing conditions, forecast future traffic volumes, identify deficiencies and propose and prioritize mitigations or projects. These plans cover all modes: air, automobile, bicycle, pedestrian, pipelines, rail, etc.

In 1998 a new TSP was adopted and summarized in this comprehensive plan. The complete TSP, including background documentation, facility inventory and forecast data as well as a list of prioritized short and long-term projects, can be found in the Resource Element.

Based on the TSP, the Deschutes County Comprehensive Plan Transportation section identifies through goals and policies how best to efficiently move people and goods throughout the County. It is meant to provide a transportation system that meets the needs of Deschutes County residents, while also considering regional and state needs. This section also reflects existing land use plans, policies and regulations that affect the transportation system.

Transportation needs within the Urban Growth Boundaries of each incorporated city are addressed by those cities respective comprehensive plan transportation chapters.

In 2008 the County initiated a project to update the County's Transportation System Plan, intended to coordinate with the Comprehensive Plan update.

## Transportation System Plan

In late 1994, the County initiated work on a long-range transportation system plan (TSP), which was a requirement of OAR 660-12, the Transportation Planning Rule (TPR or Rule). The State of Oregon approved the Rule in 1991. The purpose of the Transportation System Plan is to guide the development of a safe, convenient and efficient transportation system that promotes economic prosperity and livability for all County residents.

As required by the TPR, Deschutes County developed the standards and policies in the Transportation System Plan (TSP) that comply with the requirements to provide a multi-modal approach to solving transportation issues. The Rule identifies the specific actions required of jurisdictions based on their population. For most urban areas, the Rule requires an alternatives analysis to compare various new project options versus an alternative that proposes to build only existing funded and committed projects. Many of the



alternatives have goals such as an increase in mode split share and reduced vehicle miles traveled (VMT). These goals are measurable in many urban areas or areas with a Metropolitan Planning Organization (MPO), but not in rural Deschutes County. The logical alternative choices in the County were to:

1. Pursue an alternative that programs only the identified projects in the current County Major Roads Capital Improvement Plan (MRCIP) and gradually shifts funding from new capital projects to more preservation and maintenance. Over time, capital improvements to address traffic and safety problem areas will proceed on a prioritized basis. The long-term effect is that preservation and maintenance of the existing system becomes a higher priority than relieving congestion and solving safety issues. This is often referred to as the “no build” alternative.
2. Adopt a “build” alternative, which tries to keep pace with anticipated growth by focusing funding on building capacity-enhancing and safety oriented projects, while also attempting to maintain the existing road network.
3. Adopt a combination alternative, as recommended in the Deschutes County Transportation System Plan (TSP, located in the transportation chapter of the Resource Element), which includes a mixture of new projects to enhance roadway capacity, improve safety while also maximizing preservation and maintenance. The alternative also shifts emphasis to non-auto modes as much, as is practical to meet the intent of the Transportation Planning Rule (TPR).

This Plan balances the need to reduce the reliance on single occupant vehicles given the County’s needs, geography and demographics, with the need to solve safety and operational problems. At the same time, the system needs a significant effort in maintenance over the next twenty years to preserve the investment already made by the community. Additionally, the Plan encourages ridesharing, telecommuting and eventually fixed-route transit.

The TSP makes recommendations regarding short-term and long-term transportation projects on state and County facilities that will be needed over the next 20 years.

The project list was based on:

1. Evaluating the capacity of the County road system and the state highway network within Deschutes County
2. The results of state accident database analysis
3. Input from the County Road Department
4. Efforts to enhance alternative modes of transportation through compliance with the Transportation Planning Rule
5. The input received from the citizen review committee (County Planning Commission) and the public outreach process in general

The identified projects were prioritized based on the following criteria:

1. Most Important: Solving safety problems
2. Important: Maximizing the use of pedestrian and bicycle facilities;  
Location of schools and fire stations; Project cost per average daily trip;  
Anticipated traffic volumes (2016)

Based on the requirements of the Transportation Planning Rule (TPR), Deschutes County has established an ongoing procedure to periodically analyze, prepare and plan for the transportation needs of Deschutes County residents and visitors. Goals and policies (see above section for Goals and Policies) are intended to implement the Deschutes County Transportation System Plan, and thereby meet the requirements of the TPR.

## Arterial and Collector Roads

### County Road Network

The findings in the TSP conclude that the County road network currently in place, except for several specific road segments, should be adequate to serve the County needs over the next twenty years. Given the rural nature of Deschutes County and the fact that the majority of new development will take place on existing lots with existing access, few additional roads are anticipated. New road corridors to isolated subdivisions and new roads linking urban and rural areas are the main exceptions. Any new roads that will be created most likely will be the result of new developments and would therefore be part of land use development review or would be for secondary access or emergency ingress/egress to isolated subdivisions. Unforeseen large developments such as destination resorts normally have a private road system but their impacts to the County road network would be assessed at the time of land use approval.

The majority of road-related projects will consist of safety-related or other upgrades, maintenance and repair. Upgrades, maintenance and repair should be actively pursued to maintain the integrity of the system and not jeopardize the current conditions. Pedestrian, bicycle and transit modes of transportation require wider, smoother roadways. These improvements also benefit automobile and truck traffic by making the roads safer and more efficient. The main purpose of the County-owned road network is to move people and goods as efficiently as possible between and to the incorporated cities in the County, not as a means of increasing urban scale developments in the unincorporated communities of the County. The County recognizes the importance of having a natural and seamless transition of jurisdiction for County roads within urban growth boundaries to their respective city jurisdictions as the cities continue to grow.

## State Highways

Each of the Access Oregon Highways (AOH) in Deschutes County has a specific role in the statewide transportation network, as well as the County system. The 1991 Oregon Highway Plan specifies the design, access management and level of service requirements that need to be applied to these highways. Deschutes County supports ODOT policy to develop highways through a “four-phased” approach. The four phases of development take place incrementally as the traffic volumes increase and the level of service decreases. Beginning with a standard two-lane rural highway, the improvement phases are as follows:

1. Addition of passing or climbing lanes
2. Widening to a four-lane section
3. Adding grade-separated interchanges and raised medians
4. Develop full grade-separated interchanges and frontage roads

Through a coordinated analysis effort between ODOT and County staff, the probable locations of future passing and climbing lanes on the state highways in Deschutes County were identified. Also identified were the four-lane extension to Highway 97 from La Pine south to Highway 31, along with the probable locations of future grade-separated interchanges. The projected conceptual highway lane additions and interchanges are shown on Figures 5.2.F1 and 5.2.F2 in the Transportation chapter of the Resource Element. Actual locations and design would be the result of detailed engineering work occurring during project development. No signals are appropriate on state highways outside of UGBs, Terrebonne or La Pine. Instead, as intersections develop safety or operational problems, they shall be grade-separated, restricted or closed (where there is alternative access).

The following descriptions identify the roles the state highways are expected to play in Deschutes County over the next twenty years.

### *US Highway 97*

Congestion on Highway 97 has been mostly a problem within the communities of Bend and Redmond, due to the increasing volumes of truck traffic combined with local traffic generated by the rapid growth experienced in recent years. The Highway 97 Strategy (Appendix D of the Transportation chapter of the Resource Element) contains the goals and policies that govern the future development of the Highway 97 corridor. Outside of urban areas, the highway is characterized by two, three, and four-lane sections. The ultimate plan is for a continuous four-lane section to be built throughout the corridor, except for the sections through unincorporated communities such as Terrebonne. In those communities, traffic calming and pedestrian safety are more important than through traffic movement. In most cases, the time delay to drivers

passing through the small rural communities is insignificant compared to the overall travel time along the corridor.

Highway 97 is considered a Category 2 access management facility outside of urban areas, except for the specific sections through the communities of Terrebonne, Wickiup Junction and La Pine which are Category 4 (definitions can be found on page 17). The Category 4 section in Terrebonne extends from Lower Bridge Way south to 11th Street. The section in Wickiup Junction extends from Drafter Road south to Burgess Road. The La Pine section extends south from 1st Street to 6th Street. The Terrebonne section has already been redesigned to be pedestrian-friendly by the eventual inclusion of sidewalks, landscaped strips, bulbed intersection corners and a center median. The La Pine section will be studied in 1998 as part of an approved state Transportation and Growth Management (TGM) grant. The La Pine section will be challenging due to the existing four-lane section through the community. Issues regarding Highway 97 in Deschutes County include:

1. The increasing traffic volumes north of Terrebonne, especially at Lower Bridge Way
2. Traffic calming through Terrebonne, Wickiup Junction and La Pine
3. Local road and direct driveway access onto the highway
4. North and south connections to the Redmond “bypass”
5. The needed grade-separated interchange at South Century Drive (Sunriver)
6. The excessive speeds through the rural communities
7. The possible grade separation between Yew Avenue and Deschutes Junction
8. The opportunity to enhance the parallel local road network to redistribute local trips that would otherwise need to use the highway (such as paving FS Rd. #41 between Sunriver and Bend)

### *US Highway 20*

The ODOT Highway 20 corridor planning process is currently underway, and not expected to be completed before this TSP is adopted. However, policy direction and identified projects resulting from the corridor work can be added to the County’s adopted TSP when completed.

The Tumalo section was studied (with Terrebonne) in 1997 as part of an approved state Transportation and Growth Management (TGM) grant. The community focused on the need to reduce accidents and ease the burden of crossing three lanes of high-speed traffic on Highway 20. The high volume of truck trips in the Tumalo area is seen as a contributor to the overall problem, and is not anticipated to diminish during the next twenty years.

Highway 20 is considered a Category 3 access management facility west of the Sister's UGB, Category 4 within Sisters (similar to Terrebonne), Category 2 between Sisters and the Bend UGB, and Category 4 east of the Bend UGB.

The critical areas of the corridor are:

1. The increasing traffic volumes west of Sisters that may necessitate additional passing lanes
2. The intersection of Cook Avenue in Tumalo which will require an eventual grade separation
3. Safety problems at the intersection of the Old Redmond-Bend Highway, which will also require an eventual grade separation
4. Local road and direct driveway access onto the highway between Sisters and Bend
5. Improvements to the Powell Butte Highway intersection if land uses intensify at the Bend Airport and/or accelerated growth occurs in Crook County

#### *Oregon Highway 126 (OR 126)*

With the completion of the Cline Falls interchange in 1997, there are few transportation issues remaining or anticipated on this facility. No new interchanges or medians are proposed. The primary issues are related to the highway as it passes through the City of Redmond. Areas outside of the Redmond UGB that could develop problems include:

1. The intersection of Helmholtz Way if rapid development in and around Redmond continues
2. Access to a possible new state park expansion at Cline Falls
3. Local road and direct driveway access onto the highway between Sisters and Redmond
4. The substandard section east of Redmond
5. The connection of 74th Street to the Cline Falls interchange

#### *Other Oregon Highways (OR 27, OR 31, OR 370 & OR 372).*

The remaining highways in the County are not considered AOH facilities, and as such, do not warrant the same priority for projects nor are they anticipated to carry significant traffic volumes. Each of these highways, except for OR 27, is currently considered a Category 4 facility. None has identified high accident rates or safety problems. With the exception of OR 370 (O'Neil Highway), none has much direct private access or potential for intensified land use. There are no plans to pave OR 27 which is considered a Category 6 facility.

Deschutes County recognizes that Crook County is incrementally paving a new road extending south from their industrial area towards Deschutes County. Ultimately this new road may connect to Highway 20 west of OR 27

near Millican. When and if this new road connects to Highway 20, ODOT may choose to designate this new route as OR 27.

## **Access Management**

Roads accommodate two types of travel: local travel and through traffic. Arterial streets are intended for through movement of traffic while local roads are designed to give direct access to the abutting properties. Collector roads provide a link between the local and arterial roads, balancing accessibility and function. Historically, the state and local governments corrected many congestion problems by constructing new bypasses, grade separations or major street improvements. However, such solutions are expensive and are fast becoming infeasible under current funding levels.

Arterial roads without access management can over time become overused for short distance trips and local access to property. Land use changes along these overburdened arterials results in increased trip generation and traffic conflicts, as businesses normally desire to locate on high traffic arterials. The lack of adequate access management and insufficient coordination of land use development, property division and access review can contribute to the deterioration of both the arterial and collector road network. Traffic signals, new road approaches and driveways can decrease speed and capacity, and increase both congestion and hazards. Access management includes the control of vehicular access to major roadways. Partial access control, which is often found on major arterials and highways, is provided by limiting or prohibiting driveway access, left turn movements and cross traffic at intersections. These limitations increase the capacity of an arterial to carry through traffic at the desired speeds without requiring the addition of more travel lanes. Coordination, planning and proper policies can help avoid these problems and costly solutions.

## **Functional Classification**

Functional classification describes how the public road system should operate. Roads are grouped by their similar characteristics in providing mobility and/or land access. Within the County, there are six rural road classifications and nine urban classifications. Further coordination is needed between the County and cities in Deschutes County regarding the functional classification of County roads within city limits and urban growth boundaries. Currently, the County maintains approximately 123 miles of roadway within city limits and urban growth boundaries. The County lacks funds to upgrade these roads to city urban standards. Strengthening and revising Urban Growth Management agreements with cities may be an effective way to pursue tight coordination on this important issue and reduce the long-term financial burden to the County. As an example, the County and the City of Bend have agreed that as of July 1, 1998, all roads within the Bend UGB will become the responsibility of the City

of Bend. This shift reduces the County’s urban road mileage by approximately 70%.

The following changes to functional classification are identified on the Deschutes County Transportation Plan Map, designated as Exhibit “A” to Ordinance No. 98-044, and also identified on the more detailed maps located in the Transportation System Plan which is part of the Resource Element of the Comprehensive Plan.

*Bend TSP* - The draft Bend Transportation System Plan is proposing only one change in functional classification to a County road within the UGB. However, with the recent management agreement, this road will become the jurisdiction of the City of Bend. The functional classification of all other roads that cross the Bend UGB between the City and the County have been coordinated.

Yeoman Road from 18th street east to the outer (ultimate) urban growth boundary is currently classified as either a future or current arterial depending on segment. It is proposed to change to a corresponding future and current collector.

*Redmond TSP* - The draft Redmond Transportation System Plan proposes several classification changes to County roads within and around the UGB. The Redmond TSP also splits the existing arterial classification into two new categories, “major arterial” replaces “principal arterial” and “minor arterial” replaces “arterial”. The collector category is also changed by creating a “Major” and “Minor” classification. The difference is that bike lanes are not required on “Minor” collectors. The designation of County roads outside of UGBs shall remain consistent with the County functional classes of Rural Arterial and Rural Collector. The County shall require at least a four-foot shoulder bikeway along those sections of road within the County that are extensions of designated Minor Arterials and Major Collectors on the Redmond Plan.

1. Rural Arterial to Rural Collector
  - a. Hemholtz Way (43rd) between Maple Avenue and Obsidian Avenue.
  - b. Northwest Way north of Maple Avenue
  - c. Maple Avenue between Hemholtz Way (43rd) and Northwest Way (27th)
2. Rural Collector to Rural Arterial
  - a. 27th Street between Maple Avenue and Hemlock Avenue
3. Other Changes
  - a. 9th Street classification as future arterial north of Maple Avenue / Negus Way is eliminated

*County Roads* - Several roads within the rural areas of the County road network are in need of reclassification. The reclassification of these roads is warranted based on either their current and projected average daily traffic (ADT), or planned functional role in the transportation network. In most cases,

a projected level of service “D” or worse triggered the change from collector to arterial. One exception to this is the reclassification of Forest Service Road #45. This road is expected to have high peak seasonal use between Sunriver and Mt. Bachelor, and should therefore be reconstructed to a rural arterial standard.

Several roads currently classified as arterial are recommended to revert to collector status because they don’t have a projected level of service of “D” or worse, and serve as a parallel route to a state highway. The original Transportation Element of the County Comprehensive Plan made several recommendations as to reclassifications at that time. As time has passed, some of these roads have not experienced the anticipated traffic while others are playing larger roles than originally planned due to accelerated development pressure. The County emphasis is for County roads to remain rural, have lower traffic speeds, and reduced cost to upgrade, repair and maintain.

New local roads for secondary access to rural isolated subdivisions have been identified as part of the Regional Problem Solving Project. In some cases, there is an existing dirt road across private or government land, but no dedicated right-of-way. Figures 5.2.F3a and 5.2.F3b of the Transportation chapter of the Resource Element identify proposed new roads as “corridors”, subject to future engineering and design, rather than specific alignments. The Sunriver Business Park is also in need of a future secondary access or intersection treatment such as a roundabout. With increasing development of commercial uses in the Park along with the increasing traffic volumes on South Century Drive, the single entrance/exit onto South Century Drive will become inadequate. Any solution may be problematic due to the established development pattern, the electric substation location, the forest-zoned land, and the Harper town site to the south. Figure 5.2.F3c in the Transportation chapter of the Resource Element identifies possible solutions to the problem by establishing a new access to Huntington Road. In the interim, an upgrade project to South Century Drive is identified in the Project List in the Transportation chapter of the Resource Element. The project would add a continuous two-way center turn lane from the entrance at Sunriver to the intersection at Spring River Road.

Roads classified as “future” in Figures 5.2.F4a-5.2.F4e of the Transportation chapter of the Resource Element are currently in need of either dedicated right-of-way, paving to County standard or both. The County makes the following changes in functional classification based on the current and projected traffic volumes, as well as the need for coordination between jurisdictions:

1. Upgrade Functional Class - Rural Collector to Rural Arterial
  - a. Baker Road from US 97 to Brookwood Blvd
  - b. Burgess Road from US 97 to Day Road
  - c. South Century Drive from US 97 to Spring River Road



- d. Cline Falls Highway from OR 126 to Second St. (Tumalo)
- e. Spring River Road from South Century Drive to FS Road #45
- f. Forest Service Road #45 from Spring River Road to Century Drive
2. Upgrade Functional Class - Rural Local to Rural Collector
  - a. Stevens Road from Bend UGB to Ward Road
  - b. Nelson Road from Waugh Rd. to Powell Butte Highway
  - c. Billadeau Road from Ward Rd. to Arnold Market Rd
  - d. Reed Road from US 97 to Darlene Way (edge of La Pine Community)
  - e. Hunnell Rd. from Tumalo Rd. to Bend UGB
  - f. Rogers Rd. from Old Redmond-Bend Hwy. to Hunnell Rd
3. Upgrade Functional Class - Rural Local to Future Rural Collector
  - a. Lazy River Drive to Tamarack Drive
  - b. Tamarack Drive from Lazy River Dr. to 4th Street
  - c. 4th Street to Whittier Drive
  - d. Whittier Drive to La Pine State Recreation Road
  - e. Solar Drive to Milky Way
  - f. Upland Road from Milky Way to Savage Drive
  - g. Savage Drive from Upland Road to Winchester Drive
  - h. Winchester Drive From Savage Drive to Browning Drive
  - i. Browning Drive from Winchester Drive to Stagestop Drive
  - j. Stagestop Drive from Browning Drive to Bonanza Lane
  - k. Bonanza Lane from Stagestop Drive to South Century Drive
  - l. Sunrise Blvd. from Day Rd. to Burgess Rd
4. Downgrade Functional Class - Rural Arterial to Rural Collector
  - a. Holmes Road from OR126 to Lower Bridge Way
  - b. OB Riley Road from Bend UGB to Johnson Market Road
  - c. Lower Bridge Way from Holmes Road to 43rd Street
  - d. Deschutes Market Road from US 97 to Bend UGB
5. Downgrade Functional Class - Rural Collector to Rural Local
  - a. Horse Butte Road from Knott Road to end
  - b. Arnold Market Road from Rickard Rd. to Billadeau Road

## Road and Street Standards

Historically, County road and street standards and specifications have been located in various places throughout the County Zoning and Subdivision Ordinances, making it a difficult task to implement standards uniformly and update them as needed. The County pledges to create a separate standards and specifications document, which will enable the County to periodically update or change specifications or road project procedures without a Comprehensive Plan amendment. The likely location for the new document or chapter will be in Title 12 (Road Department) of the Deschutes County Code. The new document will reflect the County's desire to no longer have urban road standards, only rural road standards, including specific standards for the unincorporated communities of La Pine, Terrebonne and Tumalo.

## Road Management System

Road management is an orderly scheduling of pavement preservation, maintenance, repairs and improvements to meet serviceability goals and provide safe, comfortable and economical transportation while striving to achieve the best possible value from available funds. Routine maintenance activities are carried out on a daily basis. Road sections requiring more extensive work are prioritized and then selected for improvements based on an evaluation of pavement condition.

Local road standards need to evolve over time as a given road experiences more traffic. A dirt or aggregate surfaced road may be adequate for access to individual properties. However, as additional properties begin to use that road for access, it may no longer be adequate. At a certain point, the owners of property using the road for access will need to join together and participate in the improvement of the road through the formation of a special road district or local improvement district.

## Level of service

Levels of service (LOS) describe the service quality on two lane roads or highways as determined by average travel speed, percent of time delay due to the inability to pass, roadway capacity utilization, or intersection delay. LOS ratings generally apply to collector and arterial streets only.

LOS is defined by a range of designations from “A” to “F”. LOS “A” is completely unimpeded traffic flow while “F” is highly congested. Table 5.2.T2 in the Transportation chapter of the Resource Element identifies the relationship between two-way average daily traffic (ADT) volumes, level of service and the percentage of daily traffic that occurs during the peak travel hours of the day (K factor) on two-lane highways. While several road segments are expected to reach LOS “E” over the next 20 years, most County roads will be at LOS “D” or better as long as population growth does not exceed the projections. ODOT highway policies dictate that anything over LOS “C” outside of urban areas is unacceptable. For rural highway segments in Deschutes County, ODOT projects several to exceed LOS “D” over the next 20 years.

### Maximum Average Daily Traffic Allowed for Various Levels of Service

<i>K Factor</i>	<i>Level of Service</i>				
	A	B	C	D	E
	Average Daily Traffic Volume (ideal conditions, i.e., level terrain, etc.)				
10%	2,400	4,800	7,900,	13,500	22,900

Source: Deschutes County Resource Element

## Capacity

### *County Roads*

Traffic volumes on County roads were estimated using a combination of trending analyses and the Potential Development Impact Analysis work done by ODOT for Deschutes County. It was assumed that any road segment with fewer than 9,600-projected ADT in 2016 would operate at an LOS of “D” or better, and that LOS “D” is acceptable for County arterial and collector roads. Of all the County roads, only Baker Road (LOS “E”) leading into Deschutes River Woods is projected to operate at worse than LOS “D” in 2016. Additional roads approaching LOS “E” are located in the South County and include:

1. Burgess Road west of Huntington Road in La Pine
2. South Century Drive near Sunriver

These two road segments shall be monitored by the County Road Department and counted at least every two years instead of the usual 4-year cycle.

### *ODOT State Highways*

ODOT provides yearly traffic counts on all the state highways running through Deschutes County. ODOT used historical growth rates based on the last twenty years of traffic volume data. The yearly growth ranged from 0.0 to 11.4 percent.

It was also assumed that the number of access points remained constant. Whereas the County road analysis related LOS directly to ADT levels, several highway segments may have high ADT levels but a correspondingly low LOS because of the presence of multilane and passing lane sections. Therefore, the most important analysis tool for highway sections becomes the LOS value rather than ADT. For multilane sections in the County, the forecasted traffic volumes are well within the capacity limits through the year 2016. However, several sections of the state highways will be reaching capacity thresholds for two-lane sections. The sections projected to approach capacity and operate at level of service (LOS) “D” or worse are:

1. Highway 126 through downtown Sisters and on either side of the City of Redmond
2. Most of Highway 20/126 between the Jefferson County line, through Sisters and Bend to Powell Butte Highway
3. Highway 97 from the Jefferson County line through Terrebonne and Cottonwood Drive south to La Pine
4. Highway 372 from Bend to Dillon Falls Road on the way to Mt Bachelor

## **Bridges**

Deschutes County owns and manages approximately 120 bridges throughout the County. The County Road Department performs routine maintenance and repairs as necessary. Several of the bridges are signed for weight limitations in the five to fifteen-ton range because they are structurally deficient. Five bridges on higher volume roads are signed with 25-ton weight limits. Since the recent replacement of the Fall River Bridge in 1995, no significant bridge problems have been identified for correction or reconstruction.

## **Truck Routes**

Currently Deschutes County has no designated truck routes or hazardous materials routes on County roads. However, several roads are signed to not allow trucks over a certain weight due to bridge limitations. Oregon is one of the few states that currently allow oversized tractor-trailer vehicles referred to as Longer Combination Vehicles (LCV's) on certain highways. Two types of Luvs, triple trailers and heavier double trailers (105,000-lb weight limit) are allowed to operate in Oregon without a special permit. Truck traffic is generally confined to industrial, commercial and surface mining areas. State highways serve the majority of truck traffic and are most suitable for truck use. The County shall continue to designate state highways as the desired through truck routes in the County. The draft 1998 Oregon Highway Plan proposes to designate U.S. 97 as a State Trucking Route. This designation could mean that additional funds would be available for improvements to U.S. 97. Outside of the state highway system, trucks should be limited to travel only on arterial roads.

## **Hazardous Material Routes**

The transport of non-radioactive hazardous materials (NRHM) is guided by Part 397 of the Federal Motor Carrier Safety Regulations. The Federal Department of Transportation defines hazardous materials (HAZMAT) and regulates their packaging and shipping. ODOT designates the NRHM routes in Oregon. Currently, there are no designated NRHM routes in Central Oregon, which means HAZMAT can be transported through Deschutes County without any restrictions. In order to establish a new NHRM route, the County would need to work with ODOT to make findings on various federal criteria such as population density and proximity to hospitals and schools. The creation of NRHM routes requires a deeper understanding of the movement of these shipments than is currently available, therefore no routes shall be designated in this Plan. However, the County shall work with ODOT to determine if any Deschutes County highways should be candidates for designation as NRHM routes.

## **Facility/Safety Improvements**

In 1996, the grant-funded Deschutes County Safe Communities program was initiated in an effort to reduce transportation-related injuries of all types. Program staff used the state accident database, from the Accident Data Unit at ODOT, to evaluate accident data for the period 1991- April 1995. During this time period there were a total of 2,518 crashes reported on County roads and highways outside of urban areas. Of the total number of accidents, 70 were fatal, 1,073 involved injury (170 serious), and 1,375 were property damage only accidents. Safe Communities staff has also identified the difference in accident rates between the County in general and the rural areas.

Countywide, fatal accidents accounted for 1.2 percent of the total number of accidents, while fatal accidents just in the rural area accounted for 2.8 percent of the total. Injury accidents made up 4.4 percent of the County total, while in just the rural areas; they accounted for 6.8 percent of the total. The Safe Communities Group identified the process of reengineering high incident areas, where the greatest number of accidents occur, as the most important issue that should be addressed within the first year of the program. However, it could also be argued that the number of accidents alone is not the only indicator of need for corrective measures. A location with very high traffic volumes and a high accident rate may be safer than a location with low volumes but a high accident per average daily trip (ADT) rate. The “high priority” projects in the Project List section of the Transportation chapter of the Resource Element include improvement projects recommended to improve safety.

## **Public Transportation**

### **Special Transit Services**

#### *Fixed Route Transit*

There is currently no traditional fixed-route local transit service in Deschutes County. However, the Mt. Bachelor Ski Resort Super Shuttle does operate during the winter months on a fixed-route and schedule. The County shall continue to work with service providers such as Mt. Bachelor to secure additional funding as well as increase promotion of their services.

#### *Future Fixed-Route Transportation Options*

In 1997, ODOT funded a study to address the issue of a fixed-route, commuter shuttle transit system between Bend and Redmond. The Study includes a commuter survey, information regarding potential ridership and costs. The results indicated that the most feasible operation would be a 3-van system

with reasonably direct routing and few stops. The travel time between Bend and Redmond would average 30 minutes. The capital costs would be approximately \$150,000, with annual operating costs of \$200,000. Average daily ridership could average 100 if fares were \$3.00 or less. Further study would be required prior to implementation.

If the County were to establish a rural transit “district” to include a Bend-Redmond shuttle, another potential transit route could be from La Pine to Bend. Although no formal study has been done on this, similar results as the Bend-Redmond Study would be expected. A major difference in a La Pine-Bend shuttle would be the limited number of stops in La Pine and Wickiup Junction, and a probable diversion to serve Deschutes River Woods.

To achieve its potential, a commuter shuttle service needs good connections to sidewalks, bikeways, fixed-route transit and rideshare lots. Currently, there is no fixed-route transit in Bend or Redmond. The sidewalk and bicycle networks are generally fragmented and there are few rideshare lots. Because of these limitations, a shuttle service should attempt point-to-point travel as much as possible, which means working with larger employers to encourage the service. Figure 5.3.F1 in the Transportation chapter of the Resource Element identifies the potential routes and stops for a County rural transit system.

The need for a public transit center has been identified and shall be supported by Deschutes County. The center would include adequate parking and restroom facilities, and provide the opportunity to transfer between multiple intercity and local service providers. The most likely transit center location is in Bend, but additional locations in Redmond and possibly La Pine/Wickiup Junction may also be established. The County shall cooperate with ODOT and local jurisdictions in establishing future transit facilities as needed.

#### *Local Demand-Responsive Transportation*

Deschutes County has a network of special transportation providers who serve the elderly and disabled population. In most cases, the general public does not have access to these special transportation services. There are several providers of special transportation services in the County, ranging from public to private, both profit and non-profit. The following are the existing service providers in the County:

- City of Bend Dial-A-Ride
- Central Oregon Council On Aging (COCOA) Dial-A-Ride
- Opportunity Foundation of Central Oregon
- Residential Assistance Program (RAP)
- Disabled American Veterans
- Volunteer Services
- Central Oregon Resources for Independent Living

- Access Express  
With limited funding options, no significant expansions in these demand responsive programs are planned. Short-term capital needs have been identified for several dial-a-ride service providers and are included in the Project List.

## **Intercity Bus and Passenger Rail**

The following intercity bus services are planned to continue as the primary (and only) public transit options in the County.

- Greyhound
- CAC Transportation
- The People Mover
- Porter Stage Lines
- Valley Retriever

The focus is to maximize the efficiency of these services as land use changes occur. The County realizes it has no control over the market driven forces that allow private transit providers to thrive or just survive. Increased emphasis shall be placed on the transit/rideshare connections possible in the South County as the population increases. The County will continue to work with the cities of Bend and Redmond as they investigate the possibility of fixed-route local transit systems. Without a local transit system to distribute trips, a commuter system linking the rural and urban areas of the County is less likely to succeed.

The Oregon Transportation Commission in November 1992 adopted the Oregon Rail Passenger Policy and Plan. It provides a comprehensive long-range plan for railroad passenger service in Oregon in coordination with the Oregon Transportation Plan. Unfortunately, passenger rail service for Central Oregon was ruled out as not being cost-effective. However, as conditions change and the population of Deschutes County continues to increase, the County will monitor the feasibility for future passenger rail service and work with ODOT and the community on future transit/rail options.

## **Bikeways and pedestrians**

In March 1992, the County adopted a Bicycle Master Plan as a resource element of the Deschutes County Year 2000 Comprehensive Plan. The Bicycle Master Plan provides recommendations for policies, classifications of bike facilities, location of bike facilities, bicycle parking and other transportation issues related to bike facilities. Many of the goals and objectives of that Plan have been implemented and/or are still valid. With the adoption of the latest version of the Oregon Bicycle and Pedestrian Plan by the Oregon Transportation Commission on June 14, 1995, portions of the 1992 County

Bicycle Master Plan are no longer relevant. The new state Plan contains several changes from earlier versions, which will have an effect on the Deschutes County Bicycle Master Plan. The most significant change is the new emphasis on pedestrian facilities, which were not addressed in the previous Plan.

Based on need and road characteristics, all roads open for public use should be considered for the potential to improve bicycling and walking. Facilities should safely accommodate the majority of users. Roads designed to accommodate cyclists with moderate skills will meet the needs of most riders; special consideration should be given close to school areas, where facilities designed specifically for children should be provided. Roads designed to accommodate young, elderly and disabled pedestrians serve all users well.

## **Rural Bikeways**

On most rural roadways, shoulder bikeways are appropriate, accommodating cyclists with few conflicts with motor vehicles. In general, the minimum shoulder widths recommended by Oregon Bicycle and Pedestrian Plan for rural highways are adequate for bicycle travel. These standards take into account traffic volumes and other considerations.

Shared roadways are adequate on low-volume rural roads, where motor vehicle drivers can safely pass bicyclists due to the low likelihood of encountering on-coming traffic. Shoulder bikeways can be added to roads with high bicycle use, such as in semi-rural residential areas or close to urban areas. It may be appropriate to stripe and mark shoulders as bike lanes near schools or other areas of high use. Even adding minimal-width shoulders can improve conditions for bicyclists on roads with moderate traffic volumes. On roads with high use, it may be necessary to add full-width shoulders in areas of poor visibility due to topography.

## **Rural Walkways**

In sparsely populated areas, the shoulders of rural roads usually accommodate pedestrians. There are, however, roadways outside urban areas where the developing urban character creates a need for sidewalks, such as on highly developed commercial strips or in residential clusters along county roads or state highways.

How and where pedestrians cross arterial roads is potentially more important than pedestrian travel along roads. Road volumes will dictate at what locations special pedestrian treatments may be warranted. It is anticipated that much of the focus will be on the state highways as they travel through rural communities. These locations have the highest concentrations of pedestrians and activity centers. Pedestrian treatments will be analyzed in concert with



traffic calming strategies on the highways. Where sidewalks are not provided, paved shoulders should be wide enough to accommodate both pedestrians and bicyclists. Paved multi-use paths provided on one or both sides of a roadway in a rural community may be appropriate for providing access to schools. These paths will also serve the needs of young bicycle riders.

Through the site plan review process, the County will continue to monitor pedestrian facility design, and require appropriate facility designs to comply with provisions of the Americans with Disabilities Act (ADA).

The TSP identifies policies, bike and pedestrian facility classifications, design standards and construction and maintenance guidelines. Many of the design standards apply to urban rather than rural areas. However, they are in this plan because they may apply to specific projects, new neighborhoods, or urban unincorporated communities. This TSP contains a list of suggested improvements on the Deschutes County Road System to accommodate bike and pedestrian facilities. Completion of these projects will considerably enhance the network of bike and pedestrian facilities throughout the County.

The TSP recommends standards and design guidelines for bicycle and pedestrian facilities set by the 1995 Oregon Bicycle and Pedestrian Plan. All traffic devices used in conjunction with bikeways are required to meet the standards set forth in the national Manual on Uniform Traffic Control Devices (MUTCD).

## **On-Road Route Selection**

The integrity and usefulness of the bicycle system mandates that future development is designed with bicycling in mind.

## **Off-Road Route Selection**

On-road bike facilities are generally preferred due to their lower cost and easier maintenance. However, paved and unpaved off-road bike paths could cater more to the recreational and fitness riders, and also offer an automobile-free route for inexperienced and younger cyclists. Well-placed paths could also serve commuting traffic. A paved multi-use path should be of sufficient width to accommodate multiple user groups such as jogging strollers and rollerbladers. The opportunity exists in Deschutes County to create off-road, separate multiple-use paths in some circumstances:

1. Along maintenance “ditchrider” roads adjacent to main irrigation canals
2. Major utility easements
3. Short connector routes between adjoining subdivisions, and between subdivisions and adjoining schools and parks
4. Abandoned roadways

5. Additional bicycle paths within destination resorts and new recreational communities now in the planning stage
6. Heavily impacted forest trails

## Facility Requirements

The TPR has various requirements relating to bicycle facilities such as bike parking amounts and areas, and employee considerations such as shower and changing facilities. Most of these requirements have already been implemented through Deschutes County ordinances, but are reinforced here with goals and policies.

## Airports

The continued operation and vitality of airports registered, licensed or otherwise recognized by the Department of Transportation is a matter of State and County concern. There are currently 18 registered airports in Deschutes County. Four of these are public use airports; two of which, Bend Municipal and Redmond Municipal-Roberts Field are publicly owned while Sisters Eagle Air and Sunriver airports are privately owned. These airports have improved (paved) runways, and offer a range of services, from the availability of commercial passenger flights arriving and departing daily at Redmond Municipal Airport, to the Sisters (Eagle Air) Airport which offers no services or runway navigational aids.

The Redmond Airport, which is located completely within the City limits of Redmond, is owned and controlled by the City of Redmond. It has a master plan, which was updated in 1998 and adopted by the City. The Plan guides the future land use(s) at the airport. The Master Plan includes an inventory of existing facilities, land uses, aviation forecasts, a demand/capacity analysis, airport layout plan and a development program.

Unlike the Redmond Airport, the Bend Municipal Airport is located outside the Bend City limits and UGB, therefore the County has land use jurisdiction over it. In order to guide airport land uses, the County adopted and utilizes the 1994 Bend Municipal Airport Master Plan, as amended in 2002 the “Supplement to 1994 Airport Master Plan” incorporated by reference herein. This is the guiding document for airport planning and development. This document incorporates a range of facility improvements for the Bend Municipal Airport over the 20-year planning horizon (2021), including short, intermediate, and long-term projects to improve safety and function at the airport.

Currently, LCDC has administrative regulations (OAR 660-13) which were adopted in 1996. These regulations apply to airports that, in 1994, were the base for three or more aircraft. However, with the passage of HB 2605, the regulations were revised by the 1997 Oregon Legislature, which will require

DLCD to update the rules to incorporate the changes made by the Legislature. For purposes of this TSP, the County will not alter current land use regulations in response to the current regulations (OAR 660-13) which have been revised by the Oregon Legislature. While the content of the new regulations is not yet known, the County policy shall be to develop ordinances to comply with the new regulations once they are adopted by DLCD.

## Railroads

See Goals and Policies

## Waterways

A water-borne transportation plan is not applicable in Deschutes County.

## Pipelines

Many miles of pipeline in Deschutes County currently carry power transmission lines, cable television, telephone, natural gas, water and sewage. The County encourages the continued use of pipelines to carry goods across County boundaries and for distribution within the County.

## Transportation System Management (TSM) and Transportation Demand Management (TDM)

Although not urban, Deschutes County still has the potential to use several TSM and TDM strategies in order to help preserve the function of major County roads and state highways.

### **Transportation System Management (TSM)**

TSM improvements focus on optimizing the carrying capacity of roads by alleviating congestion and reducing accidents. Examples of TSM strategies include:

1. Minimizing the number of access points
2. Channelization of turning movements
3. Creation of continuous turning and merging lanes
4. Raised medians
5. Signalization

An important aspect of TSM is that public agencies work closely with affected businesses to fully evaluate impacts from changes to access. In addition, TSM must account equally for the needs of all modes of travel, particularly that bike,

pedestrian and transit movements and safety are not compromised in exchange for improving roadway capacity.

## **Transportation Demand Management (TDM)**

Unlike TSM strategies, which focus on physical changes, TDM targets driver behavior, mode choice and employers to lower the traffic demands on the roads, especially during the peak travel times of the day. Examples of TDM strategies include:

1. Alternative or flexible work schedules
2. Ridesharing/carpooling
3. Transit use
4. Bicycling/walking
5. Parking management
6. Working at home/telecommuting (teleworking)

TDM strategies often involve an education and promotion effort to encourage changes in single occupant driving behavior. Therefore, TDM strategies require a concerted community and/or employer effort and commitment to realize the greatest results. A “tool box” of TDM strategies suitable for Central Oregon is included in Appendix M of the Transportation chapter of the Resource Element. Also significant is that, of all the different strategies used to relieve congestion, TDM efforts in Bend, Redmond, Sisters, Prineville, and Madras can all affect the County and each city because of the employee commute patterns throughout the tri-county area.

## **Deschutes County Transportation Project List**

The list of expected transportation projects needed over the next twenty years is provided in the Transportation chapter of the Resource Element. The projects chosen were a result of:

1. Analysis of County roadway accident data provided by the state
2. Using capacity analysis on County roads based on the forecasted growth
3. Knowledge and experience of the County Road Department
4. Public input
5. Efforts to enhance non-auto modes of transportation to conform to requirements of the State Transportation Planning Rule (OAR 660-12)

The project list is broken down into two categories:


1. A list of previously-committed projects, which in most cases, the County has an obligation to fund and/or construct
2. A prioritized detailed project list of the remaining needs in Table 5.11.T1 of the Transportation chapter of the Resource Element

The method used to prioritize the projects involved a criteria-ranking system. The complete ranking matrix is located in Appendix J of the Transportation chapter of the Resource Element. Categories were created then divided up by level of importance as follows:

1. Most Important: Solving safety problems
2. Other Important Criteria Included: Maximizing the use of pedestrian and bicycle facilities; Location of schools, parks and fire stations; Project cost, cost per average daily trip (ADT); Pavement condition index; Anticipated traffic volumes (2016).

Safety related issues were automatically placed at the top of the list, then were ranked by cost and future traffic volumes within their category. Projects that add or enhance bicycle and pedestrian facilities and/or have access to schools, parks or fire stations, received extra credit. The rankings for each category were added together to result in a numerical score or “rank total”. The lower the “rank total” number was, the higher the project was rated. The rankings for bike and pedestrian projects within the communities of Terrebonne and Tumalo were defined by a community planning process that took place in 1996-'97, and were to be used as general guidelines.

# Economy



## Goals & Policies

### Goals

1. To diversify and improve the economy of the area.
2. To enhance and maintain the existing natural resource, commercial and industrial segments of the local economy.

### Policies

#### Tourism

1. The importance of tourism to the local economy is well known, but there also exists considerable potential for strengthening and improving this segment of the economy. The County shall assist in the development of a long-range plan to encourage tourism (including destination resorts) and recreation locally (see Recreation Chapter for additional information). This study will include consideration of the impacts likely to be created by increasingly expensive gasoline.
2. Private commercial activities consistent with other County policies which enhance tourism shall be encouraged by the County.
3. The County shall encourage the development of a convention center and multi-purpose civic auditorium in Bend to further encourage additional tourism. The County's support may include providing County-owned land should that be determined to be appropriate and legal.
4. Consistent with policies in the Recreation and Open Space chapters, cooperation with Federal and State agencies shall be sought by the County in preserving and developing, as appropriate, scenic and recreational resources.
5. Improved transportation to winter recreation areas shall be encouraged by better snow removal on roads to such areas, as well as by seeking programs providing alternative transportation methods.

#### Natural resources

6. The County shall protect agricultural land to assure continued agricultural production and the benefits to tourism (see Agricultural chapter).
7. Where consistent with other County policies on open spaces and tourism Deschutes County shall support Deschutes National Forest land use alternatives which stabilize or increase the annual allowable cut. Reforestation of the national forest is of particular importance. The County will continue to support the concept of multiple use.

8. Deschutes County shall support additional Wilderness Area only if there is no significant reduction to the annual allowable harvest, or when it can be shown that the added Wilderness Area will result in local economic benefits equal or greater than those available from the harvesting of the timber.
9. The County shall encourage the development of alternative additional uses for non-metallic minerals (non-aggregate materials only - see Surface Mining chapter).

## **Land**

10. Adequate lands for commercial and industrial requirements shall be set aside (see Rural Development and Urbanization chapters).
11. In order that local residents have adequate employment the County shall encourage programs that appropriately increase employment opportunities and assist, where feasible, public plans and programs to develop industrial land.
12. While medium and heavy industry which meets State and Federal pollution standards shall be accommodated, the County shall seek and encourage only non-polluting (most likely light industry) manufacturers which are compatible with existing air and water quality.
13. Deschutes County and the City of Bend will explore the feasibility of using the BLM land adjacent to the northern boundary of the original Bend Urban Growth Boundary, and fronting on the east side of Highway 97, as future industrial land. The County shall work with the BLM to protect this land for possible industrial use until a final land use determination is made.
14. Publicly owned land is a community resource that should be used as trading stock and otherwise to implement this plan thereby assisting and meeting the community's future needs.
15. Where there is a demonstrated public need for conversion of public land to private use, the County should continue to sell such land at public auction.
16. Deschutes County shall cooperate with other local agencies in the preparation of a County-wide economic development plan and as an interim plan shall adopt as part of this plan the Deschutes County Overall Economic Development Plan.
17. Deschutes County recognizes that the City of Redmond may need additional land for future industrial use. Thus, the 909 acres within County jurisdiction immediately to the south of the Redmond Airport, located outside of the Urban Growth Boundary, and further described as the southern half of Sections 27 and 28, and that portion which lies to the west of the COI North Unit Canal in the southern half of Section 26, all in Township 15 South, Range 13 East, shall be considered for future industrial use. The County will take the necessary steps to preserve this

area and preclude development which would be incompatible with industrial development.

## **Rural Commercial**

18. Land use regulations shall ensure that the uses allowed are less intensive than those allowed for unincorporated communities in OAR 660, Division 22 or any successor.
19. Rural Commercial zoning shall be applied to Deschutes Junction, Deschutes River Woods Store, Pine Forest, Rosland and Spring River.
20. In Spring River, there shall be a Limited Use Combining zone.
21. County Comprehensive Plan policies and land use regulations shall ensure that new uses authorized within the Deschutes Junction, Deschutes River Woods Store, Pine Forest, Rosland and Spring River areas do not adversely affect agricultural and forest uses in the surrounding areas.
22. Zoning in the area shall ensure that the uses allowed are rural as required by Goal 14, Urbanization, and less intensive than those allowed for unincorporated communities as defined in OAR 660-022. New commercial uses shall be limited to those that are intended to serve the surrounding rural area or the travel needs of people passing through the area.
23. New commercial uses shall be limited in size to 2500 square feet, or 3500 square feet, if for an agricultural or forest-related use.
24. A lawful use existing on or before November 5, 2002, not otherwise allowed in a Rural Commercial zone, may continue to exist subject to the county's nonconforming use regulations.
25. An existing lawful use may expand up to 25 percent of the total floor area existing on November 5, 2002.
26. The Rural Commercial zoning regulations shall allow a mixed use of residential or rural commercial uses.
27. Residential and commercial uses shall be served by DEQ approved on-site sewage disposal systems.
28. Residential and commercial uses shall be served by on site wells or public water systems.
29. Community sewer systems, motels, hotels and industrial uses shall not be allowed.
30. Recreational vehicle or trailer parks and other uses catering to travelers shall be permitted.

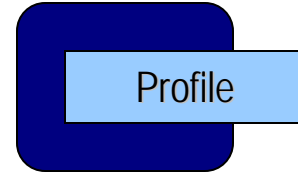
## **Rural Industrial**

31. To assure that urban uses are not permitted on rural industrial lands, land use regulations in the Rural Industrial zones shall ensure that the



- uses allowed are less intensive than those allowed for unincorporated communities in OAR 660, Division 22 or any successor.
32. Limited Use Combining zones shall be applied to the Redmond Military (Tax lot 1513000000116), Deschutes Junction (Tax lot 161226C000301), and Wickiup Junction (Tax lot 2110360000104) to ensure that permitted uses are compatible with surrounding farm and forest lands.
  33. Land use regulations shall ensure that new uses authorized within the Rural Industrial sites do not adversely affect agricultural and forest uses in the surrounding areas.
  34. New industrial uses shall be limited in size to a maximum floor area of 7,500 square feet per use within a building, except for the primary processing or raw materials produced in rural areas, for which there is no floor area per use limitation.
  35. A lawfully established use that existed on or before February 2, 2003, not otherwise allowed in a Rural Industrial zone, may continue to exist subject to the county's nonconforming use regulations
  36. A lawfully established use that existed on or before February 2, 2003 may be expanded to occupy a maximum of 10,000 square feet of floor area or an additional 25 percent of the floor area currently occupied by the existing use whichever is greater.
  37. Residential and industrial uses shall be served by DEQ approved on-site sewage disposal systems.
  38. Residential and industrial uses shall be served by on-site wells or public water systems.
  39. Community sewer systems shall not be allowed in Rural Industrial zones.

# Economy



## Background

An understanding of the local economy is a basic step in the preparation of a comprehensive plan. Economic analysis can aid in the understanding of demographic trends, point out underutilized resources and ensure the allocation of adequate amounts of land for various purposes at the correct locations.

When this plan was written in 1979 much of the information in this section came from the Deschutes County Overall Economic Development Plan. At that time, Deschutes County's economy was typical of a rural County experiencing rapid growth and changing to a more urban economy. Resource activities such as farming, timber and mining were diminishing. Agricultural employment was down, although production was stable and gross farm income was actually up. Timber and wood processing was still an important economic element, although it was expected to decline in relative importance as the character of the economy changed. Mining's importance was declining and employment in that sector was seen as likely to remain fairly constant.

Besides resource uses, tourism and recreation were important industries in rural Oregon, ranked second to timber as an income producer for the County. The magnificent scenery, natural environment and numerous and varied recreation sites made Deschutes County a popular vacation area. Much of the initial and ongoing commercial investment was related to serving tourists.

*This Section implements  
State Planning Goal 9:  
Economy of the State*

Doubts were raised about the future of local tourism due to questions about gasoline availability, the loss of scenic attractiveness due to development and the desirability of an industry with relatively low wage rates.

Nevertheless, there was still an interest in attracting more tourism, especially conventions.

The most dramatic changes occurring in Deschutes County's economic picture were seen as related to local growth; contract construction plus the service sector had grown dramatically. Wholesale and retail sales, as well as finance-insurance-real estate, were also growing significantly. The only service industry not increasing its relative importance was government, which was declining as a percentage of those employed.

Manufacturing was growing in the County but at a slower rate than non-manufacturing, partly due to the relative isolation of the area from major markets. This was seen as something that might change as Redmond's

industrial park was completed. Manufacturing was determined to provide significant improvements in local incomes, although the resulting rise in the cost of living could adversely effect those on low or fixed income.

In 1979 Bend was already the major service center in Central Oregon. The increasing number of new shopping centers was expected to somewhat enlarge Bend's market area and improve the community's position as a regional trade center.

Both population and employment in Deschutes County were expected to continue growing. A table of scenarios for future employment was provided in the 1979 plan but has been removed from this update because it projected employment to the year 2000 and as of the 2008 tune-up of this plan, the table is no longer useful.

## Rural Commercial – Deschutes Junction, Deschutes River Woods Store, Pine Forest, Rosland and Spring River

The Rural Commercial plan designation is applicable to residential and commercial lands located outside unincorporated communities and urban growth boundaries. The rural commercial uses and services in these areas are limited in size and scope and are intended to serve the immediate rural area and travelers passing through the area. Plan policies and zoning standards restrict new commercial uses to those that are less intensive than those authorized in unincorporated communities. The uses and densities are limited by the zoning, thereby maintaining these areas as rural lands.

No new exceptions to Goals 3 or 4 or new non-resource lands were taken as a result of the change in designation to Rural Commercial. The Rural Commercial designation was only applied to acknowledged exception areas.

### Periodic Review

As a part of Periodic Review (OAR 660-25), Deschutes County applied a new comprehensive plan designation of Rural Commercial to Deschutes Junction, Deschutes River Woods Store and Spring River.

The 1979 Comprehensive Plan designated the areas of Deschutes Junction, Deschutes River Woods Store and Spring River as Rural Service Centers. However, the new Unincorporated Communities Rule (OAR 660-022) has defined “rural service centers” in such a way that these areas no longer qualify as rural service centers. OAR 660-022 defines several types of unincorporated communities and provides limitations on the types and sizes of uses permitted, generally restricting uses that are inappropriate considering available water, sewer, and transportation service, or uses that would tend to undermine the

viability of nearby urban areas. During its review of lands identified as rural service centers, the County determined that Deschutes Junction, Deschutes River Woods Store and Spring River do not qualify as any of the four types of unincorporated communities identified under OAR 660-022.

As part of Periodic Review, Deschutes County reviewed and updated the County comprehensive plan and land use regulations for those areas. Additionally, the Comprehensive Plan and zoning map boundaries for all of the Rural Commercial areas were amended to comply with the requirements of the administrative rules and to reconcile historic mapping inconsistencies between the plan and the zoning maps.

The Rural Commercial plan designation and zoning brings each of these three areas into compliance with state rules by adopting zoning to ensure that they remain rural and that the uses allowed are less intensive than those allowed in unincorporated communities as defined in OAR 660-022.

## **Post-Acknowledgment Plan Amendments**

The County has also applied the new Rural Commercial plan designation to the Pine Forest and Rosland commercial centers which have historically been committed to commercial type uses and have served the area as such since prior to the adoption of zoning regulations.

The owner of the Rosland commercial center sought approval of a post-acknowledgment plan amendment in 2002. The amendment was sought to confirm her right to continue to operate the commercial center as it has been operated since 1973. The prior rural residential zoning failed to recognize the commercial nature of this property. The center was recognized because it is small and rural in character and would qualify for a goal exception as the land is physically developed with rural commercial uses.

The owners of the Pine Forest commercial center sought approval of a post-acknowledgment plan amendment in 2006 and the property was rezoned in 2007. The amendment was sought to confirm their right to continue to operate the commercial center as it has been operated since 1970. The prior rural residential zoning failed to recognize the commercial nature of this property. The center was recognized because it is small and rural in character and would qualify for a goal exception as the land is physically developed with a rural commercial use and is needed for infrastructure to support the existing commercial use.

## **Rural Commercial Designated Area Descriptions**

The Deschutes Junction Rural Commercial boundary includes 1.77 acres, bounded by Tumalo Road on the South, Highway on the East, with the remainder surrounded by agricultural lands (EFU).

The Deschutes River Woods Store Rural Commercial boundary includes 4.99 acres bounded by Baker Road on the North, Highway 97 on the East, railroad tracks and Cheyenne Road on the West and Morningstar Christian School on the South. The surrounding land is zoned Rural Residential (RR-10). The Deschutes River Woods residential subdivision is adjacent to this property.

The Pine Forest Rural Commercial boundary includes approximately 2.0 acres bounded by Pine Forest Drive and Burgess Road. The remainder is surrounded by exceptions land zoned RR-10.

The Rosland Rural Commercial boundary includes approximately 4.5 acres near the intersection of Burgess and River Pine Roads. The remainder is surrounded by exceptions land zoned RR-10.

The Spring River Rural Commercial boundary includes 9.16 acres bounded by Spring River Road on the North, Lunar Drive on the East and additional commercial and residential uses on the South and West. The surrounding land is zoned Rural Residential (RR-10).

## **Land Use Planning**

The existing land uses in all of the Rural Commercial areas are primarily commercial with a few residences existing in conjunction with businesses. The surrounding zoning is agricultural, forest, and Rural Residential.

The Deschutes County Comprehensive Plan designates Deschutes Junction, Deschutes River Woods Store, Pine Forest, Rosland and Spring River as Rural Commercial.

## **Rural Industrial**

The purpose of the Rural Industrial designation is to recognize existing industrial uses in rural areas of the county and to allow the appropriate development of additional industrial uses that are consistent with the rural character, facilities and services. The Rural Industrial plan designation is applicable to industrial lands located outside unincorporated communities and urban growth boundaries.

## **Periodic Review**

In order to comply with state rules for Periodic Review (OAR 660-025), Deschutes county has reviewed and updated the county comprehensive plan and land use regulations for the rural industrial sites of: Redmond Military, Deschutes Junction, Bend Auto Recyclers and Wickiup Junction. OAR 660-022, the State Unincorporated Communities Rule, defines the types of unincorporated communities and specifies that industrial uses be limited to

buildings containing no more than 10,000 square feet of floor space. Rural industrial uses outside of unincorporated communities must be less intense than those allowed within an incorporated community.

### **Rural Industrial Designated Area Descriptions**


The Redmond Military site consists of tax lot 1513000000116 and is 35.42 acres, bounded by the Redmond Urban Growth Boundary to the west and Exclusive Farm Use lands surrounding the remainder of the property.

The Deschutes Junction site consists of the following tax lots: 161226CO00102 (15.61 acres), bounded by 161226C000111 (6.23 acres) and 161226C000301 (6.12 acres). These tax lots are bounded by Deschutes Market Road to the north and east and Highway 97 to the west, tax lot 161226CO00106 is bounded by Deschutes Market Road to the north, and other rural industrial lands to the east, south and west. Tax lot 161226C000107 is bounded by Deschutes Market Road to the north, EFU land to the west, and other rural industrial lands to the east and south.

Bend Auto Recyclers consists of tax lot 1712030000111 and is 13.41 acres, bounded by Highway 97 to the west, and Multiple Use Agricultural lands to east, north and south.

Wickiup Junction consists of tax lot 2110360000104 and is 12.67 acres, bounded by Rosland Road on the southwest with forest lands surrounding the remainder of the property.

# Recreation



## Goals & Policies

### Goals

1. To satisfy the recreational needs of the residents of and visitors to Deschutes County.
2. To maximize utilization of economic and personnel resources through increasing intergovernmental and public-private cooperation in the provision of recreation facilities and services.
3. To provide, concomitant with growth, sufficient uniformly distributed land and facilities for park purposes throughout the County.

### Policies

#### Coordination

1. Developmental cooperation and coordination should be maximized. On significant projects, the originating agency should communicate in the spirit of cooperation with other agencies regarding planning, acquisition, development and operation of programs and facilities. The private sector should be included to the greatest extent possible and should, whenever possible, be responsible for the acquisition, development, operation and maintenance of recreational facilities.
2. Rehabilitation, facility improvement or expansion and recreational program from the State and Federal agencies shall be encouraged. A County Recreation Committee with both private and public representation should be the coordinator of such activities. Input from groups with special needs should be encouraged so as to develop appropriate programs, with tolerable impact to resources and surrounding residents and wildlife. Park rehabilitation, replacement, minor betterment, repair and ordinary maintenance activities which do not significantly impact land uses will be allowed outright.
3. In order to obtain greater efficiency in providing services, local input to State and Federal agencies on land management policies should emphasize appropriate multi-use utilization.
4. The Oregon State Parks System Plan and Master Plans shall serve as the State Parks guide for improvements locally, and act as the basis for coordination and cooperation between State Parks and local recreation agencies.
5. The County will continue to coordinate the various recreational needs for the County and urban areas with the U. S. Forest Service, Bureau of Land Management, State Parks Divisions, Bend Metro Parks and

- Recreation District, the Central Oregon Parks and Recreation District and other recreation providers.
6. The County shall work with private and public agencies to develop a plan to provide needed warming, restroom and parking facilities for existing winter sports areas, as well as encouraging the designation of additional areas. The plan should seek to combine cross-county skiing and snow play areas, while separating these uses from snow mobilizing areas. Private and public provisions for additional downhill skiing areas compatible with the environment should be sought and adequate transportation to ski areas, utilizing methods other than automobiles, should be developed.
  7. The County shall assist State and Federal efforts to protect Oregon Natural Areas and the U.S.F.S. Research and Experimental Areas.

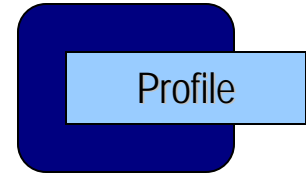
## Facilities

8. The following guidelines for assessing the adequacy of available parks shall be established:
  - Park Passive Areas and Neighborhood Parks = 2.5 acres per 1000 population
  - Community Parks = 2.5 acres per 1000 population
  - Regional Parks = 5.0 acres per 1000 population
9. The County shall require the dedication of land or fees for park purposes, consistent with the preceding standards, as a condition of subdivision approval. Developments with private recreation areas may be credited against any dedication requirements, if public park standards are met (including facilities under control of a legally established homeowners association).
10. The most critical need for new parks occurs in urbanizing areas. Acquisition and development of urban recreational areas consistent with community growth shall be the responsibility of the local park districts and cities. However, the County shall cooperate with recreation providers in establishing zoning to protect existing parks from incompatible adjacent uses, setting aside or acquiring suitable public land for park purposes, and encouraging annexation into a park district of lands added to an urban growth boundary.
11. Park districts and the cities, where no park district exists, shall seek to acquire centrally located park areas, especially in high-density neighborhoods. Joint use of the land for park use and such facilities as schools or fire stations shall be encouraged.
12. Recognizing that streams, rivers, and irrigation canals are natural attractors for recreation, the County shall encourage the development of public multi-use trails along these features, in areas where conflicts with natural resources would not result. Trails should be designed to accommodate pedestrians, bicyclists, and equestrians, as appropriate to the area.



13. While some flexibility is required, once a park plan has been prepared and adopted by local regulatory agencies, it shall remain as the controlling document for guiding development of that park.
14. Depending on the determination of each community, the County shall support local efforts for a public pool for each County-incorporated community.
15. Unincorporated communities shall be encouraged to assess their recreational needs and to identify lands required to serve those needs. The County shall encourage civic organizations and public agencies attempting to meet those identified needs.
16. The County shall provide the bicycle and pedestrian connections between schools, residential areas, parks and other recreation attractions, shopping centers, and other commercial and industrial centers.
17. Because it is recognized that the over-use of the motor vehicle has detrimental effects on the County, the use of bicycling, and walking, and mass transit, carpooling, shall be encouraged as a means of accessing recreation areas.
18. The State Parks Department shall be encouraged to include trailer dumps and sanitary facilities in their development of the Juniper Waysides between Bend and Redmond.
19. Recognizing the needs of recreational bicycling, the County shall maintain or improve the quality of rural routes.
20. Public outdoor recreation facilities such as outdoor theaters are needed to accommodate gatherings and other uses in each of the County's major population centers.
21. To facilitate learning about and experiencing outdoor activities an outdoor education camp is needed, and a sportsman's park (rifle, archery, off-road vehicles, etc.) shall be designated near Bend.
22. The Oregon High Desert Museum is an example of the type of outdoor education project that the County shall encourage.
23. Other specific needs to be met by public and private recreation providers that have been identified are:
  - a. Additional camping and/or picnic sites at Sparks, Elk, Lava and Cultus Lakes, as well as at Crane Prairie and Wickiup Reservoirs;
  - b. A group camping area at La Pine State Park;
  - c. A hiker's camp at Tumalo State Park;
  - d. More water sport opportunities;
  - e. Additional wilderness areas (as demand warrants and consistent with the local economy and protection of fragile areas);
  - f. Maintenance of existing and identification of additional off-road vehicle areas.
24. All development in Deschutes County shall comply with all applicable state and federal rules, regulations and standards.

# Recreation



## Background

Recreation is important to people in Deschutes County due to both the economic benefits of tourism and its contribution to local quality of life. When this plan was written in 1979 the demand for recreation was anticipated to increase along with the population. Planning was seen as a way to protect recreational resources, accommodate more people and protect livability and tourist dollars.

At that time, duplication or conflicting developments by governmental agencies and private groups had resulted in fragmentation and inefficiency in the recreational system. With ever growing funding problems, it was becoming increasingly important that a well defined and coordinated recreation system was needed. This section of the Comprehensive Plan was not meant to be that detailed plan, but was meant to serve as an analysis of local needs and to set into motion activities aimed at fulfilling those needs and protecting required resources.

Urban and urbanizing areas were seen as particularly in need of parks and planning ahead was a way to provide better parks at a lower cost. Also, it was thought that combining parks with other public facilities, such as schools and fire stations, would permit even greater savings in land, personnel and maintenance.

To provide a common basis of understanding, the following park definitions were developed by the Recreation Citizen Advisory Committee:

- Park Passive Areas = 1 - 3 acres
- Neighborhood Parks = 1 - 5 acres
- Community Parks = 5 - 25 acres
- Regional Parks = 25 + acres

In 1979, both state parks and federal recreation areas were receiving increasing use from both the local population and tourists. Most state parks in the county were in need of some form of rehabilitation. The desire to expand existing roads and play areas raised particular concern over retaining solitude-dependent recreation and wildlife in the following areas; (a) Wilderness Areas, where popular lakes and trails were beginning to show the effects of heavy use; (b) Campgrounds and Picnic Areas, where facilities were inadequate for demands; (c) Fishing Areas, because access to more remote locations was being requested; (d) Skiing Facilities, where demand of such uses as

restrooms and warming facilities was exceeding capacities; and (e) Off-Road Vehicle Activity.

Other often identified needs were bicycle-pedestrian-equestrian trails and planned recreation activities, including educational programs. Coordination between public and private facilities was determined to provide more recreational opportunities, and promote tourism.

*This Section implements  
part of State Planning  
Goal 8: Recreation*

Recreational needs in rural areas were thought to be different than urban areas. While the urbanizing areas required more athletic and pool facilities, the rural areas needed more Natural Areas and Research Natural Areas (selected by well- defined scientific criteria) to maintain and improve our knowledge of the environment.

One type of recreation which deserved special recognition was winter sport activities of the area. Known for its skiing, Deschutes County attracted many thousands of visitors each winter. Facilities for these people were rapidly becoming inadequate and new areas and services were thought to be needed in the future.

When this plan was written, the County was not involved with providing recreation facilities. No change in that situation was anticipated; however, the County's help in obtaining land dedications for parks, in regulating off-road vehicles (recognizing the considerable damage when used inappropriately east of Horse Ridge), and in other ways, was believed to assist existing recreation providers to meet anticipated needs.

# Destination Resorts

## Goals & Policies

### Goals

1. To provide for development of destination resorts in the County consistent with Statewide Planning Goal 8 in a manner that will be compatible with farm and forest uses, existing rural development, and in a manner that will maintain important natural features, such as habitat of threatened or endangered species, streams, rivers and significant wetlands.

### Policies

#### **Mapping for destination resort siting.**

1. To assure that resort development does not conflict with the objectives of other Statewide Planning Goals, destination resorts shall pursuant to Goal 8 not be sited in Deschutes County in the following areas:
  - a. On a site with 50 or more contiguous acres of unique or prime farm land identified and mapped by the Soil Conservation Service or within three miles of farm land within a High-Value Crop Area;
  - b. On predominantly Cubic Foot Site Class 1 or 2 forest lands which are not subject to an approved Goal exception;
  - c. On areas protected as Goal 5 resources in an acknowledged comprehensive plan protected in spite of identified conflicting uses ("3A" sites designated pursuant to OAR 660-16-010(1));
  - d. Especially sensitive big game habitat, as generally mapped by the Oregon Department of Fish and Wildlife in July 1984 and as further refined through development of comprehensive plan provisions implementing this requirement.
2. In addition, destination resorts shall not be located in areas zoned EFU-320, EFU-80, OS&C and F-1 (as designated pursuant to the implementation of the forest rule by Ordinance 92-026) or on resource lands within one mile outside of urban growth boundaries.
3. Federal lands not otherwise excluded under these policies shall not be mapped with the DR overlay zone. Federal land not otherwise excluded that becomes privately owned through land exchanges or other federal disposition can be considered for destination resort siting consistent with these policies and mapped as available for destination resort development.
4. The County shall adopt a map showing where destination resorts can be located in the County. Such map shall become part of the

Comprehensive Plan and Zoning Ordinance and shall be an overlay zone designated Destination Resort (DR).

## **Ordinance provisions**

5. The County shall ensure that destination resorts are compatible with the site and adjacent land uses through enactment of land use regulations that, at a minimum, provide for the following:
  - a. Maintenance of important natural features, including habitat of threatened or endangered species, streams, rivers, and significant wetlands; maintenance of riparian vegetation within 100 feet of streams, rivers and significant wetlands; and
  - b. Location and design of improvements and activities in a manner that will avoid or minimize adverse effects of the resort on uses on surrounding lands, particularly effects on intensive farming operations in the area.
  - c. Such regulations may allow for alterations to important natural features, including placement of structures, provided that the overall values of the feature are maintained.
6. Minimum measures to assure that design and placement of improvements and activities will avoid or minimize the adverse effects noted in Policy 5(b) shall include:
  - a. The establishment and maintenance of buffers between the resort and adjacent land uses, including natural vegetation and where appropriate, fenced, berms, landscaped areas, and other similar types of buffers.
  - b. Setbacks of structures and other improvements from adjacent land uses.
7. The County may adopt additional land use restrictions to ensure that proposed destination resorts are compatible with the environmental capabilities of the site and surrounding land uses.
8. Uses in destination resorts shall be limited to visitor-oriented accommodations, overnight lodgings, developed recreational facilities, commercial uses limited to types and levels necessary to meet the needs of visitors to the resort, and uses consistent with preservation and maintenance of open space.
9. The zoning ordinance shall include measure that assure that developed recreational facilities, visitor-oriented accommodations and key facilities intended to serve the entire development are physically provided or are guaranteed through surety bonding or substantially equivalent financial assurances prior to closure of sale of individual lots or units. In phased developments, developed recreational facilities and other key facilitated intended to serve a particular phase shall be constructed prior to sales in that phase or guaranteed through surety bonding.

## Phased implementation

10. The County shall implement Goal 8 in a phased sequence as follows:
  - a. The County shall adopt a zoning ordinance including all provisions required by Goal 8.
  - b. The County shall identify countywide any lands excluded by Goal 8 from destination resort siting. Based on *Alliance for Responsible Land Use in Oregon v. Deschutes County*, 23 Or LUBA 476, affirmed, 15 Or App 621 (1992), land within three miles of the county border shall be excluded under Goal 8 countywide at this time. The exclusion will be reconsidered when land located in adjoining counties and within three miles of Deschutes County has been inventoried to determine whether any of that land constitutes high value crop areas in a manner adequate to determine whether any land in Deschutes County is within three miles of a high value crop area located in a neighboring county.
  - c. The County shall map lands available for destination resort siting in a phased sequence. The County shall first consider unirrigated EFU lands and irrigated EFU lands having fewer than 40 acres of contiguous irrigated land or 60 acres of non-contiguous land in the same ownership where such lands are not otherwise excluded from destination resort siting under these policies and Goal 8. Next, as the county proceeds to implement the Goal 4 forest land rule as part of periodic review, the County shall consider to what extent destination resorts may be sited on lands presently zoned for forest uses. Finally, after the County has completed a farm study pursuant to periodic review, the County shall consider to what extent destination resorts may be sited on EFU lands not considered during the first phase of implementation of Goal 8. As to those lands not considered in this first phase of destination resort mapping and not otherwise excluded by Goal 8 and Policies 2 and 3 herein, nothing in these policies shall affect the County's consideration in the future as to whether such lands should be made available for destination resort siting. The County shall complete consideration of forest lands and remaining EFU lands for destination resort siting in conjunction with periodic review. As successive phases of the destination resort process are taken up by the County, the county may make amendments to the comprehensive plan and zoning maps to add additional areas to the destination resort map.
  - d. Until the Goal 8 mapping process is complete, no application for quasi-judicial plan map changes and zone changes to apply to DR zone to areas not designated under the Goal 8 process shall be accepted, unless such applications are filed through the Goal 2 exceptions process.

# Destination Resorts

## Background

When this plan was written in 1979, the development of resorts was seen as an important element to diversify the economic base of the County. Under the 1979 plan and implementing ordinances, resorts were allowed as conditional uses in the F-2, F-3, OS&C, MUA-10 and RR-10 zones. Three resorts existed in the County at that time: Sunriver, Inn of the Seventh Mountain and Black Butte Ranch.

Subsequently, the State Land Conservation and Development Commission (LCDC) and the State Legislature adopted regulations promoting and setting criteria for a newly defined type of development they called destination resorts. First, Statewide Planning Goal 8: Recreation, was amended to specify a process for locating destination resorts on rural land without taking an exception to Goals 3, 4, 11 and 14, which govern development on rural resource lands. This was followed by legislation incorporating Goal 8 into Oregon's land use statutes. By these actions, the State of Oregon recognized destination resorts as a legitimate rural land use. Under these changes, destination resorts could be sited in EFU zones. The Forest Rule, adopted by LCDC in March 1990 allows destination resorts to be sited on specified forest lands.

Implementation of destination resort siting under Goal 8 is optional. Deschutes County initially added code language regarding state defined destination resorts in 1992 at the request of the owners of Eagle Crest Resort. The Eagle Crest owners wished to expand their existing resort onto adjacent lands and wished to do so without going through the goal exceptions process.

In 1992, destination resorts were seen to have beneficial impacts, especially as tourism grew as a segment of the local economy. The County experiences with resorts had been very positive and it was understood that the siting of destination resorts would be severely limited if such developments were not allowed in certain farm and forest zones.

## Implementation

Goal 8 requires that the County adopt a map showing which lands in the County are available for destination resort development. The purpose of the map is to provide greater certainty concerning destination resort siting than is available under the exceptions process. To protect forest and farm resources, Goal 8 prescribes that certain classes of lands are off limits to destination resort development. The final map must reflect exclusion of such areas. A

detailed description of the mapping process adopted by the County is found in the Resource Element.

Goal 8 and the state statute also recognize that destination resorts can have negative impacts on neighborhoods and rural quality of life. These impacts can be substantially mitigated, however. The County recognized the importance of balancing protection mechanisms for resource lands and rural land uses with the economic benefits provided by destination resorts. The County further recognized that this balance could be struck by the manner in which areas were designated as being available for destination resort development and by developing balanced siting criteria.

The County recognized that it had the option to be more restrictive than state law in the areas it chose to exclude from destination resort siting through the mapping process.

The Board of County Commissioners decided to implement Goal 8 in a phased fashion, because as part of periodic review the County needed to study current farm uses in the County and to implement the forest rule. Accordingly, the County first considered siting destination resorts on the following EFU lands not excluded by Goal 8: (1) unirrigated EFU land, (2) irrigated EFU lands in contiguous ownership having fewer than 40 acres of contiguous irrigation, and (3) irrigated EFU lands having 60 or more acres of non-contiguous land in the same ownership. Second, following the County's implementation of the forest rule, the County will consider development of destination resorts on forest lands. Third, following a review of the County's farm lands as part of the periodic review process, the farm lands not considered for destination resorts in the first stage will be considered.

*This Section implements  
part of State Planning  
Goal 8: Recreation  
Needs*

Notwithstanding the phased approach to destination resort zoning, it was seen as appropriate to develop siting standards for destination resorts generally. If further refinements were needed when forest lands and farm lands not considered in the first

mapping phase were considered, such refinements could be made at the time.



# Housing



## Goals

1. To provide adequate number of housing units at price ranges and rent levels commensurate with the financial capabilities of local households.
2. To allow flexibility of housing location, type and density in Deschutes County.

## Policies

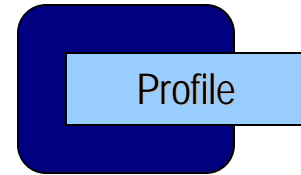
Because housing is one of the most important issues with which a comprehensive plan deals, many of the other chapters (i.e., rural development, urbanization, energy, public facilities) also directly or indirectly affect housing.

The preparation of the policies in this chapter were generally accepted throughout the process and changed little. The only exception was mobile homes. Repeatedly the issue of whether to permit doublewide mobile homes as permitted uses anywhere in the County was debated. Several differing conclusions were reached by various groups, usually depending on how that group balanced the need for lower priced housing against esthetic values and neighborhood objections. The Board of County Commissioners was finally able to reach a compromise which is to be found below.

1. Doublewide mobile homes (960 square feet or larger) with roof pitches, overhangs and siding comparable to site- built homes shall be outright uses outside urban growth boundaries, unless proposed in one of the four areas of the County where mobile homes were prohibited prior to the adoption of this plan or where protective covenants exclude such housing.
2. Singlewide mobile homes shall be permitted in selected residential areas, and as part of mobile home parks or planned developments; however, singlewide mobile homes should not be permitted on individual lots in urban density residential areas which have already substantially developed with conventional housing, unless singlewide mobile homes were part of the original development plan.
3. In order to keep housing costs as low as possible the procedural and application processes in the County Planning, Sanitation and Building Departments shall be reviewed and streamlined as much as possible.
4. To enable and encourage later in-filling of large lot subdivisions in urbanizing areas the subdivisions should be preplanned for later division into smaller lots at the time of the original platting.

5. In order that the most efficient housing pattern may be obtained the County shall encourage the in-filling of existing subdivisions before additional land division occurs.
6. Subdivision approval shall be dependent upon adequate provision of public facilities and services, which may require phased construction of the development; and to further reduce costs and provide amenities such as open space and esthetics the clustering of housing is to be encouraged.
7. To reduce costs and to encourage variety in design, County standards shall permit a variety of housing styles and setbacks, as well as appropriate reductions in road widths and other requirements.
8. Because clustering development can minimize the cost of land and services, as well as provide more amenities, clustered housing for all income brackets shall be encouraged.
9. In order to reduce costs for initial construction, as well as for maintenance, new construction of low-income housing shall be located in urban areas or rural service centers.
10. To develop adequate amounts of low income housing the regional housing authority shall be responsible for coordinating and implementing housing assistance programs in Deschutes County. The County shall maintain an on-going study of all income levels of housing in order to provide information on local housing needs.
11. Because of the relatively high need for housing rehabilitation locally the County shall study local and State programs to assist housing rehabilitation, and in conjunction with other local governments, take appropriate action to encourage necessary rehabilitation.

# Housing



## Background

When this plan was written in 1979 a study by the Central Oregon Intergovernmental Council revealed that approximately 10 percent of the County housing supply was comprised of second homes. These second home owners were usually not Deschutes County residents. Given the assumed dominance of recreation locally this 10 percent figure was thought to be somewhat low.

Using 1977 numbers, there were 19,022 housing units in Deschutes County, of which about 13 percent (2,547 units) were considered substandard. This was considered an unexpectedly high number of substandard housing units.

In that same year, the median family income did not match the costs of purchasing a home, highlighting the need for more median and low-income family housing. Additionally, data from the Oregon State Housing Division indicated that as of December 1976 the vacancy rates for single family homes and apartments were under 5%, which was generally considered to indicate an inadequate housing supply, with limited choice of type or price range. Only mobile homes did not show a housing shortage.

Given that the population was expected to grow to 128,200 by the year 2000, and in light of the continuing trend toward smaller households, it appeared that an additional 38,682 housing units would be needed in the next 20 years.

***This Section implements  
State Planning Goal 10:  
Housing***

Given the likelihood of few major shifts in housing preference in coming years this indicated a need for 25,492 new single family homes, 5,682 new multi-family units, and 7,508 new mobile homes. It was thought that

increasing fuel costs and governmental incentives for higher densities could increase the multi-family unit needs while lowering single-family home requirements. Sufficient flexibility in County plans and zoning might be necessary to accommodate such a shift.

# Deschutes County Comprehensive Plan

## Chapter 4: Urban Growth Management



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# Urbanization



## Goals

1. To provide for an orderly and efficient transition from rural to urban lands.
2. To assure that planning and implementation of plans in the urban areas are consistent with the best interest of both urban and urbanizing area residents.
3. To retain and enhance the character and quality of the urban areas as growth occurs. To recognize and respect the unusual natural beauty and character of the area.
4. To provide a sound basis for urbanization by establishing proper relationships between residential, commercial, industrial and open land uses; fostering intergovernmental cooperation; and providing an efficient transportation system.
5. To retain and enhance desirable existing areas and to revitalize, rehabilitate and redevelop less desirable existing areas; to encourage and promote innovations in development techniques in order to obtain maximum livability and excellence in planning and design for development.
6. To recognize the City of Redmond Comprehensive Plan as the policy document that provides the basis for implementing land use plans and ordinances in Redmond's Urban Growth Boundary. The general purpose is to provide for one principal means of implementing the Redmond Comprehensive Plan.

## Policies

### Urban Growth Boundary Policies

#### *Urbanization*

Urbanization policies refer to an unincorporated urban growth areas within an urban growth boundary but outside the boundaries of a city, and are intended to assist in the decision making about the conversion of rural to urban uses, and to help in the development of consistent urban area plan. More detailed policies for the urban areas of Bend, Redmond and Sisters are specified in the urban area plans and they shall be the primary documents for coordination and land use decisions in their respective areas.

1. Urban growth boundaries identify and separate urbanizable land from rural land. Conversion of urbanizable land to urban uses shall be based on consideration of:
  - a. Orderly and economic provision for public facilities and services;

- b. Availability of sufficient land for the various uses to insure choices in the marketplace; and
  - c. Encouragement of development within urban areas before conversion of urbanizable areas.
2. Urban growth boundaries shall be established or expanded based upon the following:
- a. Demonstrated need to accommodate long-range urban population growth requirements consistent with LCDC goals;
  - b. Need for housing, employment opportunities and livability;
  - c. Orderly and economic provision for public facilities and services;
  - d. Maximum efficiency of land uses within and on the fringe of the existing urban area;
  - e. Environmental, energy, economic and social consequences;
  - f. Retention of agricultural land as defined, with Class I being the highest priority for retention and Class VI the lowest priority; and,
  - g. Compatibility of the proposed urban uses with nearby agricultural activities.

#### *Coordination*

3. Within an urban growth boundary City and County land use regulations and standards shall be mutually supportive, jointly proposed and adopted, administered and enforced, and plans to integrate the type, timing and location of development of public facilities and services in a manner to accommodate demand as urbanizable lands become more urbanized, and to guide the community's growth.
4. Urban development shall be permitted in areas where services are available or can be provided in a manner which will minimize costs related to necessary urban services such as schools, parks, highways, police, garbage disposal, fire protection, libraries and other facilities and services.
5. Deschutes County adopts by reference the goals, policies, programs, elements, and statements of intent of the Redmond Comprehensive Plan, the officially adopted comprehensive plan for the City of Redmond and its surrounding Urban Growth Boundary.

#### *Residential development*

6. Residential developments should be located so that they are convenient to places of employment and shopping facilities, and they should be developed in ways which are consistent with the character of the topography and soils on the site. Residential areas should offer a wide variety of housing densities in locations best suited to each.
7. Residential densities indicated on general plans should be respected and reflected in City and County codes, ordinances and development policies.

8. In residential areas, development should be encouraged which have side yards or rear yards along arterial streets as a means of reducing congestion through turning movements in and out of driveways.
9. Higher density residential areas should be concentrated near commercial services and public open space.

*Commercial*

10. Commercial facilities should be allocated in a reasonable amount and in a planned relationship to the people they will serve. Any future expansion of commercial uses should be developed as centers rather than strips and very carefully considered so that they do not cause unnecessary traffic congestion and do not detract from the appearance of the community.
11. Neighborhood commercial shopping areas, parks, school and public uses may be located within residential districts and should have development standards which recognize the residential area. Development standards should be established for those commercial uses which will provide off-street parking, landscaping, access control, sign regulations and design review.
12. Strip commercial developments along highways should not be extended. Commercial uses along major streets and highways shall be subject to special development standards relating to landscaping, setbacks, signs and median strips. No further commercial development outside urban growth boundaries, rural service centers, planned developments, or destination resorts shall be permitted.
13. All commercial shopping centers shall be subject to special development standards relating to setbacks, landscaping, physical buffers, screening, access, signs, building heights and design review. Care shall be taken to control the size of any new commercial developments that may be required as growth occurs. Sites shall not be oversized to a point where additional uses which would generate traffic from outside the intended service area are necessary to make the development an economic success.

*Industrial*

14. Community efforts should be directed toward preserving prime industrial lands for industrial purposes. Industrial areas shall be protected from incompatible commercial and residential uses.
15. Industrial areas of the community shall be located where necessary services can be provided and with good access to transportation facilities.
16. Community efforts should be directed toward improving the general appearance of commercial and industrial areas so that they make a positive contribution to the environment of the community.

17. Industrial areas shall provide for new industry in a park-like setting.
18. All industrial centers shall be subject to special development standards relating to setbacks, landscaping physical buffers, screening, access, signs, building heights and design review.

*Community appearance*

19. Because of slow natural growth and their effective use as a visual and noise buffer, and their relationship to air quality, trees or stands of trees shall be protected whenever feasible in industrial, commercial, residential and other urban developments.
20. Community appearance shall continue to be a major concern. Landscaping, sign regulations and building design review shall contribute to an improved environment. Major natural features such as rock outcrops, stream banks, canyons, or stands of trees should be preserved as a community asset as the area develops.
21. Attempts by each community to identify those characteristics which give the community its individual identity and to preserve and expand those characteristics as growth occurs shall be encouraged by the County.
22. Sign regulations shall be adopted which limit the size, location and number of signs in commercial and industrial areas and have amortization provisions to remove existing signs which do not conform with the regulations within a reasonable period of time.

*Urban transportation*

23. Expressways and arterial streets should have landscaped median strips wherever possible together with left-turn refuge lanes. Public transportation routes should be encouraged throughout the area and, if necessary, special provisions made in street design to accommodate ways.
24. Streets and highways should be located and constructed in a manner which will accommodate both current and future traffic needs. Implementation of arterial and collector road systems should be joint County and City effort with strict time schedules and priorities.
25. Interurban transportation facilities should be located in or near the central business district or main highway. Special consideration will be needed to evaluate public transportation needs and possibilities within the urban area.
26. Except for major arterial and collector streets, street patterns in residential areas should be designed to provide convenient access to each living unit but not encourage through-traffic. Major and collector streets should be secured and developed under a strict time frame so that a reasonable circulation pattern will result.
27. Provisions should be considered which will permit mass transit vehicles on arterial and collector streets within residential areas in the future.



*Facilities and services*

28. Efforts should be made over a sustained period of time to place utility lines underground in existing and new residential areas.
29. Parks should be located within walking distance of every dwelling unit in the community. Parks should be centrally located and easily accessible to the areas they are intended to serve (see Recreation).
30. Certain private recreational uses such as golf courses or riding stables can be successfully integrated into residential areas provided the location, design and operation are compatible with surrounding residential developments.
31. Fire protection in the planning area should be considered as a common problem by the City, County, water district and the fire protection district, and equipment should reflect the character of land uses in the community.
32. Efforts should be made to encourage Federal and State agencies to locate in urban areas.
33. Efforts should be made to group public offices in a more or less common location as a convenience to the public.

*Other*

34. In many cases, home occupations are a legitimate use within residential areas and should be permitted provided that the use displays no outward manifestations of business other than a small business sign attached to the wall of the house.
35. Recreation vehicle storage should be permitted in planned residential areas and these facilities shall be landscaped and otherwise screened from adjacent residential uses.
36. Consistent with policies in the Historic and Cultural chapter rehabilitation and/or redevelopment of older residential areas shall be encouraged.
37. All development in Deschutes County shall comply with all applicable state and federal rules, regulations and standards.

## **Urban Reserve Area Policies**

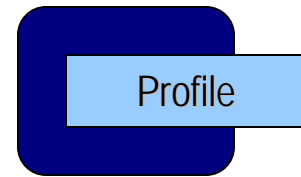
*Redmond Urban Reserve Area*

The following policies apply to the division and development of land in the area designated Redmond Urban Reserve on the County Comprehensive Plan map.

38. The Redmond Urban Reserve Area (RURA) shall be designated with an urban reserve boundary located on the County's Comprehensive Plan Map.

39. The County shall implement the Urban Reserve Area designation through the application of a RURA Combining Zone. The text of this combining zone shall be added and maintained in Title 18, County Zoning, of the Deschutes County Code.
40. Until included in the Redmond Urban Growth Boundary, lands zoned Multiple Use Agricultural, Surface Mining, Rural Residential, or EFU in the RURA shall continue to be planned and zoned for rural uses, but in a manner that ensures a range of opportunities for the orderly, economic and efficient provision of urban services when these lands are included in the urban growth boundary.
41. The County, by designating a RURA, shall adopt and implement land use regulations that ensure development and division of land in the Multiple Use Agricultural, Surface Mining or Rural Residential zoning districts, will not hinder the efficient transition to urban land uses and the orderly and efficient provision of urban services.
42. These land use regulations shall include:
  - a. Prohibition on the creation of new parcels less than ten acres;
  - b. Regulations that prohibit zone changes or plan amendments allowing more intensive uses, including higher residential density, than permitted by the acknowledged zoning in effect as of the date of establishment of the urban reserve area. Such regulations shall remain in effect until such time as the land is included in the Redmond Urban Growth Boundary.
43. Partitions of land zoned Exclusive Farm Use shall be allowed according to state law and the County Zoning Ordinance.
44. The City of Redmond and Deschutes County shall adopt a RURA Agreement consistent with their respective comprehensive plans and the requirements of OAR 660-021-0050.
45. New arterial and collector right-of-way established in the RURA shall meet the right-of-way standards of Deschutes County or the City of Redmond, whichever is greater.
46. The siting of new development shall be regulated along existing and future arterial and collector right-of-way, designated on the County's Transportation System Plan, for the purpose of ensuring the opportunity for future urban development and public facilities.
47. The siting of a single family dwelling on a legal parcel is permissible if the single family dwelling would otherwise have been allowed under law, existing prior to the designation of the parcel as part of the Redmond Urban Reserve Area.
48. City of Redmond shall collaborate with Deschutes County to assure that the County owned 1800 acres in the RURA is master planned before it is incorporated into Redmond's urban growth boundary.

# Urbanization



## Background

A major emphasis of Oregon's land use planning program is directing new development in urban areas. The rural areas are primarily for natural resource utilization. Lying between incorporated cities and the rural areas are urbanizing areas. Usually under the jurisdiction of the County, this unincorporated urban area is within an urban growth boundary but outside city limits. Targeted for urbanization over a twenty year period, these lands are anticipated for annexation and urban facilities and services to meet the needs of a future population.

Deschutes County has four incorporated cities. Bend, Redmond and Sisters were incorporated before this plan was written in 1979. The City of La Pine incorporated on November 7, 2006. All four cities have been given the authority by the County to prepare plans for their respective urban areas. Bend, Redmond and Sisters have plans that are coordinated with the County and have certain elements adopted into the County Comprehensive Plan. In addition to a plan, the cities and the County maintain urban growth area zoning ordinances and cooperative agreements for mutually administering the unincorporated urban areas. As of 2008, La Pine is using the County Comprehensive Plan and land use regulations established prior to incorporation through a joint management agreement. In the near future La Pine will draft its own comprehensive plan and land use regulations and initiate a legislative process to adopt land use ordinances.

At the time this plan was adopted, in 1979, the then three incorporated cities were growing rapidly. Deschutes County estimated urban area populations of 33,000 for Bend, 7,500 for Redmond, and 900 for Sisters. All of the cities were expected to continue their growth to the year 2000. The 2000 Census results for Bend, Redmond, and Sisters were 52,029, 13,481, and 959, respectively. In 2000, 58 percent of the County's population lived in urban areas. By the year 2025, the County's population is forecasted to reach 240,811 people. This forecast includes 109,389 people in Bend, 45,724 people in Redmond, and 3,747 people in Sisters. If population growth occurs as forecasted, 66 percent of the County's population will reside in urban areas by 2025.

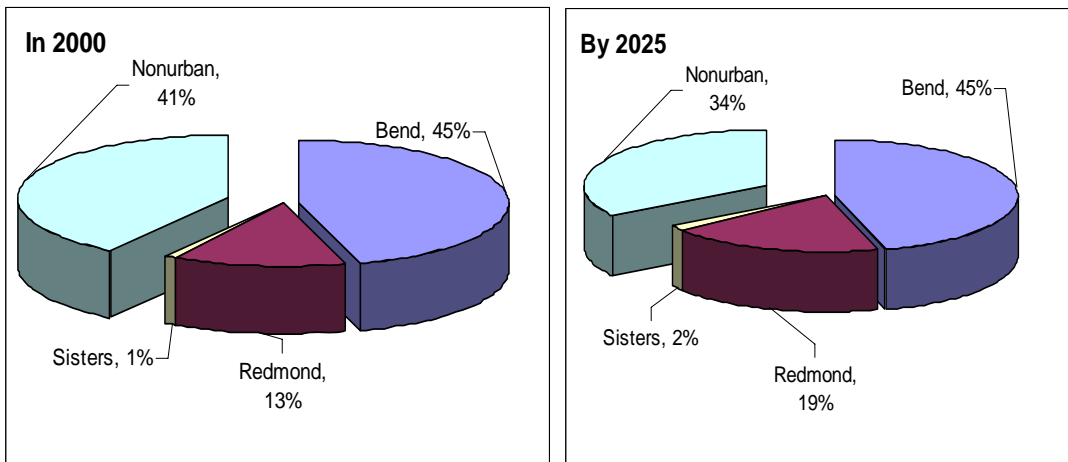
Such growth will undoubtedly require strategically managing the provision of public services and maintaining adequate amounts of residential, commercial and industrial lands. Growth pressures will also require programmatic approaches to maintain open spaces, natural resources, and functional ecosystems that help define the qualities of Central Oregon.

Cities in Deschutes County are located in one of the most beautiful and livable environments in the state. All of the communities have within their authority the power to guide community growth for the public's benefit. Collaborative efforts between the cities, special districts and the County could create urban environments that continue to not only function efficiently but are attractive and desirable places to live.

*This Section implements part of State Planning Goal 14: Urbanization*

The purposes of the urbanization goals and policies are to provide the link between the urban and rural areas, and to provide some basic parameters within which the urban areas of Deschutes County can develop, although the specific comprehensive plan for each community

shall be the prevailing document for guiding growth in its respective area. These policies will permit the County to review each comprehensive plan against common criteria and assure consistency County-wide.



# Unincorporated Communities Overview

Besides the four incorporated cities in Deschutes County, there are a number of unincorporated communities. These consist of areas developed with urban uses in rural areas. Generally, the unincorporated communities were developed prior to the Oregon planning system and called rural service centers in the 1979 version of this plan. Subsequently, to contain their growth, the State initiated unincorporated community classifications and regulations to define allowable uses.

The 1979 comprehensive plan designated the following rural service centers (RSC): Alfalfa, Brothers, Hampton, Millican, La Pine, Whistle Stop, Wickiup Junction, Terrebonne, Wild Hunt and Tumalo. Deschutes Junction and Deschutes River Woods were also mentioned. These areas were designated in that plan as exception areas from Goals 3, Agricultural Lands and 4, Forest Lands. Zoning under the Comprehensive Plan allowed for a mix of residential and commercial uses to support nearby residential developments. The scope of those uses, until the early 1990s, was never much of an issue since there was little development pressure.

In 1994, LCDC adopted a new administrative rule, OAR 660 Division 22 to clarify what uses could be allowed in “unincorporated communities” without violating Statewide Planning Goals 11 and 14 relating to public facilities and urban uses. The rule identifies four different kinds of rural communities: Urban Unincorporated Community (UUC), Rural Community, Resort Community and Rural Service Center (RSC). In addition to the RSCs listed above the following developments were identified as communities that Deschutes County has been required to review for compliance with the rule: Black Butte Ranch and Inn of the Seventh Mountain/Widgi Creek resorts, Deschutes Junction RSC, Spring River RSC, lands zoned for Rural Industrial development and the Deschutes River Woods Country Store development. The latter four areas were rezoned in 2002 for Rural Commercial or Rural Industrial uses because they do not meet the criteria of any of the four types of unincorporated communities referenced above.

The 2001 Deschutes County Comprehensive Plan designates Black Butte Ranch and the Inn of the Seventh Mountain/Widgi Creek as Resort Communities.

On November 7, 2006 the residents of the La Pine Urban Unincorporated Community voted to incorporate. As of this tune-up in 2007, the new City of La Pine is working on a budget with the goal of initiating a comprehensive plan process of their own. Until their plan and associated zoning is completed, La

Pine’s land use program will be administered by the County using its existing comprehensive plan and zoning code.

The following table lists the plan designation for each area is unincorporated community, and defines the type of community and the year when review for compliance with OAR 660 Division 22 was completed. All the communities listed below are designated Unincorporated Communities in this plan.

**Deschutes County Unincorporated Communities 2008**

<i>Community</i>	<i>Type</i>	<i>Approval Date</i>
Sunriver	Urban Unincorporated Community	1997
Terrebonne	Rural Community	1997
Tumalo	Rural Community	1997
Black Butte Ranch	Resort Community	2001
Inn of the 7 <sup>th</sup> Mountain Widgi Creek	Resort Community	2001
Alfalfa	Rural Service Center	2002
Brothers	Rural Service Center	2002
Hampton	Rural Service Center	2002
Millican	Rural Service Center	2002
Whistlestop	Rural Service Center	2002
Wildhunt	Rural Service Center	2002

Source: Deschutes County Planning Division

# Sunriver Urban Unincorporated Community

Goals & Policies

## Sunriver Goals

No goals have been defined for the Sunriver Urban Unincorporated Community

## Sunriver Policies

### **Land use policies**

#### *General Land Use Policies*

1. Land use regulations shall conform to the requirements of OAR 660 Division 22 or any successor.
2. County comprehensive plan policies and land use regulations shall ensure that new uses authorized within the Sunriver Urban Unincorporated Community do not adversely affect forest uses in the surrounding Forest Use Zones.
3. To protect scenic views and riparian habitat within the community, appropriate setbacks shall be required for all structures built on properties with frontage along the Deschutes River.
4. Open space and common area shall remain undeveloped except for community amenities such as bike and pedestrian paths, and parks and picnic areas.
5. Public access to the Deschutes River shall be preserved.
6. The County supports the design review standards administered by the Sunriver Owners Association.

#### *Residential District Policies*

7. Areas designated residential on the comprehensive plan map shall be developed with single family or multiple family residential housing.

#### *Commercial District Policies*

8. Small-scale, low-impact commercial uses shall be developed in conformance with the requirements of OAR Chapter 660, Division 22. Larger, more intense commercial uses shall be permitted if they are

- intended to serve the community, the surrounding rural area and the travel needs of people passing through the area.
9. Development standards in the commercial district should encourage new development that is compatible with the existing pedestrian mall style of development that serves as the commercial core of the Sunriver Urban Unincorporated Community.
  10. No additional land shall be designated Commercial until the next periodic review.
  11. Multiple-family residences and residential units in commercial buildings shall be permitted in the commercial area for the purpose of providing housing which is adjacent to places of employment. Single-family residences shall not be permitted in commercial areas.
  12. Approval standards for conditional uses in the commercial district shall take into consideration the impact of the proposed use on the nearby residential and commercial uses and the capacity of the transportation system and public facilities and services to serve the proposed use.

*Resort district policies*

13. Areas designated resort on the comprehensive plan map shall be designated resort, resort marina, resort golf course, resort equestrian or resort nature center district on the zoning map to reflect a development pattern which is consistent with resort uses and activities.

*Business park district policies*

14. A variety of commercial uses which support the needs of the community and surrounding rural area, and not uses solely intended to attract resort visitors, should be encouraged.
15. Allow small-scale, low-impact commercial uses in conformance with the requirements of OAR Chapter 660, Division 22. Larger more intense commercial uses shall be permitted if they are intended to serve the community, the surrounding rural area and the travel needs of people passing through the area.
16. Small-scale, low-impact industrial uses should be allowed in conformance with the requirements of OAR Chapter 660, Division 22. No more intensive industrial uses shall be allowed.

*Community district policies*

17. Areas designated community on the comprehensive plan map shall be designated community general, community recreation, community limited or community neighborhood district on the zoning map to reflect a development pattern which is consistent community uses and activities.



18. Lands designated community shall be developed with uses which support all facets of community needs, be they those of year round residents or part time residents and tourists.
19. Development shall take into consideration the unique physical features of the community and be sensitive to the residential development within which the community areas are interspersed.

*Airport district policies*

20. Future development shall not result in structures or uses which, due to extreme height or attraction of birds, would pose a hazard to the operation of aircraft.
21. Future development should not allow uses which would result in large concentrations or gatherings of people in a single location.

*Utility district policies*

22. Lands designated utility shall allow for development of administrative offices, substations, storage/repair yards, distribution lines and similar amenities for services such as water, sewer, telephone, cable television and wireless telecommunications.

*Forest district policies*

23. Uses and development on property designated forest that are within the Sunriver Urban Unincorporated Community boundary shall be consistent with uses and development of other lands outside of the community boundary which are also designated forest on the Deschutes County comprehensive plan map.
24. Forest district property shall be used primarily for effluent storage ponds, spray irrigation of effluent, biosolids application and ancillary facilities necessary to meet Oregon Department of Environmental Quality sewage disposal regulations.
25. The development of resort, residential or non-forest commercial activities on Forest district lands shall be prohibited unless an exception to Goal 14 is taken.

**Public facility policies**

*General public facility planning policies*

26. Residential minimum lot sizes and densities shall be determined by the capacity of the water and sewer facilities to accommodate existing and future development and growth.

27. New uses or expansion of existing uses within the Sunriver Urban Unincorporated Community which require land use approval shall be approved only upon confirmation from the Sunriver Utility Company that water and sewer service for such uses can be provided.

*Water Facility Policies*

28. Water service shall continue to be provided by the Sunriver Utilities Company.

*Sewer Facility Policies*

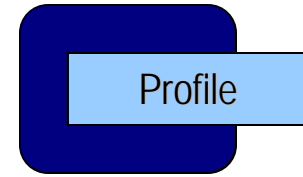
29. Sewer service shall continue to be provided by the Sunriver Utilities Company.

## **Transportation policies**

*Transportation system maintenance policies*

30. Privately-maintained roads within the Sunriver Urban Unincorporated Community boundary shall continue to be maintained by the Sunriver Owners Association.
31. The bicycle/pedestrian path system shall continue to be maintained by the Sunriver Owners Association.
32. The County will encourage the future expansion of bicycle/pedestrian paths within the Sunriver Urban Unincorporated Community boundary in an effort to provide an alternative to vehicular travel.
33. All public roads maintained by the County shall continue to be maintained by the County. Improvements to County maintained public roads shall occur as described the County Transportation System Plan.

# Sunriver Urban Unincorporated Community



## Sunriver Background

Under OAR 660, Division 22, Unincorporated Communities, Sunriver meets the definition for both an “Urban Unincorporated Community” and a “Resort Community.” With the help of a stakeholder advisory committee comprised of key members of the community who represent a multitude of property owners and development interests, the decision was made to proceed with the planning process for Sunriver as an Urban Unincorporated Community. It was the consensus of the committee that the provisions allotted for Urban Unincorporated Communities under the rule offered the greatest practical degree of flexibility for future growth and development in Sunriver. Subsection OAR 660.22.010(8) defines “Urban Unincorporated Community” as;

“[a]n unincorporated community which has the following characteristics:

1. Includes at least 150 Permanent dwelling units including manufactured homes;
2. Contains a mixture of land uses, including three or more public, commercial or industrial land uses;
3. Includes areas served by a community sewer system; and,
4. Includes areas served by a community water system.

## Findings - General

### **Historical background**

Sunriver is located in the central portion of Deschutes County, approximately 15 miles south of the city limits of Bend. Sunriver lies in the Upper Deschutes River Basin, with the Deschutes River generally forming the western boundary of the community. Sunriver includes approximately 3,374 acres which are bounded by the Deschutes National Forest on the east, west and north sides. Small lot residential subdivision development is the predominant land use to the south of the community boundary. However, Crosswater, a private residential/resort community has also recently been developed in the area immediately south of Sunriver.

Development of Sunriver began in 1967 and the first subdivision plat within Sunriver was filed in 1968. Development in Sunriver began during a period of time when the unincorporated areas of Deschutes County were not zoned. In

1972, when the County first adopted a zoning ordinance (PL-5) and Comprehensive Plan, the area identified as Sunriver was zoned A-1-T and designated “planned development” on the Comprehensive Plan map. In 1973, a zone change to planned development (PD) was applied for and granted. As part of the zone change application, a “Master Plan” was developed. The Master Plan consisted of a map showing the proposed development of Sunriver. The original area of Sunriver encompassed approximately 5,500 acres. Development occurred in accordance with the PD Zone of PL-5 and the density of development was determined to be 1.5 units per acre overall.

In 1977, approximately 2,200 acres of property originally contemplated for development as part of Sunriver were sold to the U.S. Forest Service. Following the sale, a revised Master Plan for Sunriver Phase II was prepared for the undeveloped portion of Sunriver. In October 1978, the County approved the revised Sunriver Phase II Master Plan with the same PD Zoning designation.

In 1980, after a land use application submitted for development within Sunriver generated controversy, the viability of the Sunriver Master Plan was called into question. This was compounded by the fact that PL-15, the County Zoning Ordinance adopted in 1979 to replace PL-5, did not include any provisions for “planned communities.” As a result, the developer of Sunriver agreed to develop a Planned Community (PC) zoning ordinance text and new Master Plan for Sunriver subject to County review and approval. In November 1982, the County adopted an ordinance amending PL-15 to add a section providing for the Planned Community (PC) Zone and approving a new Sunriver Master Plan. Since 1982, the PC Zoning Ordinance Text and Master Plan remained relatively unchanged and were the guiding documents for the majority of existing development in Sunriver.

The PC zone adopted in 1982 included seven (7) separate district designations within the community. The districts included the following:

1. Single Family Residential District -RS
2. Multiple Family Residential District -RM
3. Commercial District - C
4. Resort District - R
5. Industrial District - I
6. Community Property -CP
7. Airport District -A

Approximately 80 percent of the area within the Sunriver community boundary has already been developed. Past development has included a mixture of single family and multi-family residences, commercial businesses, resort and recreational amenities and public service buildings.

## Population and growth

The current population of Sunriver is difficult to ascertain. This is due to the large number of vacation and second homes within the community that are occupied for only part of the year. According to statistics compiled by the Sunriver Owners Association, the number of full time, year round residents of Sunriver is estimated to be 1,654 persons. During the peak tourist season, the population of Sunriver, including guests who do not own property but are renting residences within the community, is estimated to be 12,664 persons.

While the number of residential lots (both single family and multi-family) within the community and the density of development can be determined with a great degree of accuracy, the rate of future population growth in Sunriver is difficult to estimate due to the large number of residences that serve as second and/or vacation homes. Approximately 80 percent of the existing dwellings are vacant for large periods of time throughout the year. However, during the peak tourist seasons, the majority of the dwellings are occupied. Thus, Sunriver typically experiences a fluctuating population comprised of both year round and part time residents.

At the end of 1996, Sunriver had an 80 percent build-out of single-family residential lots with 2,575 single-family homes and a 95 percent build-out of townhomes and condominiums comprised of 896 residences. When adding these together, there are a total of 3,428 single-family residences in Sunriver. When using the 1990 Census figure which estimates an average of 2.54 persons per household, the population figure is approximately 8,707 persons. Upon total build-out of the residential lots in Sunriver, the estimated population could be expected to total 10,455 persons. This does not take into account the resort/vacation component of Sunriver and the fact that many dwellings are not occupied full time. Based on information compiled by the Sunriver Owners Association, approximately 19 percent of the single family residences existing as of 1996 are occupied on a year round basis. Thus, a more accurate estimate of full time residents is 1,654 persons. If the percentage of full time residents holds relatively constant as it has in the past, the population of full time residents could be expected to be 1,906 persons upon build-out of all residential lots. After build-out, it is expected that the population growth will become substantially stagnant since there are no plans for expanding the community boundaries at this time.

## **Periodic review**

In the fall of 1994, the Oregon Land Conservation and Development Commission adopted a new administrative rule, OAR 660.22, Unincorporated Communities, which required counties to update land use plans and regulations for such communities. As part of Periodic Review, the County updated the Comprehensive Plan and implementing regulations for Sunriver to comply with the rule.

## **“Urban Unincorporated Community”**

Sunriver meets the definition because it has historically included land developed with a mixture of residential, commercial and industrial uses. Sunriver utilities operate both a community sewer and water system which are in place and serve the existing development. Sunriver is served by its own fire and police departments and also has essential services such as a school. The Comprehensive Plan designates Sunriver as an Urban Unincorporated Community and provides for future growth and development accordingly.

## **Sunriver Urban Unincorporated Community Boundary**

Since 1977, Sunriver has included approximately 3,374 acres of land. Within this area, there are 4,700 total tax lots, including common areas. The community boundary is generally formed by the Deschutes River on the west, Spring River Road/South Century Drive on the south and the Deschutes National Forest on the north and east. This boundary has remained unchanged since 1977.

During the 1997 update, the Sunriver Urban Unincorporated Community boundary has been amended in the following way: 366-acres were added to the Sunriver Urban Unincorporated Community along the east boundary to be used for sewage effluent storage and disposal. This area, once part of the Deschutes National Forest, was changed from a plan designation of Forest to Urban Unincorporated Community - Forest. It was added per Oregon Department of Environmental Quality requirements. The effluent and storage capabilities of the existing sewage system are at or near capacity seasonally. Thus, this expansion of the community boundary was necessary to provide adequate sewage disposal services to the existing community at build-out. This area is not intended to provide additional sewer capacity to serve areas outside of the historic community boundaries.

## Land use planning

### Existing land uses

The predominant land use in Sunriver is residential, the majority of which is single-family residential development. However, since Sunriver was originally developed as a planned community, a number of other uses exist, making it somewhat self-reliant. Uses which support the residential components include a commercial core which contains a variety of retail businesses developed in a pedestrian mall setting, as well as a business park. A large component of development in Sunriver includes resort related amenities such as golf courses, a lodge, convention facilities and overnight accommodations. A fire station, police station and public works facility have also been developed to support these uses.

Land bordering Sunriver on the north, east and west is zoned Forest Use (F-1) and is within the Deschutes National Forest. The National Forest land remains undeveloped and is primarily used for recreational purposes such as hiking, hunting, fishing, snowmobiling, etc. The forest lands and the recreational opportunities that they offer enhance the resort component of Sunriver. Land to the south of Sunriver includes primarily private property which is zoned Rural Residential (RR-10). The majority of the RR-10 properties include small lot (one-half to one acre parcels) subdivisions which were created prior to any zoning laws.

### Comprehensive Plan Designations

The 1997 Deschutes County Comprehensive Plan for the Sunriver Urban Unincorporated Community has eight comprehensive plan designations, shown on the comprehensive plan map attached as Map “A” at the end of this chapter and described as follows:

1. *Residential District.* The Residential District designation on the Comprehensive Plan Map includes the Single Family Residential and Multiple Family Residential Districts as shown on the Zoning Map for the Sunriver Urban Unincorporated Community. This plan designation includes all properties which were previously designated for residential development under the previous Planned Community designation. No change to residential boundaries have been made.
2. *Commercial District.* The majority of the land designated Commercial includes the commercial core of Sunriver which is commonly referred to as the Sunriver Village Mall. An additional Commercial District is located at the north end of the community and is developed with a grocery store and gas station. The Village Mall is developed as an outdoor pedestrian mall and includes a variety of commercial uses. Many of the existing

commercial uses support the tourist component of the community and residents living within the boundaries of Sunriver. This plan designation includes all areas formerly designated for commercial use.

3. *Resort District.* In general, the Resort plan designation includes properties which are developed with amenities such as the Sunriver Lodge and Great Hall, golf courses, the equestrian and marina facilities and the nature center. These amenities have been developed to foster the recreation and tourist component of Sunriver. For the most part, this designation includes the properties which are owned and managed by Sunriver Resort.
4. *Business Park District.* The Sunriver Business Park lies at the southern end of the community boundary and is physically separated from the remainder of the community by Spring River Road. This plan designation was originally created to accommodate light industrial development to support the employment needs of the community and surrounding area. Since the inception of zoning ordinance regulations for this area, development has been primarily commercial in nature rather than industrial. The zoning ordinance has been modified to reflect the existing businesses and the trend for commercial development while still allowing for industrial uses to develop.
5. *Community District.* The Community plan designation includes properties which are primarily developed with public service uses which support all facets of the community. Development includes the fire station, school, community center, corporation/public works facility. Properties with this designation are primarily owned and administered by the Sunriver Owners Association.
6. *Airport District.* The Airport plan designation includes areas which are currently developed with airport related amenities, such as runways, hangars, fueling stations and maintenance facilities. This district also includes areas surrounding the actual airport development which are considered to be in the sphere of influence of the airport and in which airport related impacts and risks are associated. Development in the airport district shall be limited with respect to heights of structures, public gathering places and other potential risks to persons or property related to airport uses.
7. *Utility District.* This plan designation includes properties which are currently developed with amenities such as sewage pump stations, water treatment facilities, water distribution facilities and associated utility improvements. The utility plan designation is intended to provide for the development and expansion of necessary utility facilities on properties which are already devoted to such uses.
8. *Forest District.* The previous boundary for Sunriver was expanded by approximately 366-acres to include land along the eastern boundary that has historically been zoned for forest uses and within the Deschutes National Forest. A recent decision by the U.S. Forest Service to permit an effluent storage pond and effluent irrigation site on approximately 50



acres and a potential land transfer to the Sunriver Utilities Company prompted inclusion of this area within the community boundary. By including this area, future expansion of the sewage disposal system would permit the application of biosolids with the effluent irrigation site and storage pond. This will enable Sunriver to meet Oregon Department of Environmental Quality regulations for treated wastewater storage and disposal stemming from build-out of all 4,600 lots within the community. An exception to Goal 4 was not taken because the only uses allowed in the expansion area are permitted in the Forest zone.

## Public Facility Planning

### Utilities

Water and sewer service within the Sunriver Urban Unincorporated Community is provided by the Sunriver Utilities Company (SRUC). SRUC is under the jurisdiction of the Public Utility Commission of Oregon. The SRUC was established as a private water and wastewater company and has provided water and sewer services within the community boundary since 1969. SRUC is the largest private water/wastewater company in the State of Oregon.

*Water:* SRUC currently operates three main wells which are capable of pumping over 7.5 million gallons of water each day. In addition, reservoir capacity for water storage is 2 million gallons per day. This volume of water production and storage exceeds the needs of the community within the boundaries of Sunriver.

As of 1997, SRUC serves a total 3603 water customers. This total includes the following types of service connections: 2630 residential; 753 condominiums; 125 commercial; and, 95 for irrigation purposes. All service connections are metered to measure the amount of water that is being used. The meter service sizes range from typical 3/4" residential lines to 6" lines for irrigation, commercial and industrial uses.

*Sewer:* Sunriver's wastewater facility is under the jurisdiction of the Oregon Department of Environmental Quality (DEQ). Sewage treatment facilities are capable of handling/treating 2 million gallons of wastewater per day. This includes the 1997 expansion of effluent storage ponds on a U.S. Forest Service parcel along the eastern boundary of Sunriver. The design and flow accommodations will facilitate build out of all 4,600 lots within the community.

### Public Services

*Police:* Sunriver's police department is responsible for law enforcement within the boundary of the Sunriver Urban Unincorporated Community. In special

circumstances, at the request of the Deschutes County Sheriff, the department will assist with law enforcement outside of the community boundary.

*Fire:* All areas within the boundary of the Sunriver Urban Unincorporated Community, except for the Business Park, are served by the Sunriver Fire Department. The Business Park is provided with fire protection by the La Pine Rural Fire Protection District.

The Sunriver Fire Department provides fire protection and ambulance service within the Sunriver community boundary, north of South Century Drive. Additionally, the department provides these same services to areas outside of the community boundary to the east, west and north. The department has a mutual agreement with the La Pine Rural Fire Protection District to provide secondary services within each other's service boundaries on an as needed basis.

The La Pine Rural Fire Protection District provides fire protection and ambulance service to the portion of the Sunriver community known as the Business Park. The La Pine Rural Fire Protection District has a new station located along South Century Drive approximately 1 ½ miles south of the community boundary.

*Schools:* Three Rivers Elementary School, which is under the direction of the Bend-La Pine School District, is currently the only school within the boundary of the Sunriver Urban Unincorporated Community. Three Rivers Elementary offers schooling from kindergarten through 5th grade and has an enrollment of approximately 270 students. The school accepts pupils from both inside and outside the boundary of the Sunriver Unincorporated Community.

## Other

*Sunriver Owners Association:* The Sunriver Owners Association has the day-to-day responsibility of overseeing the majority of the community operations. The association is governed by a Board of Directors and a General Manager. The services and departments operated by the Sunriver Owners Association, as well as the primary function of each, include:

1. *Public Works and Fleet Services* – Maintenance of roads, recreational paths and recreational amenities under the direction of the Sunriver Owners Association.
2. *Design and Compliance Department* – Design review for new structures, aesthetic quality of new development and compliance with development standards.
3. *Environmental Services* – Administration of fire and fuels regulations as well as any other environmental issues of the community.

4. *Fire and Police Services* – The Sunriver Fire Department and Police Department described above, operate under the direction of the Sunriver Owners Association.
5. *Administration* – The administrative offices oversee the day-to-day functions of each component of the association.

The Sunriver Owners Association publishes a monthly newspaper distributed to members of the association and the public.

## Transportation planning

*Background/Existing Transportation Facilities in Sunriver:* The Sunriver Urban Unincorporated Community is accessed via public roadways. These include: South Century Drive and Cottonwood Road. Both of these roadways lie within public right-of-way and are maintained by Deschutes County. South Century Drive and Cottonwood Road connect to Highway 97 which is the primary corridor for vehicular travel throughout Central Oregon. South Century Drive enters Sunriver near the southern community boundary and extends to the residentially developed areas to the south and west. Cottonwood Road enters Sunriver near the northern Sunriver boundary and ends within the community.

Internal roads within Sunriver, except within the Business Park, are private which are open to the public, and are maintained by the Sunriver Owners Association. These roads are paved and are generally 20 feet in width. Roads within the Business Park are public which are maintained by the County. The internal roadway network was developed as part of the original design and master plan for Sunriver. The network consists of a series of internal traffic circles or roundabouts, from which spur roads lead to various areas within the community. All areas within the community boundary are currently accessed by privately maintained roadways.

A bicycle/pedestrian path system has been developed and integrated throughout the community. Aside from the recreational opportunities provided by the path system, the paths serve as an alternative to vehicular travel as they connect the residential, commercial, school and recreation areas of the community. The paths are paved, maintained in good condition by the Sunriver Owners Association and are used extensively.


*Future Transportation Needs:* The existing privately maintained roads and bicycle/pedestrian paths adequately serve the travel needs of the residents and visitors of Sunriver. The existing roads and pathways provide access to all platted and developed areas within the community. There is no projected need from South Century Drive to the Business Park. Future development within the Business Park may warrant an additional entrance from South Century Drive or improvements to the existing.

South Century Drive and Cottonwood Road are both operating at levels below their vehicular capacity and acceptable levels of service. In the area between the entrance to the Sunriver Village Mall and the Business Park, the 1996 average daily traffic figures for South Century Drive were approximately 3,380 trips per day. This figure is below the general capacity of 7,000 trips per day. Many of the vehicles traveling this roadway are passing through the community, not necessarily to Sunriver, as this road provides a direct link from Highway 97 to the surrounding rural subdivisions. Cottonwood Road, which only extends between Highway 97 and the community boundary, is not subject to the same volume of pass through traffic that occurs on South Century Drive. Thus, the traffic figures for this roadway are much lower at approximately 2,600 trips per day.

*This Section implements part of State Planning Goal 14: Urbanization*

Road widening improvements were completed in 1996 by the County for the segment of South Century Drive between Highway 97 and the entrance to the Sunriver Business Park. Improvements to the entrance of the Business Park itself were also completed. The improvements were done to improve the safety and longevity of the roadway. Future improvements to County roads outside of Sunriver, including the intersection of South Century Drive and Highway 97 are addressed in the County Transportation System Plan.

# Rural Communities



Goals & Policies

## Terrebonne Goals

### Community Transportation Goals

The livability of the Terrebonne community depends on the ability of the transportation network to provide safe and convenient access from residential areas to the commercial areas and to the school. It is important that the state highway be integrated into the community and that it function efficiently to transport travelers and freight through the community.

#### *Local road network.*

1. Maintain the existing roads.
2. Provide sidewalks only where they are warranted for safety.
3. Protect utility trenches located in the public right of way from damage by tree roots.

#### *Appropriate local road standards*

4. Provide transportation facilities that are practical and cost effective to construct, use and maintain and in character with the rural community.

#### *Highway 97 corridor*

5. Slow traffic on Highway 97.
6. Provide safe, convenient pedestrian crossings on the highway near the school.
7. Reduce misuse of the center turn lane.
8. Redesign Highway 97 intersections to balance the needs of truck and pedestrian traffic, particularly at the “B” Avenue and “C” Avenue and the 11th Street intersections.

## Terrebonne Policies

### Land use Policies

#### *General land use policies*

1. Land use regulations shall conform to the requirements of OAR Chapter 660, Division 22 or its successor.
2. County plans and land use regulations shall ensure that new uses authorized within the Terrebonne Rural Community do not adversely affect agricultural uses in the surrounding Exclusive Farm Use (EFU) zones. Zoning regulations shall require any new structure on land contiguous to EFU-zoned land which is received special assessment for farm use to set back 100 feet from the common property line.
3. All zoning districts in the Terrebonne community shall allow residential uses.
4. The County shall encourage the preservation of historical structures in the Terrebonne Rural Community, such as the Ladies Pioneer Club (1911), the Grange Hall (1925) and the Oregon Trunk Railroad Depot (1911).

*Residential area policies*

5. Areas designated residential on the comprehensive plan map shall be designated a corresponding residential district on the zoning map.
6. The County shall plan and zone for a diversity of housing types and densities suited to the capacity of the land to accommodate water and sewer facilities.
7. The land designated Residential—5-Acre minimum is intended to maintain the rural character of the community by retaining large lots where community water and sewer are not available.
8. Lands designated Residential—5-Acre minimum shall not be redesignated and rezoned to accommodate higher densities until public water is provided.
9. Livestock shall be permitted in both residential districts subject to use limitations.

*Commercial area policies*

10. Allow small-scale, low-impact commercial and industrial uses in conformance with the requirements of OAR Chapter 660, Division 22, and larger commercial uses, if such uses are intended to serve the community and the surrounding rural area or the travel needs of people passing through the area.
11. The commercial district shall limit the size of all industrial buildings and the type of industrial uses to assure that the industrial uses are small-scale, low-impact and do not dominate the character of the commercial district.
12. Design standards in the commercial districts should encourage new development that is compatible with the rural character of the community.

13. Where there is a choice to use a road other than Highway 97 for access, access shall not be taken from Highway 97.
14. Approval standards for conditional uses in the Commercial—Rural District shall take into account the impact of proposed uses on the nearby residential and commercial uses and on the capacity of the transportation and other public facilities and services to serve the proposed use.
15. The land designated Commercial—Rural shall not be considered for expansion into the surrounding land designated Residential or Commercial, except at next periodic review.
16. Stand-alone residential uses or residences in conjunction with uses listed in the commercial districts shall be allowed, but they are not intended to predominate or set the development standards for other uses in the area.
17. Land divisions or replatting for residential purposes shall not be allowed in the commercial districts.
18. Livestock shall not be permitted in the commercial districts.

*Commercial expansion area policies*

19. The Commercial or Commercial Rural plan designations shall not expand on the west side of Highway 97.
20. The area designated Commercial shall only expand to the designated Commercial Expansion Area on the Terrebonne comprehensive plan map (See Map B1). No expansion of the Commercial Expansion Area shall be considered until next periodic review.
21. Rezoning the Commercial Expansion Area from Residential District to Commercial District shall be allowed only if no land currently zoned Commercial District can reasonably accommodate the proposed use.
22. Rezoning the Commercial Expansion from Residential District to Commercial District may be done without a Plan Amendment and shall be allowed only if the Terrebonne Domestic Water District facilities provide, or will provide, adequate water quantity and pressure for commercial or domestic use to serve the area being rezoned; and the road rights of way serving the area being rezoned have been, or will be, improved to applicable County right of way standards for the Terrebonne Rural Community. An applicant for a zone change must be able to demonstrate that:
  - a. Road right of way improvements and public water facilities to the property are in place or will be in place when the development occurs; or
  - b. Road right of way improvements and public water facilities to the property are under construction when a permit is issued; or
  - c. Road right of way improvements and public water facilities to the property have been in a local government or special district budget.

23. These standards shall apply in place of the County standards for rezoning contained in Title 18, section 18.36.020 of the Deschutes County Code..

## **Public facility policies**

### *General public facility planning policies*

24. Residential minimum lot sizes shall be determined by the capacity of the land to accommodate available water and sewer facilities, in order to protect and promote public health and safety and to provide efficient public facilities and services.
25. The County shall encourage early planning and acquisition of sites needed for public facilities (e.g., school, roads and water facilities).

### *Water facility policies*

26. The Terrebonne Domestic Water District 1995 Water System Master Plan shall serve as the public facility plan for water supply in Terrebonne.
27. The County shall support improvement of the community water system to meet health and safety needs.
28. Deschutes County and the Terrebonne Domestic Water District shall enter a coordination agreement, consistent with ORS Chapter 195, as required by OAR 660-22-050(2)(c).
29. New uses or expansion of existing uses requiring land use approval in the Terrebonne Domestic Water District service area shall be approved only upon confirmation from the District that the District can provide water for domestic or commercial uses to the property.
30. Deschutes County shall encourage all development in the District service area to connect to the Terrebonne Domestic Water District water system.

### *Sewer facility policies*

31. Only uses and densities that can be served by a DEQ approved on-site sewage disposal system shall be allowed in the Terrebonne Rural Community until such time as a community sewer system is available.
32. Zoning regulations shall set minimum lot sizes adequate to ensure the on-site systems do not exceed the capacity of the land until such a time as a community sewer system is available.
33. The County shall support replatting of lots in the Hillman Plat to create lots large enough to accommodate a DEQ approved on-site sewage disposal system.
34. The County shall attempt to obtain funding for a sewer feasibility study.
35. The County shall facilitate the development of a community sewer system if needed to protect public health.



36. If a sewer system is proposed, the County will review the Terrebonne comprehensive plan policies related to public services.

## **Transportation policies**

### *Road network policies*

37. Provide a transportation network that can accommodate local traffic, commuter traffic and regional interstate traffic without detracting from the livability and rural character of the community.
38. Provide a transportation network that will improve transportation efficiency, convenience and safety, as well as increase transportation choices and decrease conflicts between modes of transportation.
39. Preserve alignments for transportation corridors depicted on Map D2 for future transportation purposes. The precise alignments will be determined after further study and engineering analysis or during the development of vacant properties.
40. New roads shall take advantage of existing public rights of way, where they exist.
41. Existing road rights of way shall be preserved.
42. Roads shall be classified as arterial, collector and local roads in accordance with Table D1 and Map D2.
43. The County shall implement measures, based on weight limits, to prohibit or limit heavy truck on 11th Street and Smith Rock Way in the Terrebonne Rural Community.
44. Commercial uses that generate more than 20 vehicle trips to and from the premises, including automobiles, truck-trailers and other heavy equipment, during the peak hour of the day, shall demonstrate that the affected roads are adequate to serve the proposed use, considering the function, capacity and level of service of those roads.

### *Sidewalks and bicycle facility policies*

45. Provide functional, cost effective sidewalks that are in keeping with the rural character of the community.
46. Provide sidewalks where they are warranted for pedestrian safety, as set forth in Map D3.
47. Where sidewalks are specified along County public roads, they shall be constructed without curbs and gutters, set back from the road surface behind a drainage swale at a distance from property lines to allow room for utilities.
48. Sidewalks identified on Map D3 shall be constructed either at the time of development, subject to site plan review, or later through formation of a local improvement district (LID). Applicants for conditional use permits or site plan approval electing to defer constructing sidewalks, shall be

required to submit and have recorded in the County Clerk's office a waiver of remonstrance, signed by the land owner. The waiver shall waive the landowner's right to have his/her objection count against the formation of an LID.

49. The utility trenches located in the public right of way should be protected from damage by tree roots. Street trees should not be planted in the public right of way where they will conflict with existing or planned utility trenches.
50. On local roads where traffic volumes and speeds are low, bicycles shall share the road with automobiles. Bicycles shall be accommodated on paved shoulder bikeways on Lower Bridge Way and Smith Rock Way, which are County arterial roads, and on County collector roads that carry high traffic volumes.

*Road development standards policies*

51. The County shall provide transportation facilities that are practical and cost effective to construct, use and maintain and in keeping with the rural character of the community.
52. The County shall implement road development standards for the Terrebonne community that minimize pavement width and are consistent with the operational needs of the transportation facility.
53. Specific road, bicycle and pedestrian facility improvement projects for the Terrebonne community are listed in Tables D2, D3 and D4 respectively. The projects are ranked high, medium and low priority based on perceived need. These priorities shall be flexible to take advantage of development opportunities and funding.

*Highway 97 corridor policies*

54. The County shall work with ODOT to increase safety on Highway 97 in Terrebonne by using a combination of enforcement and traffic calming techniques to slow traffic to posted speeds, to safely handle local traffic and to improve pedestrian crossings.
55. The County shall work with ODOT to provide safe, convenient sidewalks and bikeways on both sides of Highway 97 in the Terrebonne community, between Central Avenue and the south 11th Street intersection, particularly in the vicinity of the school.
56. Sidewalks on Highway 97 may have curbs and gutters and shall be buffered behind a planting strip to calm traffic and provide pedestrian safety. Curbed sidewalks would require drainage system improvements.
57. The County shall work with ODOT to provide improved pedestrian crossings places on Highway 97, between Central Avenue and the south 11th Street intersection, particularly at the "B" Avenue and "C" Avenue intersections, to increase pedestrian safety in the vicinity of the school.

58. The County shall work with ODOT to adopt means to enhance 11th Street parallel to the highway, to safely handle local business traffic, in particular, enhance the intersections and pedestrian crossings and access, to make better use of 11th Street as the main local commercial road.
59. The County shall support limiting Highway 97 to no more than three lanes between the Central Avenue and south 11th Street intersections, to protect the livability of the community, to address pedestrian safety and the need to reduce traffic speeds on the highway in Terrebonne.
60. Large trucks shall be accommodated with wide turning radius corners where necessary, as determined by truck routes established by the Deschutes County Transportation System Plan, thereby minimizing corner radii at all other intersections. Other design features such as rolled curbs or medians shall be used as necessary to minimally accommodate large trucks in the Terrebonne community.
61. The County shall support improvements to Highway 97 primarily in conjunction with highway rehabilitation or reconstruction projects.

# Rural Communities



Profile

## Terrebonne Background

Terrebonne is located in northeastern Deschutes County, about 6 miles north of Redmond and 22 miles north of Bend. Smith Rock State Park, located on the Crooked River, is about 2.5 miles northeast of Terrebonne.

Located on the Oregon Trunk Railroad, Terrebonne was originally called Hillman, named after James Hill and E. H. Harriman, famed railroad builders. The Terrebonne Rural Community today includes the original Hillman townsite, platted in 1909. As news of the Hillman Plan spread across the United States, people purchased property sight unseen. A few individuals never actually claimed their lots, while others came to find the promises of fertile land were embellished.

One story that persists regarding the original townsite is about a developer who reportedly sold the same lots to several different buyers and that some of the lots were not buildable. When disgruntled buyers caught up with him, he was run out of town. As news of this land fraud spread across the country, the residents of Hillman decided to change the name of their townsite, in order to improve its reputation. They held a meeting and selected the name “Terrebonne,” which means “good earth.”

As the original townsite grew and developed, Hillman/Terrebonne boasted at one time a hotel, a newspaper, a livery stable, two general stores, two barber shops, a bank, a blacksmith shop, a meat market, a realty company, various feed stores, a school, churches and a grange hall.

The 1990 US Census classified Terrebonne as a “designated place” with a reported total population of 1,083 persons. The estimated population growth was about 3 percent annually in 1991-1992. In 1995 the population of Terrebonne Rural Service Center was estimated at 1,250 persons, with 2.57 residents per dwelling. Terrebonne’s median household income in 1990 was \$21,029, below the poverty level established by Farmers Home Administration (FMHA) for rural communities in Oregon. Historical population data for Terrebonne have not been collected. However, Terrebonne Domestic Water District staff have noticed an influx of younger couples with children replacing retirees who have moved out of the area. This type of change creates an increase in population without evidence of growth such as new residential construction. The Terrebonne elementary school is the fastest growing in the Redmond school district.

The rate of future population growth in Terrebonne is difficult to estimate because growth is limited until community sewer facilities allow desired growth

to occur. Deschutes County projects a countywide growth rate of 4.5 percent until the year 2000.

The 1979 Deschutes County Comprehensive Plan designated Terrebonne a Rural Service Center (RSC), a Goal 3 and 4 exception area, comprising 667 acres and 577 tax lots. The 1979 Terrebonne RSC boundary included the Hillman Plat, except that portion east of the Oregon Trunk Railroad tracks. It included the area south of the Hillman Plat known as the Circle “C” Acres subdivision which occupies land west of the highway, east of 19th Street and north of Davidson Way. The 1979 Terrebonne RSC boundary also included the land in the north one-quarter of section 16, T14S, R13E, north of the Hillman Plat.

In the fall of 1994, the Land Conservation and Development Commission adopted a new administrative rule, OAR 660-22, Unincorporated Communities. In 1997, as part of periodic review, the County updated the Deschutes County Comprehensive Plan and implementing regulations for the Terrebonne community to comply with the rule. The description and the policies in this section of the plan reflect the outcome of that planning process.

Terrebonne meets the definition of a Rural Community because it is primarily a residential community, which also has a school, churches, a grange hall, a post office and a handful of local businesses that serve the community, the surrounding rural area or persons traveling through the area. The comprehensive plan designates Terrebonne a Rural Community and provides for its growth and development accordingly.

OAR 660-22-020(3)(a) states that land which has been acknowledged as an exception area and historically considered part of the community may be included in an unincorporated community boundary. As part of periodic review the Terrebonne community boundary has been amended in the following two ways to include a total of 631 acres and 551 tax lots (See Map A1):

1. The boundary has been expanded to include the portion of the old Hillman Plat east of the railroad tracks. This land has been acknowledged as an exception area and historically considered part of the community.
2. At the request of Circle “C” residents, the community boundary has been moved to the north, to Odem Avenue to exclude the entire Circle “C” Acres subdivision. This land has been designated Rural Residential Exception Area on the Deschutes County Comprehensive Plan map.

The comprehensive plan designation applied to the land south of Terrebonne Rural Community known as part of the Circle “C” Acres Subdivision. It is bounded on the north by Odem Way, south by Davidson Way, east by West 19th Street and west by Highway 97. This area has been changed from Rural Service Center to Rural Residential Exception Area to provide an opportunity to understand the area's water resources. Given the expected continued

growth of the area and the existence of water quality and quantity problems, the results of these studies are expected to prove useful in updating this plan and safely accommodating new growth while protecting existing industries and residents.

## Land Use

The predominant land use in Terrebonne is single-family residences, including a manufactured home park with 26 single-family units. Commercial land uses include supermarkets, a gas station, trucking companies, farm equipment sales and service, restaurants, a hardware store, a veterinarian and various other small-scale retail businesses located along Highway 97. There is a grange hall, a post office and an elementary school. There are also several churches. A significant recent development in Terrebonne is a large new supermarket.

Land bordering Terrebonne is zoned Exclusive Farm Use Terrebonne Subzone (EFU-TR), Multiple Use Agriculture (MUA-10 acre minimum lot size), and Rural Residential (RR-10 acre minimum lot size). The Deschutes County Comprehensive Plan designates EFU land for agriculture uses and MUA-10 and RR-10 land for rural residential uses. The EFU land around Terrebonne is employed in a range of small-to large-scale irrigated agricultural uses, while the MUA-10 and RR-10 land is parcelized and developed with rural residences and small-scale agricultural uses. According to a County land use inventory conducted in 1994 and the availability of community water service, the estimated maximum number of potential new lots in Terrebonne was 1,233. A land use inventory compiled in 1997 using the County Assessor’s database is shown in Table B1 below.

**Terrebonne Land Use Inventory**

<i>Assessors Property Class</i>	<i>Total Tax Lots</i>	<i>Developed Tax Lots</i>	<i>Vacant Tax Lots</i>
Miscellaneous	19	0	19
Commercial	43	35	8
Tract	445	319	126
Farm	16	8	8
Exempt	28	12	16
<b>Total Tax Lots</b>	<b>551</b>	<b>374</b>	<b>177</b>
<i>Zoning District</i>	<i>Total Tax Lots</i>	<i>Developed Tax Lots</i>	<i>Vacant Tax Lots</i>
TeC	50	41	9
TeCR	18	11	7
TeR	445	290	155
TeR5	38	32	6
<b>Total Tax Lots</b>	<b>551</b>	<b>374</b>	<b>177</b>
Source: Deschutes County Assessors Database, 1/24/97 & Deschutes County PW GIS Parcel Basemap, 11/15/96.			

## Comprehensive Plan Designations

The Deschutes County Comprehensive Plan for the Terrebonne Rural Community has the following five comprehensive plan designations (See Map B1 and Table B2 and B3 on the next two pages):

*Residential.* The land designated Residential on the Terrebonne comprehensive plan map includes the highest density area of Terrebonne, corresponding with the boundary of the old Hillman Plat. It is intended to accommodate higher density residential uses, served by community water.

*Residential 5-Acre Minimum.* The land designated Residential-5 Acre Minimum includes the larger parcels of land in Terrebonne located to the north and south of the Hillman Plat. The Residential-5 Acre Minimum designation is intended to maintain the rural character of the community by retaining large lots where community water is not available.

*Commercial.* The Commercial plan designation was created to accommodate existing non-conforming commercial uses on the east side of Highway 97 and to in-fill between commercial uses on both sides of 11th Street. The Commercial designation is intended to encourage development of a pedestrian-friendly commercial center on both sides of 11th Street and to discourage highway strip-commercial development.

*Commercial Expansion Area.* The Commercial Expansion Area designates the only area for future expansion of the Commercial plan designation and Commercial zoning district. The Commercial Expansion Area is intended for future expansion of the Terrebonne commercial center with a connected road network and good pedestrian access, directed away from the highway to discourage highway strip-commercial development.

*Commercial-Rural.* The Commercial-Rural plan designation was created to accommodate existing non-conforming, small-scale, low-impact truck and heavy equipment uses, not generally compatible with a pedestrian friendly commercial center. The businesses listed below in Table B3 were not required to go through a conditional use permit process or site plan review when the Commercial-Rural zone was applied to the properties. The business owners provided some

*This Section implements part of State Planning Goal 14: Urbanization*

specific information about the operating characteristics of each business on a questionnaire, recorded in County File No. TA-96-13 and in the County address file for each primary property. Applying the Commercial-Rural zone to these properties did not validate them as legal uses. The new zone gives the existing uses an opportunity that did not exist before to apply for and receive site plan and conditional use permit approval for a listed use. If these uses change or expand, they will be subject to site plan review and conditional use

permit requirements and to the provisions of Title 18, chapter 18.66 of the Deschutes County Code.

**Terrebonne Comprehensive Plan and Zoning Designations**

<i>Comprehensive Plan Designation</i>	<i>Corresponding Zoning Districts</i>
Residential	Residential District - TeR
Residential – 5 acre minimum	Residential – 5 acre minimum – TeR5
Commercial	Commercial District - TeC
Commercial Expansion Area	Residential District - TeR
Commercial Rural	Commercial Rural District - TeCR
Source: Deschutes County Planning Division	

**December 1996 – Businesses in the Commercial Residential District**

<i>Company Name</i>	<i>Tax Map</i>	<i>Primary Property</i>
C.B. Foss Trucking, Inc.	14-13-16AC 400 14-13-16DC 300	8805 11 <sup>th</sup> Street
Central Oregon Trucking, Co.	14-13-16AC 500 14-13-16AC 502 14-13-16AC202	8888 11 <sup>th</sup> Street
Deschutes Valley Equipment	14-13-16DB 113 14-13-16DB 114	710 F Avenue
Riemenschnieder RL Enterprises	14-13-16DB 100 14-13-16DB 106	736 F Avenue
Source: Deschutes County Planning Division		

**Public Facilities Planning**

Terrebonne Rural Community is served by the following special districts: (1) Terrebonne Domestic Water District (see Map C1); (2) Deschutes County Rural Fire Protection District #1 (see Map C2); (3) Redmond School District #2J (see Map C3); (4) Central Oregon Irrigation District.

*Water:* The area identified in the 1979 Plan as the Terrebonne Rural Service Center (RSC) had two community water systems:

1. The Terrebonne Domestic Water District serving the area identified as the old Hillman Plat, the south ¾ of Section 16 T14S R13E; and
2. A separate water district serving the Circle “C” Acres subdivision located in the south portion of Terrebonne RSC.



As part of period review, the Terrebonne community boundary was amended, at the request of residents of Circle “C” Acres Subdivision, to exclude the subdivision. Today, the Terrebonne Domestic Water District is the only community water system in the Terrebonne Rural Community.

The District, whose boundary coincides with the extent of the old Hillman Plat, serves the most densely populated area of Terrebonne. The District’s Board of Directors recognized the need to improve the antiquated water system both for fire protection and for household use. In July of 1994, the Board of Directors and Deschutes County authorized H.G.E. Engineers & Planners to prepare an updated Water System Master Plan for the Terrebonne Domestic Water District. The Water System Master Plan, with a 25-year planning horizon, was published in January 1995. In May 1997, Deschutes County received a federal-state, grant-loan package for constructing priority improvements to the District’s water system.

OAR Chapter 660-22, Unincorporated Communities, requires the County to enter a coordination agreement with the Terrebonne Domestic Water District for coordinated review and administration of the land use in the District’s service area.

The Oregon Department of Water Resources reported there is an abundant supply of potable water in a deep aquifer under Terrebonne. The department has not identified the Terrebonne Rural Community as a groundwater limited or groundwater critical area. The Terrebonne Domestic Water District currently depends on two groundwater wells. The District’s groundwater source does not exceed current EPA maximum contaminant limits. No treatment is performed; none has been required by the state Health Division. The area in the Terrebonne Rural Community that is outside the District service area boundary relies on individual wells for drinking water. The Water Resources Department routinely approves new groundwater wells in the areas of the Terrebonne community not served by community water.

*Sewer.* Terrebonne does not have a community sewer system or a sewer facility plan. Land uses in the community rely on on-site sewage disposal systems of all ages and descriptions, ranging from new sand-filter systems to old drill holes. In some cases on-site systems are insufficient for current needs. Much of the area defined by the Hillman Plat is on a rocky plateau. The soils are shallow – most no deeper than 18 inches – such that a standard septic system is not feasible on smaller lots. It is often necessary to install a relatively expensive sand-filter system in order to obtain development permits for new development or for alterations to existing development. There are a few tax lots that cannot be developed or redeveloped because they are too small to accommodate any approved one-site sewage disposal system.

The County has not conducted a sewer feasibility study for the Terrebonne Rural Community. The community has not reached consensus about the need for a sewer system. However, a group of concerned citizens recognize that a

sewer system is needed; both to protect water quality and to allow development at desired densities.

The County plan and zoning regulations restrict the type and intensity of allowed uses to those that can be served by DEQ approved on-site sewage disposal systems. In addition, County zoning regulations set minimum lot sizes adequate to ensure that on-site systems do not exceed the capacity of the land. These provisions are consistent for all zoning districts in Terrebonne.

## Transportation

The transportation plan will play a role in addressing long-standing transportation issues and in maintaining the rural character of Terrebonne. This plan meets the requirements of the OAR Chapter 660, Division 12, Transportation Planning, by designating a network of local roads, sidewalks and bikeways. In addition, it establishes appropriate right-of-way development standards for County roads in Terrebonne and makes recommendations for increasing safety for local pedestrian and vehicle traffic on the highway.

The 1990 US Census shows that compared to the population of the state, Terrebonne is a community of relatively young families. About 21 percent of the people in Terrebonne are five to 15 years old, too young to drive. About 14 percent of the community is over 64. This age group will likely increase after 2010 due to national demographic trends. Both of these user groups would benefit from sidewalks separated from vehicle traffic in key locations to increase pedestrian safety and convenience.

Terrebonne is a bedroom community for surrounding cities in Central Oregon. US Census data for 1990 showed that out of 454 workers (42% of the population), 355 (78%) drove alone to work, 66 (15%) carpooled, 14 (3%) worked at home and 19 (4%) reported other means of transportation to work. No workers reported walking or bicycling to work. The commute time (for those who did not work at home) was less than 10 minutes for 11% and less than 20 minutes for 69% of the population.

### *Highway 97 collision data*

The State of Oregon recorded 29 collisions on Highway 97 in Terrebonne from 1991 to 1995. Seventeen crashes caused 28 injuries and one crash resulted in two deaths. Nineteen of the collisions occurred at intersections, mostly from Central Avenue south to 11th Street. There were ten mid-block collisions. Most of the collisions occurred in daylight, but two involved pedestrians after dark.

*Constraints of the transportation system*

1. *Topographical Features.* Topography and irrigation canals limit opportunities to connect the existing discontinuous road network. A large area of Terrebonne is located on a rocky plateau characterized by steep rimrock outcrops on the north, east and west. Roads constructed through the rimrock have up to 10 percent grades. Many right-of-way mapped on the rimrock cannot be developed except possibly as stairways. Some roads end against rimrock. In addition, two irrigation canals, the lateral H and the lateral H-1, divide the public right-of-way in many places.
2. *Transportation Features.* Highway 97 and the Oregon Trunk Railroad tracks restrict east-west road connections. In the central, developed area of Terrebonne, there are four highway crossings and two railroad crossings.
3. *Vacation.* Many segments of public right-of-way, originally dedicated as part of the Hillman Plat, have been vacated, resulting in a fragmented network of undeveloped right of way.

**Inventory of existing transportation facilities**

This section contains an inventory of the existing public roads, pedestrian and bicycle facilities in Terrebonne. The data were gathered primarily from existing sources supplemented by site visits and aerial photographs.

Terrebonne has good transportation access. Highway 97, the north-south state highway east of the Cascade Range, bisects the community. Highway 97 in Terrebonne has three lanes, a travel lane in each direction and a continuous center turn lane. The traffic count on Highway 97 at “A” Avenue in Terrebonne in 1994 was 12,500 Average Daily Traffic (ADT). The posted speed through the community is 45 mph. Interstate truck traffic comprises a significant percentage of the traffic mix passing through Terrebonne.

Highway 97 is intersected in Terrebonne by Lower Bridge Way and Smith Rock Way, which function as County arterial roads. County collector roads in Terrebonne are West 19th Street and East 1st Street (numbered as part of the Redmond grid) and Odem Avenue. These collectors define the west, east and south boundaries of the Terrebonne community. “C” Avenue and 11th Street function as collector roads in the community. Totaled, there are about 13.5 miles of roads in the community. Table D1: “Inventory of Existing Public Roads,” is organized by road functional classification, then by road name in numerical and alphabetical order. It lists the available ADT counts provided by the state for Highway 97 and by the County. There is additional inventory information contained in Map D1: “Inventory of Existing Public Roads.” (See Table D1.)

The public roads in Terrebonne (see Map D1) range in width from 20 feet to 32 feet. Some are in poor condition due to cracking, spalling, pot holes and raveling. Lack of adequate crown and roadway drainage result in puddling. Most of the unpaved roads need to be graded and graveled.

### *Pedestrian facilities*

Until recently, pedestrian facilities were not provided in Terrebonne. Terrebonne has one new sidewalk, a 700-foot, curb-tight sidewalk in the public right-of-way on the south side of “B” Avenue west of Highway 97. The sidewalk is curbed but lacks ramps at the three crosswalks that link it to the north side of “B” Avenue near the school.

There is a crosswalk on “C” Avenue at 7th Street on the north side of the school. Another crosswalk spans the highway from the north side of “B” Avenue. All roads with crosswalks have school crossing signs. The highway has an overhead sign with a flashing light at the “B” Avenue intersection.

All other pedestrian travel is on shared roadways with narrow or no shoulders. The primary pedestrian destinations are the school, post office, grocery stores and other businesses in the commercial area.

### *Bicycle facilities*

Highway 97 south of Lower Bridge Way has a four-foot paved shoulder bikeway. All other bike travel is on shared roadways. There are bike racks at the Terrebonne Market and at the school.

## **Future transportation needs.**

A bedroom community such as Terrebonne, located along a major highway, requires a transportation network that can accommodate local traffic, commuter traffic and regional interstate traffic without detracting from the livability and rural character of the community. Accomplishing this goal requires a combination of approaches and techniques, which are summarized below in the following order:

1. A transportation network plan with roads, pedestrian and bicycle facilities;
2. Road development standards for the Terrebonne community; and
3. Highway 97 corridor recommendations for increasing safety for local pedestrian and vehicle traffic.

The Terrebonne transportation plan is based on conventional road functional classifications—arterial, collector and local roads. It establishes development standards appropriate to each type of road. The design of arterial and collector

roads gives priority to through traffic rather than access to adjacent land uses. On local roads the emphasis is on access to adjacent land uses.

The transportation network plan for Terrebonne identifies where new roads will be needed and where pedestrian and bicycle facilities are warranted. The network plan has three components: (1) Roads, (2) Sidewalks and (3) Bikeways.

*Roads. Map D2: “Planned Roads,”* depicts the general alignments of transportation corridors needed in the future to complete the local road network. The precise road alignments will be determined after further study and engineering analysis and during the development of vacant properties. The transportation corridors depicted on Map D2 take advantage of existing public right-of-way, where they exist. It will be important to preserve the existing road right-of-way. Where there are gaps in the existing network of public right-of-way, the County will need to secure 60-foot right-of-way along the future transportation corridors.

*Sidewalks. Map D3: “Planned Pedestrian Improvements,”* shows where sidewalks are needed for safety and where there are opportunities for trails. Sidewalks provide a smooth hard surface, a safe place for pedestrians, separated from the road. In Terrebonne, sidewalks are warranted on 11th Street and “C” Avenue which function as collectors. Sidewalks are also warranted on some local roads to provide access to the school. They are also warranted in the Commercial District to provide safe places for people to walk as the commercial area develops and redevelops. Sidewalks are warranted on Highway 97 from Central Avenue south to 11th Street for pedestrian safety and convenience.

Sidewalks are usually separated from the roadway by a curb and gutter, which function as part of a storm drain system. However, Terrebonne does not have a storm drain system. Curbs are not necessary for drainage control until densities reach four units per acre. The highest density in Terrebonne is approximately three units per acre. Sidewalks in Terrebonne should be constructed without curbs and gutters, set back from the road surface behind a drainage swale. This type of sidewalk is adequate, less costly and has a more rural appearance. On the highway, sidewalks may have curbs and gutters and would be buffered to help calm traffic. They may require drainage system improvements.

A drainage swale is a broad, man-made depression running parallel to the right-of-way, between the roadway and the sidewalk, where water can drain into the ground. The swale also provides room for signs, mailboxes and snow storage, leaving the sidewalk free from obstructions.

Street trees should not be planted in a drainage swale when they will conflict with the Terrebonne Domestic Water District’s existing or planned utility trenches. These trenches are dug, often cut through rock, and lined with sand.

In Terrebonne, where soils are shallow over bedrock, tree roots seek out the utility trenches, both damaging pipes and conduits and complicating repair work.

*Bikeways.* The network plan specifies where shoulder bikeways are needed for bicycles to safely use arterial roads. On local roads where traffic volumes and speeds are low, bicycles share the roadway with motor vehicles. On arterial and collector roads that carry high traffic volumes at higher speeds, bicycles need paved shoulders to use the roads safely.

Projects to complete the transportation network plan are grouped into three categories listed in Table D2: “Road Projects;” Table D3: “Shoulder Projects;” and Table D4: “Sidewalk & Trail Projects.” These tables list and rank the projects, high, medium and low priority. The priorities are based on perceived need; they are intended to be flexible to development opportunities and grant funding.

### *Road development standards*

In previous years, the County required urban road development standards in unincorporated communities in the rural County. The urban standards required 36 feet of pavement, with curb-tight sidewalks, curbs and gutters. It became evident that this standard was not practical or necessary in Terrebonne. Few of the existing roads in Terrebonne meet this standard. The cost per lineal foot to build to this standard prohibited local residents from forming Local Improvement Districts (LIDs) to improve local roads. In addition, people resisted the urban road profile because it did not fit with the community’s preference for a rural appearance.

There are sound traffic engineering principles that support reduced road standards. The State Transportation Planning Rule (OAR 660-12-045(7)) directs local governments to establish standards for local roads that minimize pavement width and total right-of-way consistent with the operational needs of the facility. Excessive standards increase the costs of construction, use up available land and encourage inappropriate traffic volumes and speeds. In Terrebonne, full urban road standards are not needed because the traffic volumes and speeds on community roads are low compared to city streets. Many roads serve only a few residences. However, the road development standards applied in the rural County are not adequate to serve the densities and variety of uses found in Terrebonne. Businesses, a school, a post office and other uses generate many local trips, more than generally found in the rural County.

Road improvement standards applicable in Terrebonne Rural Community were developed in coordination with the community planning process, the Oregon Department of Transportation (ODOT) Region 4, the state Bicycle and Pedestrian Program and with the Deschutes County Planning Division and

Public Works Department. These road development standards, based on conventional road classifications, are recognized by ODOT and the American Association of State Highway Traffic Officials (AASHTO) for rural communities. They apply to public right-of-way other than the state highway which is under state jurisdiction.

### *Highway 97 corridor*

The Terrebonne transportation plan accounts for the need to coordinate with ODOT to assure that improvements to Highway 97 address community goals.

**Highway 97 Corridor Strategy.** The Deschutes County Board of Commissioners adopted a resolution supporting the Oregon Department of Transportation's Highway 97 Corridor Strategy (Strategy) on October 11, 1995. The Strategy guides improvements to the highway in Terrebonne. It states that most rural sections of the highway will need to be expanded to four lanes. However, it also states that in small rural communities, such as Terrebonne, La Pine, Chemult and Crescent, the focus will be on slowing traffic to posted speeds using a combination of enforcement and traffic calming techniques.

The Strategy contains objectives relevant to balancing the needs of local traffic and through traffic on Highway 97. State objectives seek to maintain the function of the state highway to efficiently transport regional and interstate travelers and freight, but also recognize that a community needs to safely and conveniently use the highway. To protect the function of a major highway, it is often necessary to limit access and control turning movements. When carefully implemented, these measures combined with traffic calming, can improve safety for local traffic, particularly pedestrians, because they slow traffic, guide turning movements and improve pedestrian crossing areas. However, these techniques can make accessing local businesses from the highway more difficult.


The Strategy encourages local land use and transportation plans to orient commercial development and access on to parallel local road, such as 11th Street in Terrebonne, as an alternative to using the highway as the main commercial road. This objective addresses the difficulty of maintaining the function of a major highway and at the same time making it a safe, convenient community main street. The Strategy objectives, if met, may help reduce the need to add travel lanes to the highway in Terrebonne and encourage improvements to alternative commercial roads in the community.

*Design for Highway 97 in Terrebonne.* The existing three-lane highway with a center turning lane, splits the community in half and is dangerous to cross. The Deschutes County Comprehensive Plan for Terrebonne directs commercial development to the east side of the highway and designates and zones the land on both sides of 11th Street for commercial uses. There is

widespread community support for improved pedestrian crossing places on Highway 97, particularly at the “B” and “C” Avenue intersections and for slowing traffic on the highway to posted speeds. A feasible design for Highway 97 in Terrebonne is illustrated on Map D3: “Planned Pedestrian Improvements” and Figure D1: “Highway 97 Cross-Section.” The estimated cost for a typical facility built in Oregon includes engineering, installation, minor contingencies, striping and signing. The cost does not include administration, special grading and fill operations, unusual construction (e.g. bridges and tunnels) or land acquisition. Estimated costs are particularly useful for comparing projects.



# Rural Communities



Goals & Policies

## Tumalo Goals

### Transportation Goals

The livability of the Tumalo community depends on the ability of the transportation network to provide safe and convenient access in the residential and commercial areas and to the Tumalo elementary school. The community reached consensus on the following transportation goals.

1. Improve the access from Cook Avenue to and across Highway 20
2. Reduce truck traffic through the community
3. Provide safe pedestrian walkways in the commercial core and to the school
4. Provide road standards that are practical and cost effective to construct and maintain
5. Provide shoulders on county roads

## Tumalo Policies

### Land use policies

#### *General land use policies*

1. Land use regulations shall conform to the requirements of OAR 660 Division 22 or any successor.
2. County plans and land use regulations shall ensure that new uses authorized within the Tumalo Rural Community do not adversely affect agricultural uses in the surrounding exclusive farm use zones. Zoning regulations shall require any new structure on land contiguous to EFU-zoned land which is receiving special assessment for farm use to be set back 100 feet from the common property line.
3. To protect scenic views visible from the community, adequate setbacks shall be required for homes built along the rim forming the Deschutes River Canyon and Laidlaw Butte.
4. Uses such as parks and open space shall be encouraged, and where feasible, the County should acquire those lands as open space.
5. Public access to the river shall be preserved.
6. Publicly owned lands along the river should remain as open space.
7. The County shall encourage the preservation of historical structures such as the Laidlaw Bank and Trust (1910), and the Tumalo Community Church (1907).

*Residential District policies*

8. Areas designated residential on the comprehensive plan map shall be designated a corresponding residential district on the zoning map.
9. Lands designated Residential shall be in proximity to the commercial area, while the lands designated Residential 5 acre will be on the perimeter of the community. The higher density lands designated Residential shall remain in the bowl formed by the Deschutes River canyon.
10. Livestock shall be permitted in the residential districts subject to use limitations.
11. The County shall plan and zone for a diversity of housing types and densities suited to the capacity of the land to accommodate water and sewage requirements.

*Commercial District policies*

12. Allow small-scale commercial uses in conformance with the requirements of OAR Chapter 660, Division 22, and larger more intense commercial uses if they are intended to serve the community, the surrounding rural area and the travel needs of people passing through the area.
13. Allow small-scale industrial uses in conformance with the requirements of OAR Chapter 660, Division 22.
14. Where there is a choice to use a road other than Highway 20 for access, access shall not be taken from Highway 20.
15. Design standards in the commercial district should encourage new development that is compatible with the rural character of the community and to reduce negative impacts on adjacent residential districts.
16. Livestock shall not be permitted in the commercial districts.
17. No additional lands shall be designated Commercial shall until the next periodic review.
18. Residential uses or residences in conjunction with uses listed in the commercial districts shall be allowed, but they are not intended to predominate or set development standards for others uses in the commercial district.
19. Approval standards for conditional uses in the commercial district shall take into account the impact of the proposed use on the nearby residential and commercial uses and on the capacity of the transportation and other public facilities and services to serve the proposed use.
20. Replatting for residential purposes shall not be allowed in the commercial district.

*Industrial District policies*

21. Only the following new or expanded industrial uses shall be allowed in unincorporated communities:
  - a. Uses authorized under Goals 3 and 4; [Farm and forest uses]
  - b. Expansion of a use existing on the date of this rule;
  - c. Small-scale, low impact uses;
  - d. Uses that require proximity to rural resource, as defined in OAR 660-004-0022(3)(a);
  - e. New uses that will not exceed the capacity of water and sewer service available to the site on the effective date of this rule, or, if such services are not available to the site, the capacity of the site itself to provide water and absorb sewage;
  - f. New uses more intensive than those allowed under subsection (a) through (e) of this section, provided an analysis set forth in the comprehensive plan demonstrates, and land use regulations ensure:
    - i. That such uses are necessary to provide employment that does not exceed the total projected work force within the community and the surrounding rural area;
    - ii. That such uses would not rely upon a work force employed by uses within urban growth boundaries; and
    - iii. That the determination of the work force of the community and surrounding rural area considers the total industrial and commercial employment in the community and is coordinated with employment projections for nearby urban growth boundaries.

**Public facility planning policies**

22. Residential minimum lot sizes shall be determined by the capacity of the land to accommodate available water and sewer facilities, in order to protect and promote public health and safety and to provide the efficient public facilities and services.
23. The County shall encourage quality fire protection in the rural community of Tumalo.
24. The County shall encourage early planning and acquisition of sites needed for public facilities (e.g. school, roads, water supply facility).
25. The County shall encourage all development within the Laidlaw Water District to connect to the system.
26. The County shall support replatting of lots in the area comprising the Laidlaw Plat and outside the lands designated commercial to create lots large enough to accommodate a DEQ approved on-site sewage disposal system.
27. The County shall support the protection of the Tumalo Town Ditch easement and its distribution system.

28. The County shall support the development and management of the domestic water system for the Tumalo community so that cumulative development will not result in public health hazards of adverse environmental impacts that violate state or federal water quality regulations.

## **Transportation policies**

### *Road Network Policies*

29. The County shall adopt a Transportation System Plan for Deschutes County that incorporates adopted policies and standards for the Tumalo Rural Community.
30. The County shall explore the potential for alternate truck routes to reduce the impacts of traffic through the Tumalo Rural Community.

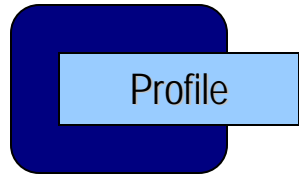
### *Road and sidewalk development policies*

31. The County shall implement road development standards for the Tumalo Community that minimize pavement width and are consistent with the rural character of the community.
32. Specific street segments in the Tumalo Rural Community have been identified as priorities for improvement projects listed in Table D2. These priorities shall be flexible in order to take advantage of land development and grant funding opportunities.
33. Provide functional, cost effective sidewalks that are consistent with the rural character of the community.
34. Provide sidewalks where they are needed for safety, as set forth in Map D2.
35. Where sidewalks are specified on community roads, they shall be constructed without curbs and gutters, set back from the road surface behind a drainage swale at a distance from property lines to allow room for utilities.

### *Highway 20 policies*

36. The County shall support the Oregon Department of Transportation efforts to implement both short and long-term improvements to solve the Cook Avenue/Highway 20 intersection safety and access problems.
37. The County shall consider the realignment of O.B. Riley Road through the Bend Aggregate site and coordinate with the Oregon Department of Transportation at its intersection with Highway 20.

# Rural Communities



## Tumalo Background

### Historical

Tumalo is located in the north central portion of Deschutes County, less than 3 miles northwest of the city limits of Bend. Situated at an altitude of approximately 3,200 feet, the community of Tumalo lies in the middle portion of the Upper Deschutes River Basin (river mile 157). The commercial core of Tumalo lies on the alluvial bowl bounded by the Laidlaw Butte on the west and the bluff of the Deschutes River canyon on the east. The Deschutes River bisects the community.

Originally named Laidlaw, Tumalo was platted by the Laidlaw Townsite Company in 1904. The development of Tumalo began in 1899 with incorporation of the Three Sisters Irrigation Company. Under the Carey Act, they made plans to divert water from Tumalo Creek and the Deschutes River in order to irrigate 60,000 plus acres of desert land. Town founder, A.W. Laidlaw of Portland, and his investors believed that Tumalo would become the heart of Central Oregon. There was reason to be optimistic due to the fact the railroad was coming north up the Deschutes River Canyon, which would undoubtedly follow the river into their newly platted town, and the proposed railroad to be built up the North Santiam River and across the mountains would surely guarantee the town's success. Neither of these projects came to fruition.

Out of nearly 900 lots platted, a third were sold by 1907. In those early days, Tumalo had a weekly newspaper, a barbershop, a two-story hotel, two lawyer offices, a wallpaper company, a bakery, two feed stores and a bank. As the town grew, it became its own voting precinct with 65 registered voters to Bend's 66 in 1906. By 1909, Laidlaw, being called Tumalo on occasion, still had hopes of being the junction of the two railroads, the new "metropolis" of Central Oregon. However, at the time the Columbia Southern Railroad still ended in Shaniko, and the Corvallis and Eastern rails were still stalled at the foothills on the western side of the Cascades, where they had been for approximately 15 years. With the announcement that the railroad was coming to Bend not Laidlaw, Bend moved ahead in population by 1910. As a result, the population in Laidlaw decreased to 250 people and many businesses moved to Bend. The small town was known as Laidlaw for only six years when the Laidlaw post office was closed in 1913. The post office eventually reopened in 1923 as the Tumalo post office and thus the name of the town was forever changed.

### *Community profile*

Tumalo is a rural community near Bend with a mix of residential, commercial, and nearby employment, including gravel quarries and a high tech research company. It functions as a bedroom community for Bend. Historical population data have not been compiled. The 1990 US Census for the Tumalo area totals approximated 325 persons. County Assessors data show 172 dwellings within the Tumalo community boundary. According to the Deschutes County Land Use Inventory (October 1995) Tumalo had 155 lots. Using the 1990 Census data of 2.54 persons per household, the population figure ranges from approximately 393 to 436. According to the Redmond School District, the Tumalo Elementary School has experienced an influx of younger children in recent years. Although figures indicating the demographic mix for the Tumalo area are not available, the population appears to be a mix of families and retirees, with an average or above number of children (non-drivers).

### **Population and growth**

The population for Tumalo has been extrapolated from four sources: the 1990 Census, the Deschutes County Unincorporated Land Use Inventory (October 1995), and the Residential/Vacant Lands map generated by the Deschutes County GIS data. The fourth source is a refinement of the 1995 Land Use Inventory projection for Tumalo contained in the Deschutes County Non-Urban Population Capacity Projection (November 8, 1996).

In review of the 1990 US Census for Tumalo area, the population totaled approximately 325 persons. Historical population data for Tumalo has not been collected. However, the Tumalo Elementary School has experienced an influx of younger couples with children replacing retirees who have moved out of the area. The Tumalo elementary school has approximately 301 students at the present time with a capacity of approximately 400 serving grades K through 5th. According to the Deschutes County Land Use Inventory (October 1995) Tumalo had 155 developed lots. Using 1990 Census data of 2.54 persons per household, the population figure would be 393. Again, this does not take into account percentages of retirement population and second homes in the Tumalo area. According to the GIS Parcel basemap (Assessors data), the developed lots in Tumalo equal 172. Using the 1990 Census figure of 2.54 persons per household, this population figure is approximately 436.

The rate of future population growth in Tumalo is difficult to estimate because growth is limited due to the substandard platted lots of the Laidlaw Platt as well as the difficulty in extrapolating data for the specific boundary of Tumalo. Deschutes County projects a countywide growth rate of 4.5 percent until the year 2000. Recent estimates for all unincorporated areas of Deschutes County (excluding unincorporated urban growth boundary lands of Sisters, Redmond and Bend) indicate a growth rate of 4.8% annual growth between 1990-1995.

## Periodic review

In the fall of 1994, the Land Conservation and Development Commission adopted a new administrative rule, OAR 660.22, Unincorporated Communities. As part of 1996-97 periodic review, the County updated the Comprehensive Plan and implementing regulations for Tumalo to comply with the rule.

### *Rural Community*

Tumalo meets the definition of a Rural Community because it is primarily a residential community, which also has a school, church, and a handful of local businesses that serve the community, the surrounding rural area or persons traveling through the area. The comprehensive plan designates Tumalo as a Rural Community and provides for its growth and development accordingly.

### *Tumalo Rural Community boundary.*

The 1979 Deschutes County Comprehensive Plan designated Tumalo a Rural Service Center, a Goal 3 and 4 exception area, consisting of 491 acres and 288 tax lots. The 1979 Tumalo Rural Service Center boundary included the Laidlaw Plat, the southeast flank of Laidlaw Butte north of Bailey Road, the area east of the Deschutes River on the north and south sides of Tumalo Road, six lots of the Winston Ranch subdivision on the east bluff of the Deschutes River canyon and seven parcels located north of Putnam Lane.

During the 1997 update, the Tumalo Rural Community boundary was amended in the following ways to include 504.11 acres and 321 tax lots (See Map A).

1. A parcel comprising ten acres was the subject of a zone change, plan amendment and minor partition in 1980, File #ZC-PA/80-1. This parcel is located approximately  $\frac{1}{4}$  mile north of the existing boundary on the between Cline Falls Highway and the west bank of the Deschutes River. The plan designation for this area was changed from Rural Service Center to Rural Residential Exception Area.
2. An area consisting of 33 lots of the Deschutes River Homesites subdivision was changed from a plan designation of Rural Residential Exception Area to Rural Community- Residential 5 acre. In addition, the strip of land that is located between Cline Falls Highway and the Deschutes River that links the previous Tumalo Rural Community boundary to the lots adjacent to Beaver Lane was included within the boundary and designated Residential 5 acre.
3. One tax lot north of Putnam Lane, on the west side of Hopper Road which comprises the northern lot of the Rockwood Subdivision, was not included with the other seven lots located within the boundary. The plan

designation for this area was changed from Rural Residential Exception Area to Residential 5 acre.

4. The community boundary was refined to coincide with parcel lines along the east rim of the Deschutes River canyon and along the eastern channel of the Deschutes River. The plan designations for these adjustments were changed from "Residential-5 acre" to Rural Residential Exception Area and Agriculture. The southern boundary of the community was refined to coincide with the southern extension of the TuR5 and TuR zoning and a floodplain designation

In 1999, the boundary of the community was revised to exclude tax lots 2301, 2300 and 2600 that were inadvertently excluded from the mining processing operations conducted by Bend Aggregate and Paving for many years. These parcels were mistakenly included in the community boundary in 1997. The community boundary without these tax lots, now includes a total of 318 tax lots. Each of the community maps in the comprehensive plan was revised in 1999 to reflect this boundary change.

## Land use planning.

### *Existing land uses.*

The predominant land use in Tumalo is single-family residences. Commercial land uses include a market, restaurants, real estate offices, a small commercial/retail complex, and various other small-scale retail businesses located in the core of the community along Cook Avenue. There is a fire station, an irrigation district office, a church and an elementary school.

Land bordering Tumalo is zoned Exclusive Farm Use (EFUTRB) Tumalo/Redmond/Bend Subzone, Multiple Use Agriculture (MUA10 - 10 acre minimum lot size), Floodplain (FP) and Surface Mine (SM). The Deschutes County Comprehensive Plan designates EFU land for Agriculture uses and MUA10 and RR10 land for Rural Residential uses. The EFU land surrounding Tumalo is employed in large-lot, irrigated agricultural uses, whereas the MUA10 land is parcelized and developed with rural residences and small-scale agricultural uses.

A land use inventory using the County Assessor's data (GIS parcel basemap) is shown in Table B.

<i>Assessors Property Class</i>	<i>Total Tax Lots</i>	<i>Developed Tax Lots</i>	<i>Vacant Tax Lots</i>
Miscellaneous	15	2	13
Commercial	63	26	37
Industrial	1	1	0



Tract	181	138	43
Exempt	28	5	23
Total Tax Lots	288	172	116

Source: Deschutes County Planning Division

**Zoning Inventory Tumalo Rural Community**

<i>Zoning District</i>	<i>Total Tax Lots</i>	<i>Developed Tax Lots</i>	<i>Vacant Tax Lots</i>
RD	2	1	1
RSC	48	32	16
RSRM	190	113	77
RSR5	48	26	22
Total Tax Lots	288	172	116

Source: Deschutes County Assessors Database, March 19, 1997 & Deschutes County PW GIS Parcel Basemap, March 19, 1996

**Comprehensive Plan designations**

The Deschutes County Comprehensive Plan for the Tumalo Rural Community has the following six comprehensive plan designations (See Map B).

1. *Residential District.* At the time of adoption, the boundary of the Residential district coincided with the boundary of the old Laidlaw Plat including the Deschutes River Homesites plats between Riverview Avenue and the Deschutes River. It also includes the area surrounding the Bend Aggregate site south of Highway 20. It is intended to accommodate higher density residential uses
2. *Residential 5-Acre District.* The lands designated Residential-5 acre minimum included the larger parcels of land to the east across the Deschutes River and to the west on the slope of Laidlaw Butte. This plan designation is intended to remain in large parcels to maintain the rural character of the community.
3. *Commercial District.* In general, the Commercial plan designation extends north from the intersection of Cook Avenue and Highway 20 to 3rd Street between Wood and Wharton Avenues. The Commercial lands also comprise a portion of land west of Highway 20 between 5th and 8th Streets. The commercial plan designation was intended to accommodate a mixture of small-scale commercial and limited industrial uses that serve the rural community of Tumalo. The core commercial area was intended to focus on the area adjacent to Cook Avenue north of Highway 20. The Commercial Land designation was expanded to accommodate a section of land between Cook Avenue and Wharton Avenue that extends south to Highway 20. This area includes the “Tumalo Mall”, an existing commercial/retail complex. The use of this building has been authorized as a nonconforming use (1986), and subsequent site plan alteration in

1987/88. The purpose of the commercial lands expanding to include this parcel is to bring the uses specified in the previous land use decisions into compliance with the uses allowed in the commercial zone. This complex contains one existing business which occupies 2/3 of the building.

4. *Research Development District (RD)*. This plan designation contains two parcels in one ownership located on the southeast slope of Laidlaw Butte to the west of Tumalo. This plan designation was originally created to accommodate a research and development site, its associated uses predating the county 1979-zoning ordinance and its compatibility with the rural character of the area.
5. *Floodplain District (FP)*. This plan designation contains the previous Floodplain designation that follows the channel of the Deschutes River that bisects the Tumalo Rural Community. The Floodplain Zone is identified by the Federal Insurance Administration as areas of special flood hazard in the report entitled “The Flood Insurance Study for Deschutes County, Oregon and Incorporated Areas,” dated August 16, 1988.
6. *Industrial District (Tul)*. The Tul plan designation was established to recognize nonconforming industrial uses related to surface mining activities located outside of the Surface Mining zone in the Tumalo Rural Community.

## **Public facility planning**

Tumalo Rural Community is served by the following special districts.

1. Laidlaw Water District
2. Deschutes County Rural Fire Protection District #2
3. Redmond School District #2J
4. Tumalo Irrigation District
5. Tumalo Town Ditch

### *Water*

The area previously identified as the Tumalo Rural Service Center (RSC) has two water sources.

The Laidlaw Water District serves the area identified as the old Laidlaw Plat, and the area described as T16S R12E section 29 (W1/2 SW1/4), section 30 (E1/2 SW 1/4), (SW 1/4 SE 1/4), section 31(NE1/4, N1/2 SE1/4).

The Tumalo Town Ditch is the original source of water which has water rights dating back to 1924 and 1938. The system consists of 3 miles of ditch that begins near the bridge at Tumalo State Park, and runs along the river as a ditch crossing Bailey Road at the Tumalo Feed Company Restaurant, continuing under Highway 20 to the commercial district of the Tumalo

community. The Tumalo Town ditch is used for irrigation purposes only, serving approximately 35 customers.

During the 1997 plan update, the Oregon Department of Water Resources commented that there is an abundant supply of potable water in multiple water bearing zones based upon a report prepared by a geologist for the Oregon Department of Geology and Mineral Industries, "Geology and Mineral Resources Map of the Tumalo Dam Quadrangle". Limitations are imposed by the lack of capacity of domestic pumps, not the capacity of the aquifer. The department has not identified Tumalo Rural Community as a groundwater limited or groundwater critical area. The Laidlaw Domestic Water District currently depends on two groundwater wells. The District's groundwater source does not exceed current EPA maximum contaminant limits. No treatment is performed; none has been required by the state Health Division. A proposed EPA groundwater disinfection rule would require continuous disinfection of the water supply. The area in the Tumalo Rural Community that is outside the District's boundary relies on individual wells for drinking water. The Water Resources Department routinely approves new groundwater wells in this area of the Tumalo Rural Community.

### *Sewer*

Tumalo does not have a community sewer system or a sewer facility plan. Land uses in the Tumalo Rural Community rely on on-site sewage disposal systems of all ages and descriptions, ranging from newer sand-filter systems to old drainfields. In some cases on-site systems are insufficient for current needs. According to the Environmental Health Division, past experience has indicated most of the soils in the area would fall under the category of rapidly draining soils. Based upon the most restrictive parameter of on-site administrative rules require a minimum lot size of one-half acre per single-family dwelling. This standard is based upon a projected sewage rate not to exceed 450 gallons per day. This is the loading rate pursuant to OAR 340-71-290(3)(c) and 340-71-275(3). A standard septic system is not feasible on smaller lots because of the alluvial soil profile (rapidly draining soils). It is often necessary to install a relatively expensive sand-filter system in order to obtain development permits for new development or for alterations to existing buildings. There are a few tax lots that cannot be developed or redeveloped because they are too small to accommodate any approved on-site sewage disposal system.

The County plan and zoning regulations restrict the type and intensity of allowed uses to those which can be served by a DEQ approved on-site sewage disposal systems. The County does not allow uses or densities that are unable to obtain a permit for a DEQ approved on-site system. In addition, County-zoning regulations set minimum lot sizes to ensure the on-site systems do not exceed the soils' capacity of treating wastewater effluent. Accordingly, the Environmental Health Division has stated its adherence to the minimum

loading rates addressed in the DEQ on-site rules and the minimum lot size requirements in the zoning ordinance. Due to these provisions, a public facility plan is not necessary.

*Other*

During the 1997 update, local residents' expressed strong support for retaining the existing fire station in the rural community of Tumalo. The Planning Commission recommended a policy encouraging the continued presence of the fire station in Tumalo. However, the Board of County Commissioners understands that such a specific policy would be beyond its jurisdiction and control. The Board has addressed the community's concerns about fire protection in Tumalo by adopting a more general policy statement. Inclusion of this policy statement in the county's comprehensive plan should not be misconstrued as an endorsement for or against a fire station in the community but a mere finding that at this point in time, a large number of Tumalo residents believe that a fire station presence is necessary.

## **Transportation in Tumalo**

The Transportation plan addresses the transportation concerns of the Tumalo community. The plan meets the requirements of the state Transportation Planning Rule - OAR Chapter 660, Division 12, by designating a network of local roads, sidewalks and bikeways with associated road development standards.

*Community transportation goals*

The livability of the Tumalo community depends on the ability of the transportation network to provide safe and convenient access in the residential and commercial areas and to the Tumalo elementary school. The community reached consensus on the following transportation goals.

*Collision data*

There were 38 reported collisions on Highway 20 near Tumalo during the 10 year period from 1986 to 1995. There were 42 injuries and 1 fatality. Of the 38 crashes, 17 occurred at intersections, with seven at Cook Avenue and eight at 7th Street. The majority of crashes (27) were during daylight. Eight incidents involved a wet surface and 10 involved trucks; no pedestrians or bicyclists were involved. These numbers place this segment of Highway 20 below the state average for accident rates.

*Constraints on the transportation system*

*Topographic Features:* Tumalo is located on the valley floor of the Deschutes River canyon, bounded by rimrock on the west and east. Laidlaw Butte forms the other significant topographic feature to the west of Tumalo. The rimrock and river limit the opportunities for a network of continuous streets.

*Transportation Features:* Highway 20 runs north northwest through Tumalo and limits east west street connections. There are 3 accesses to the highway: 5th Street, 7th Street/Bailey Road, and Cook Avenue/O.B. Riley Road.

*Drainage:* Pavement runoff is handled by direct absorption into the soil since there is no community storm drain or sewer system. This affects street design especially the use of curbs, paved surfaces, and landscaping. Special attention must be given to drainage needs and runoff into the Deschutes River.

### *Inventory of existing transportation facilities*

This section contains an inventory of the existing public roads and pedestrian and bicycle facilities in Tumalo. These data were gathered primarily from the County Department of Public Works database supplemented by site visits and aerial photographs.

#### *Roads*

The essential component of the region's transportation system is U.S. Highway 20 which runs diagonally through the community. Highway 20 has three lanes, a travel lane in each direction and a continuous two-way center left-turn lane. The traffic count at the intersection of Highway 20 and Cook Avenue in 1996 was 7600 average daily traffic (ADT). The posted speed on Highway 20 through Tumalo is 55 mph. Intrastate truck traffic and local truck traffic serving nearby mining operations comprise a significant percentage of the traffic mix.

O.B. Riley Road, which is outside the community boundary, is a rural arterial which intersects Highway 20 from the south directly across from Cook Avenue. This road bisects the gravel mining operation that abuts Highway 20.

County collector roads include Bailey, Cline Falls, Cook, and Tumalo which all intersect Highway 20 in the central portion of Tumalo. Cline Falls feeds into Tumalo from the north, Tumalo Road from the east, and Bailey Road feed into the community from the south. There are approximately 4.7 miles of roads in Tumalo.

Table D1 (Inventory of Existing Roads), is organized by functional classification, road name and alphabetical order. The available (ADT) counts provided by the county and state are listed.

The public roads in Tumalo (see Map D1) range in pavement width from 20 feet to 24 feet. Some streets (e.g., Riverview Ave.) are in poor condition (i.e. cracking and pot holes). Most unpaved roads need grading and a fresh layer of gravel.

#### *Pedestrian facilities*

There are no sidewalks or trails in Tumalo. The bridge on Tumalo Road has a walkway on its north side. There are two designated crosswalks, one on Cline Falls Road on the north side of the Tumalo Road intersection and the other on Cook Avenue on the north side of the 4th Street intersection. Cline Falls Road is signed for 20 mph if children are present because of the nearby elementary school (the normal speed limit is 35 mph). All other pedestrian travel is on roadways with narrow or no shoulders.

Except for the school grounds, Tumalo lacks public space such as a park, square or commons to which pedestrians could use. There is undeveloped public access to the river from Tumalo Road. The primary trip attractors are the school, a church and the small commercial area (gas station, market, and restaurant). There is also a restaurant on the west side of Highway 20.

#### *Bicycle facilities*

Highway 20 has a four-foot paved bikeway shoulder. All other bicycle travel is on shared roadways. Cline Falls Road and Cook Avenue are popular recreational routes. There are bicycle racks at the school.

#### *Future transportation needs*

A rural community such as Tumalo, located on a major highway, requires a transportation network that can accommodate local, commuter, regional, and interstate traffic without detracting from the community's livability and rural character. Accomplishing this goal requires integrated street, bicycle and pedestrian networks, appropriate street standards, and safe access to the Highway 20 corridor.

The Tumalo transportation plan is based on conventional road functional classifications: arterial, collector and local roads. It establishes the roles and development standards appropriate to each type of road. The design of arterial and collector roads gives priority to through traffic over access to adjacent land uses. On local roads the emphasis is on access to adjacent land uses.

#### *Transportation network plan*

The transportation network plan for Tumalo identifies where the roads need to be improved and where pedestrian and bicycle facilities are warranted. The network plan has three components: roads, sidewalks and bikeways.

*Roads.* Central Tumalo is a relatively compact area without need for additional public streets; infill will access existing road networks. For the roads depicted on Map D2, planned improvements take advantage of existing public right-of-way, where it exists. Lands in the low density areas are served by existing public right-of-way which are unpaved, non-maintained public roads (Beaver Lane, Putnam Lane and Hopper Road) and private drives (Research Road, Winston Loop Road). Map D2 also depicts the roads that need improvement to serve the local road network and through traffic corridors.

*Sidewalks.* Map D2 shows where sidewalks are needed for safety and identifies a potential opportunity for a trail extending south along the west side of Deschutes River. In Tumalo, a sidewalk network is needed along Cook Avenue, 4th, 5th, 7th and 8th streets to access the school and provide safe places for people to walk in the commercial area as it develops. Sidewalks are usually separated from the road by a curb and gutter, which function as part of the storm drain system. Tumalo does not have a storm drain system. As an alternative, sidewalks in Tumalo shall be constructed without curbs and gutters and set back from the road surface behind a drainage swale. This type of sidewalk design is adequate, less costly and is consistent with the rural character of Tumalo. A drainage swale is a broad, man-made depression running parallel to the right-of-way between the roadway and the sidewalk, where water can drain into the ground. The swale also provides room for signs, mailboxes, and snow storage, leaving the sidewalk free of obstructions.

*Bikeways:* Two types of bikeways are appropriate in rural areas: A shared roadway for local roads with low traffic volumes and speeds, and a paved shoulder bikeway for collectors and arterials suitable to accommodate higher volumes and speeds or significant truck traffic. In Tumalo, paved shoulder bikeways are needed on Cline Falls Highway/Cook Avenue, Tumalo Road and Bailey Road which are County collector roads. A bicycle connection from O.B. Riley south to Tumalo State Park is also needed (see Map D2).

### *Highway 20*

The intersection of the Highway 20 and Cook Avenue has been identified by the community as a traffic safety hazard. The Oregon Department of Transportation (ODOT) will have the lead authority to develop a solution to the realignment of this intersection. Preliminary designs have been presented to the Tumalo community. The County will work with ODOT to provide a solution to this intersection and to the connecting network of County roads which includes the realignment of O.B. Riley Road through the existing mining operation on the south side of Highway 20.

Projects to complete the transportation network plan are listed in Table D2. The tables list the type of improvement and the associated cost. The priorities are based upon perceived need while being flexible to grant funding or development opportunities.

### *Road development standards*

In recent years, urban street development standards were required in unincorporated communities within the county. The urban standards required 36 feet of pavement, with curb tight sidewalks, curbs and gutters. It became evident that this standard was not practical or necessary in Tumalo. None of the existing roads in Tumalo meet this standard. The cost to build to this standard prohibited local residents from forming Local Improvement Districts (LIDs). In addition, people resisted the urban street profile because it did not fit with the community's preference for a rural appearance.

There are sound traffic engineering principles that support reduced street standards. The State Transportation Planning Rule (OAR 660.12.045(7)) directs local governments to establish standards for local streets that minimize pavement width and total right-of-way consistent with the operational needs of the facility.

Excessive standards increase the costs of construction, use up valuable land, encourage inappropriate traffic volumes and speeds and create a problem channeling storm water runoff. In Tumalo, full urban road standards are not needed because the traffic volumes and speeds, on roads in the community are low compared to city streets. Many roads serve only a few residences. However, existing County rural road standards are not adequate to serve the densities and variety of uses found in Tumalo. Local businesses and the elementary school generate more local trips than normally found in the rural county.

Instead, Tumalo's road standards are intended to decrease the cost of road improvements and to remove barriers to the formation of LIDs. The Tumalo Rural Community road development standards were developed in coordination with the community planning process, the Oregon Department of



Transportation (ODOT) Region 4, the state Bicycle and Pedestrian Program and with the County Planning Division and Public Works Department. These road standards are consistent with ODOT and the American Association of State Highway Traffic Officials (AASHTO) standards for rural communities. They apply to public right-of-way other than the state highway which is under state jurisdiction.

# Resort Communities

## Black Butte Ranch Goals

No goals have been defined for the Black Butte Ranch Resort Community

## Black Butte Ranch Policies

### **General resort community policies**

1. Land use regulations shall conform to the requirements of OAR 660 Division 22 or any successor.
2. County comprehensive plan policies and land use regulations shall ensure that new uses authorized within the Black Butte Ranch Resort Community do not adversely affect forest uses in the surrounding Forest Use Zones.
3. Designated open space and common area shall remain undeveloped except for community recreation uses. Areas developed as golf courses shall remain available for that purpose or for open space/recreation uses.
4. The provisions of the Landscape Management Overlay Zone shall apply in Resort Communities where the zone exists along Century Drive, Highway 26 and the Deschutes River.
5. Residential minimum lot sizes and densities shall be determined by the capacity of the water and sewer facilities to accommodate existing and future development and growth.
6. The resort facility and resort recreation uses permitted in the zoning for Black Butte Ranch and the Inn of the Seventh Mountain/Widji Creek shall serve the resort community.

### **Black Butte Ranch policies**

7. The County supports the design review standards administered by the Architectural Review Committee.
8. Residential, resort and utility uses shall continue to be developed in accordance with the Master Design for Black Butte Ranch and the respective Section Declarations.
9. Industrial activities, including surface mining, shall only occur in the area zoned Black Butte Ranch Surface Mining, Limited Use Combining District (Black Butte Ranch SM/LU) located in the northwest corner of Black Butte Ranch.
10. Employee housing shall be located in the area zoned Black Butte Ranch-Utility/Limited Use Combining District (Black Butte Ranch-U/LU).

11. Any amendment to the allowable use(s) in either the Resort Community District or the Limited Use Combining District shall require an exception in accordance with applicable statewide planning goal(s), OAR 660-04-018/022 and DCC 18.112 or any successor.
12. The westerly 38-acres zoned Black Butte Ranch Surface Mining, Limited Use Combining District (Black Butte Ranch SM/LU) shall be used for the mining and storage of aggregate resources. Uses that do not prevent the future mining of these resources, such as disposal of reclaimed effluent and woody debris disposal from thinning and other forest practices may be allowed concurrently. Other resort maintenance, operational and utility uses, such as a solid waste transfer station, maintenance facility or equipment storage may be allowed only after mining and reclamation have occurred.
13. The 18.5 acres zoned Black Butte Ranch-Utility/Limited Use Combining District (Black Butte Ranch-U/LU) may be used for the disposal of reclaimed sludge.
14. The area west of McCallister Road and east of the area zoned Black Butte Ranch may be used for large equipment storage, general storage, maintenance uses, RV storage, telephone communications, administration offices, housekeeping facilities and employee housing.
15. Employee housing shall be set back at least 250 feet from the eastern boundary of the area zoned Black Butte Ranch Surface Mining, Limited Use Combining District (Black Butte Ranch SM/LU).

**Surface mining within the Black Butte Ranch community boundary shall adhere to the following Goal 5 ESEE “Program to Meet Goal” requirements:**

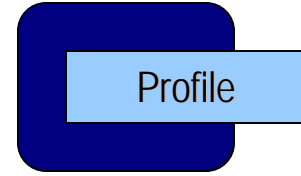
16. Only the western most 38 acres of the site shall continue to be mined.
17. Setbacks shall be required for potential conflicting residential and other development. A minimum 50-foot setback shall be maintained from the perimeter of tax lot 202 for all surface mining activity.
18. Noise impact shall be mitigated by buffering and screening.
19. Hours of operation shall be limited to between 7:00 a.m. and 6:00 p.m. weekdays. No operations shall be allowed on weekends and holidays.
20. Processing shall be limited to 45 days in any one year, to be negotiated with Deschutes County in the site plan process in consultation with the Oregon Department of Fish and Wildlife (ODFW).
21. The conditions set forth in the August 10, 1989, letter of ODFW shall be adhered to.
22. Extraction at the site shall be limited to five acres at a time with on-going incremental reclamation (subject to DOGAMI review and approval).
23. Mining operations, siting of equipment, and trucking of product shall be conducted in such a manner that applicable DEQ standards are met and minimizes noise and dust.

24. DOGAMI requirements for a permit once mining affects more than five acres outside the 8.6-acre exemption are shall be met.
25. A conditional use permit shall be obtained from Deschutes County, under the provisions of section 18.128.280. Surface mining of resources exclusively for on-site personal, farm or forest use or maintenance of irrigation canals, before mining activity affects more than five acres outside the 8.6-acre exempt area.

### **Public Facilities**

26. Police protection services for both communities shall be provided under contract with the Deschutes County Sheriff.
27. The Black Butte Ranch Water Distribution Company and the Black Butte Ranch Corporation shall confirm the water and sewer service, respectively, can be provided for new uses or expansion of existing uses that require land use approval.
28. The Black Butte Ranch Water Distribution Company shall provide water service for the Black Butte Ranch Resort Community.
29. The Black Butte Ranch Corporation shall provide sewer service for Black Butte Ranch.
30. The Black Butte Ranch Fire Protection District shall provide fire protection services for Black Butte Ranch.
31. The roads and the bicycle/pedestrian path system within the Black Butte Ranch Resort Community boundary shall be maintained by the Black Butte Ranch Owners Association.

# Resort Communities



## Black Butte Ranch Background

A Resort Community is characterized as an unincorporated community that is established primarily for, and continues to be used primarily for recreation and resort purposes (OAR 660-022-0010)(6)). It includes residential and commercial uses and provides for both temporary and permanent residential occupancy, including overnight lodging and accommodations.

Black Butte Ranch is located in the northwestern portion of Deschutes County, 8 miles west of the city limits of Sisters. Black Butte Ranch is in the Indian Ford Creek watershed, a tributary to Whychus Creek, itself a tributary to the Deschutes River, and is surrounded by lands within Deschutes National Forest. Since the late 1800's Black Butte Ranch has been a cattle ranch. Cattle operations continue today.

Black Butte Ranch includes 1,830 acres developed in the early 1970s as a planned residential development with both permanent and vacation homes on 1,252 lots and three separate condominium areas. Recreation amenities include two 18-hole golf courses, four swimming pools, 23 tennis courts, horse stables, a sports field, basketball courts and trails for bicycling, jogging and cross country skiing. Conference rooms, a restaurant, lounge and property sales in the Main Lodge, a general store and pro shops at both golf courses provide additional amenities for residents, guests and visitors.

Black Butte Ranch allows public access to its restaurant, golf courses and horse stables, but is primarily oriented to its year-round residents and seasonal guests. Black Butte Ranch is considered by many people to be a "destination resort", however development at Black Butte Ranch precedes the adoption of statewide Goal 8 and the County's mapping of lands for the siting of destination resorts. Approximately 96 percent of the area within Black Butte Ranch community boundary has already been developed.

Development of Black Butte Ranch began in 1970 and the first subdivision plat within Black Butte Ranch was filed in 1970. In 1972, when the County first adopted a zoning ordinance (PL-5) and comprehensive plan, the area identified as Black Butte Ranch, although smaller than today, was zoned "Planned Development" and designated as a "Destination Resort" on the comprehensive plan map. In 1979 the County adopted revised zoning and comprehensive plan maps. In 1992 Black Butte Ranch was designated as a rural residential exception area on the comprehensive plan map Black Butte Ranch, in its current configuration, is zoned Rural Residential, RR-10, and is designated "Destination Resort" on the comprehensive plan map.

The population of Black Butte Ranch is difficult to ascertain due to the large number of vacation and second homes within the community that are occupied for only part of the year. In 2001, the Black Butte Ranch Association estimated the number of full time, year round residents at 337 persons. During the peak tourist season, the population, including guests who do not own property but are renting residences within the community, is estimated to rise to 5,000 persons.

In the fall of 1994, the Oregon Land Conservation and Development Commission adopted a new administrative rule, OAR 660, Division 22, entitled Unincorporated Communities. The rule requires counties to update land use plans and regulations for such communities. Deschutes County has updated land use plans and regulations for such communities. Deschutes County has updated the Comprehensive Plan and implementing zone regulations for Black Butte Ranch and the Inn/Widgi Creek to comply with the rule as part of periodic review.

Black Butte Ranch meets the definition of "resort community" because it has historically developed with a mixture of residential and recreation or resort amenities. Commercial-type uses also exist, such as the restaurant and stables. Other retail operations, such as the golf pro shops and retail sales at the tennis shop are associated with specific recreation activities and are not designed as stand alone retail operations intended by themselves to attract the traveling public to Black Butte Ranch.

Black Butte Ranch operates both a community sewer and water system that are in place and serve the existing development. Black Butte Ranch is served by its own fire and police departments. The Comprehensive Plan designates Black Butte Ranch as a Resort Community and provides for future growth and development accordingly. The Black Butte Ranch community boundary includes a total of 1,912 acres consisting of: 1) 1,830 acres including the main resort development, the resort's recreational amenities, and the residential areas, and 2) 82 acres located contiguous to the northwest corner of the other land within the resort community used for industrial uses in support of Ranch operations. The community boundary abuts Highway 20 on the northeast. National Forest Service lands and private landholders bound it on the south and west.

The predominant land use in Black Butte Ranch is residential, the majority of which is single-family residential development. However, since Black Butte Ranch was originally developed as a planned community, a number of other uses exist which make Black Butte Ranch a community that is somewhat self-reliant. Uses that support the residential components include a commercial core, which contains a variety of retail businesses developed in a pedestrian mall setting, as well as a business park. A significant component of development in Black Butte Ranch includes recreation amenities such as golf courses, and resort facilities, such as a lodge, meeting facilities and a restaurant. A fire station and public works facilities for sewage treatment and

water delivery have also been developed in support of all uses. The Black Butte Fire Department serves all areas within the boundary of Black Butte Ranch. Utility services will continue to be provided in the current manner.

# Resort Communities

## Inn of the 7<sup>th</sup> Mountain/Widgi Creek Goals

No goals have been defined for the Inn of the 7<sup>th</sup> Mountain/Widgi Creek Resort Community

## Inn of the 7<sup>th</sup> Mountain/Widgi Creek Policies

### **General resort community policies**

1. Land use regulations shall conform to the requirements of OAR 660 Division 22 or any successor.
2. County comprehensive plan policies and land use regulations shall ensure that new uses authorized within the Black Butte Ranch Resort Community do not adversely affect forest uses in the surrounding Forest Use Zones.
3. Designated open space and common area shall remain undeveloped except for community recreation uses. Areas developed as golf courses shall remain available for that purpose or for open space/recreation uses.
4. The provisions of the Landscape Management Overlay Zone shall apply in Resort Communities where the zone exists along Century Drive, Highway 26 and the Deschutes River.
5. Residential minimum lot sizes and densities shall be determined by the capacity of the water and sewer facilities to accommodate existing and future development and growth.
6. The resort facility and resort recreation uses permitted in the zoning for Black Butte Ranch and the Inn of the Seventh Mountain/Widgi Creek shall serve the resort community.

## **Inn of the 7<sup>th</sup> Mountain/Widgi Creek Policies**

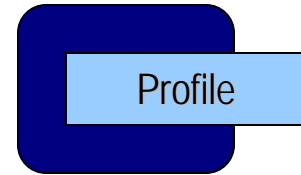
7. Any amendment to the allowable uses(s) in either the Resort Community District or the Widgi Creek Residential District shall require an exception in accordance with applicable statewide planning goal(s), OAR 660-04-018/022 or any successor, and DCC 18.112 or any successor.

### **Public Facilities**

8. Police protection services for both communities shall be provided under contract with the Deschutes County Sheriff.



9. Water service shall be supplied by on-site wells for the Inn/Widgi Resort Community.
10. New uses or expansion of existing uses that require land use approval shall be approved only upon confirmation from the City of Bend that sewer service can be provided.
11. Fire protection services for the Inn/Widgi shall be provided through a contract with the City of Bend until such time as Inn/Widgi develops another plan to provide adequate fire protection.
12. The Resort Community, not Deschutes County, shall maintain roads in the community.
13. The bicycle/pedestrian path system shall be maintained by the Inn/Widgi Owners Association.
14. Emergency access between Widgi Creek and the Inn of the Seventh Mountain shall be provided in accordance with the approved development plan for the Elkai Woods town homes. The respective resort property owners shall maintain emergency access between the Inn and Widgi Creek.



# Resort Communities

## Inn of the 7<sup>th</sup> Mountain/Widgi Creek Background

A Resort Community is characterized as an unincorporated community that was established primarily for, and continues to be used primarily for recreation and resort purposes (OAR 660-022-0010)(6)). It includes residential and commercial uses and provides for both temporary and permanent residential occupancy, including overnight lodging and accommodations.

In the fall of 1994, the Oregon Land Conservation and Development Commission adopted a new administrative rule, OAR 660, Division 22, entitled Unincorporated Communities. The rule requires counties to update land use plans and regulations for such communities. Deschutes County has updated land use plans and regulations for such communities. Deschutes County has updated the Comprehensive Plan and implementing zone regulations for Inn/Widgi Creek to comply with the rule as part of periodic review.

The Inn of the Seventh Mountain and Widgi Creek Golf community are located approximately 5 miles southwest of the Bend Urban Growth Boundary on Century Drive and bounded by the Deschutes River on the south. The site for Inn of the Seventh Mountain (Inn) has been developed since the late 1960s and has historically been considered to be a stand-alone resort community with overnight lodging and recreation facilities for tourists. It currently has 230 condominium units, spread among 22 buildings. The initial boundary was established in 1972 and encompasses 22.65 acres. The Inn includes horse stables, tennis courts, golf course, skating rink, swimming pools and other recreation amenities, and a restaurant, meeting rooms and multi-story lodging units for resort guests. Many of the dwelling units at Inn are occupied seasonally but some residences are occupied year round. Commercial uses open to overnight guests and the public include the restaurant, skating rink and golf course, guided raft trips on the Deschutes River and a retail/rental sport shop.

Widgi Creek was approved in 1983 as a 237-acre expansion to the Inn and includes a golf course with surrounding residential lots consisting of 107 lots for single-family dwellings and 103 lots for condominium units. The use of the site as a destination resort was initiated previous to implementation of the statewide planning goals in Deschutes County. Upon implementation of the statewide planning goals, the property was designated as "forest" in compliance with Goal 4, and the use continued to be permitted as a "destination resort". However, in 1993 HB 3661 prohibited destination resorts as a use in the forest zone except as allowed under Goal 8. This property was not approved as a destination resort pursuant to Goal 8 until the year 2001

when a "built and committed" exception was taken for the entire Inn/Widgi community.

Almost all of the residential uses at the Inn of the Seventh Mountain cater to tourist accommodations. During the peak tourist season, the population, including guests who do not own property but are renting residences within the community is estimated to be approximately 500 people. In 2001, the number of full time and part time residents at Widgi Creek is approximately 120, consisting of 80 single-family residents and 39 condo residents. Since there are only 4 condo units available for rental, there is no significant increase in the population during the peak tourist season. As currently planned, when the development is fully built out, the population will increase to a total of 200 full time and part time residents distributed in 107 single family homes and 46 condominium units

The Inn of the Seventh Mountain/Widgi Creek met the definition of "resort community" because it has historically developed with a mixture of residential and recreation or resort amenities. Other retail operations, such as the golf pro shops and retail sales at the tennis shop are associated with specific recreation activities and are not designed as stand alone retail operations intended by themselves to attract the traveling public to the Inn/Widgi.

The Inn/Widgi sewer service (except approved on-site septic systems) and fire protection is provided by the City of Bend. Water is provided by on-site wells, security service is provided by the Inn/Widgi Resort Community and Deschutes County Sheriff provides police services. The Inn of the Seventh Mountain/Widgi Creek community boundary includes 260 acres (23 for the Inn and 237 for Widgi Creek). The property is used for the recreational amenities, rental and residential units. The western boundary is Century Drive. The south boundary is generally the Deschutes River canyon. The entire resort community is bordered by the Deschutes National Forest.

The predominant land use at the Inn is resort use with overnight lodging and recreation facilities for tourists, in addition to a restaurant, meeting rooms and a retail/rental sport shop. The predominant land use for Widgi Creek is

***This Section implements part of State Planning Goal 14: Urbanization***

residential, with single-family residential development and condominium units, in addition to a golf course.

# Rural Service Centers



## Goals

No goals have been defined for Rural Service Centers

## Policies

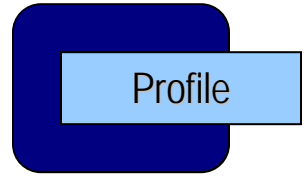
1. Land use regulations shall conform to the requirements of OAR 660, Division 22 or any successor.
2. Rural Service Center zoning shall be applied to Alfalfa and Brothers and shall consist of three districts: Commercial/Mixed Use; Residential; and Open Space.
3. Rural Service Center zoning shall be applied to Hampton, Whistlestop and Wildhunt and shall consist of a single Commercial/Mixed Use District.
4. The area in the Brothers Rural Service Center Boundary that is north of Highway 20 and east of Camp Creek Road shall be zoned as Rural Service Center - Open Space District (RSC-OS).
5. In April 2002, Alfalfa area residents expressed a desire to keep the community “the way it is” and to limit commercial activity to 2-acres south of Willard Road that is the site of the Alfalfa Community Store and the community water system. These two acres are designated as a mixed used commercial district in the Comprehensive Plan and shall be zoned mixed use commercial. The remaining 20 acres of the Rural Service Center will continue to be zoned Rural Service Center – Residential District, with a 5-acre minimum lot size. Since the Board of County Commissioners finds it may be necessary to accommodate the need for future commercial expansion 2 acres north of Willard Road are being designated on the Comprehensive Plan for future commercial uses. A zone change to mixed use commercial can be considered only for a specific use and upon findings that the existing commercial area is fully developed.
6. County Comprehensive Plan policies and land use regulations shall ensure that new uses authorized within the Alfalfa, Brothers, Hampton, Millican, Whistlestop and Wildhunt Rural Service Centers do not adversely affect agricultural and forest uses in the surrounding areas.
7. Zoning in the area shall promote the maintenance of the area’s rural character. New commercial uses shall be limited to small-scale, low impact uses that are intended to serve the community and surrounding rural area or the travel needs of people passing through the area. The Commercial/Mixed use zoning regulations shall allow a mixed use of residential or small-scale commercial uses.

8. Residential and commercial uses shall be served by DEQ approved on-site sewage disposal systems.
9. Residential and commercial uses shall be served by on site wells or public water systems.
10. Community water systems, motels, hotels and industrial uses shall not be allowed.
11. Recreational vehicle or trailer parks and other uses catering to travelers shall be permitted.
12. The County shall consider ways to improve services in the area consistent with the level of population to be served.

# Rural Service Centers

## Background

A Rural Service Center is characterized as 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 permanent residential dwellings.

## **Introduction.**

The predominant land use in the Rural Service Center surrounding the Alfalfa, Brothers, Hampton and Millican is farming and ranching. The predominant land use in the areas surrounding Whistlestop and Wildhunt is forest, ranching and rural residential. The unincorporated rural service centers serve the needs of the surrounding rural areas as well as the needs of the traveling public. Three of the communities are located on Highway 20 east of Bend. Millican is 26 miles, Brothers 42 miles and Hampton 64 miles east of Bend. Alfalfa is located approximately 11 miles east of Bend on Willard Road. Whistlestop is located approximately 30 miles southwest of Bend on Burgess Road. Wildhunt is located approximately 26 miles south of Bend at the junction of Highway 97 and Highway 31.

The communities of Alfalfa, Brothers and Hampton have approved public water systems that serve the school and combination store/café/post office in Brothers and the stores in Alfalfa and Hampton. The Central Oregon Irrigation District provides water for agricultural uses surrounding Alfalfa. Large ranches and BLM land surround Millican, Brothers and Hampton. Most of the land is used for dry land grazing. Well water provides irrigation for land adjacent to Hampton. Millican, Brothers and Hampton are surrounded by land that is designated as antelope habitat. The area surrounding these communities is sparsely populated. Each community has a few residences within its boundary.

## **Periodic Review**

In order to comply with OAR 660-022, Deschutes County updated the Comprehensive Plan and implementing zoning regulations in 2002 for the communities of Alfalfa, Brothers, Hampton, Millican, Whistlestop and Wildhunt. The Comprehensive Plan and zoning map boundaries for all of the Rural Service Centers were amended to comply with the requirements of the administrative rule and to reconcile historic mapping inconsistencies between the plan designation and zoning and inconsistencies between community boundaries and historic development patterns.

## **Community Boundary**

The Alfalfa Rural Service Center boundary includes 21.83 acres, with Willard Road as the predominant northern boundary and the remainder surrounded by agricultural lands zoned Exclusive Farm Use.



The Brothers Rural Service Center boundary includes 48.95 acres. Highway 20 bisects the community from east to west, while Camp Creek Road enters from the north and connects with the highway. The entire community is surrounded by agricultural land zoned Exclusive Farm Use.

The Hampton Rural Service Center boundary includes 35.37 acres. Highway 20 forms the southern boundary with the remainder surrounded by agricultural lands zoned Exclusive Farm Use.

The Millican Rural Service Center boundary includes 29.55 acres. Highway 20 forms the northern boundary with the remainder surrounded by agricultural lands zoned Exclusive Farm Use.

The Whistlestop Rural Service Center boundary includes 7.93 acres. Burgess Road runs east/west and dissects the community from north to south with forest and rural residential uses to the north and east. The Wildhunt Rural Service Center boundary includes 11.29 acres. Highway 97 forms the western boundary. Highway 31 forms the southern boundary, with forest and rural residential uses to the north and east.

## Land Use Planning

The existing land uses in the eastern Rural Service Centers of Alfalfa, Brothers, Hampton and Millican are commercial and residential surrounded by agricultural. In addition to a few residences each of the communities includes commercial development. Alfalfa has a store/gas station and a church/community hall. Brothers includes a school, a combination market/café/post office/gas station, a state highway maintenance field office, and a highway rest area. Hampton has a café and recreational vehicle park.

*This Section implements  
part of State Planning  
Goal 14: Urbanization*

Millican has a market/gas station.

The existing land uses in the rural Service Centers of Whistlestop and Wildhunt is commercial and residential surrounded by forest.

# Deschutes County Comprehensive Plan

## Glossary

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“Access or access way” means the place, means, or way by which pedestrians and vehicles shall have safe, adequate and usable ingress and egress to a property or use.

“Aquifer” means a water-bearing rock, rock formation or a group of formations.

“Annexation” means to add or join to, append or attach, especially to a larger, or more significant thing. To incorporate into a county or city. Annexation is the process by which usually contiguous fringe territory is added to an existing municipality.

“Archeology” means the systematic recovery by scientific methods of material evidence from man's life and culture in past ages and the detailed study of this evidence. The study of antiquity, ancient times or early conditions.

“Architectural control” means regulations and procedures requiring structures to be suitable, harmonious and in keeping with the general appearance, historical character or style of their surrounding area.

“Average” means a number that typifies a set of numbers of which it is a function. The arithmetic mean.

“Berm” means a narrow ledge or shelf, as along a slope. Relative to surface mining operations, a berm is a mound of dirt used for screening operations or for storage of material to use during reclamation of the mining site.

“Bonuses” (also known as incentive zoning) means the awarding of bonus credits to a development in the form of allowing more intensive use of the land if such public benefits are greater than the minimum open spaces or agricultural lands are preserved, special provisions for low and moderate income housing are made, or public plazas and courts are provided at ground level.

“Buffer zone” means a strip of land created to separate and protect one type of land use from another; for example, a screen of planting or fencing to insulate the surrounding area from the noise, smoke, or visual aspects of an industrial zone or junkyard. In other instances, a greater width of land to separate and protect farm production from more dense, urban use.

“Capital improvements program” means a timetable of public improvements budgeted to fit the jurisdiction's fiscal capacity some years into the future.

“Cluster development” means it is intended to concentrate on residential improvements and to preserve and protect open land; should be consistent with the public facilities and services policies; should require a minimum of 65 per cent open land and a maximum of 35 per cent for improvement (excluding fencing) of the contiguous land under the same ownership.

“Community facilities” means public or privately owned facilities used by the public, such as streets, schools, libraries, parks and playgrounds; also facilities owned and operated by non-profit private agencies such as churches, settlement houses and neighborhood associations.

“Commuter” means a person who travels regularly from one place to another place and back, as from a suburb to city and back.

“Comprehensive Plan” means a generalized, coordinated land use map and policy statement of the governing body of a state agency, city, county or special district that interrelates all functional and natural systems and activities relating to the use of lands, including but not limited to sewer and water, transportation, educational and recreational systems and natural resources and air and water quality management programs. "Comprehensive" means all-inclusive, both in terms of the geographic area covered and functional and natural activities and systems occurring in the area covered by the plan. "Generalized" mean a summary of policies and proposals in broad categories and does not necessarily indicate specific locations of any area, activity or use. A plan is "coordinated" when the needs of all levels of governments, semi-public and private agencies and the citizens have been considered and accommodated as much as possible. "Land" includes water, both surface and subsurface, and the air.

“Conditional use” means a use which meets certain conditions and may locate in some zoning districts provided it will not be detrimental to the public health, morals and welfare and will not impair the integrity and character of the zoned district.

“Conservation easement” means a tool for acquiring open space with less than full-fee purchase; the public agency buys only certain specific rights from the owner. These may be positive rights, giving the public rights to hunt, fish, hike or ride over the land, or they may be restricted rights limiting the uses to which the owner may put his land in the future. Scenic easements allow the public agency to use the owner's land for scenic enhancement such as roadside landscaping and vista point preservation.

“Dedication” means a turning over of private land for a public use by an owner or developer and its acceptance for such use by the governmental agency in charge of the public function for which it will be used. Dedications for roads,

parks, school sites or other public uses are often made conditions for the approval of a development.

“Dedication, payment in lieu of” means cash payments as substitute for a dedication of land by an owner or developer usually at so many dollars per lot. This overcomes the two principal problems of land-dedication requirements by applying the exactions on development more equitably and by allowing purchase of sites at the best locations rather than merely in places which the development is large enough to be required to dedicate a school or park.

“Density” means the number of residential dwelling units per acre of land and/or the amount of land area expressed in square feet assignable to each dwelling unit in a residential development, including but not limited to one house on one lot. It is computed as follows: the gross area of land within the development, less the total aggregate area dedicated for streets, schools or other public facilities, but not including public or private parks and recreation facilities dedicated or created as an integral part of the development, divided by the total number of dwelling units in the proposed development, equals the density.

“Density transfer” means a technique of retaining open space by concentrating residential densities, usually in compact areas adjacent to existing urbanization and utilities, where outlying areas are being left open, so that the residential density of the entire community will average out at the same number of dwelling units as if the community were developed from end to end with large lots. A variation of this involves allowing density transfers by private developers who buy the development rights of outlying properties that are publicly desirable for open space and adding the additional density to the base number of units permitted in the zone in which they propose to develop.

“Destination resort” means a self-contained development providing visitor-oriented accommodations and developed recreational facilities in a setting with high natural amenities. To qualify as a "major destination resort" under Goal 8, a proposed development must meet the following standards:

1. The resort is located on a site of 160 or more acres.
2. At least 50 percent of the site is dedicated to permanent open space, excluding yards, streets and parking areas.
3. At least \$2,000,000 (in 1984 dollars) is spent in the first phase of improvements for on-site developed recreational facilities and visitor-oriented accommodations, exclusive of costs for land, sewer and water facilities, and roads. Not less than one-third of this amount shall be spent on developed recreational facilities. Developed recreational facilities and key facilities intended to serve the entire development and visitor-oriented accommodations must be physically provided or be guaranteed through surety bonding or substantially equivalent financial assurances prior to closure of sale of individual lots or units. In phased developments, developed recreational facilities and other key facilities

intended to serve a particular phase shall be constructed prior to sales in that phase or guaranteed through surety bonding.

4. Visitor-oriented accommodations are provided, including meeting rooms, restaurants with seating for 100 persons, and 150 separate rentable units for overnight lodgings. Accommodations available for residential use will not exceed two such units for each unit of overnight lodging.
5. Commercial uses limited to those types and levels necessary to meet the needs of visitors to the development. Industrial uses are not permitted.

“Developed recreation facilities” means with respect to destination resorts, improvements constructed for the purpose of recreation. These include, but are not limited to, golf courses, tennis courts, swimming pools, marinas, equestrian trails and facilities and bicycle paths.

“Dude ranch” means a ranch operated primarily or in part as a resort which offers horse-related activities as its primary outdoor recreation opportunity and provides only temporary rental accommodations, serves custom prepared food and which is intended and suitable only for vacation use by non-residents.

“Easement” means a right afforded a person to make limited use of another's real property, as a right-of-way.

“Eminent domain” means the right of a government to appropriate private property for public use or benefit upon payment of just compensation to the owner. The terms "eminent domain" and "condemnation" are often used interchangeably, although condemnation may also mean the demolition by public authority of an unsafe structure where no compensation is paid to the owner and the condemned property does not become public land. "Inverse condemnation" is a condition in which the use of political power to regulate the use of land is so severe that it represents a de facto taking of private property for public benefit or use without just compensation.

“Erosion” means to erode is to wear away by or as if by abrasion, dissolution, transportation, weathering or corrosion. The removal, loosening or dissolution of earth or rock material from any part of the earth's surface.

“Exception” (also called variance) means the official provision of an exemption from compliance with the terms of conditions or a building or zoning regulation by a local board or administrator vested with the power to authorize it. It is usually granted if there are practical difficulties in meeting the existing requirements literally, or if the deviation or exception would not have a detrimental impact on adjacent properties or affect substantial compliance with the regulations. While an exception (or variance or special use) is a departure from the standard application of the zoning ordinance, it is provided for within the ordinance.

“Goals” means in terms of land use planning, the mandatory statewide planning standards adopted by the Land Conservation and Development

Commission pursuant to ORS 197.005 to 197.430 and the goals adopted in this plan.

“Groundwater” means water beneath the earth's surface between saturated soil and rock that supplies wells and springs.

“Improved land” means raw land that has been improved with basic facilities such as roads, sewers, water lines and other public infrastructure facilities in preparation for meeting development standards. It sometimes refers to land with buildings as well, but usually land with buildings and utilities would be called a developed area, while the term "improved land" more often describes vacant land with utilities only.

“In-filling” means the use of undeveloped lands in areas of existing housing and high densities.

“Interim or study zone” means a zoning technique used to temporarily freeze development in an area until a permanent classification for it can be decided upon. It is generally used to preserve the status quo while an area or community-wide comprehensive plan is prepared to serve as a basis for permanent zoning.

“Land Use Plan” means a basic element of a comprehensive plan, it designates the future use or reuse of the land within a given jurisdiction's planning area and the policies and reasoning used in arriving at the decisions in the plan. The land use plan serves as a guide to official decisions in regard to the distribution and intensity of private development, as well as public decisions on the location of future public facilities and open spaces. It is also a basic guide to the structuring of zoning and subdivision controls, urban renewal and capital improvement programs.

“LCDC” means the Land Conservation and Development Commission of the State of Oregon.

“Leapfrog development” means land development that occurs well beyond the existing limits of urban development and thus leaves intervening vacant land behind. This bypassing of the next-in-line lands at the urban fringe results in the haphazard shotgun pattern of urbanization known as "sprawl".

“Median” means the middle value in a distribution, above or below which lies an equal number of values.

“Mobile home” means a factory-built home, equipped with all of the basic amenities of a conventional home (both, kitchen, electricity), which can be moved to its site by attaching it whole or in sections to an automobile or truck. (A trailer is a much smaller mobile shelter, usually used for camping and outings rather than as a permanent dwelling.) Prefabricated modular units currently come complete with built-in furnishings, appliances, porches and other areas. "Double-wides" and "triple-wides" are units connected together to

form a single structure of size and roof design similar to that of a conventional home built on a foundation on site. Mobile home parks rent spaces with utility hookups to mobile home owners; sometimes they also rent the mobile homes. The parks range in size from a few parking spaces equipped with plumbing and electrical connections to elaborate mobile home communities with swimming pools and community centers. About a quarter of the single-family home sales since 1968 have been captured by mobile homes.

“Moratorium” means in planning, a freeze on the approval of all new development pending the completion and adoption of a comprehensive plan. In recent years, building moratoriums have also been instituted by water and sewer agencies when sewage treatment facilities are inadequate or when water shortages are threatened. They have also been voted into being by residents of communities whose schools and other public facilities have been overwhelmed by rapid growth.

“Multiplier effect” means an economic base multiplier is a mathematical device used to estimate the number of jobs that will be created in service or non-basic industries which will provide needed goods and services to the new community residents (such as retail stores, professional services, entertainment facilities, etc.), because of new employment in basic industries, such as manufacturing. An example might be as follows:

300 total new jobs  
= 100 new jobs in steel plant  
+ 150 new jobs in private services (groceries, etc.)  
+ 50 new jobs in public – police, fire, etc.

The Base Multiplier here is 3.0. The Base Ratio is 1:2. So, for every new basic job there is created two non-basic jobs, or three new jobs totally.

“Non-Goal 5 aggregate resources” means those mineral and aggregate resources that are not significant aggregate resources as determined under OAR 660-023-0030(4) and are not included on the County’s inventory list of significant Goal 5 mineral and aggregate resource sites.

“Open land” means is land without tree cover, land which is exposed, land without cover except grass, brush and sparse or immature trees; lands or topography which do not reasonably conceal structures, improvements and personal property.

“Open space” means the part of the countryside which has not been developed and which is desirable for preservation in its natural state for ecological or recreational purposes, or in its cultivated state to preserve agricultural, forest or urban greenbelt areas. More specifically, open space consists of any land area that would, if preserved and continued in its present use:

1. Conserve and enhance natural or scenic resources;
2. Protect air or streams of water supply;
3. Promote conservation of soils, wetlands or beaches;
4. Conserve landscaped areas, such as public or private golf courses, that reduce air pollution and enhance the value of abutting or neighboring property;
5. Enhance the value to the public of abutting or neighboring parks, forest, wildlife preserves, natural reservations or sanctuaries or other open space;
6. Enhance recreation opportunities;
7. Preserve historic sites;
8. Promote orderly urban development.

Open space in destination resorts may include some alteration of the natural or existing landscape to allow siting of golf course greens and fairways, lakes and ponds, bike paths and jogging trails and primitive picnic areas (including picnic tables and park benches).

“Overnight lodgings” with respect to destination resorts, means permanent, separately rentable accommodations that are not available for residential use. Overnight lodgings include hotel or motel rooms, cabins and timeshare units. Individually owned units may be considered overnight lodgings if they are available for overnight rental use by the general public for at least 45 weeks per calendar year through a central reservation and check-in service. Tent sites, recreational vehicle parks, mobile homes, dormitory rooms and similar accommodations do not qualify as overnight lodgings for the purpose of this definition.

“Parcel” means a unit of land that is created by a partitioning of land.

“Partition” means either an act of partitioning land or an area or tract of land partitioned as defined below:

"Partitioned land" means to divide an area or tract of land into two or three parcels within a calendar year when such area or tract of land exists as a unit or contiguous units of land under a single ownership at the beginning of such year (ORS 92.010).

“Performance standards” means zoning regulations providing specific criteria limiting the operations of certain industries, land uses, and buildings to acceptable levels of noise, air pollution emissions, odors, vibration, dust, dirt, glare, heat, fire hazards wastes, traffic generation and visual impact. This type of zoning may not bar an industry or use by specific type, but rather admits any use that can meet the particular standards of operation set for admission. Instead of classifying industries in districts under the headings "light", "heavy" or "unrestricted", it establishes measurable technical standards and classifies the industries in terms of their probable environmental impact. Terms such as



"limited", "substantial" and "objectionable" determine the overall acceptability rating of a particular use.

"Planned community" means a fully self-contained complex of residential, commercial and industrial areas, transportation facilities, utilities, public facilities and recreational areas.

"Planned Development (PD)" means a self-contained development, often with a mixture of housing types and densities, in which the subdivision and zoning controls are applied to the project as a whole rather than to individual lots as in most subdivisions. Therefore, densities are calculated for the entire development, usually permitting a trade-off between clustering of houses and provision of common open space.

"Plat" means a map, diagram, drawing or replat or other material containing all the descriptions, locations, specifications, dedications, provisions and information concerning a subdivision.

"Police power" means the inherent right of a government to restrict an individual's conduct or his use of his property in order to protect the health, safety, welfare and morals of the community. In the United States, this power must relate reasonably to these ends and must follow due processes of the law; but unlike the exercise of the State's power of eminent domain, no compensation need be paid for losses incurred as a result of police power regulation.

"Predominant lot size" means the most frequently occurring lot size in a given area. The arithmetic mode of lot sizes.

"Resort community" means an unincorporated community that was established primarily for and continues to be used primarily for recreation and resort purposes. It includes residential and commercial uses and provides for both temporary and permanent residential occupancy, including overnight lodging and accommodations.

"Right-of-way" (ROW) means the right of passage over the property of another. The public may acquire it through implied dedication-accepted access over a period of time to a beach or lake shoreline, for example. More commonly, it refers to the land on which a road or railroad is located. The pathways over which utilities and drainage ways run are usually referred to as easements.

"Riparian:(zone, habitat, or vegetation)" means of or pertaining to the bank of a river, or of a pond or small lake. Riparian habitat is riverbank vegetative cover and food for many wildlife species.

"Road types" means:

1. Arterial. Roads designed for through access between major traffic generators. Arterials provide primarily for the traffic mobility needs.

2. Collector. Roads which gather the traffic from local roads between arterials. These roads provide a balance between the needs of land access and traffic mobility.
3. Local. Roads designed for land access, serving local traffic only.

“Rural lands” means those lands outside recognized urban growth boundaries which are necessary and suitable for such uses as:

1. Exclusive farm use;
2. General agriculture;
3. Forest;
4. Rural residential;
5. Rural service center;
6. Destination resort, dude ranch, planned community;
7. Landscape management;
8. Special interest;
9. Open space;
10. Fish and wildlife protective area;
11. Recreation;
12. Surface mining.

Industrial, commercial and urban and suburban residential uses are not generally appropriate on rural lands.

“Rural service center” means an unincorporated convenience-commercial and residential center of a nature and size only as required to serve the convenience-commercial needs of the surrounding rural lands. Planning area boundaries are not the boundaries for rural service centers.

“Scabland” means level and undulating upland plains where blister-like outcrops of basalt occur. Scabland consists of areas in which the bedrock, stony shallow soil and soil-forming material predominate. The natural vegetation consists mainly of big sagebrush, open stands of juniper, rabbit brush, bunchgrass and annual grasses and associated herbs. Level areas can be suitable for irrigate pasture.

“Self-contained development” means with respect to destination resorts, means community sewer, water and recreational facilities provided on site and limited to meet the needs of the resort or provided by existing public sewer or water service as long as all costs related to service extensions and any capacity increase are borne by the development. A "self-contained development" shall have developed recreational facilities provided on site.

“Septic tank” means a tank plus a leaching field or trenches in which the sewage is purified by bacterial action. It is distinct from a cesspool, which is merely a perforated buried tank that allows the liquid effluent to seep into the surrounding soils but retains most of the solids and must be periodically pumped out.

“Sewage system” means a facility designed for the collection, removal, treatment and disposal of waterborne sewage generated within a given service area. It usually consists of a collection network of pipelines and a treatment facility to purify and discharge the treated wastes.

“Shall” means a mandatory, non-discretionary policy or regulation.

“Should” means a non-mandatory, discretionary policy or regulation.

“Silica or siliceous” means a white or colorless crystalline compound, SiO<sub>2</sub>, occurring abundantly as quartz, sand, flint, agate and many other materials and used to manufacture a wide variety of materials, notably glass and concrete.

“Special District” means any unit of local government, other than a city or county, authorized and regulated by statute, which includes but is not limited to water control, irrigation, port districts, fire, hospital, mass transit and sanitary districts, as well as regional air quality control authorities.

“Spot zoning” means the awarding of a use classification to an isolated parcel of land which is detrimental or incompatible when such an act favors a particular owner. Such zoning has been held to be illegal by the courts on the grounds that it is unreasonable and capricious. A general plan or special circumstances such as historical value, environmental importance, or scenic value may justify special zoning for a small area.

“Strip zone” means a mélange of development, usually commercial, extending along both sides of a major street leading out of the center of a city. Usually a strip zone is a mixture of auto-oriented enterprises (e.g., gas stations, motels and food stands), truck-dependent wholesaling and light industrial enterprises, along with the once rural homes and farms overtaken by the haphazard leap-frogging of unplanned sprawl. Strip development, with its incessant turning movements in and out of each enterprise’s driveway, has so reduced the traffic-carrying capacity of major highways leading out of urban centers, that the post-war limited-access freeway networks have become a necessity. In zoning terms, a strip zone may refer to a district consisting of a ribbon of highway commercial uses fronting both sides of a major arterial road.

“Subdivide” means to divide a part or parts of land parcels into at least four smaller parts or lots. A subdivision is the result of laying out a parcel of raw land into lots, blocks, streets, and public areas. Its purpose is the transformation into building sites.

“Urban fringe” means an area at the edge of an urban area usually made up of mixed agricultural and urban uses. Where leap-frogging or sprawl is the predominant pattern, this mixture of urban and rural may persist for some time until the process of urbanization is completed.

“Urban Growth Boundary” (UGB) means is an established line identifying an area which contains land lying within and adjacent to an incorporated city and which is determined to be necessary and suitable for future urban uses capable of being served by urban facilities and services.

“Urbanized lands” means those lands within the urban growth boundaries which can be served by urban services and facilities and are necessary and suitable for future expansion of an urban area.

“Visitor-oriented accommodations” with respect to destination resorts, means overnight lodging, restaurants and meeting facilities designed to provide for the needs of visitors rather than residents.