

Deschutes County Comprehensive Plan



DESCHUTES
COUNTY
2040

Updated June 17, 2025

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Introduction

The purpose of the Deschutes County Comprehensive Plan is to provide a blueprint for land use conservation and development. This is accomplished through goals and policies that tell a cohesive story of where and how development should occur and what places should remain undeveloped. The Plan provides a legal framework for establishing more specific land use actions and regulations such as zoning. The goals and policies are based on existing conditions and trends, community values, and the statewide planning system. The Plan must provide clear policy direction yet remain flexible.

The County's most recent Comprehensive Plan was adopted in 2011. Since then, the County has grown substantially and experienced many demographic and economic shifts. Between April 2010 and July 2020, the County's population grew from 157,730 residents to 198,253 residents. This growth - 25.7% over ten years - is over twice the 10.6% increase that the State of Oregon experienced as a whole. The latest projections from Portland State University's Population Research Center suggest strong continued growth throughout Deschutes County.

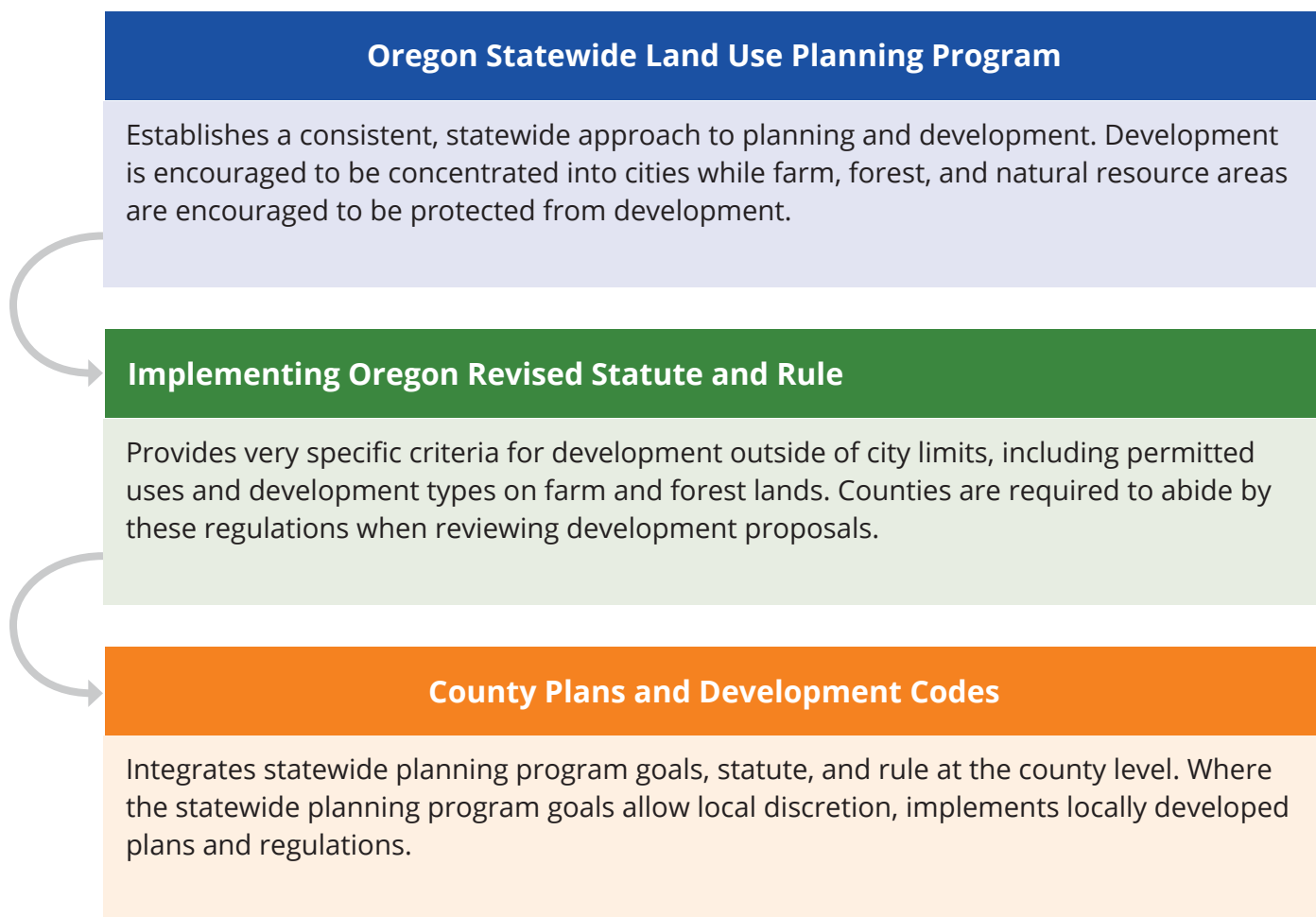
An updated Comprehensive Plan is necessary to address current needs of the communities in the County, as well as to guide the anticipated growth and development of Deschutes County over the next twenty years. Although many of the goals and policies of the 2011 Plan still hold value, fundamental data, trends, and land use issues have become outdated. The updated Comprehensive Plan needs to incorporate community input to craft new and updated goals and policies regarding agriculture, forestry, housing, recreation, natural resources, natural hazards, economic development, and transportation.



In Oregon, comprehensive plans must comply with the statewide planning system, which was adopted in 1973 to ensure consistent land use policies across the State. While compliance with the statewide system is required, it is also important for a comprehensive plan to reflect local needs and interests. This Plan balances statewide requirements and local land use values.

The Comprehensive Plan is the County's long-range plan for how it will grow and serve its community members in the future. Oregon state law requires all counties and cities to adopt and regularly update Comprehensive Plans that are consistent with state and regional goals, laws, administrative rules, and other requirements and guidelines. The Comprehensive Plan addresses topics such as land use, housing,

economic development, transportation, parks and recreation, and natural resources, with a strong emphasis on how land is used, developed, and/or conserved. Other topics in the plan include citizen involvement, natural hazards, public infrastructure and facilities, and more. The Plan describes conditions related to each element of the community and provides overarching guidance for future County decisions in the form of a set of goals, objectives, and policies. These policies will drive future decisions and actions undertaken by County staff, advisory groups, and elected decision-makers.



Deschutes County Timeline



1859
Oregon Statehood



1905
City of Bend incorporated



1916
Deschutes County created from a portion of Crook County



1937
County Courthouse and most early records destroyed by fire



1941
Roberts Airfield completed allowing flights to Central Oregon for the first time



1970
"Deschutes County to 1990" Comprehensive Plan



1973
SB100 and Oregon Land Use Planning System Enacted



1979
"Deschutes County Year 2000" Comprehensive Plan



1988 to 2003
Periodic Review and updates to Comprehensive Plan



2010
"Deschutes County 2030" Comprehensive Plan Update



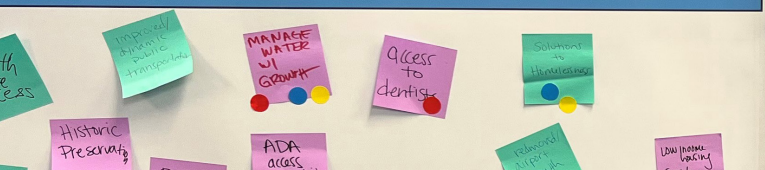
2023
"Deschutes 2040" Comprehensive Plan Update

City of Bend photo courtesy of DowntownBend.org

1

Community Engagement





Opportunities, Challenges, and Considerations

Public engagement is the touchstone of planning in Oregon. As Deschutes County grows and its population changes over the course of the next 20 years, the County must be prepared to find innovative ways to keep community members involved in the planning process and provide ample and accessible ways to find and digest information. Challenges including funding, resources, and ongoing state appeals might pose barriers to this work. The County has an opportunity to plan for adequate resources and staffing to support this work.

2023 Comprehensive Plan Update

A far-reaching community conversation was a vital part of updating the Deschutes County Comprehensive Plan. This effort included:

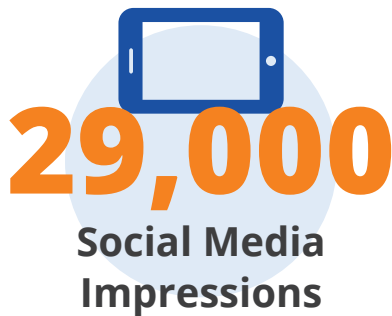
- Two phases of engagement – one focusing on long-range vision, opportunities, and challenges; and another phase focusing on important and controversial topics.
- Outreach events in all parts of the County.
- A deliberate audit of engagement activities to learn and build on successes.

Context

Involving the public in planning is a critical part of Oregon's land use system. Statewide Planning Goal 1 - Citizen Involvement, is intended to ensure that the public has the opportunity to be meaningfully involved in all phases of the land use planning process. Creating these opportunities requires time and energy on the part of County staff, as well as systems to incorporate that input in a meaningful way.

To participate in planning actions, the public needs to be notified of the proposal or project, understand the legal framework for the decision and understand the implications of the decision. Local governments need to be aware of changing technologies and best practices to involve the community and share project information. Community engagement can take many forms, such as focus groups for a larger planning project, email notification lists for department activities, or mailed notices of public hearings.

Summary of Engagement for the 2023 Update



Regulatory Framework

Statewide Planning Goal 1 – Citizen Involvement lays the groundwork for the County’s public involvement program. Jurisdictions are required to establish a Citizen Involvement Program that provides widespread community involvement, two-way communication with appropriate feedback mechanisms, opportunities for engagement in all phases of the planning process, technical information available in an intelligible form, and is adequately funded.

Statewide Planning Goal 1

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

Deschutes County’s Community Involvement Program

Statewide Planning Goal 1 is implemented by Deschutes County’s Community Involvement Program, as described in the following section.

DESCHUTES COUNTY PLANNING COMMISSION

The Deschutes County Planning Commission serves as the County’s Committee for Community Involvement (CCI). The Planning Commission is composed of seven volunteer

members appointed to four-year terms by the Board of County Commissioners (Board).

Membership of the commission is representative of the various geographic areas of the County. Members are selected through an open process that aims to balance the diverse views of Deschutes County residents.

The purpose of the CCI is to create a direct and transparent connection between County decision-making and the public by providing regular updates, speakers, panel discussions, and handouts on land use law and policy. The CCI aims to make materials intelligible and convenient for the public and to provide a venue for civil discourse on important issues for the County.

HISTORIC LANDMARKS COMMISSION

The Historic Landmarks Commission serves as a hearings body for matters concerning historical districts, structures and sites within unincorporated Deschutes County as well as the city of Sisters. The Landmarks Commission is composed of nine voting and several non-voting ex-officio members who have demonstrated expertise in historic preservation related disciplines. Commissioners serve four-year terms.



OTHER LAND USE RELATED ADVISORY GROUPS

Project Wildfire is a committee formed to coordinate, develop and implement strategies to mitigate the effects of losses due to natural disasters that strike Deschutes County. Project Wildfire is composed of 15 to 27 members who reside or represent agencies within Deschutes County. All members are appointed by the Board and serve four years (see also Chapter 7, Natural Hazards).

The Deschutes River Mitigation and Enhancement Program helps achieve Oregon Department of Fish and Wildlife (ODFW) habitat and management goals and objectives within the Upper Deschutes River sub-basin, consistent with an agreement between the Central Oregon Irrigation District (COID) and ODFW. As part of that agreement COID provides ODFW with funds to develop and implement a fish and wildlife habitat mitigation and enhancement program for the Upper Deschutes River Basin. The Deschutes River Mitigation and Enhancement Committee has seven voting members appointed to three-year terms by the Board.

In addition to convening these groups, Deschutes County engages with the public through numerous methods, including:

- Conducting regular work sessions and hearings
- Providing timely public notice of important items
- Maintaining the County Website, including the department's "Community Engagement Center" page.
- Advertising events and engaging with constituents through social media channels
- Coordinating with media organizations, such as local newspapers.
- Meeting with individuals and small groups to get feedback on important issues.

These activities were part of the most recent update of this Comprehensive Plan.





Key Community Issues

Deschutes County is changing and community members are seeking new ways to share their ideas on key issues. To provide ample opportunities to engage, new tools and technologies will be needed to involve new groups. Issues that the policies in this section address include:

- Continuing to simplify materials to use plain language and be accessible to a variety of audiences
- Continuing to maintain a presence throughout the County, including holding meetings and events throughout the County
- Supporting engagement activities that allow community members to participate virtually and at the time of their choosing.

With these issues in mind, Deschutes County has adopted the following goals and policies.

Goals and Policies

Goal 1.1: Provide for a robust community involvement program that includes all members of the community, including those who are commonly under-represented, by ensuring access to information, encouraging community collaboration, identifying and addressing barriers to involvement, and promoting efficient and transparent planning processes.

Policy 1.1.1. Convene the Deschutes County Planning Commission as the County's Committee for Community Involvement in order to provide a direct and transparent connection between County decision-making and the public.

Policy 1.1.2. Write all County planning documents to be understandable, intuitive, and easily available to the general public, using simplified language where possible, with acronyms spelled out and technical language explained.

Policy 1.1.3. Hold area-specific comprehensive plan and zoning text amendment public hearings in locations and at times convenient and accessible to area residents, as appropriate.

Policy 1.1.4. Provide property information to the public in an intuitive and easy-to-use manner.

Policy 1.1.5. Consult and coordinate with developers before submitting applications as required or recommended by the County Development Code to identify and discuss project requirements and impacts.

Policy 1.1.6. Invest in and support land use educational resources for community members including information related to rural living, agricultural practices, natural resources, and natural hazards.

Policy 1.1.7. Promote opportunities for community members to have civil dialogue around key community issues.

Policy 1.1.8. Explore new and innovative ways to reach community members and promote participation in the planning process.

Goal 1.2: Support the activities of the Committee for Community Involvement

Policy 1.2.1. Maintain adequate funding and staffing support for the Committee.

Policy 1.2.2. Provide regular updates, speakers, panel discussions, and handouts on land use law and policy.

Policy 1.2.3. Appoint members through an open and public process to reflect the diverse geographic regions, demographics, and values of Deschutes County residents.

Policy 1.2.4. Meet with the Board of County Commissioners at least once a year to coordinate planning policies and activities.

Policy 1.2.5. Complete periodic reports on community involvement implementation for the State Citizen Involvement Advisory Committee, the Board of County Commissioners, and the public.

Policy 1.2.6. Maintain open and civil discourse among Committee members and with the public.



2

Land Use and Regional Coordination





Opportunities, Challenges, and Considerations

Deschutes County has been one of the most rapidly growing parts of Oregon for many years. This growth can cause tension and highlight trade-offs between community priorities, such as the need for housing, preservation of natural resources, adequate infrastructure, and intergovernmental collaboration. To manage this growth, the County partners with its cities, special districts, and state and federal agencies to ensure a collaborative approach to development activities. As the County continues to navigate emerging issues, intergovernmental agreements and new partnerships will be key.

One purpose of the Deschutes County Comprehensive Plan is to provide a blueprint for land use throughout the County. This is accomplished through goals and policies that tell a cohesive story of where and how development should occur and what places are expected to remain undeveloped. The Plan provides a legal framework for establishing more specific land use actions and regulations.

Deschutes County regulates and manages the use of land in the unincorporated parts of the County. This is accomplished by:

- Implementing state policy and laws and furthering local planning goals by maintaining, updating and applying County land use policies, standards and regulations in its zoning codes and this Comprehensive Plan.
- Reviewing development and land use proposals and helping applicants to navigate the application process.
- Coordinating with other local jurisdictions on issues of regional growth management, infrastructure, and public services.

- Coordinating land use and transportation planning efforts in rural areas including planning for farm and forest lands and natural resource management and protection.
- Administering land use regulations for unincorporated communities in the County.

The policies contained in this chapter, as well as all chapters in this Plan, establish the legislative policy basis for the County's land use planning program. The program is implemented primarily through application of the County's Zoning Code, regulatory maps, and development permitting application and approval procedures. In addition, these policies establish important criteria to be used when initiating regulatory changes or reviewing and developing code, map, and policy amendments.

Note: Official comprehensive plan and zoning maps, including overlay zone maps, are available through the Deschutes County Dial Property Information System.

Context

Comprehensive Plan Designations

Comprehensive Plan designations provide a high-level policy basis for more detailed zoning regulations – each Comprehensive Plan designation may be implemented by one or more specific zones.

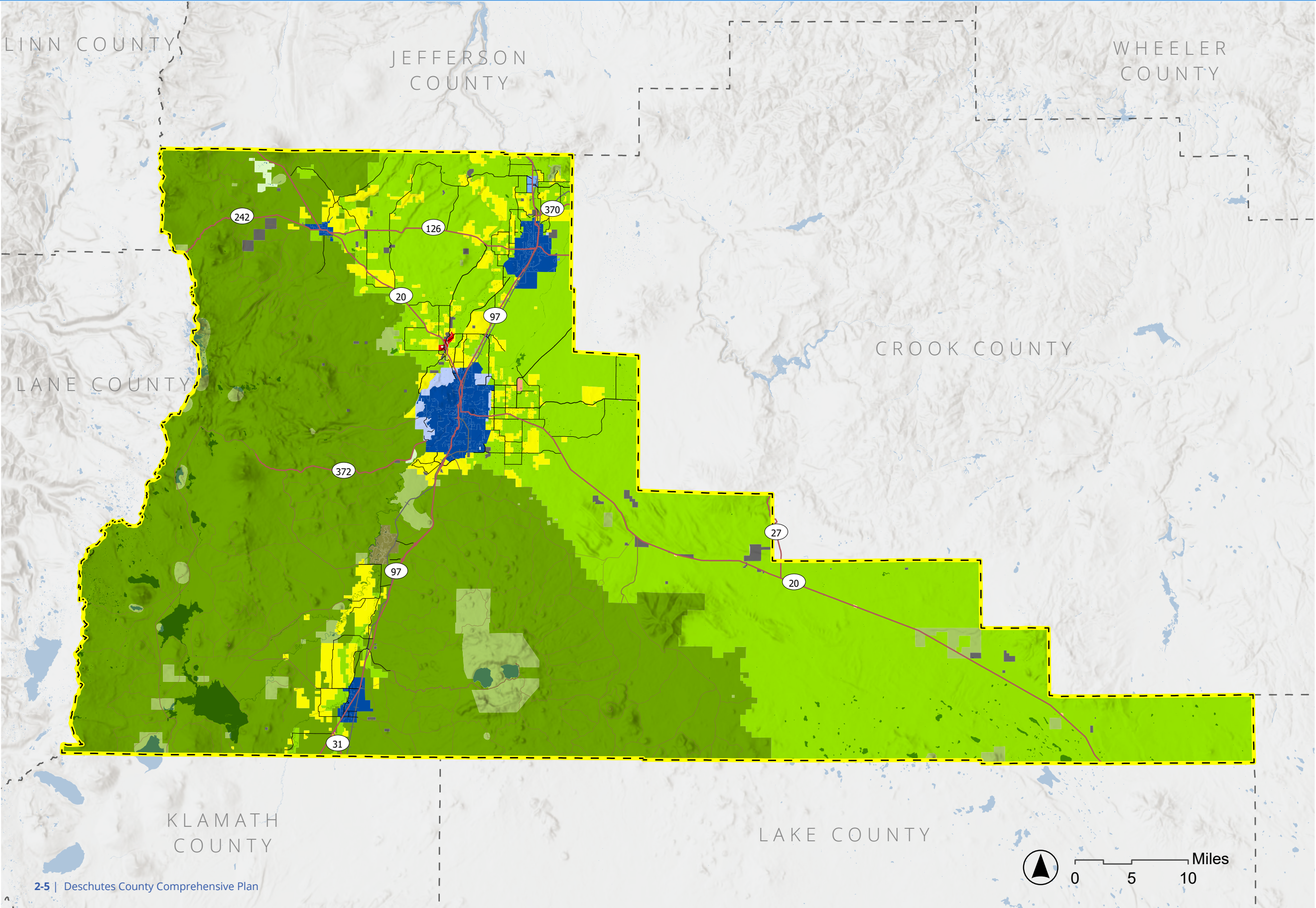
Comprehensive plan designations in Deschutes County are shown in Map 2-1 and described in the next table. Comprehensive Plan designations within the Bend, Redmond, Sisters, and La Pine Urban Growth Boundaries are excluded – local jurisdictions have responsibility for comprehensive planning within their Urban Growth Boundaries.

Zoning Designations

Zoning designations in Deschutes County are shown in the table below and Map 2-2. Zones within the Bend, Redmond, Sisters, and La Pine Urban Growth Boundaries are excluded - local jurisdictions have responsibility for zoning within Urban Growth Boundaries.

Land Use and Regional Coordination

Comprehensive Plan Designation	Purpose Statement	Associated Zoning Designation
County-wide Designations		
Agriculture	To preserve and maintain agricultural lands for farm use.	Exclusive Farm Use
Airport Development	To allow development compatible with airport use while mitigating impacts on surrounding lands.	Airport Development Airport Safety
Destination Resort Combining Zone	To show lands eligible for siting a destination resort.	Destination Resort
Forest	To conserve forest lands for multiple forest uses.	Forest Use 1 Forest Use 2
Open Space & Conservation	To protect natural and scenic open spaces, including areas with fragile, unusual or unique qualities.	Open Space & Conservation
Rural Residential Exception Area	To provide opportunities for rural residential living outside urban growth boundaries and unincorporated communities, consistent with efficient planning of public services.	Rural Residential Multiple Use Agricultural
Surface Mining	To protect surface mining resources from development impacts while protecting development from mining impacts.	Surface Mine
Area Specific Designations		
Resort Community	To define rural areas with existing resort development that are not classified as a destination resort, based on OAR 660-22 or its successor.	All Black Butte Ranch, Inn at 7th Mountain, Widge Creek subzones
Rural Community	To define rural areas with limited existing urban-style development, based on OAR 660-22 or its successor.	All Tumalo and Terrebonne subzones
Rural Service Center	To define rural areas with minimal commercial development as well as some residential uses, based on OAR 660-22 or its successor.	Rural Service Center
Urban Unincorporated Community	To define rural areas with existing urban development, based on OAR 660-22 or its successor.	All Sunriver subzones
Rural Commercial	To define existing areas of isolated rural commercial development that do not fit under OAR 660-22.	Rural Commercial
Rural Industrial	To define existing areas of isolated rural industrial development that do not fit under OAR 660-22.	Rural Industrial
Urban Growth Boundaries	To define land that provides for urban development needs and identifies and separates urban and urbanizable land from rural land.	Redmond: Urban Holding Sisters: Urban Area Reserve Bend: Urbanizable Area
Bend Urban Area Reserve	To define lands outside of Bend's Urban Growth Boundary that were under the jurisdiction of the Bend Area General Plan. These areas were removed in September 2016 through the 2016 amendment to the Bend Urban Growth Boundary. These areas are now under the jurisdiction of the County's Comprehensive Plan.	Urban Area Reserve Westside Transect Suburban Low-Density Residential Surface Mine Urban Standard Residential Light Industrial Flood Plain
Redmond Urban Area Reserve	To define Redmond's additional 30-year growth boundary for lands expected to be brought into the Urban Growth Boundary.	Redmond Urban Reserve Area



A PLAN FOR THE FUTURE

- Water Bodies
- County Boundary

Transportation

- State Routes
- Railroad
- County Lines
- Arterial
- Collector
- Forest Highway

Comprehensive Plan Designation

- Airport
- Agriculture
- Forest
- Flood Plain
- Open Space & Conservation
- Rural Commercial
- Resort
- Rural Industrial
- Rural Residential Exception Area
- Surface Mining
- Terrabone Districts
- Tumalo Districts
- Unincorporated Community
- Mixed Use / Commercial
- Mixed Use / Commercial Future Expansion Area

Other

- Urban Growth Boundary
- Urban Reserve
- Urban Unincorporated Community

OVERLAY ZONES

Deschutes County has the following overlay zones, which apply in addition to the base zone of a given property.

- **Airport Safety:** The purpose of the AS Zone is to restrict incompatible land uses and airspace obstructions around airports in an effort to maintain an airport's maximum benefit.
- **Destination Resort:** The purpose of the Destination Resort Combining Zone is to identify lands eligible for siting a Destination Resort and establish procedures and standards for establishing this type of development.
- **Landscape Management:** The purposes of the Landscape Management Combining Zone are to maintain scenic and natural resources of the designated areas and to maintain and enhance scenic vistas and natural landscapes as seen from designated roads, rivers, or streams.
- **Greater Sage-Grouse Combining Zone.** The purpose of the Greater Sage-Grouse Combining Zone is to fulfill obligations of OAR 660-23-0115. This state rule requires seven Oregon counties to mitigate impacts of large-scale development on sage-grouse habitat.
- **Sensitive Bird and Mammal Habitat:** The purpose of the Sensitive Bird and Mammal Combining Zone is to insure that sensitive habitat areas identified in the County's Goal 5 sensitive bird and mammal inventory as critical for the survival of the northern bald eagle, great blue heron, golden eagle, prairie falcon, osprey, great grey owl, and the Townsend's big-eared bat are protected from the effects of conflicting uses or activities which are not subject to the Forest Practices Act.
- **Surface Mining Impact Area:** The purpose of the SMIA zone is to protect the surface mining resources of Deschutes County from new development which conflicts with

Land Use Planning in Oregon

The foundation of statewide program for land use planning in Oregon is a set of 19 Statewide Land Use Planning Goals. The goals express the state's policies on land use and related topics, like citizen involvement, housing, and natural resources.

Oregon's statewide goals are achieved through local comprehensive planning. State law requires each city and county to adopt a comprehensive plan and the zoning and land-division ordinances needed to put the plan into effect.

Local comprehensive plans must be consistent with the Statewide Planning Goals. Plans are reviewed for such consistency by the state's Land Conservation and Development Commission (LCDC). When LCDC officially approves a local government's plan, the plan is said to be acknowledged. It then becomes the controlling document for land use in the area covered by that plan.

The goals relevant to Deschutes County are:

- **Goal 1 Citizen Involvement**
- **Goal 2 Land Use Planning**
- **Goal 3 Agricultural Lands**
- **Goal 4 Forest Lands**
- **Goal 5 Natural Resources, Scenic and Historic Areas, and Open Spaces**
- **Goal 6 Air, Water and Land Resources Quality**
- **Goal 7 Areas Subject to Natural Hazards**
- **Goal 8 Recreational Needs**
- **Goal 9 Economic Development**
- **Goal 10 Housing**
- **Goal 11 Public Facilities and Services**
- **Goal 12 Transportation**
- **Goal 13 Energy Conservation**
- **Goal 14 Urbanization**

the removal and processing of a mineral and aggregate resource while allowing owners of property near a surface mining site reasonable use of their property.

- **Wildlife Area:** The purpose of the Wildlife Area Combining Zone is to conserve important wildlife areas in Deschutes County; to protect an important environmental, social and economic element of the area; and to permit development compatible with the protection of the wildlife resource.

CITY COORDINATION

Deschutes County includes the following jurisdictions, each with their own authority and needs. The role of the County is largely one of coordination across these multiple communities.

Deschutes County contains four incorporated cities. The County, per statute, is responsible for coordinating with cities on growth related issues including urban growth boundary and urban reserve planning. The County maintains intergovernmental agreements with each city to define land use authority for lands outside of city limits and within urban growth boundaries.

Land Use and Regional Coordination

City of Bend

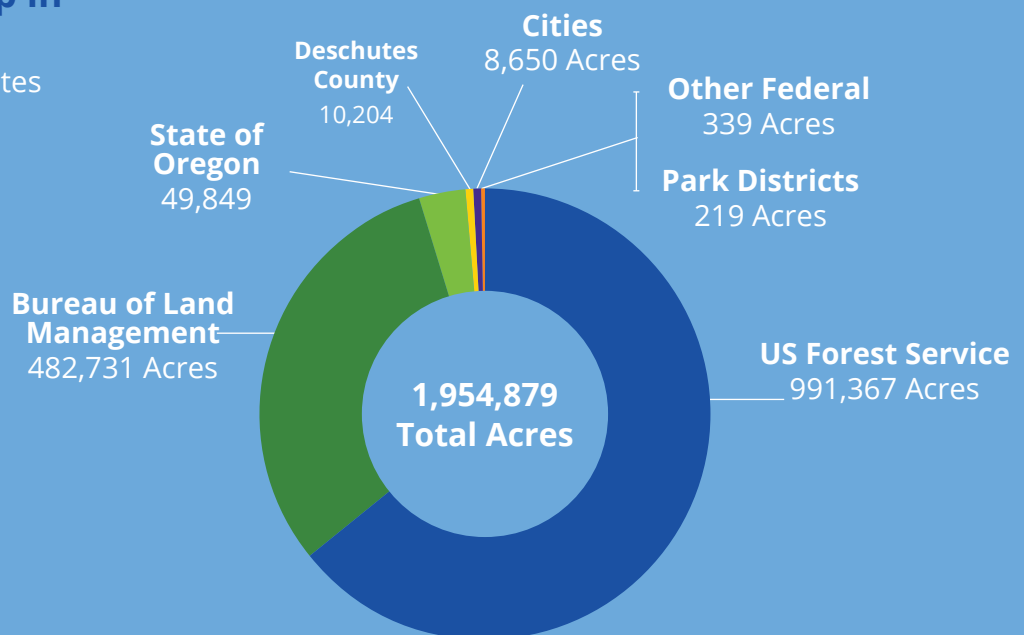
Bend is the largest incorporated area in Deschutes County. It is centrally located in the county, with Highways 20 and 97 crossing paths through the center of the city. Bend has experienced rapid growth in the last few years, accelerated by the COVID-19 pandemic and “Zoom Town” remote working trends. The 2022 estimated population of the Bend UGB is 103,976. The Bend UGB accounts for most of the population share among all UGBs in Deschutes County with a population of 225,619 (57.4% of the population) by 2072.

City of La Pine

The City of La Pine is located close to the southern edge of the county along Hwy. 97. The current (2022) estimated population of the La Pine UGB is 2,736. The population of the La Pine UGB is projected to increase by 87% to 5,129 in 2047. By 2072, the population is projected to be 8,336.

Public Land Ownership in Deschutes County

Approximately **79%** of Deschutes County is public land.



City of Redmond

Redmond is located northeast of Bend with Hwy. 97 running through the center of town. The current (2022) estimated population of the Redmond UGB is 37,342. The population of the Redmond UGB is projected to increase by 121% to 82,601 in the next 50 years. By 2047 it is estimated that the population of the Redmond UGB will increase to 60,060.

City of Sisters

Sisters is located on the eastern edge of the Willamette National Forest and Cascade Mountains. The current (2022) estimated population of the Sisters UGB is 3,437. The Sisters UGB is projected to increase by 130%, to 7,911 in 2047, and to 14,881 by 2072.

TRIBAL COORDINATION

In the Treaty of 1855 (12 Stat. 963), the Confederated Tribes of Warm Springs ceded approximately 10.2 million acres to the United States Government and reserved the Warm Springs Reservation for its exclusive use. The Treaty further reserved to the Tribes rights to take fish at all usual and accustomed stations, and to hunt, gather roots and berries, and pasture livestock on unclaimed lands. The map on page 2-9 identifies the location of these ceded areas in Deschutes County, which primarily intersect with publicly owned lands. Coordination with the Confederated Tribes of Warm Springs on growth and development related issues is important to ensure consistency with these treaty rights.

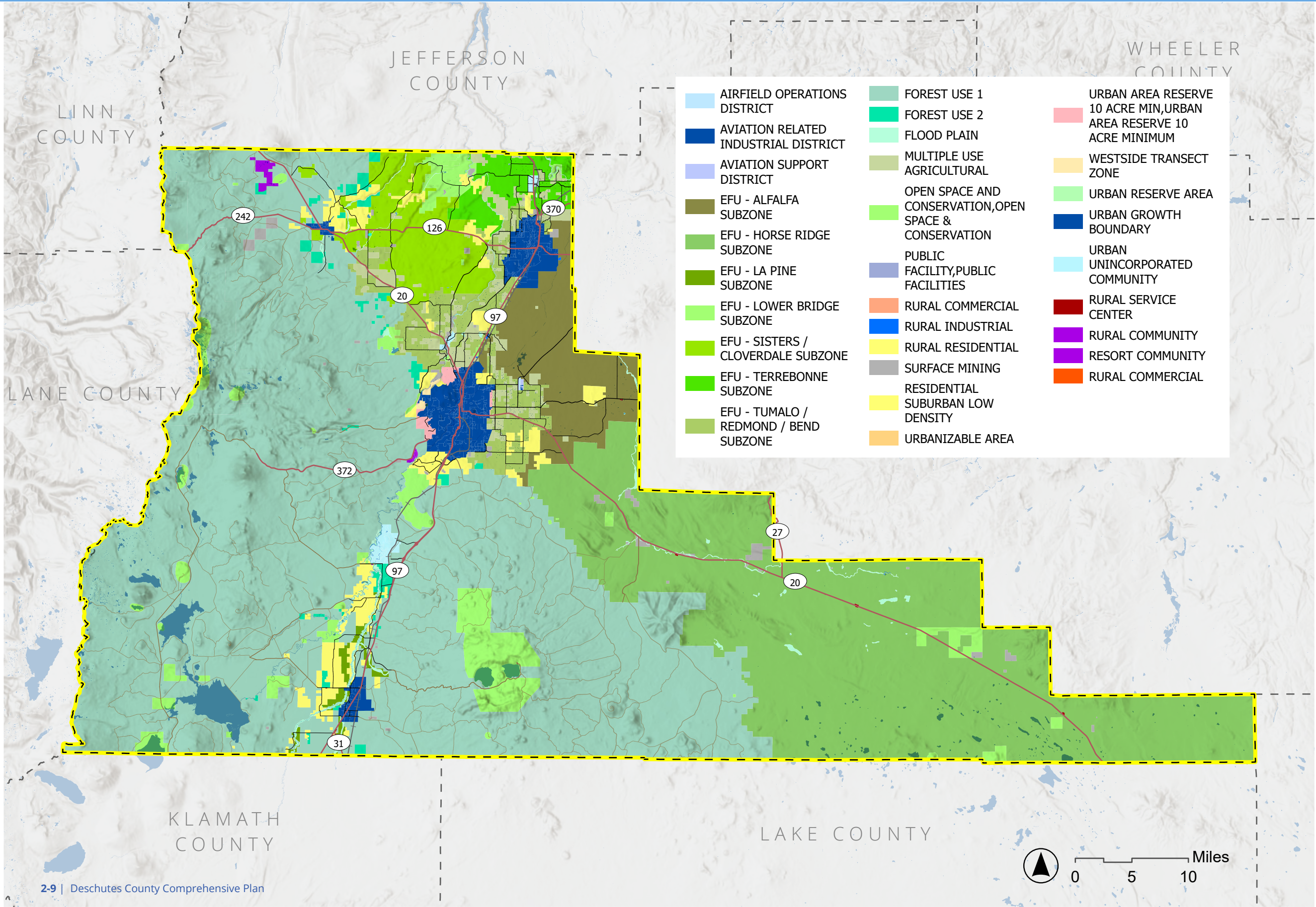
Key Community Considerations

The rapid pace of growth in Deschutes County and its impacts on urban, rural, natural, and recreational areas has been one of the most significant – and at times the most controversial – topics of discussion among project participants. Some topics and comments include:

- Strong desire by some for greater densities in urban areas, in order to accommodate growth while preserving open space and resource land in rural areas.
- A similarly strong feeling by some that the cities in Deschutes County are becoming too urban already.
- Concern about the amount and distribution of benefits and burdens created by destination resorts and tourism-related activities in rural areas.
- Strong desire for interagency collaboration to manage growth in a coordinated manner.

With these ongoing conversations in mind, Deschutes County drafted and refined the following goals and policies to guide the growth of our community for the next 20 years.



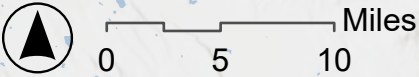


A PLAN FOR THE FUTURE

- Water Bodies (Blue box)
- County Boundary (Yellow dashed box)

Transportation

- State Routes (Red line)
- Railroad (Black line with cross-ticks)
- County Lines (Black dashed line)



Goals and Policies

Goal 2.1: Maintain an open and public land use process in which decisions are based on substantial evidence and a balancing of community needs.

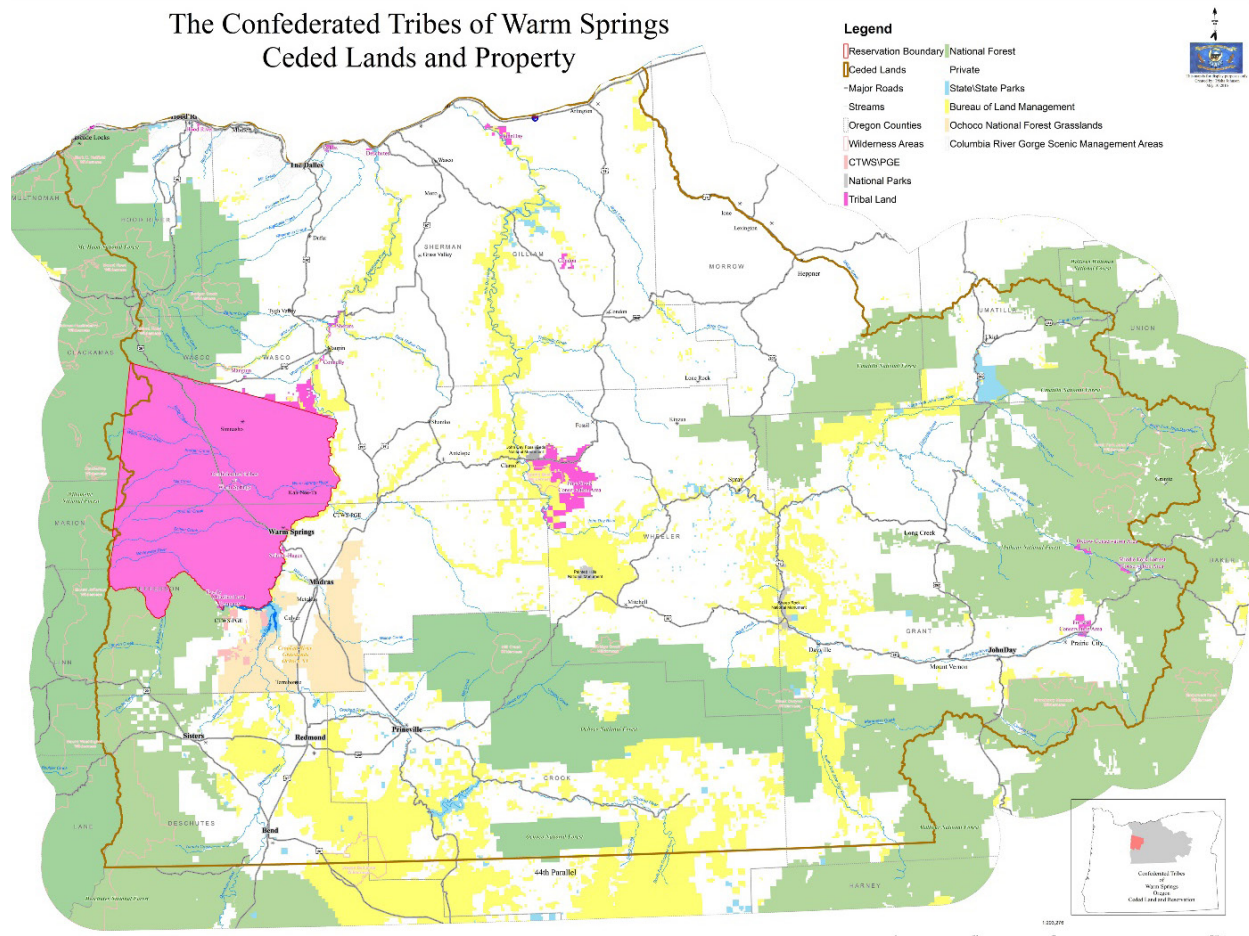
Policy 2.1.1. Balance the consideration of private property rights and the economic impacts of land use decisions on property owners with incentives to preserve agricultural and forest land, wildlife habitat, ground and surface water resources, wetlands, riparian areas, open areas and other community goals identified in the Comprehensive Plan.

Policy 2.1.2. Review the Comprehensive Plan periodically in order to address current conditions, issues, and opportunities.

Policy 2.1.3. The Deschutes County Comprehensive Plan Map will be retained in official replica form as an electronic map layer within the County Geographic Information System and is adopted as part of this Plan.

Policy 2.1.4. Implement Comprehensive Plan policies through the Community Development Department's annual work plan and other actions by the Department and the Board of County Commissioners.

Policy 2.1.5. Explore methods to integrate carrying capacity into County land use decision making.



Goal 2.2: Coordinate and support regional planning efforts relating to growth, natural resources, recreation, and major infrastructure investments.

Policy 2.2.1. Periodically review and update intergovernmental and urban management agreements to coordinate land use review on land inside urban growth boundaries and outside city limits.

Policy 2.2.2. Help coordinate regional planning efforts with other agencies on land use policies and actions that impact their jurisdictions.

Policy 2.2.3. Support the use of high value natural resource and recreational lands for public purposes, whether through acquisition, easements, or other means.

Policy 2.2.4. Support the implementation of long-range plans of Deschutes County jurisdictions, incorporating elements of those plans into the County's Comprehensive Plan as appropriate.

Policy 2.2.5. Encourage cities to conduct, in collaboration with Deschutes County, urban reserve planning to facilitate orderly and thoughtful management of growth and infrastructure needs.

Policy 2.2.6. Collaborate with federal agencies on land management issues, including homelessness, community wildfire protection, wildlife habitat restoration, water quality, road networks, energy projects, the impacts of recreation and the expansion of sustainable recreation opportunities.

Policy 2.2.7. Support efforts to reduce barriers to regional infrastructure projects with community benefit while mitigating negative impacts.

Policy 2.2.8. Support updates to unincorporated community area plans.

Policy 2.2.9. The Central Oregon Regional Large Lot Industrial Land Need Analysis ("Analysis"), adopted by Ordinance 2013-002 is incorporated by reference herein.

Policy 2.2.10. In accordance with OAR 660-024-004 and 0045, Deschutes County, fulfilling coordination duties specified in ORS 195.025, shall approve and update its comprehensive plan when participating cities within their jurisdiction legislatively or through a quasi-judicial process designate regionally significant sites.



Policy 2.2.11. The County and City shall periodically review the agreement associated with the Redmond Urban Reserve Area (RURA). The following land use policies guide zoning in the RURA.

- a. Plan and zone RURA lands for rural uses, in a manner that ensures the orderly, economic and efficient provision of urban services as these lands are brought into the urban growth boundary.
- b. Parcels shall be a minimum of ten acres.
- c. Until lands in the RURA are brought into the urban growth boundary, zone changes or plan amendments shall not allow more intensive uses or uses that generate more traffic, than were allowed prior to the establishment of the RURA.
- d. For Exclusive Farm Use zones, partitions shall be allowed based on state law and the County Zoning Ordinance.
- e. New arterial and collector rights-of-way in the RURA shall meet the right-of-way standards of Deschutes County or the City of Redmond, whichever is greater, but be physically constructed to Deschutes County standards.
- f. Existing and future arterial and collector rights-of-way, as designated on the County's Transportation System Plan, shall be protected from development.
- g. A single-family dwelling on a legal parcel is permitted if that use was permitted before the RURA designation. Additionally, the County will coordinate planning efforts and development goals with the City of Redmond prior to bringing County-owned property into Redmond's urban growth boundary.

Goal 2.3: Manage county-owned lands to balance the needs of the community as articulated in the goals and policies of this Plan and other supporting planning documents.

Policy 2.3.1. Manage lands with a park designation consistent with the goals and policies in Chapter 5 Natural Resources.

Policy 2.3.2. Support the efforts of park districts, state and/or federal agencies to identify additional properties along rivers, streams, or creeks, or containing significant wildlife, scenic resources, or open space resources to designate as park land.

Goal 2.4: Minimize onerous barriers to land use application and development review processes.

Policy 2.4.1. Explore opportunities to build or obtain specialty planning knowledge and experience among staff within CDD in related fields such as wildlife, natural resources, and/or agricultural practices.

Policy 2.4.2. Explore measures to reduce development costs for projects related to agriculture and addressing houselessness, including fee reductions and expedited land use applications.

3

Farm and Forest Resources



Photo Credit: Amanda Photographic



Photo Credit: Amanda Photographic

Opportunities, Challenges, and Considerations

Farm and forestry resources and operations continue to play an important role in the character and economy of Deschutes County. However, a variety of ongoing and forecasted trends will impact the viability and vitality of these industries and the people who contribute to them. A number of these trends and challenges are described below and more information about some issues is found in the Water Resources section of this Plan (see Chapter 5: Natural Resources).

PREVALENCE OF SMALL FARMING OPERATIONS AND HOBBY FARMS

The 2022 Census of Agriculture profiles Deschutes County as primarily consisting of small acreage, hobby farms and other relatively small agricultural operations. As of 2022 there were approximately 1,572 farms, an increase of 5% from 2017. Although the average size of a farm in Deschutes County is 97 acres, the majority of acreage (about 85%) is in farms of 50 acres or less in size.

MARGINAL OR LOW PRODUCTIVITY SOILS

Approximately 698,652 acres of Deschutes County are zoned for farm use. Of this, 250,576 acres are in non-federal ownership. Much of the land in these areas has marginal soils which provide limited productivity, particularly for higher value crops. Limited access to water rights and irrigation can further hamper productivity in some areas. Deschutes County attempted to reclassify certain agricultural lands through a nonresource lands program. This approach was rejected at the state level. Since that time, landowners have sought applicant-initiated plan amendments to redesignate property, primarily to residential zones. An estimated 1,500 acres of farm land have been rezoned since 2013, with 1,500 acres currently in review or under appeal.

FINANCIAL CHALLENGES

According to the 2022 Agricultural Census, agricultural producers in Deschutes County are often operating in the red. The per-farm average of market value of products sold was \$25,437, a 23% increase from 2017, and average production expenses of \$39,918. This results in a deficit of approximately \$14,481 per farm per year. Government payments help cover a portion of this deficit, with the average farm receiving \$17,959 in assistance. The costs of operating continue to be a major challenge for small family operations, resulting in approximately 48% of farms in Deschutes County reporting under \$2,500 in sales.

DECLINING FOREST PRODUCTS INDUSTRY

Approximately 1,032,436 acres of Deschutes County are zoned for Forest Use. Historically, forestry on public and private land was a primary industry in Central Oregon with key mill sites along the Deschutes River in Bend. Over time, species protections, international competition, unsustainable harvest levels, and new technologies have reduced the overall footprint of the timber industry in Central Oregon. Recently, land uses are shifting toward recreation and residential development in these natural resource areas.



Photo Credit: Amanda Photographic

WATER SUPPLY AND IRRIGATION

Much of Deschutes County is served by six irrigation districts (Map 3-1) – these are special entities created for the purpose of delivering water to their patrons. These districts are quasi-municipal corporations chartered under Oregon law that operate as political subdivisions of the State of Oregon. In addition to irrigation, these districts also supply other services including municipal, industrial, and pond maintenance. In most cases, these districts are holders of senior water rights with shares then distributed to their patrons. As is the case with all water rights, the irrigation districts’ water rights are managed by the Oregon Water Resources Department and subject to “beneficial use” requirements to prevent the waste of the water resource. The total water available for irrigation and other human uses in Deschutes County is fixed under the current water regime, and there is little opportunity to expand irrigated farming in the County. Irrigation districts with more junior water rights such as Arnold Irrigation District and North Unit Irrigation District (operating north of Deschutes County), have recently seen challenges with water delivery due to limited availability and drought.

CHANGES IN CLIMATE CONDITIONS

Because the total volume of water available for agricultural and human use is fixed, strategies to decrease water usage (capping or piping irrigation channels, irrigation timing strategies,

water conservation) will become more crucial. Deschutes County is committed to working with irrigation districts and holders of water rights to increase water conservation efforts throughout the County in a manner consistent with existing legal frameworks established by State and Federal law.

Context

Agriculture

Agriculture and ranching operations in Deschutes County vary widely based on water availability, soil, and microclimate. Subzones were created through a commercial farm study conducted in 1992. This study concluded that irrigation is a key factor to viability of operations, which enabled the County to establish smaller acreages than allowed by state law to provide additional flexibility.

Additional information about farm and forest resources is provided in the tables and charts below.

Forest Lands

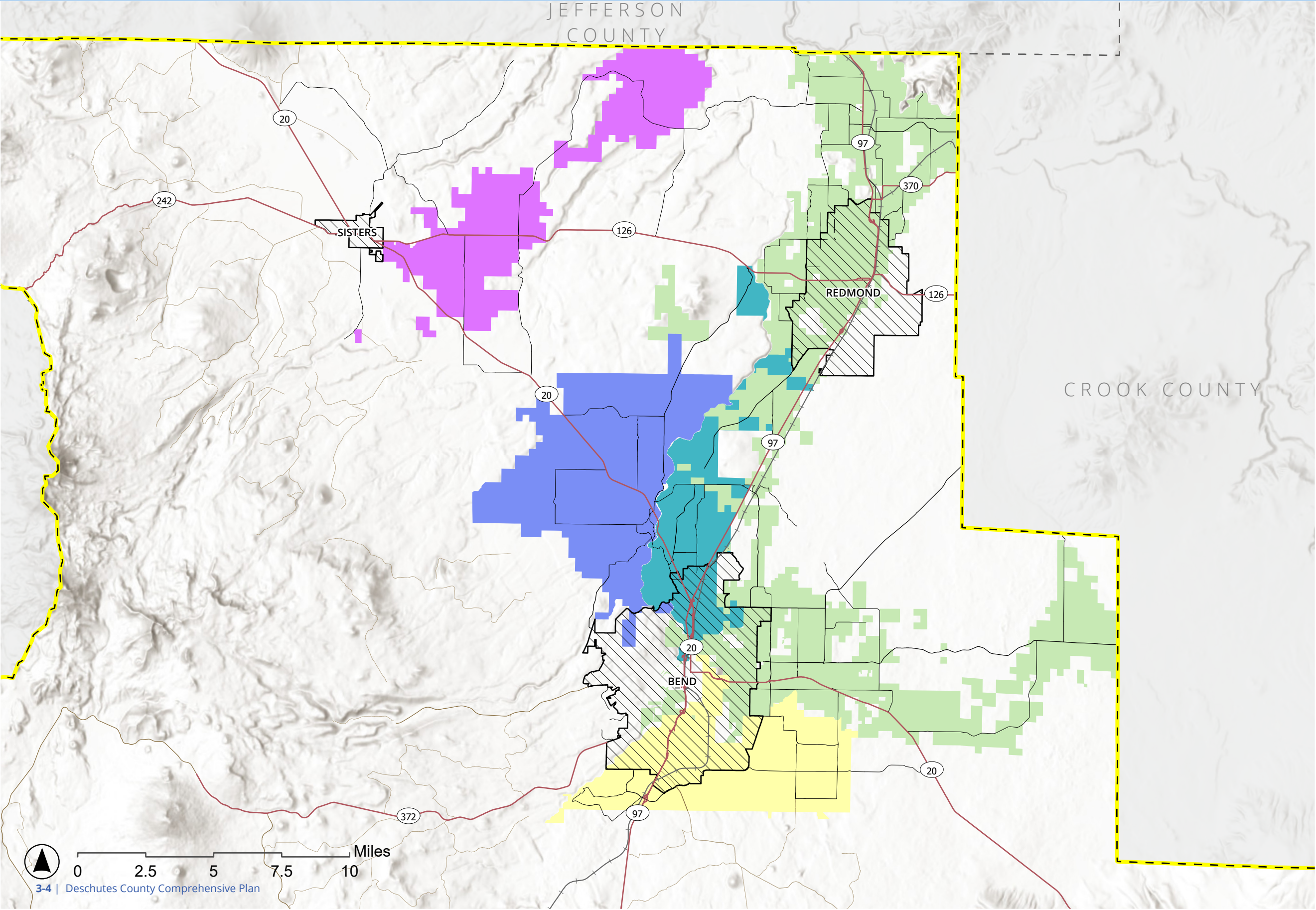
Deschutes County classifies forest land in one of two zones. Forest 1 zoning is intended for land that is primarily used for forest management or commercial forestry, with a lot size over 160 acres, and not developed with residential or non-forest uses. Forest 2 zoning is intended for land that does have residential or non-forest uses, is less than 160 acres, and may contain roads or other public facilities that serve the property.

State regulations limit residential and non-forestry related development on forest lands and the County sees only a few applications for

Days Above 90 Degrees in Brothers



Note: Historic data for days above 90° is not available.



A PLAN FOR THE FUTURE

Irrigation Districts

- Three Sisters Irrigation District (est. 1891)
- Swalley Irrigation Dist (DRIC) (est. 1899)
- Arnold Irrigation District (est. 1905)
- Central Oregon Irrigation District (est. 1918)
- Tumalo Irrigation District (est. 1922)

Transportation

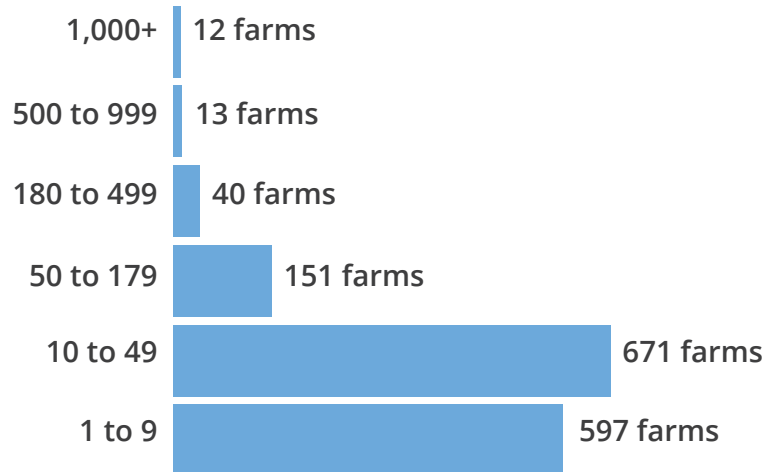
- Arterial
- Collector
- Forest Highway
- State Routes
- Railroad
- Urban Growth Boundaries
- County Boundary

This map is for information purposes only. The County's official zoning and comprehensive plan maps can be accessed through the Deschutes County Dial Property Information System. Please note that these maps do not represent all of the County's combining and overlay zones.

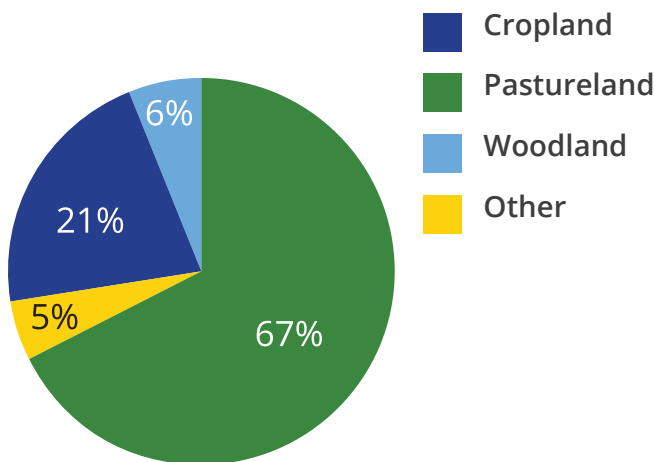
development in these areas each year. Even with this limitation on development, forest managers and service providers continue to express concern with wildfire risk associated with residential development in heavily wooded areas.

Most lands in either of these classifications within Deschutes County are federally owned and managed by the US Forest Service (USFS). Historically, forest lands were used for timber production. As timber harvesting decreases, other uses for forest lands are emerging. State regulations permit five general types of uses, including forest operations; environmental, agricultural or recreational uses; two types of

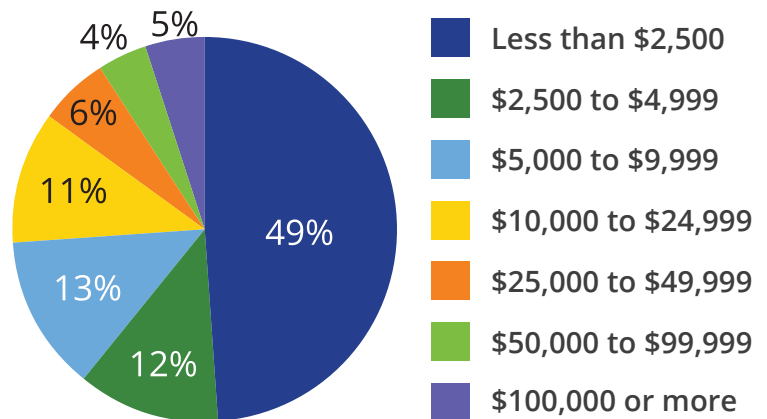
Farms By Size (acres)



Land in Farms by Use



Farms By Value of Sales



Subzone Name	Minimum Parcel Size <i>(for farm divisions and farm-related dwellings)</i>	Profile
Lower Bridge	130	Irrigated field crops, hay pastures
Sisters/Cloverdale	63	Irrigated alfalfa, hay and pastures, wooded grazing and some field crops
Terrebonne	35	Irrigated hay and pasture
Tumalo/Redmond/Bend	23	Irrigated pasture and some hay
Alfalfa	36	Irrigated hay and pasture
La Pine	37	Riparian meadows, grazing and meadow hay
Horse Ridge East	320	Rangeland grazing

dwelling and locally dependent uses. Permitted uses are defined and clarified in OAR 660-006. The following uses are major forest uses in Deschutes County:

- **Secondary forest products (forest operations):** There is an increasing use of secondary forest products, such as hog fuel (chipped wood) or wood slash. This type of product is generally seen as providing dual benefit, by providing economic opportunity while also reducing wildfire risk through thinning projects.
- **Alternative Energy:** Biomass is an emerging technology for renewable energy and can also be integrated with these products. The first biomass facility in the County is currently under development through a partnership with Mt. Bachelor Ski Resort and the USFS.
- **Recreation (environmental, agricultural and recreation uses):** The proximity of federal forests for hiking, mountain biking, skiing, hunting, fishing, wildlife viewing and other outdoor recreation draws tourists and residents alike. An emerging challenge is the prevalence of houseless encampments on and adjacent to federal lands. These encampments can cause conflicts with other trail users and increase fire risk.

Key Community Considerations

Given the range of issues and conditions discussed above, this plan includes a variety of policies to support farm and forest operations in Deschutes County. Additional related policies also are found in Chapter 2: Land Use and Regional Coordination, Chapter 7: Natural Hazards, and Chapter 9: Economic Development. These strategies are underpinned by the following results of Comprehensive Plan outreach efforts.

- There is strong support for conducting educational outreach to encourage water conservation and on-farm efficiency measures.
- Community members opposed rezoning low productivity farmland with poor soil to allow greater opportunities for housing, while supporting rezoning of this land to preserve open space.
- Community members also strongly support allowing greater flexibility for income-producing supplemental activities on farms such as farm-to-table dinner, farm stands, weddings, or similar events.
- Participants expressed support for investment in the agricultural economy through grants or exploring a farmland conservation program.



Photo Credit: Amanda Photographic

Goals and Policies

Goal 3.1: Preserve and maintain agricultural lands, operations, and uses to support Deschutes County's agricultural economy

Policy 3.1.1. Retain agricultural lands through Exclusive Farm Use zoning.

Policy 3.1.2. Continue to apply Exclusive Farm Use sub-zones consistent with the County's most up-to-date adopted studies of agricultural land and as implemented through the County Development Code.

Policy 3.1.3. Develop comprehensive plan policy criteria and code to clarify when and how EFU parcels can be converted to other designations.

Policy 3.1.4. Regularly review farm regulations to ensure compliance with changes to State Statute, Oregon Administrative Rules and case law.

Goal 3.2: Promote a diverse, sustainable, and thriving agricultural sector.

Policy 3.2.1. Encourage farming by promoting the raising and selling of crops, livestock and/or poultry.

Policy 3.2.2. Support agriculture through the use of grant funds, research, and other resources dedicated to community members and stakeholders, including but not limited to farmers, researchers, farm bureaus, and other organizations in studying and promoting economically viable agricultural opportunities and practices.

Policy 3.2.3. Support and encourage small farming enterprises through a variety of related strategies and programs, including, but not limited to, niche markets, organic farming, food council, buy local, farmers markets, farm-to-table activities, farm stands or value-added products, or other programs or strategies.

Policy 3.2.4. Work cooperatively with irrigation districts, public agencies and representatives, and landowners to promote and support agricultural uses and operations, including through use of rural reserves, conservation easements, transfer of development rights programs, land acquisition, and other preservation strategies consistent with existing federal and state law.

Policy 3.2.5. Support efforts to control noxious weeds and invasive species.

Policy 3.2.6. Continue to review and revise county code as needed to be and consistent with state code, rules, and regulations to permit alternative and supplemental farm activities that are compatible with farming, such as agritourism or other small-scale sustainable activities.

Policy 3.2.7. Work with the State to review and revise their regulations when a desired alternative or supplemental use identified by the County is not permitted by State regulations.



Policy 3.2.8. Use land use policy and development code requirements, including right-to-farm provisions, as well as coordination with other jurisdictions to minimize conflicts between residential uses and agricultural uses and continue to promote the viable operation of agricultural uses.

Policy 3.2.9. Provide resources such as technical assistance and access to grants to support on-site efficiency upgrades relating to agriculture.

Policy 3.2.10. Explore program to utilize compost from Solid Waste Department on farm lands to improve soils, productivity, water efficiency, and facilitate disposal of yard debris and compostable materials.

Goal 3.3: Ensure Exclusive Farm Use policies, classifications, and codes are consistent with local and emerging agricultural conditions and markets.

Policy 3.3.1. Identify and retain accurately designated agricultural lands.

Policy 3.3.2. Continue to explore new methods of identifying and classifying agricultural lands.

- a. Apply for grants to review and, if needed, update farmland designations.
- b. Study County agricultural designations considering elements such as water availability, farm viability and economics, climatic conditions, land use patterns, accepted farm practices, and impacts on public services.
- c. Lobby for changes to state statute regarding agricultural definitions specific to Deschutes County that would allow some reclassification of agricultural lands.

Policy 3.3.3. Address land use challenges in the Horse Ridge subzone, specifically:

- a. The large number of platted lots not meeting the minimum acreage;
- b. The need for non-farm dwellings and location requirements for farm dwellings;
- c. Concerns over the impact on private property from off-road vehicles, facilities, and trails located on adjacent public lands.

Policy 3.3.4. Work with the state to review and revise accessory farm dwelling requirements to address the needs of local farmers, including removal of parcel size restrictions.

Policy 3.3.5. Encourage coordination between agricultural interests and fish and wildlife management organizations, including public agencies, non-governmental organizations and others.

Policy 3.3.6. Explore the evaluation and potential redesignation of lands with a farm designation and poor soils and low productivity for protected open space, development of needed housing, or other uses that support community goals as follows.

- a. Allow comprehensive plan and zoning map amendments, including for those that qualify as non-resource land, for individual EFU parcels as allowed by State Statute, Oregon Administrative Rules and this Comprehensive Plan.
- b. Explore creation of a new zoning classification intended to balance the value of high desert environments while allowing for limited housing opportunities and applying this designation through coordination with interested and willing property owners.

Goal 3.4: Protect and maintain forest lands for multiple uses and objectives, including forest products, watershed protection, conservation, recreation, wildlife habitat protection, carbon sequestration, forest health, and wildfire resilience.

Policy 3.4.1. Retain forest lands through Forest 1 and Forest 2 zoning.

Policy 3.4.2. To conserve and maintain unimpacted forest lands, retain Forest 1 zoning for those lands with 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;
- c. Consist predominantly of ownerships contiguous to other lands utilized for commercial forest or commercial farm uses;
- d. Are accessed by roads intended primarily for forest management; and
- e. Are primarily under forest management.

Policy 3.4.3. To conserve and maintain impacted forest lands, retain Forest 2 zoning for those lands with the following characteristics:

- a. Consist predominantly of ownerships developed for residential or non-forest uses;
- b. Consist predominantly of ownerships less than 160 acres;
- c. Consist of ownerships generally contiguous to tracts containing less than 160 acres and residences, or adjacent to acknowledged exception areas; and

- d. Provide a level of public facilities and services, including roads, intended primarily for direct services to rural residences.”

Policy 3.4.4. Notwithstanding any other quasi-judicial plan or zone change criteria, lands designated as Forest under this Plan and zoned Forest 2 may upon application be redesignated and rezoned from Forest 2 to Exclusive Farm Use if such lands:

- a. Do not qualify under State Statute 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 Statute and the terms of the Forest 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.

Policy 3.4.5. Ensure that criteria for and designation of Forest Lands are consistent with state administrative rules and statutes.

Policy 3.4.6. Coordinate and cooperate with the U.S. Forest Service (USFS), the Bureau of Land Management (BLM), and other public agencies to promote sustainable forest uses, including community wildfire

protection projects, recreation facilities, habitat enhancements, and biomass facilities, on public forest land, including currently adopted Forest and Land Management Plans prepared by the USFS and BLM.

- a. Using the Deschutes National Forest Land and Resource Management Plan, or its successor, as the basis for mutual coordination and cooperation with the USFS;
- b. Using the Prineville BLM Upper Deschutes Resource Management Plan, or its successor, as the basis for mutual coordination and cooperation with the BLM.

Policy 3.4.7. Notify affected agencies and tribal governments when reviewing land use applications and proposals for development that could impact Federal or State forest lands.

Policy 3.4.8. Support economic development opportunities that promote forest health, create opportunities for local production of related forest products, and reduce the prevalence of invasive plant species that adversely affect forest health and soil quality.

Policy 3.4.9. Provide input on public forest plans that impact Deschutes County.

Policy 3.4.10. Coordinate with community stakeholders to support forest management plans and projects that are consistent with the policies of this chapter and with local community forest management and wildfire protection plans.

- a. Promote forest health and resilience to wildfire.
- b. Contribute to public safety by treating wildland hazardous fuels particularly in the designated Wildland Urban Interface as identified in the Community Wildfire Protection Plans described in Chapter 13, Natural Hazards, of this Plan.
- c. Retain and improve fish and wildlife habitat.

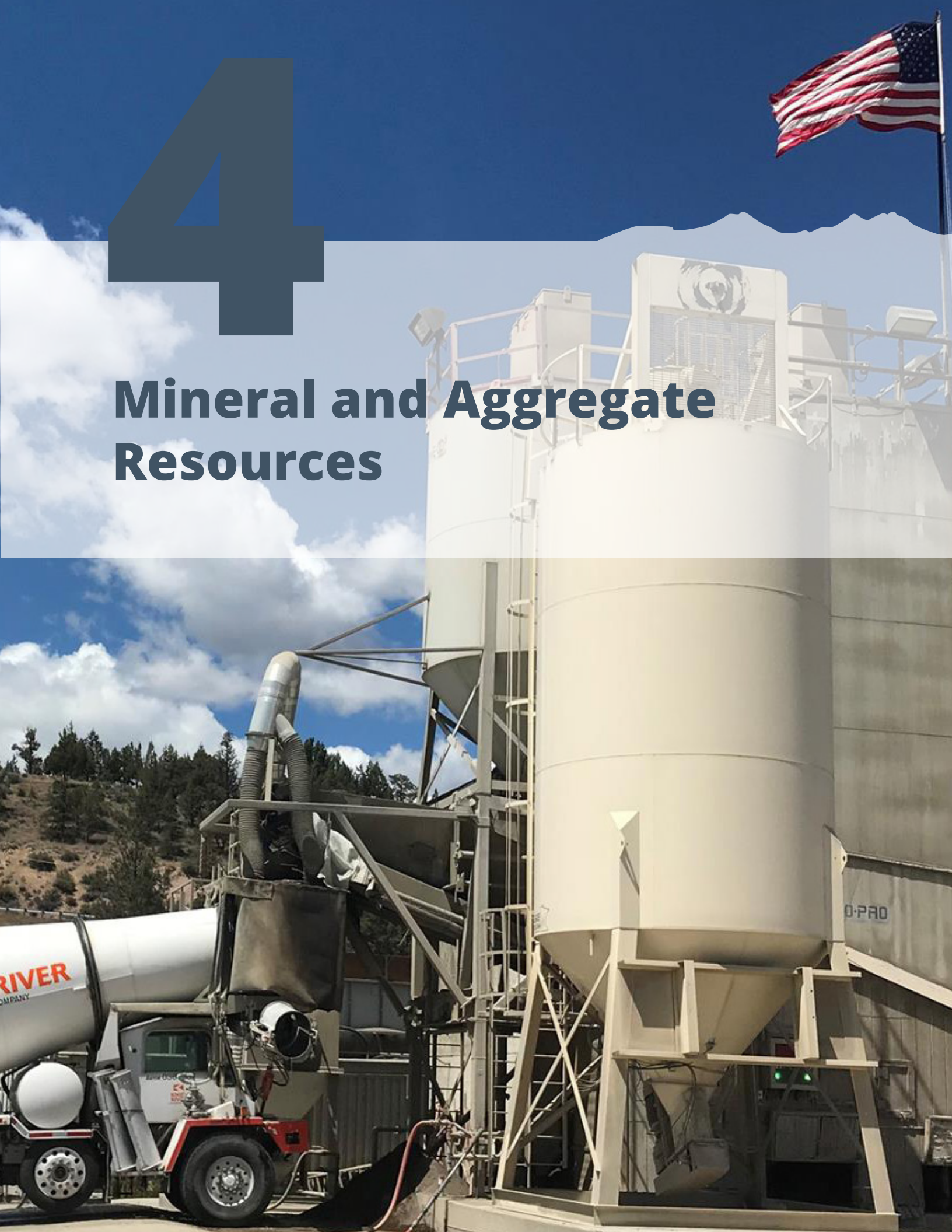
Policy 3.4.11. Continue to review and revise the County Code as needed to ensure development in forest zones minimizes and/or mitigates impacts on fish and wildlife habitat, forest health, and wildfire resiliency.



Photo Credit: Amanda Photographic

4

Mineral and Aggregate Resources





Opportunities, Challenges, and Considerations

Surface mining provides non-renewable resources, such as pumice, cinders, building stone, sand, gravel, and crushed rock. The extraction of these materials provides employment as well as products important to local economic development. However, mining of mineral and aggregate resources creates noise, dust and traffic and potential pollution that can conflict with neighboring land uses, particularly residential uses.

The Oregon Department of Geology and Mineral Industries (DOGAMI) regulates surface mining sites in Deschutes County. The last available published analysis of mineral resources in Deschutes County was completed by DOGAMI in 1976. No updates have been completed during that time due to limited staff. A continued challenge is monitoring the availability of these resources. However, it is likely that Deschutes County has enough mineral resources to meet demand for the next 20 years.

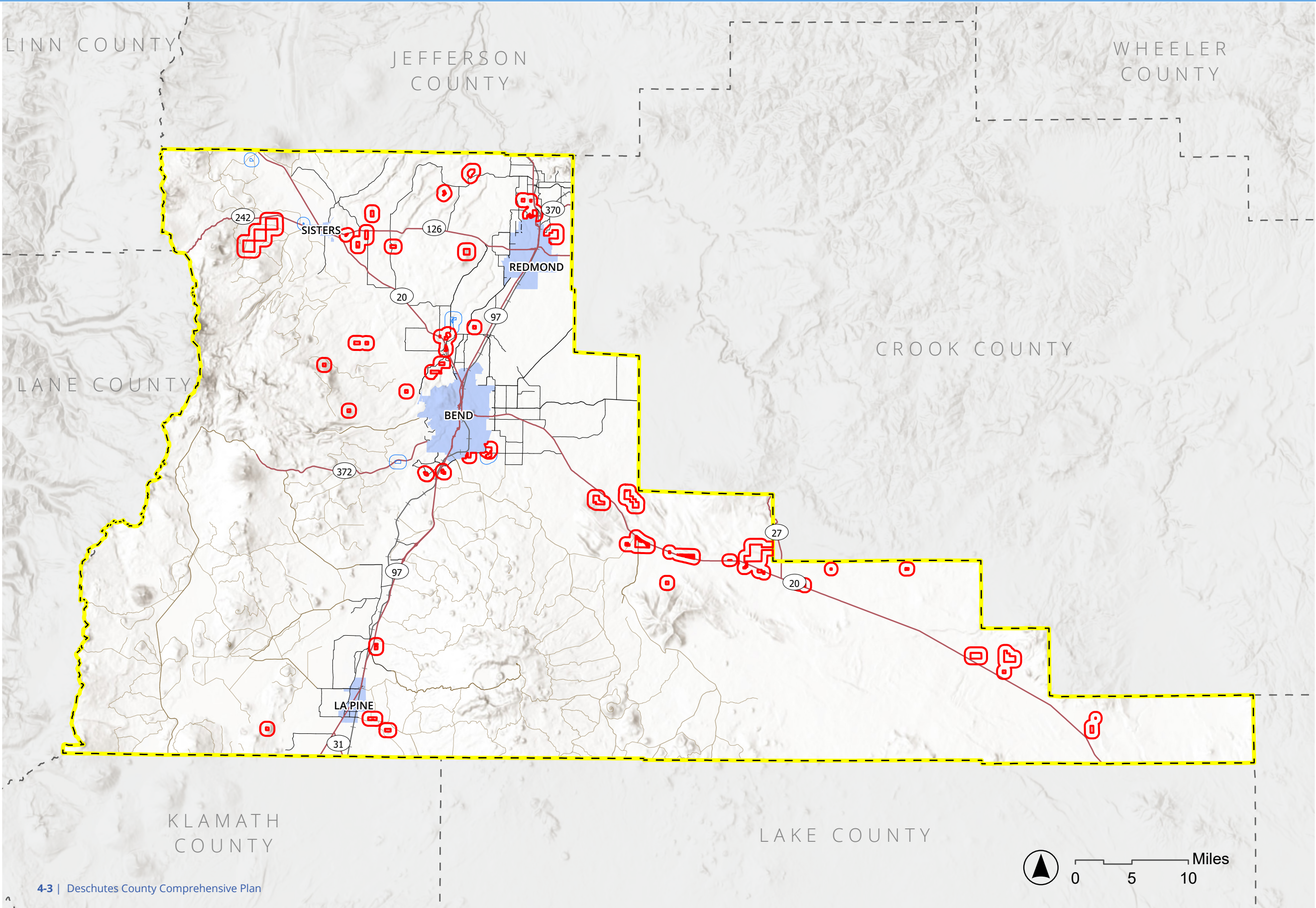
When a mineral resource is exhausted, the site is required to submit a reclamation plan to Deschutes County and DOGAMI. This plan identifies how the site will be closed for mineral operations, environmental impacts will be mitigated, and steps to be taking to return the site to a new use. As mineral and aggregate resources are exhausted, property owners often rezone the site from the “Surface Mine” designation to a new zone (often a residential zone), to allow for new development to occur. Coordination with DOGAMI and property owners is imperative to ensure this reclamation process occurs in an efficient and environmentally focused manner.

Context

Surface mining is protected through Statewide Planning Goal 5, Natural Resources, Scenic and Historic Areas and Open Spaces and the associated Oregon Administrative Rule (OAR) 660-023 (this rule replaced 660-016 in 1996). Mineral and aggregate resources are included on the list of Statewide Goal 5 resources that the County must inventory and protect.

The County maintains an inventory of surface mining sites as part of its Goal 5 program, shown in Map 4-1. There are currently 59 mining sites identified in the Deschutes County GIS data, and 8 sites that have been reclaimed.

Mining sites are subject to a Surface Mining Impact Area Combining Zone that applies within ½ mile of the mining site boundary. This combining zone limits new uses and expansion of existing uses that may be impacted by mining activities and are not in compliance with the site-specific Economic, Social, Environmental, and Energy (ESEE) analysis for nearby mining sites. In certain cases, a waiver of nonremonstrance may also be required in this zone.



A PLAN FOR THE FUTURE

County Boundary

Urban Growth Boundaries

Zoning Surface Mining Impact Area

Surface Mining Impact Area

Reclaimed - Surface Mining Impact Area

Transportation

State Routes

Railroad

County Lines

This map is for information purposes only. The County's official zoning and comprehensive plan maps can be accessed through the Deschutes County Dial Property Information System. Please note that these maps do not represent all of the County's combining and overlay zones.

Key Community Considerations

Transportation agencies expressed concern regarding the impact of depleting mineral resources on road operations, including the use of cinder for winter maintenance and other resources for use in new road projects. The topic of mineral and aggregate resources was not a focus of community discussion as part of this Comprehensive Plan update, though the priorities of a diverse economy and protected natural areas for habitat and open space are interrelated with this subject. The following goals and policies represent a balance of these community interests.

Goals and Policies

Goal 4.1: Protect and utilize mineral and aggregate resources while minimizing adverse impacts of extraction, processing and transporting the resource.

Policy 4.1.1. Implement adopted Goal 5 Surface Mining inventories.

Policy 4.1.2. Coordinate with the Oregon Department of Geology and Mineral Industries (DOGAMI) on mining regulations and studies.

Policy 4.1.3. Balance protection of mineral and aggregate resources with conflicting resources and uses.

Policy 4.1.4. Support the required reclamation of mining sites following mineral extraction.

Surface Mining in 2023

59

Active Mining Sites

8

Reclaimed Sites

9,235

Acres in Surface Mining Zone

including Black Butte Ranch
Surface Mine/Limited Use Zone

58,881

Acres in the Surface Mining
Impact Area Combining
Zone (SMIA)

Source: Deschutes County GIS information



5

Natural Resources



Opportunities, Challenges, and Considerations

Natural resources in Deschutes County are abundant. Wildlife, scenic views of forests and peaks, and open spaces to preserve habitat and native vegetation are among the County's top assets.

Oregon Statewide Planning Goal 5 governs Natural Resources, Scenic and Historic Areas, and Open Spaces. Through this goal, the County maintains inventories and regulatory protections to preserve these many resources. These regulations are created by weighing Economic, Social, Environmental, and Energy (ESEE) consequences associated with protection of a resources.

Topics covered in this chapter include:

- Protected Wildlife Resources
- Open Space and Scenic Views
- Water Resources

PROTECTED WILDLIFE RESOURCES

Deschutes County has some of the broadest and most robust wildlife protections in the state, covering a variety of species. The County has development protections within and surrounding numerous wildlife habitats. Some of these habitats have mapped geographic boundaries such as Deer Winter Range, Deer Migration Range, Antelope Habitat, Golden Eagle – Sensitive Bird Habitat, and Elk Habitat.

Other species are commonly found in protected riparian areas, such as wetlands and floodplains. Deschutes County contains general habitats for fish, fur-bearing animals, waterfowl, and upland game birds.

A continued challenge to wildlife resources is rural development and impacts on habitat. Mule deer are seeing steady declines, approximately 10% each year per Oregon Department of

Fish and Wildlife biologists. These declines in population are due to a variety of factors, including but not limited to loss of habitat, vehicle collisions, poaching, predation, and disease.

SCENIC VIEWS AND OPEN SPACE

The 2010 Greenprint¹ for Deschutes County listed protection of scenic viewsheds as one of the top five community priorities for conservation in the rural County, and the protection of open space has been one of the key topics of discussion during the most recent update of this Comprehensive Plan. The County has several designated scenic corridors, including several scenic bikeways, highways, and wild and scenic river sections.

¹ The Trust for Public Land. Oregon's Playground Prepares for the Future: A Greenprint for Deschutes County. 2010. http://cloud.tpl.org/pubs/local_or_deschutes%20greenprint.pdf

With close to 80% of the County under public ownership, many community members enjoy access to natural resources on public lands. A perennial issue among community members is preserving scenic views and open spaces closer to home on undeveloped private properties.

WATER RESOURCES

Deschutes County contains groundwater resources, defined as water that exists underground in saturated zones beneath the land surface², and surface water resources. Surface water refers to streams, lakes, rivers, and reservoirs³.

Groundwater is used for a variety of permitted and exempt activities. Residential wells in the rural county make up the largest user group of groundwater, and are exempt from any permit, provided that the property owner abides by specific standards. Water rights and/or permits are required for other major use categories, such as quasi-municipal or municipal uses, pond maintenance, irrigation and other commercial and industrial activities.⁴

The Deschutes River and its tributaries serve as the region's surface water resources. Surface water rights in the Upper Deschutes Basin are fully allocated, meaning no new surface water rights can be issued. Approximately 86% of basin water rights are associated with agriculture, 12% associated with instream uses, and 2% associated with municipal uses⁵.

Statewide Planning Goal 5

Oregon land use planning protects wildlife with Statewide Planning Goal 5 and the associated Oregon Administrative Rule (OAR) 660-023. Goal 5 includes a list of resources which each local government must inventory, including wildlife habitat.

The Goal 5 process requires local governments to inventory wildlife habitat and determine which items on the inventory are significant. For sites identified as significant, an Economic, Social, Environmental and Energy (ESEE) analysis is required. The analysis leads to one of three choices: preserve the resource, allow proposed uses that conflict with the resource or strike a balance between the resource and the conflicting uses. A program must be provided to protect the resources as determined by the ESEE analysis.

Appendix A of the Comprehensive Plan contains the full ESEE ordinances for the County's protected Goal 5 resources.



2 US Geological Survey Definition - Groundwater
 3 US Geological Survey Definition - Surface Water
 4 Oregon Water Resources Department. 2021 Review of the Deschutes Basin Groundwater Mitigation Program. <https://www.oregon.gov/owrd/WRDReports/5YearDeschutesGWMitigationProgramReport.pdf>
 5 Bureau of Reclamation and Oregon Water Resources Department. 2019 Upper Deschutes River Basin Study. https://cdn.prod.websitefiles.com/667093eeb1bb316e69f0e9c6/667093eeb1bb316e69f0e9d8_Upper%20Deschutes%20River%20Basin%20Study%20Final.pdf

Groundwater and surface water in Deschutes County are closely tied. Numerous studies have noted the interconnections between stream flow and well levels over time in Deschutes County. Programs, such as the Deschutes Basin Groundwater Mitigation Program, seek to monitor these connections.

Deschutes County plays a coordination role along with the Oregon Department of Water Resources, Soil and Water Conservation Districts, irrigation districts, water users, owners of private wells, and other stakeholders to address these water resource issues.

Context

Protected Wildlife Resources

Wildlife diversity is a major attraction of Deschutes County. The key to protecting wildlife is protecting the habitats each species needs for food, water, shelter, and reproduction. Also important is retaining or enhancing connectivity between habitats to protect migration routes and avoid isolated populations.

In considering wildlife habitat, counties rely on the expertise of the Oregon Department of Fish and Wildlife (ODFW) and U.S. Fish and Wildlife Service (USFWS). Those agencies provide information for the required wildlife inventory and recommendations on how to protect wildlife habitat on private lands.

A snapshot of Deschutes County's wildlife protection program is included below. Extensive information is included in Appendix E, the County's Goal 5 inventory.

MULE DEER

Migration corridors and winter range are essential habitats needed to support mule deer in Deschutes County. The Bend/La Pine migration corridor is approximately 56 miles long and 3 to 4 miles wide and parallels the Deschutes and Little Deschutes Rivers. The corridor is used by deer migrating from summer

range in the forest along the east slope of the Cascades to the North Paulina deer winter range. Deschutes County adopted a "Deer Migration Priority Area" based on a 1999 ODFW map submitted to the South County Regional Problem Solving Group. This specific sub-area is precluded from destination resorts.

From 2021-2023, Deschutes County explored an update to the county's mule deer inventory, which included extensive community participation including through the public record. Ultimately, the decision was made not to update.

SENSITIVE BIRDS

Nest sites for the bald eagle, osprey, golden eagle, prairie falcon, great grey owl, greater sage-grouse, and great blue heron rookeries are inventoried by the County. The area required for each nest site varies between species. The minimum area required for protection of nest sites has been identified by the ODFW in their management guidelines for protecting colony nesting birds, osprey, eagles, and raptor nests. The USFWS works closely with ODFW on eagle-related issues and enforces federal guidelines to ensure protection of bald and golden eagles.



Credit: Andrew Walch/ODFW

ELK

The Land and Resource Management Plan for the Deschutes National Forest identifies six key elk habitat areas in Deschutes County. The ODFW also recognizes these areas as critical elk habitat for calving, winter or summer range. The following areas are mapped on the Big Game Habitat Area map and in the Deschutes National Forest Land and Resource Management Plan:

- Tumalo Mountain
- Kiwa
- Ryan
- Crane Prairie
- Fall River
- Clover Meadow

ANTELOPE

The Bend and Ochoco District offices of the ODFW provided maps of the antelope range and winter range. The available information is adequate to indicate that the resource is significant. The antelope habitat is mapped on Deschutes County's Big Game Habitat-Wildlife Area Combining Zone Map.

Scenic Views and Open Space

Deschutes County has a rich abundance of open space. Approximately 79% of land in Deschutes County is federally owned, providing ample open space and scenic views adjacent to these areas. Open spaces are generally undeveloped areas that are being maintained for some other purpose, such as farms, parks, forests, or wildlife habitat. Besides the value that stems from the primary use of the land, open spaces provide aesthetically pleasing undeveloped landscapes. Because these areas are undeveloped, they also provide additional benefits such as water recharge, buffers for habitat, and safety zones from natural hazards such as flooding and wildfire.

Open spaces and scenic views are an important draw for visitors and are often mentioned as important to the area's quality of life. The backdrop of the Cascade Mountains, with its vast

forest and sagebrush landscapes and riparian and wetland habitats, all provide an inspirational setting for visitors and residents alike. Statewide Planning Goal 5 recommends, but does not require, creating an inventory and protections for open spaces, scenic views and sites. Oregon Administrative Rule (OAR) 660-023 defines open space designations as parks, forests, wildlife preserves, nature sanctuaries, and golf courses.

Open spaces are protected through an Open Space and Conservation map designation and zoning district. Scenic view protection is implemented through the Landscape Management Combining Zone regulations.

Water Resources

Deschutes County's Role in Water Management is described below.

REGULATORY AGENCIES

The primary state regulator of water availability is the Oregon Water Resources Department (OWRD). The Oregon Department of Environmental Quality (DEQ) leads the monitoring and enforcement of water quality standards. The Oregon DEQ is required to comply with the Federal Environmental



Protection Agency. Numerous sections of the Deschutes River in Deschutes County hold a special status as a federal wild and scenic river, as well as a state scenic waterway. These areas carry additional regulations through the 1996 Upper Deschutes Wild and Scenic River and State Scenic Waterway Comprehensive Plan, requiring additional agency coordination with the Oregon Parks and Recreation Department and the US Forest Service on development impacting these sections.

STATEWIDE PLANNING GOALS

There are two Statewide Planning Goals relating to the protection of water resources. Goal 5 (Natural Resources, Scenic and Historic Areas, and Open Spaces) requires an inventory and protection of specific water resources. In Deschutes County, these inventories have been completed and acknowledged by the Land Conservation and Development Commission (See Appendix A for Goal 5 Inventories). Goal 6 (Air, Land, and Water Resources Quality) requires comprehensive plans to be consistent with state and federal pollution regulations. Accordingly, it is imperative that local land use policies align with Federal and State laws governing the community's water resources.

The policies in this section relating to water provide the framework for evaluating land use actions and define the responsibility of the County to work in partnership with cities, agencies, non-profits and others to achieve efficient use of water resources and effective management of water quality in the Upper Deschutes Basin.

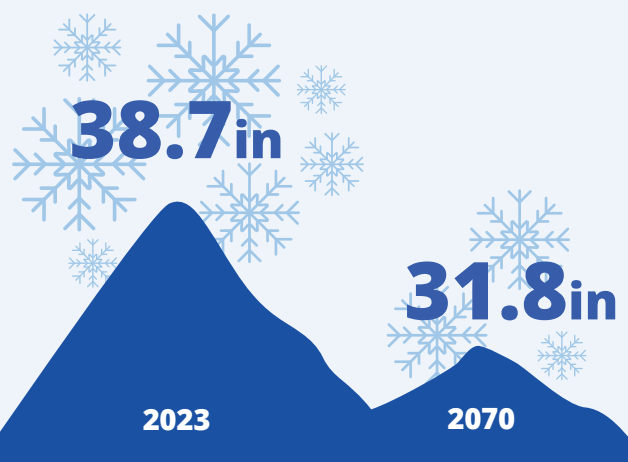
It is important to underscore that the primary water resource management process occurs outside of the state land use planning system. Oregon land use and water management are not integrated; there are no overarching administrative rules that consider statewide water management in conjunction with land use planning.

SNOWPACK

Although there is expected to be a slight increase in winter precipitation by the middle of the century, snowpack is expected to decline throughout the Cascades. The decline in snowpack (which has already been observed, see figure below)⁶ is due largely to increasing temperatures causing some precipitation to fall as rain rather than snow. This has the double effect of decreasing snowfall and melting the previously fallen snow. At the Mt Bachelor Ski Resort, April snowpack is expected to decline between 11% and 18% by the middle of the century and between 18% and 43% by the end of the century.

⁶ Adapted from Mote, P.W., Li, S., Lettenmaier, D.P. et al. Dramatic declines in snowpack in the western US. *npj Clim Atmos Sci* 1, 2 (2018). <https://doi.org/10.1038/s41612-018-0012-1>

Average Snowpack near Mt. Bachelor Base Village on April 1



LAVA SPONGE

Deschutes county is fortunate to be underlain on the Western side by relatively young volcanic lava sponge. This sponge is highly porous and is able to absorb large quantities of water during the wet season and gradually release it via abundant springs along the eastern slope. The great advantage this provides is that the resulting summer flows into the Deschutes basin are not as dependent on overground flow of snowmelt, and therefore are expected to maintain a relatively stable water supply even as snowpack decreases into the next century.

GROUNDWATER USE

The groundwater aquifer is roughly 1,000 feet thick across significant parts of the basin and is replenished yearly by the Cascades' precipitation.

A report from GSI water solutions in 2022 noted the Upper Deschutes Basin receives over 4,000 cubic feet per second (cfs) of annual recharge.⁷ This recharge is primarily from in-basin precipitation, although minor amounts of recharge are attributed to interbasin flow in which water travels from the Metolius basin, and canal leakage. Groundwater pumping is equivalent to approximately two percent of the annual groundwater recharge. In the Deschutes Basin a small amount of groundwater is also used by farmers for crop or pasture irrigation. Groundwater is also used for "exempt" purposes including residential wells, irrigation of non-commercial lawns under a half-acre, stock watering, and fire control. Groundwater rights are commonly used by cities to support housing and development. The 2019 Upper Deschutes Basin Study estimates 40,000-acre feet are diverted each year primarily from groundwater purposes to serve municipal and quasi-municipal uses.

⁷ "GSI Solutions Understanding Upper Deschutes Basin Groundwater Levels, September 2022". https://www.oregon.gov/owrd/Documents/White%20Paper_Understanding%20Upper%20Deschutes%20Basin%20GW%20Levels_9_26_2022.pdf

Deschutes Basin Hydrogeology

The Deschutes River Basin, from its headwaters to the Columbia River, encompasses 10,400 square miles of the north central part of the State. Nearly 91% of Deschutes County lies within the Deschutes Basin. The upper Deschutes River Basin is characterized by recent volcanic activity and strong and rapid groundwater flows. The geologic conditions lead to a strong connection between surface and ground water (see also Section 3.10).

Groundwater flows eastward from the Cascade Range through permeable volcanic rocks out into the basin and then generally northward. Groundwater recharge comes from precipitation in the Cascade Range, inter-basin flow and leaking irrigation canals. Approximately one-half of the ground water flowing from the Cascade Range discharges to spring-fed streams along the margins of the range. The remaining groundwater flows through the subsurface, and eventually discharges to streams near the confluence of the Deschutes, Crooked, and Metolius Rivers.

The large amount of groundwater discharge in the confluence area is primarily caused by geologic factors. The Deschutes River flows north through permeable rock until it hits a region of low-permeable rock near the confluence area. There the permeable rock strata terminates, forcing water to the surface. Virtually all of the regional groundwater in the upper Deschutes Basin discharges to streams south of the area where the Deschutes River enters this low-permeability terrain, at roughly the location of Pelton Dam.

A 2021 report by the Oregon Department of Water Resources found that groundwater levels in Deschutes County are declining, by as much as 30 feet of total decline in the central part of the basin. This decline has caused wells in densely populated areas of the County to run dry, requiring extensive well deepening work. Groundwater levels are directly related to recharge rates which are directly impacted by rainfall and recharge from other sources such as flood irrigation and leaky ditches and canals. Impediments to recharge include such things as increased irrigation efficiency, large scale piping projects, and increased juniper populations. This decline is considered “excessively declined” per state statute and is attributed to a shift toward overall drier conditions since the late 1990s, expanding Juniper forests, increased groundwater pumping, a warming trend in the basin, and decreased snowpack. However, studies show that drought and groundwater levels are cyclical and may vary over the years. For example, the 1930s and 1970s were dryer than current conditions.

The State of Oregon is currently exploring measures to restrict overuse of groundwater rights through its Groundwater Allocation rulemaking. The program would limit issuance of new groundwater rights when groundwater levels are in a period of excessive decline. Because the groundwater in the Deschutes Basin is directly connected to the flow of the Deschutes River, all additional groundwater use must be mitigated by decreased use of groundwater or surface water elsewhere through the Oregon Water Resources Department’s Deschutes Groundwater Mitigation program. This can include retiring of other water rights, or the release of water into the waterway. A mitigation permit must be obtained before a new groundwater right can be accessed.⁸

Voluntary and or regulatory conservation mechanisms are needed from all users to prevent overuse of the groundwater resource at the local level and mitigate groundwater level declines.

SURFACE WATER USE

The 2019 Deschutes Basin Study found that total water inflows to the basin vary from 860,000 acre-feet to 2.3 million acre-feet, depending on how much precipitation falls in a given year or several consecutive years. Approximately 720,000 acre-feet (86%) of surface water is diverted each year for irrigation districts. The study noted that declines in flow associated with precipitation and snowpack, combined with overallocation of water rights in the basin, continues to lead to shortfalls for junior water right holders. In low water years, junior water holders in the North Unit and Arnold Irrigation Districts are not able to access water due to this shortage, negatively impacting agricultural and other operations that depend on surface water rights.

Aside from impacting operations, the reduction of surface flows can also impact wildlife habitat. The Deschutes Basin is home to the Oregon spotted frog and bull trout, which are federally listed as threatened species. To mitigate the impacts from storage, release, diversion and return of irrigation water on these species, the Deschutes Basin Habitat Conservation Plan was finalized and approved by the US Fish and Wildlife Service in 2020. The plan was developed in partnership with the Deschutes Basin Board of Control representing irrigation districts, along with tribal governments, agency staff, and other stakeholders and seeks to provide predictability to water managers of surface flows for the next 30 years. The plan outlines a combination of water management practices, funding for conservation projects, funding for instream leasing programs, and parameters for seasonal release of irrigation water, among other efforts.

⁸ Information from the Oregon Water Resources Board Mitigation Program.

Irrigation districts and other entities are engaged in ongoing efforts to pipe canals and modernize irrigation systems to increase their efficiency. Due to water transmission losses in irrigation canals from seepage into groundwater and evaporation, piped canals typically require only half the amount of water to be diverted from the river or stream to deliver the same volume of water to the end user compared to open canals.

Community members have expressed concern that piping canals may contribute to local aquifer declines due to loss of artificial recharge from leaking infrastructure. Continued education and monitoring on this topic will be helpful to best understand the actual impact of canal piping on groundwater resources.

WATER QUALITY

Generally, groundwater quality in Deschutes County is classified as being 'good,' providing high quality drinking water to most of its residents. However, several productive aquifers lie in shallow alluvial sediments that are vulnerable to contamination from human activities and development.



The Department of Environmental Quality (DEQ) Laboratory and Water Quality Divisions' Groundwater Quality Report for the Deschutes Basin (March 2006) identifies areas of concern for groundwater contamination based on various sources of data and groundwater quality studies. Based on collected data, development patterns and the geology of the underlying aquifer, the report makes recommendations for a couple of areas in the County. The report notes the groundwater aquifer in the Redmond area is vulnerable to contamination from human activities and recommends further study by the DEQ. The La Pine aquifer in the southern portion of the county from the Sunriver area into Northern Klamath County between Newberry Caldera and the Cascades is an area of particular concern because of data collected through several studies and the high level of development in the area. The report also identifies underground injection systems that could contaminate the aquifer with pollutants from stormwater drywells or sewage drillholes.

In South Deschutes County, the concern for groundwater quality arises from nitrate contamination associated with on-site wastewater treatment (septic) systems discharging to the shallow unconfined aquifer. The issue is small lots with highly permeable rapidly draining soils and a high groundwater table with relatively cold water temperatures. Combined with the fact that the majority of lots are served by on-site wastewater treatment systems and individual wells, concern arose that nitrates from the septic systems could contaminate local wells and the river system.

Considerable work has gone into studying the groundwater in South County. In 1999 Deschutes County and the Department of Environmental Quality (DEQ) identified the need for a better understanding of the processes that affect the movement and chemistry of nitrogen in the aquifer underlying the La Pine area. In response, the U.S. Geological Service (USGS), in cooperation

with Deschutes County and DEQ, began a study to examine the hydrologic and chemical processes that affect the movement and chemical transformation of nitrogen within the aquifer. A primary objective was to provide tools for evaluating the effects of existing and future residential development on water quality and to develop strategies for managing groundwater quality.

Field research from the USGS study shows that in a 250-square-mile study area near La Pine the groundwater underlying the La Pine sub-basin is highly vulnerable and being polluted by continued reliance on traditional onsite systems. Environmental impacts from residential development include higher nitrate concentrations in groundwater that is tapped for domestic water supply and discharges to rivers. Nitrates are regulated by the federal Environmental Protection Agency and DEQ as a human health concern. Vulnerability of the shallow aquifer to contamination led to concern that wastewater from septic systems poses a threat to the primary drinking water supply and local river systems. The Upper Deschutes and Little Deschutes Sub-basins have abundant, natural sources of phosphorus from volcanic soils and rocks so the rivers are naturally nitrogen limited. Nitrogen-limited rivers are sensitive to low concentrations of available nitrogen until some other component becomes limiting, and that may lead to ecological impacts.

In 2008 the County used the research on nitrates to adopt a 'local rule' that required South County residents to convert their septic systems over a period of 14 years to alternative sewage system technology designed to reduce nitrates. New septic systems were also required to use alternative technologies. The County created a process to assist residents in funding the conversions.

Many South County residents expressed concern over the costs involved with converting their

septic systems and disputed the science behind the rule. Placed on the ballot by petition, the local rule was rescinded by voters in March 2009.

As of 2010 the DEQ is leading the effort to address nitrates in South County, with the full cooperation of the County. One solution being considered is creating a sewer system or extending Sunriver's to serve some of the nearby areas. Sewer systems are tightly restricted on rural lands by Statewide Planning Goal 11 and OAR 660-11, so the Department of Land Conservation and Development is also involved in these efforts. The County and Oregon Department of Environmental Quality attempted to apply for an exception to Goal 11 to allow for a community sewer system in 2016, although the effort was overturned by the Oregon Land Use Board of Appeals.

ALGAL BLOOMS

Algal blooms have been a problem for recreational lakes in the cascade mountains in recent years. Since 2007, the Wickiup Reservoir, Crane Prairie Reservoir, and Paulina Lake have experienced algal or bacteria blooms that required a health advisory.⁹

Although not all algal blooms are toxic, they interfere with recreation and aesthetic enjoyment. In general, algal blooms are caused by elevated nutrients, elevated temperature, and still water. Algal blooms in other parts of the state have led to drinking water concerns, but Deschutes County cities are supplied by groundwater and so the risk in algal blooms is mainly to recreation, with the exception of Bridge Creek, which supplies water to the City of Bend.

⁹ <https://www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/RECREATION/HARMFULALGAE/BLOOMS/Pages/archive.aspx>

Key Community Considerations

Natural resources for recreation, passive enjoyment, habitat protection, and economic production are a fundamental part of life in Deschutes County, and as such were a key part of the community conversation in this Comprehensive Plan update. Highlights of this conversation include:

- Concern about the ability of the County's water supply to accommodate more residents, visitors, and water-intensive jobs in the future
- Interest in a re-evaluation of water rights for urban, agricultural, and "hobby farm" uses.
- A robust discussion around wildlife inventories, habitat conservation, open space regulations, and impacts on private property owners.

The topic of habitat conservation and water availability came up frequently, with most participants saying that further protections are needed. However, there was also recognition of the burden these protections may put on property owners. Deschutes County does not have the authority or expertise to evaluate or reallocate water rights as part of its land use planning efforts, leading the County to instead work with the Oregon Department of Water Resources, irrigation districts, the Bureau of Reclamation, US Department of Agriculture, conservation districts, non-governmental organizations, and holders of water rights to increase the efficiency of water distribution throughout the community.

Goals and Policies

Water Goals and Policies

Goal 5.1: Support regional, comprehensive water management solutions that balance the diverse needs of water users and recognize Oregon water law.

Policy 5.1.1. Participate in Statewide and regional water planning including, but not limited to:

- a. Work cooperatively with appropriate federal, state, tribal and local agency resource managers, such as The Confederated Tribes of the Warm Springs Reservation of Oregon, the Oregon Water Resources Department (OWRD), irrigation districts, and other stakeholders and nonprofit water organizations, such as the Deschutes Basin Water Collaborative, the County Soil and Water Conservation District;
- b. Support the development and implementation of Upper Deschutes Basin Study, Habitat Conservation Plan, and Biological Opinion from National Marine Fisheries Service for the middle and lower Deschutes Rivers.

Policy 5.1.2. Support grants for water system infrastructure improvements, upgrades, or expansions.

Policy 5.1.3. Develop better understanding of The Confederated Tribes of the Warm Springs Reservation of Oregon's treaty-protected rights to co-manage the water resources of the Deschutes Basin.

Policy 5.1.4. Encourage state agencies to identify local areas of concern for water availability and explore additional regulations or requirements to ensure water capacity is not negatively impacted by development.

Goal 5.2: Increase water efficiency and conservation efforts among all users, including homeowners and businesses.

Policy 5.2.1. Support efficient water use through targeted conservation, educational and, as needed, regulatory or incentive programs.

- a. Encourage new development to incorporate efficient water use practices for all water uses.
- b. Provide education and resources to community members regarding the beneficial reuse of grey water for landscaping.
- c. Encourage and educate the community about the relative impacts of thinning or reduction of plant species that adversely impact forest health, water availability, and soil quality.
- d. Encourage and educate the community about on-farm efficiency measures, including upgrades to equipment.
- e. Encourage and educate the community about the use of voluntary metering of water use to monitor seasonal impacts on water use.
- f. Provide access to educational materials and tools related to water conservation including publications, information about grant opportunities, and/or partner with organizations on educational events.
- g. Encourage and educate community members on stewardship of wetlands and waterways.
- h. Provide access to educational materials about water-wise gardening and xeriscaping.
- i. Encourage establishment of water reuse and recycling programs, in particular for County facilities.

Policy 5.2.2. Promote coordinated regional water conservation efforts and implementation by regional, tribal, and local organizations and agencies, including increasing public awareness of and implementing water conservation tools, incentives, and best practices.

Policy 5.2.3. Support conservation efforts by irrigation districts, property owners and other water users, including programs to provide incentives for water conservation, such as piping of canals and laterals, water banking, exchanges of water rights, voluntary transfers of in-stream flows, onsite efficiency measures, and other means.

Goal 5.3: Maintain and enhance a healthy ecosystem in the Deschutes River Basin.

Policy 5.3.1. Notify the Oregon Department of State Lands, The Confederated Tribes of the Warm Springs Reservation of Oregon, and other state and federal agencies as appropriate of any development applications for land within a wetland identified on the statewide wetland inventory maps.

Policy 5.3.2. Work with The Confederated Tribes of Warm Springs Reservation of Oregon and other federal, state, and local agency resource managers to restore, maintain and/or enhance healthy river and riparian ecosystems and wetlands, including the following:

- a. Cooperate to improve surface waters, especially those designated water quality impaired under the federal Clean Water Act;
- b. Support research on methods to restore, maintain and enhance river and riparian ecosystems and wetlands;
- c. Support restoration efforts for river and riparian ecosystems and wetlands;

- d. Inventory and consider protections for cold water springs;
- e. Evaluate waterways in coordination with OPRD for possible designation under the Scenic Waterways program;
- f. In collaboration with appropriate federal, state, tribal and local agency resource managers stakeholders, map channel migration zones and identify effective protections;
- g. Develop comprehensive riparian management or mitigation practices that enhance ecosystems, such as criteria for removal of vegetation that adversely impacts water availability and soil health.

Policy 5.3.3. Support studies of the Deschutes River ecosystem and incorporate strategies from current watershed studies that provide new scientific information and indigenous knowledge about the Deschutes River ecosystem.

Policy 5.3.4. Support educational efforts and identify areas where the County could provide information on the Deschutes River ecosystem, including rivers, riparian areas, floodplains and wetlands.

- a. Support efforts to educate property owners to understand regulations pertaining to rivers, riparian areas, floodplains and wetlands.

Policy 5.3.5. Revisit recommendations of 1996 Upper Deschutes Wild and Scenic River and State Scenic Waterway Comprehensive Plan, or its successor, and consider implementation of voluntary recommendations into the county code

Goal 5.4: Maintain and enhance fish and riparian-dependent wildlife habitat.

Policy 5.4.1. Coordinate with The Confederated Tribes of Warm Springs Reservation of Oregon and other federal, state, and local agency resource managers and stakeholders to protect and enhance fish and wildlife habitat in river and riparian habitats and wetlands.

Policy 5.4.2. Promote healthy fish populations through incentives and education.

Policy 5.4.3. Support healthy native salmonid fish populations through coordination with stakeholders, including, but not limited to, The Confederated Tribes of the Warm Springs Reservation of Oregon and other federal, state, and local agency resource managers who provide fish habitat management and restoration.

- a. Review, and apply where appropriate, strategies for protecting fish and fish habitat for native salmonid species.
- b. Promote native salmonid species recovery through voluntary incentives and encouraging appropriate species management and associated habitat conservation and restoration.

Policy 5.4.4. Update and implement policies to be consistent with federally approved Habitat Conservation Plans for species listed under the Endangered Species Act

- a. Spawning and rearing areas for salmonid species should be considered significant habitat and should be protected in rivers and streams.
- b. Cooperate with covered parties in restoring or enhancing spawning and rearing areas for salmonid species, where feasible.

- c. Support efforts to address riparian restoration associated with streamflow management under approved plans.

Policy 5.4.5. Use a combination of incentives and/or regulations to avoid, minimize, and mitigate development impacts on river and riparian ecosystems and wetlands.

Policy 5.4.6. Support plans, cooperative agreements, education, water quality monitoring and other tools that protect watersheds, reduce erosion and runoff, enhance riparian vegetation, and protect other natural or engineered water systems/ processes that filter and/or clean water and improve and/or and preserve water quality.

Policy 5.4.7. Coordinate with the Oregon Department of Environmental Quality and other stakeholders on regional water quality maintenance and improvement efforts such as identifying and abating point (single-source) and non-point (unidentified or multiple-source) pollution or developing and implementing Total Maximum Daily Load and Water Quality Management Plans.

Policy 5.4.8. Coordinate with The Confederated Tribes of Warm Springs Reservation of Oregon, Oregon Health Authority, and other federal, state, and local agency resource managers to address water-related public health issues.

- a. Support amendments to State regulations to permit centralized sewer systems in areas with high levels of existing or potential development or identified water quality concerns.
- b. If a public health hazard is declared in rural Deschutes County, expedite actions such as legislative amendments allowing sewers or similar infrastructure.

Policy 5.4.9. Continue to evaluate and/or implement regulations, such as a wellhead protection ordinance for public water systems, in accordance with applicable Federal and/or State requirements.

Policy 5.4.10. Coordinate and work with the Oregon Department of Agriculture, agricultural uses, and available voluntary programs to support and implement proven new technologies and best practices to maintain and enhance water quality, such as minimizing nitrate contamination, maintaining streamside vegetation, reducing streambank soil erosion and runoff, reducing fish passage barriers, managing return flows, limiting livestock access to riparian areas, and minimizing weeds and bare patches in grazing areas.

Policy 5.4.11. Support regulations, education programs, and cleaning procedures at public and private boat landings.

Goal 5.5: Coordinate land use and water policies to address management and allocation of water in Deschutes County.

Policy 5.5.1. Coordinate with other affected agencies when a land use or development application may impact rivers or riparian ecosystems or wetlands.

Policy 5.5.2. Regulate land use patterns and promote best practices to preserve the integrity of the natural hydrologic system, recognize the relationship between ground and surface water, recognize basin-wide impacts, and address water impacts of new land uses and developments, including water-intensive uses.

Policy 5.5.3. Support efforts to protect existing surface water and groundwater users and to maintain sustainable groundwater resources as OWRD works to update and modernize Oregon's groundwater allocation rules and policies.

Policy 5.5.4. Support efforts by the OWRD in collaboration with Central Oregon Cities Organization, The Confederated Tribes of the Warm Springs Reservation of Oregon, and non-governmental organizations to revisit the Deschutes Basin Groundwater Mitigation Program.

Policy 5.5.5. Coordinate with the irrigation districts to ensure irrigated land partitions and lot line adjustments are not approved without notice to the affected district.

Policy 5.5.6. Utilize Central Oregon Stormwater Manual to apply appropriate stormwater management practices land use decisions.

Policy 5.5.7. Allow for development of wastewater facilities and improvements where needed or required to address water quality issues and maintain water quality, consistent with state and local wastewater system requirements.

Open Space and Scenic Views Goals & Policies

Goal 5.6: Coordinate with property owners to protect open spaces, scenic views, and scenic areas and corridors through a combination of incentives and/or educational programs.

Policy 5.6.1. Work with stakeholders to create and maintain a system of connected open spaces while balancing private property rights with community benefits.

Policy 5.6.2. Work to maintain the visual character and rural appearance of open spaces such as the area along Highway 97 that separates the communities of Bend and Redmond or lands that are visually prominent.

Policy 5.6.3. Work to maintain and protect the visual character and rural appearance of visually prominent open spaces within the County, particularly those that are identified in the Goal 5 inventory.

Policy 5.6.4. Seek to protect the cultural identity of rural communities, such as the Highway 97 area/corridor between Bend and Redmond, and others.

Policy 5.6.5. Protect significant open spaces, scenic views, and scenic sites by encouraging new development to be sensitive to these resources.

Policy 5.6.6. Incentivize the placement of structures in a way that is sensitive of view corridors to maintain the visual character of the area.

Wildlife Goals and Policies

Goal 5.7: Maintain and enhance a diversity of wildlife and habitats.

Policy 5.7.1. Promote stewardship of wildlife habitats through incentives, public education, and development regulations.

Policy 5.7.2. Ensure Goal 5 wildlife inventories and habitat protection programs are up-to-date through public processes, expert sources, and current or recently adopted plans and studies.

Policy 5.7.3. Provide incentives for new development to be compatible with and to enhance wildlife habitat.

Policy 5.7.4. Require, incentivize, or encourage clustering of development in inventoried wildlife areas to reduce impacts to wildlife populations.

Policy 5.7.5. Develop better understanding of The Confederated Tribes of the Warm Springs Reservation of Oregon's treaty-protected rights to co-manage the wildlife resources of the Deschutes Basin.

Goal 5.8: Balance protection of wildlife and habitat with the economic and recreational benefits of wildlife and habitat.

Policy 5.8.1. Encourage responsible and sustainable wildlife related tourism, hunting, and recreation.

Policy 5.8.2. Coordinate with stakeholders to ensure access to appropriate recreational opportunities within significant wildlife and riparian habitat through public or non-profit ownership.

Policy 5.8.3. Coordinate with Confederated Tribes of the Warm Springs Reservation of Oregon and State agencies to develop strategies to support sound wildlife management science and principals for the benefit of the wildlife resource.

Goal 5.9: Comply with federal and state regulations related to sensitive, threatened, and endangered species, including the Endangered Species Act, the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and others as applicable.

Policy 5.9.1. Coordinate with Federal and State agencies to develop strategies to protect Federal or State Threatened or Endangered Species, or Species of Concern.

Policy 5.9.2. Mitigate conflicts between large-scale development and sage grouse habitat.

Policy 5.9.3. Consider adopting recommendations from Oregon Department of Fish and Wildlife, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Deschutes River Mitigation and Enhancement Program in dock construction.

Environmental Quality Goals and Policies

Goal 5.10: Maintain and improve upon the quality of air and land in Deschutes County.

Policy 5.10.1. Use building techniques, materials, and technologies in existing and future County operations and capital facilities that help maintain and improve environmental quality.

Policy 5.10.2. Implement a dark skies educational and or incentive program and periodically update the Dark Skies ordinance to reduce the impacts of light pollution and reduce lighting impacts on adjacent properties.

Policy 5.10.3. Coordinate with agency partners to educate residents about controlled burning projects and air quality concerns.

Policy 5.10.4. Use public education, education for County departments, and regulations to control noxious weeds and invasive species.

Goal 5.11: Promote sustainable building practices that minimize the impacts of development on the natural environment.

Policy 5.11.1. Use the County Code and educational materials to promote the use of resource-efficient building and landscaping techniques, materials, and technologies that minimize impacts to environmental quality.

Policy 5.11.2. Encourage and support reuse and recycling of consumer goods, green waste, construction waste, hazardous waste, and e-waste through education and enhanced recycling opportunities through the Recycling Program.

Policy 5.11.3. Support the process for siting new County solid waste management facilities in rural Deschutes County, consistent with facility needs and County standards for the location and approval of such facilities.

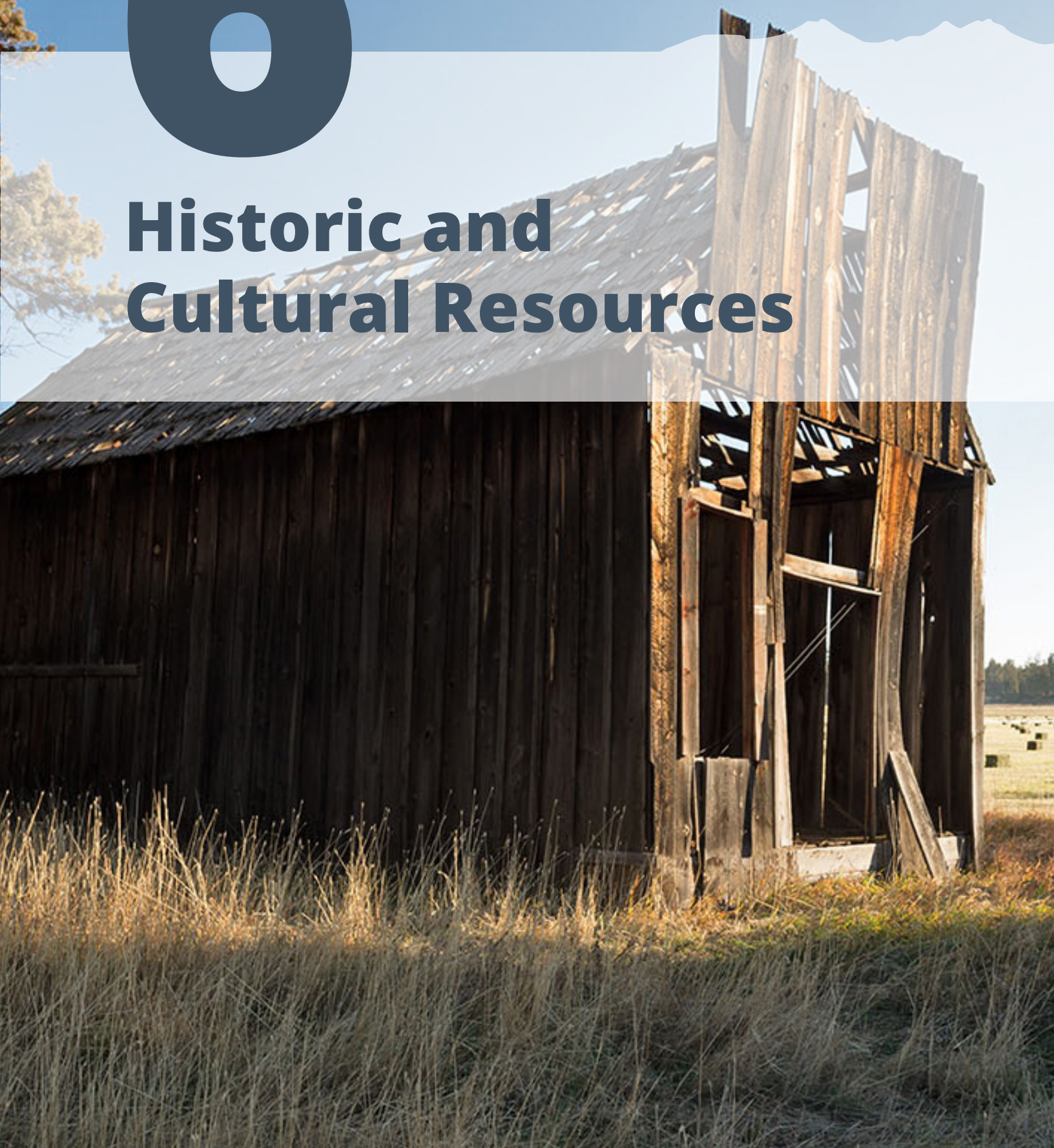
Policy 5.11.4. Implement best practices in solid waste management throughout the County.

Policy 5.11.5. Develop and implement a Climate Action Plan to address the potential future impacts of climate change on Deschutes County through incentives and/or regulations.

Policy 5.11.6. Promote and incentivize green infrastructure in new development to improve stormwater management.

6

Historic and Cultural Resources





Opportunities, Challenges, and Considerations

Deschutes County is a certified local government (CLG), as designated by the State of Oregon Historic Preservation Office. This certification recognizes the County's commitment to implementing and maintaining a formal historic resources program. Deschutes County has 13 nationally registered historic and cultural sites and 35 locally significant historic sites. The County currently administers grant programs and zoning requirements to preserve and restore these sites. Deschutes County owns the National Register listed Reid School and invests in supporting the Deschutes County Historical Society as a research and educational facility through a zero-cost lease and maintenance support for the purposes of running the museum and research center.

Historic resources are recognized by Statewide Planning Goal 5, Natural Resources, Scenic Views and Historic Areas and Open Spaces, and Oregon Administrative Rule (OAR) 660-023. The Statewide Goal and OAR recommend cities and counties inventory and protect historic and cultural sites. Recognizing the value and importance of having a connection to our past, Deschutes County chose to implement and maintain a historic preservation program and Historic Preservation Strategic Plan (Adopted 2022).

The 2022 Historic Preservation Strategic Plan identified three overarching goals to guide historic and cultural resource preservation in Deschutes County: collaborate, coordinate, and educate. The plan identifies opportunities to strengthen relationships between historic preservation and community partners, and to involve community members in historical and cultural preservation efforts. Improving access to historic resource information and providing content in an easily accessible format will be paramount to preservation efforts and increase

community appreciation for resources. Along with improved educational resources, more outreach and education opportunities could be explored. Deschutes County has several partners involved in drafting and implementing this strategic plan – those partners include the Deschutes County Historical Society, High Desert Museum, Archaeological Society of Central Oregon, Three Sisters Historical Society, and Redmond Historical Society.



Context

Deschutes County has several notable historical and cultural sites. These sites receive special protections to avoid land use or development activity that may disturb the historical and cultural resources existing on site.

LOCALLY SIGNIFICANT HISTORIC SITES

Deschutes County has 35 locally significant sites including cemeteries, ranches, dams, bridges, schools, and granges among numerous historic homesteads and homesites. The State of Oregon has initiated a process to identify culturally significant archaeological sites and sites of indigenous importance. This process will likely be incorporated into the County's local inventory by 2029.

NATIONALLY REGISTERED SITES

Deschutes County has 13 sites that have completed the national register process, including highways, bridges, lodges, and rock gardens.

Key Community Considerations

As part of the 2023 Comprehensive Plan update, community members shared their vision for the protection of historic and cultural resources. Comments included:

- The importance of county-wide coordination on cultural and historic, as well as increased representation of the indigenous history of Central Oregon.
- Acknowledging previous landowners and preserving the County's historical and cultural resources are both important.
- A county-wide historic and cultural resource signage program was also suggested.
- The community shared an interest in capitalizing on the High Desert Museum to continue to support indigenous culture and Central Oregon's history.

Goals and Policies

Goal 6.1: Promote the preservation of designated historic and cultural resources through education, incentives, and voluntary programs.

Policy 6.1.1. The Historic Landmarks Commission shall take the lead in promoting historic and cultural resource preservation as defined in DCC 2.28.

- a. Support incentives from the State Historic Preservation Office (SHPO), The Confederated Tribes of the Warm Springs Reservation of Oregon Tribal Historic Preservation Office (THPO), or other agencies for private landowners to protect and restore historic resources.
- b. Support the Historic Landmarks Commission to promote educational programs to inform the public of the values of historic preservation.
- c. Support improved training for the Historic Landmarks Commission.
- d. Support the goals, objectives, and actions of the Historic Preservation Strategic Plan.

Policy 6.1.2. Coordinate cultural and historic preservation with the Oregon State Historic Preservation Office and The Confederated Tribes of the Warm Springs Reservation of Oregon Tribal Historic Preservation Office.

- a. Maintain Deschutes County as a Certified Local Government, which includes the City of Sisters.

Policy 6.1.3. Encourage private property owners to coordinate with the State Historic Preservation Office and The Confederated Tribes of the Warm Springs Reservation of Oregon Tribal Historic Preservation Office.

Policy 6.1.4. Coordinate with The Confederated Tribes of the Warm Springs Reservation of Oregon, Burns-Paiute Tribe, Klamath Tribes, Archaeological Society of Central Oregon, and SHPO to adopt a program to identify and protect archaeological and cultural resources, as appropriate, and prevent conflicting uses from disrupting the value of known sites.

7

Natural Hazards





Opportunities, Challenges, and Considerations

Central Oregon is a dynamic region formed and shaped by the powerful forces of nature. Deschutes County residents and visitors rely on the County and its partners to plan for hazardous events and limit harm to people and property.

Continued rapid population growth, development in wildfire-prone areas, and an increased frequency of natural hazard events make planning for and mitigating risks ever more important. As temperatures rise globally, Central Oregon will face challenges due to drought, wildfire, heat events, and storms. The impacts a major Cascadia Subduction Zone earthquake would have on Deschutes County would be substantial as well.

In order to plan for and address natural hazards, Deschutes County has partnered with local jurisdictions to create its Natural Hazards Mitigation Plan (NHMP). Additional opportunities exist to create greater defensible spaces, encourage fire hardening, utilize grant programs, and pursue education measures to reduce these impacts over time.

According to the NHMP, the hazards with greatest risk in Deschutes County are:

- **Winter Storm.** Destructive storms producing heavy snow, ice and cold temperatures occurred throughout the County's history. Increases in population and tourism make potential impacts to shelter, access to medical services, transportation, utilities, fuel sources, and telecommunication systems more acute. The relative frequency of these events combined with their widespread impacts make winter storms the highest-ranked hazard in the NHMP.

- **Wildfire.** Historically, wildland fires have shaped the forests and wildlands valued by residents and visitors. These landscapes, however, are now significantly altered due to increased rural development, warmer and drier conditions, and forest management practices, resulting in increased event of wildfires that burn more intensely than in the past.

Statewide Planning Goal 7 requires local comprehensive plans to address Oregon's natural hazards. Protecting people and property from natural hazards requires knowledge, planning, coordination, and education. Good planning does not put buildings or people in harm's way. Planning, especially for the location of essential services like schools, hospitals, fire and police stations, is done with sensitivity to the potential impact of nearby hazards.

- **Windstorm.** A windstorm is generally a short duration event involving straight-line winds and/or gusts in excess of 50 mph. Although windstorms can affect the entirety of Deschutes County, they are especially dangerous in developed areas with significant tree stands and major infrastructure, especially above ground utility lines.
- **Drought.** Periods of drought can have significant impacts on public health, agriculture, and industry. Many counties in Central Oregon are currently experiencing more frequent and severe droughts than is historically the norm, and many climate predictions see this trend continuing into the future.
- **Earthquake.** The Pacific Northwest is located at a convergent plate boundary, called the Cascadia Subduction Zone, where the Juan de Fuca and North American tectonic plates meet. This fault line is subject to rare but potentially very large

earthquakes. Such an event would impact Deschutes County communities both directly through damage to infrastructure and property, as well as economically and socially as the broader region recovers from the disaster.

Context

Informed by an understanding of natural hazards, Deschutes County can reduce the risks to property, environmental quality, and human safety through land use planning and review of specific development proposals. The County's policies provide the framework for the County's natural hazards review program. This includes: identification of areas subject to natural hazards, regulations for evaluating land use actions for how they may result in exposure to potential harm from natural hazards, and programmatic elements including partnerships and funding opportunities to support natural hazard risk reduction.

Deschutes County has taken on a number of proactive projects, including:

- 2021 Natural Hazards Mitigation Plan (NHMP)
- 2019 Wildfire Mitigation Advisory Committee
- Project Wildfire, a County-led wildfire education and mitigation program has been in operation since 2013 and has been very successful in changing attitudes towards wildfire and prevention.
- Community Wildfire Protection Plans (CWPP) for many communities, including:
 - » Greater Bend CWPP (2016, expected revision 2021)
 - » Greater La Pine CWPP (2020, expected revision 2025)
 - » Greater Redmond CWPP (2022, expected revision 2026)
 - » Greater Sisters Country CWPP (2019, expected revision 2024)



- » Sunriver CWPP (2020, expected revision 2025)
- » East and West Deschutes County CWPP (2018, expected revision 2023)
- » Upper Deschutes River Coalition CWPP (2018, expected revision 2023)

The County is pursuing a process to consolidate all CWPPs into one document, to simplify the five-year update process. In addition, dozens of neighborhoods are pursuing or have received FireWise certification through the National Fire Protection Association. The County also supports the Heart of Oregon and Youth Conservation Corps crews in fuels reduction work and other mitigation efforts, with financial assistance from other entities.

Wildfire

According to the Natural Hazards Mitigation Plan, wildfire is the second most significant hazard to the county (after winter storms) and was the most discussed natural hazard discussed during outreach events. Throughout the 20th century, the years with warm and dry conditions corresponded with larger fires that have burned greater areas. Overall increases in heat will also lengthen growing seasons - building greater fuel loads and decreasing soil and fuel moisture, thereby increasing the likelihood of larger fires.



By mid-century, the annual potential for very large fires is projected to increase by at least 350% over the 20th century average.¹

The annual frequency of very high and extreme fire danger days is expected to increase by 10-15 additional days per year by mid-century⁴ (up from 36 currently). These trends are due to exacerbated conditions with a combination of high air temperatures and very low fuel moisture, which increases the likelihood of fire starts that can spread. As Deschutes County communities have experienced, increased fire activity - even at quite a distance - will impact air quality, increasing public health risks and impacting aspects of everyday life.

The Wildland-Urban Interface (WUI) is defined as the area where housing and burnable vegetation meet or intermingle². Deschutes County has seen increased development in the WUI, associated with growth in the four cities and the rural county, in particular on the edge of cities adjacent to public lands. Public lands in the WUI historically had frequent low intensity fire which reduced the density of small trees and brush making the landscape less likely to produce high severity fire. Past forest management practices and exclusion of frequent, natural, low intensity fire from the landscape result in high fuel loads and high probability of severe fire. Landscapes in Deschutes County that have experienced severe fire often contain dense understory vegetation and brush, which are more susceptible to ignitions and fire spread in hot and dry climates.

Following severe wildfire events, forests experience disruption of natural growth progression, which can lead to competition among vegetative species and monoculture species growth. Significant efforts have gone into removal of these fuels at the federal, state, and local levels, including notable efforts by

¹ Halofsky, J. Peterson, D. Harvey, B. "Changing Wildfire, changing forests: the effects of climate change on fire regimes and vegetation in the Pacific Northwest, USA. Fire Ecology. 2020.

² Community Planning Assistance for Wildfire definition for WUI

neighborhood associations and communities following fire-wise guidelines.

Home hardening at the individual household level will continue to play an important role in reducing the risk of loss from wildfire events and mitigating the spread of fire between neighboring properties. The 2020 Labor Day fires severely impacted several areas of the state. During those events, house to house ignitions amplified the spread of wildfire, causing severe loss of homes and businesses. Home hardening techniques include use of ignition resistant siding and roofing, attic ventilation devices that reduce ember intrusion, and removal of vegetation in the defensible space area surrounding structures on a property. These techniques will be crucial to reduce loss of life and property from these increasing hazard events in and adjacent to the WUI.

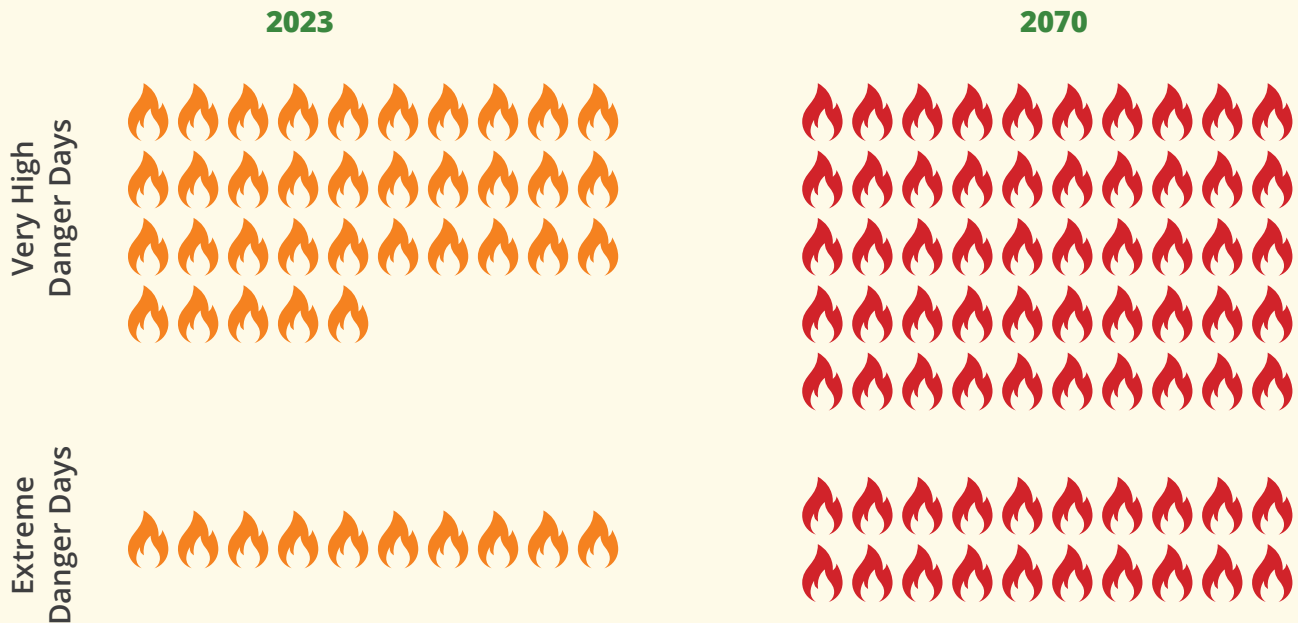
WILDFIRE AND HEAT

By the middle of this century, increasing temperatures are expected to drive increasing wildfire risk, especially in the Cascades. The yearly percentage of area burned is likely to increase in the mountains and the interval of return (years between fires) is expected to decrease across the county. Both the highest and lowest summer temperatures will increase, leading to more extreme heat days and reducing the historical nighttime cooling effect of the high desert.

Under all change projections, there will be an increase in the number of days with a heat index above both 90° and 100°F by mid-century.³ By 2100, Deschutes County can expect summer maximum temperatures to be 12°F hotter than current highs. Overall, extreme heat is not considered a human health risk in Deschutes County because of low night-time temperatures and low humidity in the region. However, the Redmond airport, which sees the hottest temperatures in the county, will likely experience

3 Oregon Forest Resources Institute Fact Sheet

Fire Danger near Mt. Bachelor Village



occasional temperatures above 105° every few years by mid-century, and at least once a year by 2100. In addition, summer night-time lows are likely to increase by up to 5° degrees by mid-century, reducing the cooling effect of the high desert climate.

Key Community Considerations

Community conversations related to natural hazards have centered around the following topics:

- **Impacts of Climate Change.** Throughout the engagement process, community members spoke to the importance of recognizing and addressing the impacts of climate change in Deschutes County and its relationship with natural hazard events.
- **Education and Communication.** Providing information about potential risks to residents and visitors can help the community as a whole be more prepared for natural hazards.
- **Development Code Regulations and Incentives.** Some community members expressed a desire for stricter regulations and additional incentives about “fire-wise” construction and defensible space practices.
- **Limiting Development in hazard-prone areas.** Increased development in remote areas of the County, where life-saving services may be scarce and human impacts may exacerbate risks, was a concern for some.

Vulnerable Populations

Socio-demographic qualities such as language, race and ethnicity, age, income, and educational attainment are significant factors that can influence the community's ability to cope, adapt to and recover from natural disasters. A disproportionate burden is placed upon special needs groups, particularly children, the elderly, the disabled, minorities, and low-income persons. These vulnerabilities can be reduced or eliminated with proper outreach and community mitigation planning. For planning purposes, it is essential that Deschutes County and the cities of Bend, La Pine, Redmond, and Sisters consider both immediate and long-term socio-demographic implications of hazard resilience.



Goals and Policies

Goal 7.1: Develop policies, partnerships, and programs to increase resilience and response capacity in order to protect people, property, infrastructure, the economy, natural resources, and the environment from natural hazards.

Policy 7.1.1. Partner with county, state, and regional partners to regularly update and implement the Deschutes County Natural Hazards Mitigation Plan.

Policy 7.1.2. Collaborate with federal, state, and local partners to maintain updated mapping of high wildfire hazard areas, floodplains, and other natural hazard areas within the county.

Policy 7.1.3. Communicate and cooperate with federal, state, and local entities to clarify responsibilities regarding wildfire mitigation and suppression to improve fire protection services.

Policy 7.1.4. Use the development code to provide incentives and regulations to manage development in areas prone to natural hazards.

Policy 7.1.5. Work with agency partners to mitigate impacts of episodes of poor air quality resulting from wildfires and prescribed burning in the region.

Policy 7.1.6. Protect wildlife with wildland fire mitigation measures on private lands.

Policy 7.1.7. Address wildfire risk, particularly in the wildland urban interface.

Policy 7.1.8. Identify all areas not protected by structural fire protection agencies and promote discussions to address fire protection in unprotected lands in the County.

Policy 7.1.9. Support forest management practices that reduce wildfire risk.

Policy 7.1.10. Support local fire protection districts and departments in providing and improving fire protection services.

Policy 7.1.11. Continue to review and revise County Code as needed to:

- a. Ensure that land use activities do not aggravate, accelerate, or increase the level of risk from natural hazards.
- b. Require development proposals to include an impact evaluation that reviews the ability of the affected fire agency to maintain an appropriate level of service to existing development and the proposed development.
- c. Minimize erosion from development and ensure disturbed or exposed areas are promptly restored to a stable, natural and/or vegetated condition using natural materials or native plants.
- d. Ensure drainage from development or alterations to historic drainage patterns do not increase erosion on-site or on adjacent properties.
- e. Reduce problems associated with administration of the Floodplain Zone.
- f. Require new subdivisions and destination resorts to achieve FireWise Standards or other currently accepted fire mitigation standards from the beginning of the projects and maintain those standards in perpetuity.

Goal 7.2: Ensure the County's built environment and infrastructure are adequately prepared for natural disasters.

Policy 7.2.1. Increase the quality, resiliency, diversity, and redundancy of utility and transportation infrastructure to increase chances of continued service following a natural disaster.

Policy 7.2.2. Prohibit the development of new essential public facilities and uses that serve vulnerable populations from being located within areas at high risk of flooding and wildfire, and aim to relocate existing uses in these areas.

Policy 7.2.3. Support Central Oregon Ready, Responsive, Resilient (CORE3) regional coordinated emergency services training facility.

Policy 7.2.4. Coordinate with emergency service providers when new development is proposed to ensure that response capacity can meet the needs of the new development.

Policy 7.2.5. Require new development to follow home hardening, defensible space, and other resilient design strategies in areas prone to wildfires and other natural hazards.

Policy 7.2.6. Encourage and incentivize development that exceeds minimum building code standards and promote retrofitting of existing development for better natural disaster resiliency.

Policy 7.2.7. Require development to be designed to minimize alteration of the natural landform in areas subject to slope instability, drainage issues or erosion.

Policy 7.2.8. Regulate development in designated floodplains identified on the Deschutes County Zoning Map based on Federal Emergency Management Act regulations.

- a. Continue evaluation of participation in and implementation of the Community Rating System as part of the National Flood Insurance Program.
- b. Cooperate with other stakeholders to identify alternatives for acquiring and/or relocating existing structures prone to flooding.

- c. Continue to coordinate with stakeholders and agency staff to correct mapping errors.

Goal 7.3: Develop programs that inform the public about the increased risks from natural hazards.

Policy 7.3.1. Identify high risk, high need populations and ensure equitable access to emergency preparedness and recovery services.

Policy 7.3.2. Increase outreach and education for hazard awareness and natural disaster preparedness, especially for low-income, elderly, non-English speaking, and other vulnerable populations.

Policy 7.3.3. Expand partnerships with government agencies, utilities, and other groups that can help Deschutes County residents prepare for natural disasters.

Policy 7.3.4. Work with regional partners to establish and maintain adequate support for a Deschutes County Community Emergency Response Team (CERT) to aid in responding to natural hazard events.

Policy 7.3.5. Promote and support business resilience planning.





8

Recreation



Opportunities, Challenges, and Considerations

Recreation is an important quality of life issue for Deschutes County and recreational tourism is a key part of the local economy. Both residents and visitors are drawn by the County's extensive public lands, seasonal climate, and wide variety of activities and settings. Recreational opportunities include places set aside for specific activities such as campgrounds or sports fields as well as passive spaces such as natural areas.

The primary focus of recreation in rural Deschutes County is outdoor recreation. Outdoor activities promote healthy communities by encouraging people to enjoy an active lifestyle and by providing opportunities to reconnect with the natural world.

Deschutes County does not have a parks department; instead, it coordinates with the federal and state agencies, local park districts, and private entities that provide park and recreational opportunities. Coordination assures that resources are used efficiently, and duplication is avoided. With a holistic view of recreation in Deschutes County, the County can also provide other agencies and jurisdictions with guidance for service gaps to fill.

Future Challenges to Recreation

The health of the County's recreational assets and industry is inexorably tied to the health of the land, forests, and waterways of Central Oregon. The effects of human activity - from development pressures and overuse of recreational facilities to resource extraction and climate change - will have a significant impact on recreation in Deschutes County. Some of these impacts include:

- Changes in precipitation affecting the timing and conditions for winter sports
- Loss of habitat
- Wildfire and risk of wildfire limiting recreational access
- Increased number of dangerously warm days.

There are several environmental concerns that may affect parks and recreation in Deschutes County in the future. Activities such as hiking, hunting, fishing, swimming, and foraging are an important part of recreation in Deschutes County - these activities are likely to be impacted by future changes to the climate.



Photo Credit: Ryan Westby

Fishing may be impacted by drought as water bodies warm and seasonally drop. Foraging animals, like deer and elk, may express changing behavior like earlier-season high elevation foraging and increased interactions with agricultural communities due to drought. Drought also severely reduces the prominence of fruiting fungi for annual mushroom hunters, and may increase pressure on the remaining harvest areas. Fungi are crucial to the health of the forest ecosystem, adapting and responding to changing conditions and disease.

These conditions may also lead to greater frequency and severity of algal and bacterial blooms in fresh water. Algal blooms in other parts of the state have led to drinking water concerns, but Deschutes County cities are supplied by groundwater and so the risk in algal blooms is mainly to recreation – boaters, swimmers, anglers, and campers may be less motivated to visit.

Winter Sports

Snow sports are a significant component of recreation in Deschutes County. Overall decline in snow pack is expected in the coming decades, which will heavily impact winter sports that rely on snowpack in the Cascades. At the Mt. Bachelor Ski Resort, April Snowpack is expected to decline between 11% and 18% by the middle of the century and between 18% and 43% by the

end of the century. Additionally, inconsistent snowpack buildup will increase due to more precipitation falling as rain instead of snow throughout the season, making winter sports seasons less predictable.

Summer Recreation

The summer outdoor season has additional risks from degraded to severely degraded air quality due to wildfire throughout the west coast. With degraded air quality, outdoor recreators may avoid the region, impacting regional income and generally degrading the perception of the county as a retreat to the natural world. Additionally, an increase in the frequency of very high temperature days may impact the safety and desirability of outdoor recreation.



Context

Deschutes County does not directly provide parks and recreation services. The only public parks the County maintains are a section of the County Fairgrounds and the Worrell Wayside in downtown Bend. Although there is no County parks department, there are County-owned properties which are designated as park lands. Parks and recreation services are provided by the following entities.

OREGON PARKS AND RECREATION DEPARTMENT

OPRD owns and manages several key parks and scenic areas in the County. These include state parks such as line Falls State Scenic Viewpoint, La Pine State Park, Pilot Butte State Scenic Viewpoint, Smith Rock State Park, and Tumalo State Park. In addition, they also manage the Upper and Middle Deschutes River Scenic Waterway segments, and Cascade Lakes and McKenzie Pass-Santiam Pass Scenic Byways.

THE BEND PARKS AND RECREATION SPECIAL DISTRICT (BPRD)

BPRD owns and maintains approximately 3,035 acres of parkland including 81 parks and 70 miles of trails. The largest park district in the County, the taxing district follows the City of Bend Urban Growth Boundary closely, although extends past the UGB to the west and east to include several properties outside of city limits.

THE LA PINE PARKS AND RECREATION SPECIAL DISTRICT

This district operates in 85 square miles and 11 parks and recreation facilities in southern Deschutes County including the City of La Pine.

THE REDMOND AREA PARKS AND RECREATION SPECIAL DISTRICT

The District operates five recreational facilities including the Cascade Swim Center and extends beyond city limits to Tetherow Crossing. In 2022, the district received voter approval for a general obligation bond to build a new community center with a variety of recreational, fitness, and therapeutic activities.

THE SISTERS PARK AND RECREATION SPECIAL DISTRICT

Operates approximately 15 acres of land within City of Sisters city limits, including Bike Park 242, Hyzer Pines Disc Golf Course, a playground, a skatepark, and Coffield Community Center. The district boundary extends far past city limits, serving approximately 14,000 residents through programming and activities.

THE U.S. FOREST SERVICE, BUREAU OF LAND MANAGEMENT

Approximately 76% of the County's total land area is owned by the federal government, primarily these two agencies. Community members seek out extensive recreation activities in these areas, including skiing, mountain biking, hiking, backpacking, fishing, hunting, kayaking, and off-road vehicle riding.

COUNTY-OWNED OPEN SPACE

Starting in 1994 the County received donation of several properties along rivers, creeks, or streams or with wildlife, wetlands, or other value as park lands. The intent of this donation was not to develop these lands for park use but rather to preserve lands with valuable resources, which were protected through deed restrictions. The park designation means that the lands would be retained in public ownership unless



there was a public hearing and the Board of County Commissioners determined that selling was in the best interest of the public.

ORS 275.330 governs the disposal of these lands, stating that if they are sold the proceeds must be dedicated to park or recreation purposes. As of 2009, there were approximately 70 properties designated as park lands.

COUNTY FAIRGROUND AND EXPO CENTER

The 132-acre County Fairground and Expo Center site is located southwest of the Redmond airport, and it is placed strategically at the hub of the tri-county area (Deschutes, Jefferson, Crook Counties). The facility is used for a variety of public and private events. Each of its lawn areas can be rented exclusively by groups for different events, which range from weddings, picnics, reunions, car shows, RV / motorcycle rallies, animal shows, and outdoor trade shows, among others.

Key Community Considerations

Recreation and access to nature is a key component of life in Deschutes County and a primary attraction for both residents and visitors. As part of this Comprehensive Plan update, community members noted concerns about increasing recreational use or overuse, conflicts among different users, and the need for permitting or other strategies to manage use of federally owned lands, particularly in popular locations.

Because the county does not have a parks and recreation department, community members have identified service gaps and lack of continuity of trail networks, habitat and species preservation, and land access policies. Residents are concerned with private recreation development and use of natural resources such as land and water.

The tension between resource use of forest land and water, recreational use of these areas, and natural resource protection is evident among members of the community

Community members also noted that it is imperative for all special districts and agencies providing park services to coordinate on integrated services. These partnerships will be key to ensure sustainable recreation and land stewardship as the County continues to grow.



Photo Credit: Ryan Westby

Goals and Policies

Goal 8.1: Increase affordable, sustainable, and diverse recreation opportunities through partnerships with government and private entities.

Policy 8.1.1. Reduce barriers to regional parks and recreation projects in Deschutes County, including acknowledgement or adoption of federal, state and local parks district trail and facility plans.

Policy 8.1.2. Collaborate with partners to develop a regional system of trails and open spaces, balancing recommendations from local park districts, County, state, and federal recreation plans and studies and property owner considerations, particularly for projects adjacent to farm and forest lands.

Policy 8.1.3. Encourage coordination between the U.S. Forest Service, the Bureau of Land Management and recreational use interest groups to minimize environmental degradation, agricultural fragmentation and user conflicts on public and private land.

Policy 8.1.4. Support the creation and improvement of accessible park and recreation opportunities in compliance with the Americans with Disabilities Act.

Policy 8.1.5. Support efforts to coordinate recreation planning between the County, park and recreation districts, school districts, irrigation districts, unincorporated communities, and cities.

Policy 8.1.6. Support the development of parks and trails identified in locally-adopted plans.

Policy 8.1.7. Coordinate with unincorporated communities to identify opportunities for parks, trails, open spaces, and community centers.

Policy 8.1.8. Support trail design standards and identify specific funding sources for trails as part of future transportation system planning efforts to ensure development of identified priority rural trail segments and bicycle routes.

Policy 8.1.9. Explore creation of a County Parks and Recreation Department to increase the County's role in recreation and natural resource management and implement if deemed appropriate.

Policy 8.1.10. Support community efforts for acquisition and management of Skyline Forest as a community amenity.

Policy 8.1.11. Work with stakeholders to promote new recreational and tourist initiatives that maintain the integrity of the natural environment.



A photograph of a family of four seen from behind, looking out over a desert landscape at sunset. The father on the left wears a plaid shirt and a cowboy hat. The young boy in the center wears a straw hat and a plaid shirt. The mother on the right wears a white cowboy hat and a yellow tiered dress. The sun is low on the horizon, creating a warm, golden glow and silhouettes of the family and distant structures.

9

Economic Development



Opportunities, Challenges, and Considerations

Statewide Planning Goal 9 provides guidance on economic development for Oregon jurisdictions. This goal is intended to “provide adequate opportunities throughout the state for a variety of economic activities vital to the health, welfare, and prosperity of Oregon’s citizens.” For Deschutes County, implementing Goal 9 is focused on ensuring opportunities for economic development, while protecting rural land uses.

In Deschutes County, several areas are designated for rural industrial and rural commercial activities to allow for activities such as manufacturing or resource processing. Additionally, unincorporated communities and rural service centers allow for limited commercial opportunities, including restaurants, services, and retail stores.

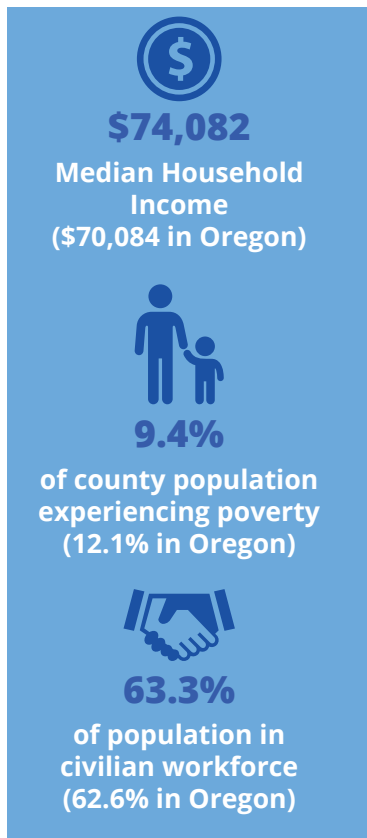
Economic development agencies in Central Oregon cite the tremendous natural resource access and amenities to be essential for drawing in new businesses and workers. As the County grows, childcare will continue to be challenge for rural residents along with access to high speed and reliable internet services.

A continued challenge for Deschutes County will be to balance adequate economic opportunity for rural residents, with protection of natural resource lands. Community members have expressed interest in providing for new and emerging economic opportunities through renewable energy development, including potential for biomass, solar, geothermal, and wind projects that may be compatible with rural uses.

Context

Deschutes County's economy was initially built around farming and logging. As those sectors declined in the 20th century, recreation and tourism increased as people were drawn to the beauty and opportunities to recreate on public lands. Deschutes County's high quality of life became a draw for employers and employees alike. In the 2000's, the building sector boomed as new housing was built to meet both increased housing demand and the real estate speculation that followed. Housing prices rose so high that workforce housing became a limiting factor in economic growth. The period of strong growth ended with the national recession that began in late 2007, leading to falling housing prices and rising unemployment. The 2010's and early 2020's have proven to be another period of booming economic growth for Deschutes County, exacerbated by the COVID-19 pandemic and the dramatic increase in remote work.

Deschutes County's economy remains strong compared to Oregon as a whole, as shown in the statistics below.

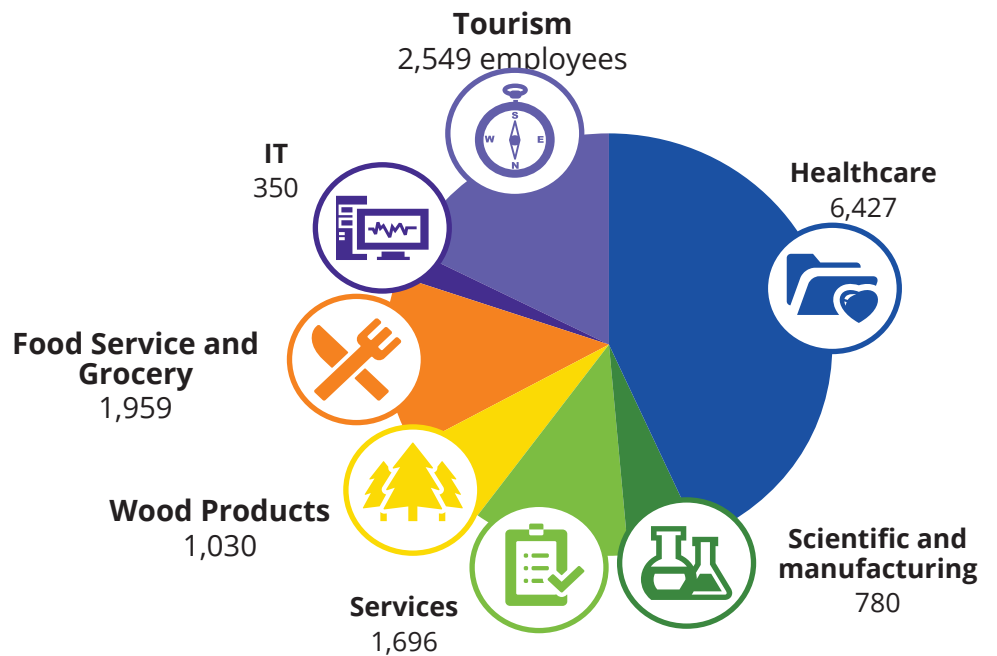


Primary Industries

Deschutes County is known for its abundant natural resources, though the County continues to balance its economy through a variety of industries. The top 10 industries overall in Deschutes County (including those within urban areas) are:

1. Trade, transportation, utilities (15,742 jobs)
2. Education/Health Services (13,479 jobs)
3. Goods-producing (13,169 jobs)
4. Leisure and hospitality (12,990 jobs)
5. Health care and social assistance (12,541 jobs)
6. Retail trade (11,714 jobs)
7. Accommodation and food services (10,718 jobs)
8. Professional/business services (10,067 jobs)
9. Food services/drinking places (8,304 jobs)
10. Local government (7,396 jobs)

2022 Central Oregon Largest Private Employers by Industry



2022 Central Oregon Largest Private Employers

Rank	Employees	Employer
1	4,509	St. Charles Health System regional
2	1,030	Bright Wood Corporation regional
3	1,000	Sunriver Resort
4	916	Les Schwab Headquarters & Tire Centers regional
5	894	Mt. Bachelor
6	714	Safeway regional
7	640	NC Fred Meyer regional
8	628	Summit Medical Group regional
9	605	McDonald's regional
10	440	Lonza, formerly Bend Research
11	415	Rosendin Electric
12	391	Mosaic Medical regional
13	375	Black Butte Ranch
14	365	ibex
15	350	Meta Platforms, Inc. - Facebook Data Center
16	340	BasX
17	336	PacificSource
18	296	High Lakes Health Care regional
19	280	Brasada Ranch
20	267	Medline ReNewal

Tourism

Tourism continues to be a major facet of Central Oregon's economy, with approximately 4.5 million visitors entering Central Oregon each year. The majority of those visitors travel to Bend and Deschutes County in particular but other communities in the County also are popular destinations, including Sisters, Redmond and Terrebonne, as well as destination resort such as Sunriver, Eagle Crest, Pronghorn and others. In addition, recreational opportunities throughout the County also attract a multitude of visitors, from skiing on Mt. Bachelor, hiking in the Three Sisters Wilderness, and rafting the Deschutes River, to fishing, hunting and camping at dispersed sites on National Forest and BLM land throughout the County.



Tourism Impacts



4.27
Million

Annual overnight visitors in
Central Oregon (comprised of
Deschutes, Crook, Jefferson, and
south Wasco counties)



In 2022, employment directly
generated by travel spending
in Central Oregon was

10,270
Jobs (up 13.1%)

\$28.5

Million in Tax Revenues

Transient Tax Revenues
in 2022
Central Oregon as a whole

\$25.7
Million

Deschutes County alone

\$293 

Average trip spend, per person,
from an overnight visitor

Source: Oregon Travel Impacts, 2022 by Dean Runyan Associates for the Oregon Tourism Commission

Construction and Development

While much of the County's economic activity occurs in urban areas, staff notes that agricultural, forestry, and construction industries also provide economic growth in Deschutes County. Construction of rural housing can support additional workforce in areas outside of city limits while also utilizing local trade industries. Construction of rural industrial or commercial projects provide economic opportunities that serve rural communities, without a trip into an adjacent city.

Coordination

A key partner for the County in promoting a healthy economy is Economic Development for Central Oregon (EDCO). This private non-profit organization is dedicated to diversifying the tri-county regional economy by attracting new investment and jobs. This organization also tracks the local economy.

Between 2010 and 2013, Deschutes, Crook, and Jefferson counties, and their respective cities established a regional large lot industrial land need analysis, ultimately leading to changes to state law, OAR 660-024-0040 and 45. This rule provides that that the large lot industrial land need analysis agreed upon by all of the parties, once adopted by each of the participating governmental entities, would be sufficient to demonstrate a need for up to nine large industrial sites in Central Oregon. Six of the sites will be made available initially. Three more sites may be added under the rule as the original sites are occupied. Intergovernmental agreements were formed with the regions jurisdictions and Central Oregon Intergovernmental Council in 2013 to provide oversight of this new regional large lot industrial lands program. Participating local governments will review the program after all nine sites have been occupied, or after ten years, whichever comes first.

Connections to Other Comprehensive Plan Chapters

Much of the County's economic development activity is directly related to farmland (Chapter 3), forest land (Chapter 3), mineral and aggregate resources (Chapter 4), and natural resources (Chapter 5). Additional information can be found in these sections.

Key Community Considerations

As part of this comprehensive plan update, community members expressed the following:

- A recognition that tourism is an important industry in the County, but some concern that the interests of tourism-related activity play an outsized role in the County.
- Desire for a strong and diverse economy that benefits local residents.
- Strong interest in expanding access to childcare for rural residents, especially those who travel into incorporated cities for employment.
- Interest in exploring new economic opportunities including renewable energy development.
- Desire for additional educational and job training opportunities, including expansion of colleges and universities.



Economic Development Goals and Policies

Goal 9.1: Maintain a stable, sustainable, and thriving rural economy, compatible with rural lifestyles and a healthy environment.

Policy 9.1.1. Promote rural economic initiatives, including home-based businesses, that maintain the integrity of the rural character and natural environment.

Policy 9.1.2. Support a regional approach to economic development in concert with Economic Development for Central Oregon or and similar organizations.

Policy 9.1.3. Support growth and expansion of colleges and universities, regional educational facilities, and workforce training programs.

Policy 9.1.4. Support renewable energy generation as an important economic development initiative, while taking other community goals and concerns into consideration.

Policy 9.1.5. Support and participate in master planning for airports in Deschutes County, including expansion of noise impact boundaries and upgrades to facilities as airports continue to grow.

Policy 9.1.6. Within the parameters of State land use regulations, permit limited local-serving commercial uses in higher-density rural communities. Support limited and locally-serving commercial uses in appropriate locations.

Policy 9.1.7. Support expansion of high-speed internet in rural areas and integrate infrastructure such as fiber-optic cables into new development and road projects.

Policy 9.1.8. Support funding and development of childcare locations across the County to support families in the workforce.

Policy 9.1.9. Explore need for master planning for rural economic development lands, including Deschutes Junction.

Policy 9.1.10. Recognize the importance of maintaining a large-lot industrial land supply that is readily developable in Central Oregon, and support a multi-jurisdictional cooperative effort to designate these sites.

Land Designated and Zoned Rural Commercial

Policy 9.1.11. Update the policies for land designated Rural Commercial as needed.

Policy 9.1.12. Rural Commercial designated lands located outside of urban growth boundaries shall allow uses less intense than those allowed in unincorporated communities as defined by OAR 660-22 or its successor. Rural Commercial zoning shall be applied to any new properties that are approved for Rural Commercial designations as allowed by State Statute, Oregon Administrative Rules, and this Comprehensive Plan.

Policy 9.1.13. Rural Commercial zoning shall be applied to Deschutes Junction, Deschutes River Woods Store, Pine Forest, Rosland, and Spring River.

Policy 9.1.14. In Spring River there shall be a Limited Use Combining Zone.

Policy 9.1.15. County Comprehensive Plan policies and land use regulations shall ensure that new uses authorized on Rural Commercial designated lands do not adversely affect agricultural and forest uses in the surrounding area.

Policy 9.1.16. 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 660-22. 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.

Policy 9.1.17. New commercial uses shall be limited in size to 2,500 square feet or if for an agricultural or forest-related use, 3,500 square feet.

Policy 9.1.18. A lawful use existing on or before November 5, 2002 that is not otherwise allowed in a Rural Commercial zone, may continue to exist subject to the county's nonconforming use regulations.

Policy 9.1.19. An existing lawful use may expand up to 25 percent of the total floor area existing on November 5, 2002.

Policy 9.1.20. The Rural Commercial zoning regulations shall allow a mixed use of residential or rural commercial uses.

Policy 9.1.21. Residential and commercial uses shall be served by DEQ approved on-site sewage disposal systems.

Policy 9.1.22. Residential and commercial uses shall be served by on-site wells or public water systems.

Policy 9.1.23. Community sewer systems, motels, hotels, and industrial uses shall not be allowed.

Policy 9.1.24. Recreational vehicle or trailer parks and other uses catering to travelers shall be permitted.

Land Designated and Zoned Rural Industrial

Policy 9.1.25. Update the policies for lands designated Rural Industrial as needed.

Policy 9.1.26. 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 660-22 or any successor.

Policy 9.1.27. Limited Use Combining zones shall be applied to the Redmond Military (Tax lot 1513000000116), Deschutes Junction (Tax lot 161226C000301, Tax lot 161226C000300, Tax lot 161226C000111, and Tax lot 161226A000203) to ensure permitted uses are compatible with surrounding farm and forest lands.

Policy 9.1.28. To ensure that the uses in Rural Industrial zone on tax lot 16-12-26C-301, as described in Exhibit "C" and depicted on Exhibit "D" attached to Ordinance 2009-007 and incorporated by reference herein, are limited in nature and scope, the Rural Industrial zoning on that site shall be subject to a Limited Use Combining Zone which will limit the uses to storage, crushing, processing, sale and distribution of minerals.

Policy 9.1.29. To ensure that the uses in the Rural Industrial Zone on Tax Lot 300 on Assessor's Map 16-12-26C-300 and Tax Lot 203 on Assessor's Map 16-12-26A-300 and portions of Tax Lot 111 on Assessor's Map 16-12-26C-111 as described in Exhibit 'D' and depicted in Exhibit 'E' attached to Ordinance 2010-030 and incorporated by reference herein, 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 minerals, subject to conditional use and site plan approval.

Policy 9.1.30. 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 area..

Policy 9.1.31. 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 of raw materials produced in rural areas, for which there is no floor area per use limitation.

Policy 9.1.32. 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 non-conforming use regulations.

Policy 9.1.33. 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.

Policy 9.1.34. Residential and industrial uses shall be served by DEQ approved on-site sewage disposal systems.

Policy 9.1.35. Residential and industrial uses shall be served by on-site wells or public water systems.

Policy 9.1.36. Community sewer systems shall not be allowed in Rural Industrial zones.

Policy 9.1.37. A 2009 exception (Ordinance 2009-007) included an irrevocably committed exception to Goal 3 and a reasons exception to Goal 14 to allow rural industrial use with a Limited Use Combining Zone for storage, crushing, processing, sale and distribution of minerals.

Policy 9.1.38. A 2010 exception (Ordinance 2010-030) took a reasons exception to Goal 14 with a Limited Use Combining Zone for storage, crushing, processing, sale and distribution of minerals.

Policy 9.1.39. Properties for which a property owner has demonstrated that Goals 3 and 4 do not apply may be considered for Rural Industrial designation as allowed by State Statute, Oregon Administrative rules and this Comprehensive Plan. Rural Industrial zoning shall be applied to a new property that is approved for the Rural Industrial Plan designation.

Rural Service Center Policies

Goal 9.2: Support the creation and continuation of rural service centers that support rural communities while not adversely affecting nearby agricultural and forest uses.

Policy 9.2.1. Rural Service Centers in Alfalfa, Brothers, Hampton, Wistlestop, and Wildhunt are identified on the Comprehensive Plan Map and shall have zoning consistent with Comprehensive Plan designations.

Policy 9.2.2. In Alfalfa, 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. 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.

Policy 9.2.3. Ensure that land uses at Rural Service Centers do not adversely affect agricultural and forest uses in the surrounding areas.

Policy 9.2.4. Zoning in rural service areas 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 such as health and retail services.

Policy 9.2.5. Residential and commercial uses shall be served by DEQ approved on-site sewage disposal systems.

Policy 9.2.6. Residential and commercial uses shall be served by onsite wells or public water systems.

Policy 9.2.7. Community water systems, motels, hotels and industrial uses shall not be allowed.

Policy 9.2.8. Recreational vehicle or trailer parks and other uses catering to travelers shall be permitted.



10

Housing





Opportunities, Challenges, and Considerations

Deschutes County faces a variety of housing demands, issues, and challenges. The County continues to be a desirable and attractive place to live, with access to jobs, recreation, beautiful natural landscapes, and a variety of other amenities. The County's population is projected to continue to grow in the coming decades. At the same time, there are several challenges to the development of housing in the County. Some of the key issues the County faces today include increased demand for rural housing; housing affordability; state planning requirements related to Urban Growth Boundaries, farm and forest land, destination resorts, and others; water availability; and issues related to homelessness.

Context

PROJECTED POPULATION GROWTH IN UNINCORPORATED DESCHUTES COUNTY

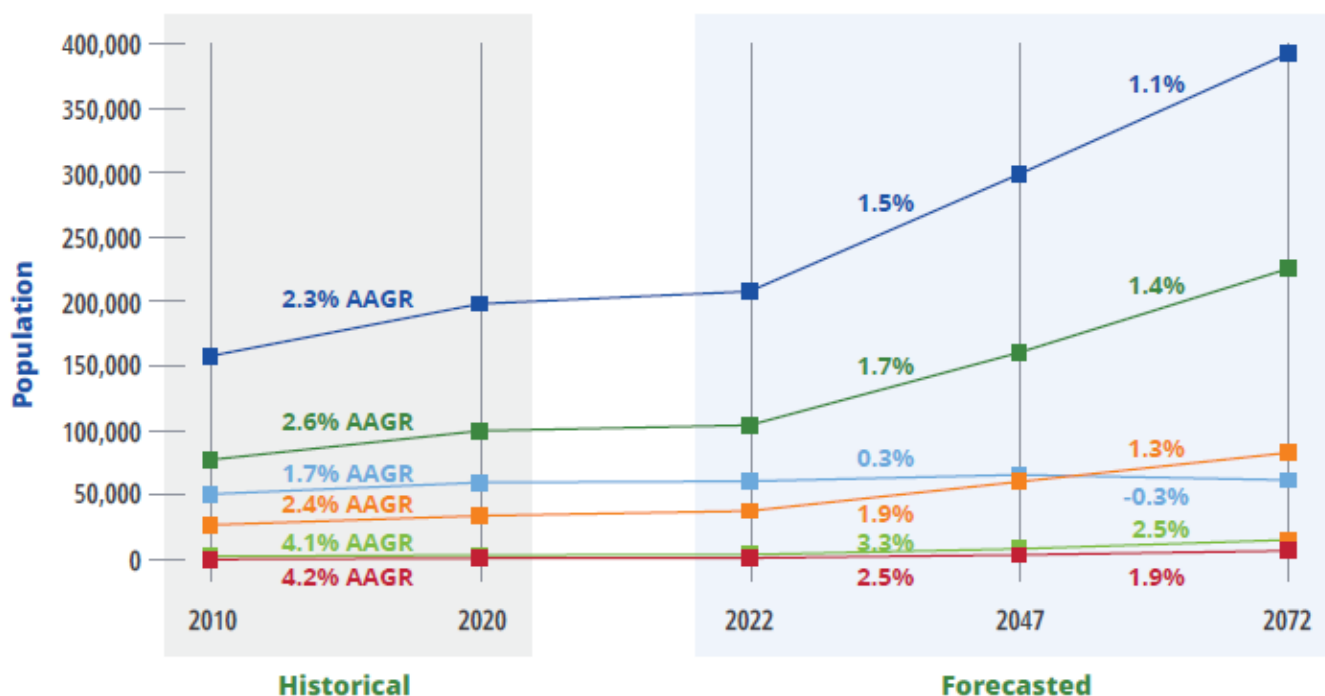
In 2024, Deschutes County continues to be one of the fastest growing counties in Oregon, and that trend is expected to continue. Significant growth is expected to occur in Deschutes County in the coming years (over 90,000 new residents in the next 25 years). However, the majority of this growth is forecasted to happen in urban areas with a more modest amount occurring in unincorporated parts of the County (about 5,000 additional people during the same period). *(Source: Portland State University Population Research Center)*

INCREASED DEMAND FOR RURAL HOUSING

Between 2010 and 2022, Deschutes County processed seven applications to rezone approximately 1,200 acres of property from a non-residential zone to a residential zone, with several more applications recently submitted and under review. Most of these applicants requested rezonings of farmland due to poor



Historical and Forecasted Population and Average Annual Growth Rate in Deschutes County and its Sub-Areas



soil quality for farming. This trend is likely to continue.

HOUSING AFFORDABILITY

The median value of owner-occupied housing units in Deschutes County (including cities), is significantly higher than that of the State of Oregon (\$435,600 compared to \$362,200 according to 2017-2021 Census figures), and consistently increasing. In July 2023, Becon Appraisal Group reported an all-time high median home value for Bend area homes, in the amount of \$785,000. The same report estimated a median home price as \$694,000 for Sisters area homes, \$473,000 for Redmond area homes, and \$401,000 for La Pine area homes. Given that median income is generally on par with the state as a whole, high housing prices are likely an indicator of an inadequate supply of housing affordable to many residents of the Deschutes County, particularly those with low to moderate incomes.

STATE PLANNING REQUIREMENTS

Although Deschutes County has numerous prospects to expand residential development, some of these opportunities face challenges with respect to state rules and regulations. The Oregon land use system is designed to concentrate most growth within Urban Growth Boundaries. A variety of statewide planning goals, laws, and administrative rules designed to protect farm and forest land, regulate destination resorts, and ensure cost-effective provision of infrastructure limit where and how housing can be built outside of urban areas.

WATER AVAILABILITY AND CONSUMPTION

A growing demand for water for residential, business, recreation, and agricultural uses; changes in water table depth; allocation of water rights; and potential future changes in water supply related to climate change all may impact the availability of water to support new housing. Water resources are discussed in Chapter 5 in more detail.

Vacant Lots in Resort Areas

Resort Area	Number of Vacant Lots
Destination Resorts	
Caldera Springs	101
Eagle Crest	139
Pronghorn	285
Tetherow	200
Resort Communities	
Black Butte	27
In of the 7th Mountain/Widgi Creek	12
Urban Unincorporated Area	
Sunriver	118
Total Vacancies, Resort Areas	887

Vacant Lots in Rural Residential Areas

Rural Residential Areas	Number of Vacant Lots
Rural Residential Zones	
Rural Residential	2,139
Multiple Use Agriculture	518
Suburban Low Density Rural Residential	32
Urban Area Reserve	292
Rural Communities	
Tumalo (TUR/TUR5)	32
Terrebonne (TER/TER5)	134
Total Vacancies, Rural Residential Areas	3,447

Future Opportunities for Rural Residential Lots

Rural Residential Areas	Count
Thornburgh Destination Resort	950
Caldera Springs Destination Resort Phase 2	340
West Side Transect	187
Tumalo Irrigation District Rezoned Parcel	72
Gopher Gulch (North of Bend)	10
Total Vacancies, Rural Residential Areas	1,559

HOMELESSNESS

The incidence and impacts of homelessness have been rising in Deschutes County, as well as across the state and nation in recent years. A variety of factors have contributed to this trend, including rising housing costs, increasing income disparities, and limited transitional housing and supportive resources. As a result, impacts on both urban areas and natural resources have increased, with elevated levels of community concern and support for more action by the County and its partners to address these issues.

BALANCING DEVELOPMENT OPPORTUNITIES WITH VISITOR ACCOMMODATIONS

Although population growth in unincorporated Deschutes County is forecasted to be relatively limited, rural parts of the County, including several destination resorts, include significant capacity for new residential development. Community members have expressed concern regarding the use of these homes as primary residences, second homes, or vacation rentals.

RECENT CHANGES IN COUNTY HOUSING RULES

The County has recently adopted and/or is currently considering new rules related to development and regulation of different types of housing. These include:

- Changes to where accessory dwelling units are allowed.
- Repeal of the County's "Conventional Housing Combining Zone" which prohibited manufactured homes in three large unincorporated areas east and west of Tumalo and east of Bend.

What type of housing is allowed in unincorporated Deschutes County?

Residential development in Deschutes County is less dense than the Cities of Bend, La Pine, Redmond and Sisters due to state land use rules. Single family homes are most common type of housing throughout the county in all zones.

Recreational vehicles are allowed to be placed on property as rental dwellings or for temporary living situations such as a hardship dwellings for family members. Accessory Dwelling Units or ADUs, also known as “granny flats” or “carriage houses” are smaller secondary residences on a property. In 2021, the Oregon legislature passed Senate Bill 391 which allows for rural ADUs with certain parameters, and Deschutes County is currently in the process of implementing this legislation.

Key Community Considerations

Given the range of issues and conditions discussed related to this important topic, the Comprehensive Plan includes a variety of policies to guide future development of housing and address impacts to residents in rural areas. Additional related policies are found in Chapter 2 (Land Use) and Chapter 13 (Transportation). These strategies are underpinned by community sentiment, as described below.

- Some community members expressed support for allowing or encouraging growth in rural areas, particularly to alleviate housing pressure and provide larger-lot options. However, engagement showed greater opposition to residential development outside of Urban Growth Boundaries.
- Overall support for allowing a wider range of types of housing (e.g., accessory dwelling units, manufactured homes, recreational vehicles, etc.), but concerns about the quality of this housing and additional rural residential development in general.
- Concern about homelessness and its impacts, coupled with strong support for a proactive approach by the County to work with partner agencies and groups to address this issue.
- Relatively strong opposition for rezoning low productivity farmland with poor soil to allow greater opportunities for housing, due to negative impact on open space, habitat, transportation, and active farm practices.



Goals and Policies

Goal 10.1: Support housing opportunities and choices for rural County residents in unincorporated Deschutes County, while meeting health and safety concerns, minimizing environmental and resource land impacts.

Policy 10.1.1. Incorporate annual farm and forest housing reports into a wider system for tracking the cumulative impacts of rural housing development.

Policy 10.1.2. Continue to update the County zoning ordinance and work with partnering organizations to address health and safety issues associated with housing.

Policy 10.1.3. Encourage and/or require, where consistent with County policies and requirements, new subdivisions to incorporate alternative development patterns, such as cluster development, that mitigate community and environmental impacts.

Policy 10.1.4. Implement legislation allowing accessory dwelling units in rural areas to expand housing choices.

Policy 10.1.5. Create and encourage opportunities for flexibility in rural housing including development of manufactured home parks, safe parking sites, and RV parking areas.

Policy 10.1.6. Reduce barriers to housing development and supporting services (such as locally serving medical offices or similar uses) in unincorporated communities.

Policy 10.1.7. Explore grants and funding opportunities for ongoing maintenance and rehabilitation of existing housing stock.

Policy 10.1.8. Evaluate the impacts of short-term rentals and consider regulations to mitigate impacts, as appropriate.

Goal 10.2: Support agencies and non-profits that provide affordable housing.

Policy 10.2.1. Support Central Oregon Regional Housing Authority and other stakeholders to meet the housing needs of all Deschutes County residents by assisting, as needed, in coordinating and implementing housing assistance programs.

Policy 10.2.2. Utilize block grants and other funding to assist in providing and maintaining low- and moderate-income housing in partnership with Housing Works and other housing agencies and providers in Deschutes County.

Goal 10.3: Regulate the location and density of housing in the area located between the Bend UGB and Shevlin Park through Westside Transect policies

Policy 10.3.1. Protect the sensitive eco-systems and interrelationships of the urban/rural interface on the west side of Bend between the urban area and Shevlin Park and the public and forestlands to the west.

Policy 10.3.2. Protect natural resources and environmentally sensitive areas and provide special setbacks between development and Shevlin Park, Tumalo Creek, and forestlands.

Policy 10.3.3. Development patterns shall reflect the protection of land with environmental significance and fire-wise and other fire prevention community design best practices.

Policy 10.3.4. Limit residential development to 200 single-family residential lots.

Policy 10.3.5. Manage all areas outside of the structural building envelopes on residential lots for wildfire mitigation and wildlife habitat in accordance with coordinated plans prepared by professionals, reviewed annually with reports submitted to the County every three years. The wildfire mitigation and

wildlife habitat plans shall be funded through homeowner assessments and administered and enforced by a homeowners association established at the time of creation of any residential lots.

Policy 10.3.6. Reduce the impact of construction by using best management practices to minimize site disturbance during construction and construction impacts (i.e., erosion) on Shevlin Park, Tumalo Creek, and forestlands.

Policy 10.3.7. Coordinate with the City of Bend for mitigation of impacts to City infrastructure from development within the Transect.

Goal 10.4: Participate in regional efforts to plan for housing.

Policy 10.4.1. Collaborate with cities and private sector partners on innovative housing developments to meet the region's housing needs.

Policy 10.4.2. Partner with cities to incentivize development within urban growth boundaries and reduce infrastructure costs for workforce and affordable housing.

Policy 10.4.3. Partner with local, state, and federal agencies to address and limit nuisance and public health issues related to homelessness.

Policy 10.4.4. Utilize County owned land in city limits for affordable and workforce housing, where appropriate.

Policy 10.4.5. Promote regional housing planning, including urban reserve planning for cities, to allow for longer term and multi-jurisdictional housing strategies.

Policy 10.4.6. Limit parcelization and development adjacent to cities or in conflict with planned and/or known road/utility corridors to preserve land for future urban development.



11

Unincorporated Communities and Destination Resorts





Opportunities, Challenges, and Considerations

Deschutes County is home to numerous unincorporated communities, which contain urban levels of development outside of city limits. Many of these communities provide services and amenities to rural residents. As the county continues to grow, many residents are concerned about increasingly dense development in these unincorporated areas which may feel out of scale with the surrounding rural uses. However, many residents also see the need for more opportunities for small-scale rural services and retail opportunities to serve existing and future community members. Deschutes County will need to continue to refine the vision and guidelines for development in these areas while balancing infrastructure needs, protection of natural resources and rural land uses, and community desires.

In addition to these unincorporated communities, Resort Communities and Destination Resorts are another form of development outside of urban areas. Historically, resort-type development served as a stabilizing force in Central Oregon's economy and drew in new residents and businesses. In recent years, development of destination resorts has become increasingly contentious, with litigation and extensive public participation in land use hearings. Many residents see value in the amenities and economic value associated with destination resorts, although have concerns regarding their natural resource impacts.

Context

Unincorporated Communities

Deschutes County's unincorporated communities generally pre-date Oregon's statewide land use system and have more urban-scale uses in outer-lying rural areas, within a defined geographic boundary.

In 1994, Oregon Administrative Rules (OARs) were amended to define unincorporated communities and the types of uses that could be allowed in these areas. The OARs established four types of unincorporated communities, all of which were required to be in existence at the time of the change - the Rule did not allow for new rural communities to be established. These community types are described below.

URBAN UNINCORPORATED COMMUNITY

This is a community which contains at least 150 permanent dwelling units, a mixture of land uses, and contains a community water and sewer system. Sunriver is an Urban Unincorporated community.

RURAL COMMUNITY

This is a community which consists of permanent residential dwellings and at least two other types of land uses – such as commercial, industrial, or public uses provided to the community or travelers. Terrebonne and Tumalo are Rural Communities and were platted prior to the

Unincorporated Communities and Destination Resorts

establishment of the County's subdivision ordinance.

RESORT COMMUNITY

This type of community was established for a recreation-related use on private land prior to 1989 when the state adopted its Destination Resort rules. Black Butte Ranch and Inn of the 7th Mountain/Widgi Creek are Resort Communities. It's important to note that there are several other resort style developments in the County on private lands called "Destination Resorts." See the next section for more information.

RURAL SERVICE CENTER DESIGNATION

This is an unincorporated community that has primarily commercial or industrial uses that provide goods and services to the surrounding rural area and travelers. These are the most common type of unincorporated community in Deschutes County and include Alfalfa, Brothers, Hampton, Millican, Whistlestop, and Wildhunt are limited in scale, often with only one or several parcels in the designation.

Destination Resorts

Destination resorts have been a key economic development strategy for Deschutes County. Many community members and visitors enjoy the recreational amenities and accommodations that Destination Resorts provide.

Since 1979 destination resorts have increased in importance to the economy of Deschutes County. Sunriver and Black Butte Ranch, as two of the county's original resorts, garnered a national reputation for their recreation facilities and visitor accommodations, serving as touchstones for Deschutes County's tourism industry. In 1989, recognizing the importance of tourism to the economy of the State of Oregon, the state legislature and the Land Conservation and Development Commission (LCDC) took steps to make it easier to establish destination resorts on rural lands in the state. Statewide Planning Goal 8, the recreation goal, 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 in rural resource lands. Under these changes, destination resorts may be sited in EFU zones where they weren't previously allowed. In 1990, LCDC amended the rule for siting destination resorts on forest lands as well.

Eagle Crest Resort, although it had existed prior to these changes, applied for legislative changes to comply with these new rules and expand onto adjacent lands.

In 2010, Deschutes County completed an amendment to its destination resort mapping process, adding "clear and objective" requirements for eligible and ineligible sites, and the process for amending the destination resort map based on changes in state law. Since that



Unincorporated Communities and Destination Resorts

time, Pronghorn, Caldera Springs, and Tetherow resorts have gone through the siting process. Resorts existing prior to the legislative change, such as Black Butte, Sunriver, and the Inn of the Seventh Mountain have also expanded and been rezoned to Urban Unincorporated Community and Resort Community, respectively. Thornburgh Resort has received preliminary approvals, beginning in 2006.

Key Community Considerations

Unincorporated Communities are limited in their development potential due to their specific geographic footprint. Protecting open space and natural resources while providing economic opportunities in these unincorporated areas continues to be a balancing act.

As additional rural development occurs, so does the demand for services and goods that can be reached without having to drive to an incorporated city. Aging residents have expressed a desire for additional medical care and offices in rural areas to support aging in place. On the other hand, many residents would prefer limiting development in unincorporated communities in order to preserve the rural character of the area.

Destination Resort development continues to be a contentious issue. Community members have expressed concern regarding the water use of large-scale development – specifically the effects to groundwater for neighboring property owners. Other community members express support for the economic and amenity benefits of destination resorts, noting that the current requirements sufficiently address natural resource concerns. Additional community conversations will be valuable to understand the diversity of perspectives on this topic.

Goals and Policies

Goal: To provide guidance for development of unincorporated communities and destination resorts.

Resort Community Policies

General Resort Community Policies

Policy 11.1.1. Land use regulations shall conform to the requirements of OAR 660 Division 22 or any successor.

Policy 11.1.2. Designated open space and common area, unless otherwise zoned for development, shall remain undeveloped except for community amenities such as bike and pedestrian paths, park and picnic areas. Areas developed as golf courses shall remain available for that purpose or for open space/recreation uses.

Policy 11.1.3. 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.

Policy 11.1.4. 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.



Unincorporated Communities and Destination Resorts

Policy 11.1.5. 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.

Black Butte Ranch General Policies

Policy 11.2.1. 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.

Policy 11.2.2. The County supports the design review standards administered by the Black Butte Ranch Architectural Review Committee.

Policy 11.2.3. 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.

Policy 11.2.4. 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.

Policy 11.2.5. Employee housing shall be located in the area zoned Black Butte Ranch-Utility/Limited Use Combining District (Black Butte Ranch-U/LU).

Policy 11.2.6. 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.

Policy 11.2.7. 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.

Policy 11.2.8. 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.

Policy 11.2.9. 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.

Policy 11.2.10. 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).

Policy 11.2.11. Surface mining within the Black Butte Ranch community boundary shall adhere to the following Goal 5 ESEE "Program to Meet Goal" requirements:

- a. Only the western most 38 acres of the site shall continue to be mined.

Unincorporated Communities and Destination Resorts

- b. 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.
- c. Noise impact shall be mitigated by buffering and screening.
- d. 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.
- e. 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).
- f. The conditions set forth in the August 10, 1989, letter of ODFW shall be adhered to.
- g. Extraction at the site shall be limited to five acres at a time with on-going incremental reclamation (subject to DOGAMI review and approval).
- h. 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.
- i. DOGAMI requirements for a permit once mining affects more than five acres outside the 8.6-acre exemption area shall be met.
- j. 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.

Black Butte Ranch Public Facility Policies

Policy 11.3.1. Police protection services shall be provided by the Black Butte Ranch Police Services District.

Policy 11.3.2. 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.

Policy 11.3.3. The Black Butte Ranch Water Distribution Company shall provide water service for the Black Butte Ranch Resort Community.

Policy 11.3.4. The Black Butte Ranch Corporation shall provide sewer service for Black Butte Ranch.

Policy 11.3.5. The Black Butte Ranch Fire Protection District shall provide fire protection services for Black Butte Ranch.

Policy 11.3.6. 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.

Inn of the 7th Mountain Widgi Creek General Policies

Policy 11.4.1. Any amendment to the allowable uses 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.

Policy 11.4.2. The County shall encourage and support land exchanges efforts by and between private property owners, public agencies, and public trusts for the purpose

of fostering public access to and protection of natural resources, such as rivers, streams, caves, areas/features of historical importance and other natural features.

Inn of the 7th Mountain/Widgi Creek Public Facility Policies

Policy 11.5.1. Police protection services shall be provided under contract with the Deschutes County Sheriff.

Policy 11.5.2. Water service shall be supplied by on-site wells for the Inn/Widgi Resort Community.

Policy 11.5.3. 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.

Policy 11.5.4. 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.

Policy 11.5.5. The Resort Community, not Deschutes County, shall maintain roads in the community.

Policy 11.5.6. The bicycle/pedestrian path system shall be maintained by the Inn/Widgi Owners Association.

Policy 11.5.7. 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

Destination Resorts Policies

Goal 11.6: Provide for development of destination resorts in the County 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 including habitat of threatened or endangered species, streams, rivers, and significant wetlands.

Policy 11.6.1. Provide a process for the siting of destination resorts facilities that enhance and diversify the recreational opportunities and economy of Deschutes County, on lands that have been mapped by Deschutes County as eligible for this purpose.

Goal 11.7: Provide for development of destination resorts consistent with Statewide Planning Goal 12 in a manner that will ensure the resorts are supported by adequate transportation facilities.

Policy 11.7.1. Destination resorts shall only be allowed within areas shown on the “Deschutes County Destination Resort Map” and when the resort complies with the requirements of Goal 8, ORS 197.435 to 197.467, and Deschutes County Code 18.113.

Policy 11.7.2. Ensure protection of water quality, recreational resources, and other County resources and values.

Policy 11.7.3. Ensure that destination resort developments support and implement strategies to provide workers with affordable housing options within or in close proximity to the resorts.

Unincorporated Communities and Destination Resorts

Policy 11.7.4. Mapping for destination resort siting.

- a. 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:
 - 1) Within 24 air miles of an urban growth boundary with an existing population of 100,000 or more unless residential uses are limited to those necessary for the staff and management of the resort;
 - 2) 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;
 - 3) On predominantly Cubic Foot Site Class 1 or 2 forest lands which are not subject to an approved Goal exception;
 - 4) On areas protected as Goal 5 resources in an acknowledged comprehensive plan where all conflicting uses have been prohibited to protect the Goal 5 resource;
 - 5) Especially sensitive big game habitat, and as listed below, 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.
 - i. Tumalo deer winter range;
 - ii. Portion of the Metolius deer winter range;
 - iii. Antelope winter range east of Bend near Horse Ridge and Millican;
 - 6) Sites less than 160 acres.
- b. To assure that resort development does not conflict with Oregon Revised Statute, destination resorts shall not be sited in Deschutes County in Areas of Critical State Concern.
- c. To assure that resort development does not conflict with the objectives of Deschutes County, destination resorts shall also not be located in the following areas:
 - 1) Sites listed below that are inventoried Goal 5 resources, shown on the Wildlife Combining Zone, that the County has chosen to protect:
 - i. Antelope Range near Horse Ridge and Millican;
 - ii. Elk Habitat Area; and
 - iii. Deer Winter Range;
 - 2) Wildlife Priority Area, identified on the 1999 ODFW map submitted to the South County Regional Problem Solving Group;
 - 3) Lands zoned Open Space and Conservation (OS&C);
 - 4) Lands zoned Forest Use 1 (F-1);
 - 5) Irrigated lands zoned Exclusive Farm Use (EFU) having 40 or greater contiguous acres in irrigation;
 - 6) 6. Non-contiguous EFU acres in the same ownership having 60 or greater irrigated acres;
 - 7) Farm or forest land within one mile outside of urban growth boundaries;
 - 8) Lands designated Urban Reserve Area under ORS 195.145;
 - 9) Platted subdivisions;

Unincorporated Communities and Destination Resorts

- d. For those lands not located in any of the areas designated in Policy 3.9.5(a) though (c), destination resorts may, pursuant to Goal 8, Oregon Revised Statute and Deschutes County zoning code, be sited in the following areas:
 - 1) Forest Use 2 (F-2), Multiple Use Agriculture (MUA-10), and Rural Residential (RR-10) zones;
 - 2) Unirrigated Exclusive Farm Use (EFU) land;
 - 3) Irrigated lands zoned EFU having less than 40 contiguous acres in irrigation;
 - 4) Non-contiguous irrigated EFU acres in the same ownership having less than 60 irrigated acres;
 - 5) All property within a subdivision for which cluster development approval was obtained prior to 1990, for which the original cluster development approval designated at least 50 percent of the development as open space and which was within the destination resort zone prior to the effective date of Ordinance 2010-024 shall remain on the eligibility map;
 - 6) Minimum site of 160 contiguous acres or greater under one or multiple ownerships;
- e. The County adopted a map in 2010 showing where destination resorts can be located in the County. The map is part of the Comprehensive Plan and Zoning Ordinance and shall be the basis for the overlay zone designated Destination Resort (DR).

Policy 11.7.5. Ordinance Provisions

- a. 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:
 - 1) 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
 - 2) 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 and on the rural transportation system. In order to adequately assess the effect on the transportation system, notice and the opportunity for comment shall be provided to the relevant road authority.
 - 3) Such regulations may allow for alterations to important natural features, including placement of structures, provided that the overall values of the feature are maintained.
- b. Minimum measures to assure that design and placement of improvements and activities will avoid or minimize the adverse effects noted in Policy 3.9.4(a) shall include:
 - 1) 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.

Unincorporated Communities and Destination Resorts

- 2) Setbacks of structures and other improvements from adjacent land uses.
- c. 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.
- d. 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.
- e. The zoning ordinance shall include measures 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.

SUNRIVER POLICIES

General Sunriver Policies

Policy 11.8.1. Land use regulations shall conform to the requirements of OAR 660 Division 22 or any successor.

Policy 11.8.2. 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.

Policy 11.8.3. 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.

Policy 11.8.4. Open space and common area, unless otherwise zoned for development, shall remain undeveloped except for community amenities such as bike and pedestrian paths, and parks and picnic areas.

Policy 11.8.5. Public access to the Deschutes River shall be preserved.

Policy 11.8.6. The County supports the design review standards administered by the Sunriver Owners Association.

Sunriver Residential District Policies

Policy 11.9.1. Areas designated residential on the comprehensive plan map shall be developed with single family or multiple family residential housing.

Sunriver Commercial District Policies

Policy 11.10.1. 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.

Policy 11.10.2. No additional land shall be designated Commercial until the next periodic review.

Policy 11.10.3. 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.

Unincorporated Communities and Destination Resorts

Policy 11.10.4. 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.

Sunriver Town Center District Policies

Policy 11.11.1. 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 or the travel needs of people passing through the area.

Policy 11.11.2. Development standards in the town center district should encourage new development that is compatible with a town center style of development that serves as the commercial core of the Sunriver Urban Unincorporated Community. The following policies should guide development in the Town Center District in Sunriver:

- a. Combine a mixture of land uses that may include retail, offices, commercial services, residential housing and civic uses to create economic and social vitality and encourage pedestrian use through mixed use and stand alone residential buildings.
- b. Develop a commercial mixed-use area that is safe, comfortable and attractive to pedestrians.
- c. Encourage efficient land use by facilitating compact, high-density development that minimizes the amount of land that is needed for development.
- d. Provide both formal and informal community gathering places.
- e. Provide visitor accommodations and tourism amenities appropriate to Sunriver.

- f. Provide design flexibility to anticipate changes in the marketplace.
- g. Provide access and public places that encourage pedestrian and bicycle travel.
- h. Provide road and pedestrian connections to residential areas.
- i. Facilitate development (land use mix, density and design) that supports public transit where applicable.
- j. Develop a distinct character and quality design appropriate to Sunriver that will identify the Town Center as the centerpiece/focal point of the community.

Policy 11.11.3. Development within the Town Center (TC) District will be substantially more dense than development elsewhere in Sunriver. This increased density will require changes to existing topography and vegetation in the TC District to allow for screened, underground parking. The requirements of the County's site plan ordinance shall be interpreted to reflect this fact.



Unincorporated Communities and Destination Resorts

Sunriver Resort District Policies

Policy 11.12.1. 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.

Sunriver Business Park District Policies

Policy 11.13.1. 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.

Policy 11.13.2. 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.

Policy 11.13.3. Small-scale, low-impact industrial uses should be allowed in conformance with the requirements of OAR Chapter 660, Division 22.

Sunriver Community District Policies

Policy 11.14.1. 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.

Policy 11.14.2.Policy 11.9.2. 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.

Policy 11.14.3.Policy 11.9.3. 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.

Sunriver Airport District Policies

Policy 11.15.1. 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.

Policy 11.15.2. Future development should not allow uses which would result in large concentrations or gatherings of people in a single location.

Sunriver Utility District Policies

Policy 11.15.3. 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.

Sunriver Forest District Policies

Policy 11.16.1. 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.

Policy 11.16.2. 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.

Unincorporated Communities and Destination Resorts

Policy 11.16.3. 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.

Sunriver General Public Facility Policies

Policy 11.17.1. 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.

Policy 11.17.2. 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.

Policy 11.17.3. Expansion of the Sunriver Water LLC/Environmental/LLC Water and Sewer District outside of the historic Sunriver boundaries shall adequately address the impacts to services provided to existing property owners.

Sunriver Water Facility Policies

Policy 11.18.1. Water service shall continue to be provided by the Sunriver Utilities Company.

Sunriver Sewer Facility Policies

Policy 11.19.1. Sewer service shall continue to be provided by the Sunriver Utilities Company.

Sunriver Transportation System Maintenance Policies

Policy 11.20.1. Privately-maintained roads within the Sunriver Urban Unincorporated Community boundary shall continue to be maintained by the Sunriver Owners Association.

Policy 11.20.2. The bicycle/pedestrian path system in Sunriver shall continue to be maintained by the Sunriver Owners Association or as otherwise provided by a maintenance agreement.

Policy 11.20.3. 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.

Policy 11.20.4. 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.

12

Public Facilities

**DESCHUTES
COUNTY**





Opportunities, Challenges, and Considerations

Public facilities and services provide the basic infrastructure for urban and rural development. These systems include water and sewer systems, police and fire protection, health and social services, schools, and libraries. The transportation system is also a public facility – the County has developed and maintains a Transportation System Plan that is included as Appendix B.

These public services are provided by a variety of entities, each with their own jurisdiction, funding sources, and regulatory requirements. Overall, the provision of facilities and services is more efficient and cost-effective in urban areas than in rural development, where ratepayers may be few and far between. In some areas of the County, particularly east County, available services are limited due to lower population density and distance from urban centers. Many of the people who choose to reside there consider the limited availability of services and facilities as an acceptable tradeoff for a rural lifestyle.

Statewide Planning Goal 11, Public Facilities and Services and the associated Oregon Administrative Rule 660-011 specify that facilities and services should be appropriate for, but limited to, the needs and requirements of rural areas to be served. Public facility plans are not required (with some exceptions); in fact, Goal 11 and the associated rule set limits to the provision of sewers and water systems in rural areas, in order to limit rural growth.

There are several important issues relating to the provision of public facilities and services that this Comprehensive Plan addresses, including:

- Meeting the needs of county residents while supporting the protection of resource lands;
- Maintaining health, safety, and security throughout the county; and
- Cooperation among the various providers of public services.

Context

Deschutes County plays a role in ensuring that public facilities and services are planned for, however the facilities and services are often not provided by county government directly. The discussion below highlights who provides the services listed and how the County will manage development impacts on existing facilities and services.

County Facilities and Services

LAW ENFORCEMENT

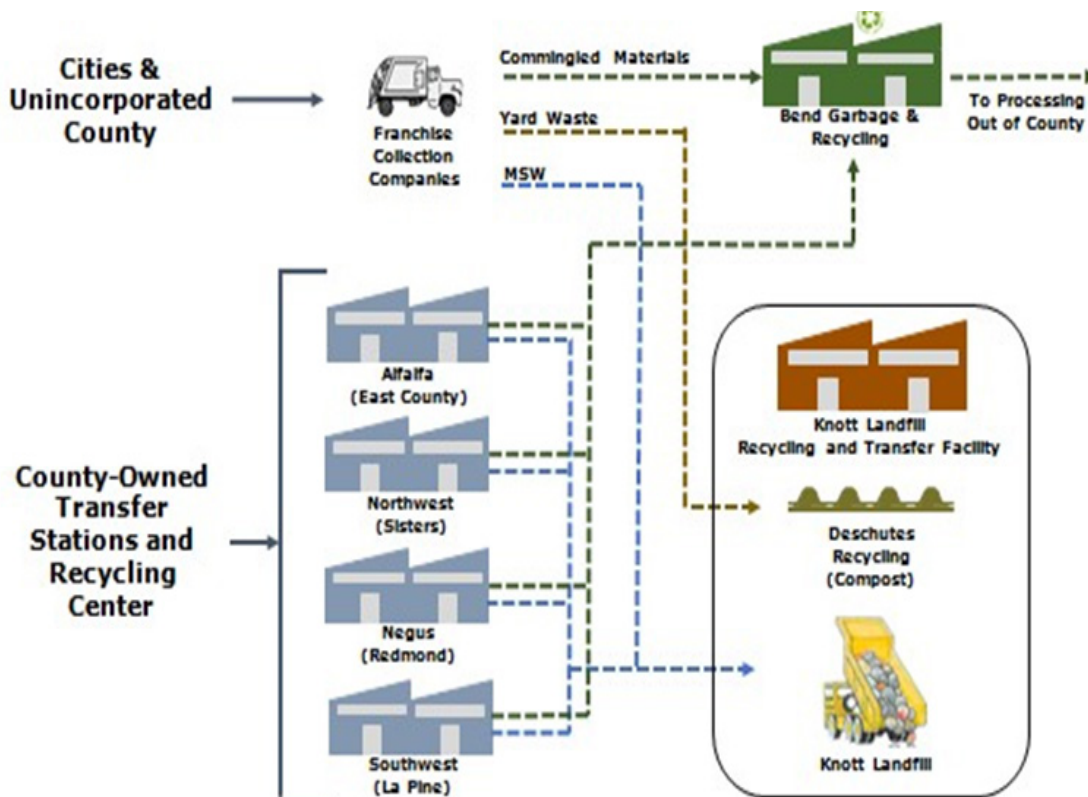
The Deschutes County Sheriff's Office is a full service organization providing patrol, traffic team, criminal investigations, corrections, civil and search and rescue. Special operations include a Marine Patrol, K-9 units, and Forest Patrol. The Sheriff is an elected public official who serves a four-year term. Housed within the Sheriff's office is the County's Emergency Management Unit, which coordinates the countywide response to natural hazards events.

SOLID WASTE

The County manages Knott Landfill Recycling and Transfer Station, which is the only landfill in Deschutes County. In addition to this, the department manages four additional transfer stations throughout the County which gather waste in convenient locations, before transferring to the Knott Landfill facility. Operations at the landfill include recycling, hazardous waste disposal, and composting. This landfill site is anticipated to remain open until 2029 at which time it is projected to reach maximum capacity.

The Deschutes County Solid Waste Department is currently undertaking a new landfill development process, which is anticipated to be completed in 2029. In the future, the County will likely need to site addition facilities to support composting, recycling, and waste stream diversion facilities.

Deschutes County Solid Waste System, Source: Solid Waste Management Plan, 2019



COUNTY HEALTH DEPARTMENT

Deschutes County Health Services has a primary responsibility to help address the basic health and wellness of Deschutes County residents. The department offers services at more than 40 locations in Deschutes County including public schools; health clinics in Bend, La Pine, Redmond and Sisters; five school-based health clinics; agencies such as the KIDS Center and the State of Oregon Department of Human Services; area hospitals; care facilities and homes.

FAIRGROUNDS

The County maintains the County Fairgrounds and Expo Center. With panoramic views of the snow-capped Cascade range, the Deschutes County Fair and Expo Center is situated on the outskirts of Redmond just off of Hwy 97 and adjacent to the Redmond Municipal Airport. Due to its central location, the fairgrounds also serves as an emergency center. The fairgrounds hosts the annual County Fair and numerous other events throughout the year.

Other Agency Facilities and Services

Where other agencies provide facilities and services, the County coordinates with numerous other providers of facilities and services for the benefit of County residents. Where there are gaps in the coverage for specific areas, the County can work with providers to fill them. A selection of other agencies and entities are noted below.

CENTRAL OREGON INTERGOVERNMENTAL COUNCIL (COIC)

COIC began serving the residents and communities of Central Oregon in 1972 as a Council of Governments organized under ORS 190 by Crook, Deschutes and Jefferson Counties and Bend, Culver, Madras, Metolius, Prineville, Redmond and Sisters. Following incorporation in 2007, the City of La Pine joined these efforts. COIC provides a wide variety of educational and economic development services such as workforce training, alternative high

school education, business loans and public transportation. COIC continues to evolve to meet the needs of Central Oregon.

COIC is governed by a 15-member board made up of elected officials who are appointed by each of the member governments as well as appointed representatives of key economic sectors – business and industry, tourism and recreation, agribusiness and agriculture, timber and wood products, and the unemployed/underemployed.

SCHOOL DISTRICTS

There are three school districts in Deschutes County:

- Bend-La Pine (SD 1),
- Redmond (SD 2J) and
- Sisters (SD 6).

Additionally, the Brothers Community School is owned and operated by Crook County School District (SD 15). The High Desert Education Service District (ESD) partners with the districts to provide support services such as special education, school improvement, administrative and legal services.

FIRE DISTRICTS

The following fire districts support rural residents: Bend Fire Department, Black Butte Ranch Rural Fire Protection District, Cloverdale Rural Fire Protection District, Crooked River Ranch Rural Fire Protection District, Deschutes County Rural Fire Protection District #1 and #2, La Pine Rural Fire Protection District, Sisters-Camp Sherman Rural Fire Protection District, and Sunriver Service District. Public lands are protected by federal agencies. There are some areas in Deschutes County that are not covered by a fire district. (See Chapter 7 for more on fire protection.)

IRRIGATION DISTRICTS

Irrigation districts in Oregon are organized as Special Districts under ORS Chapter 545. Six irrigation districts operate in Deschutes County: Arnold, Central Oregon, North Unit, Swalley, Tumalo, the Three Sisters Irrigation Districts. They are quasi-municipal corporations under Oregon Law, with prescribed rules for purpose, boards, elections, staffing, charges, etc. The districts operate as political subdivisions of the State of Oregon created for the purpose of delivering water to their patrons. In addition to irrigation uses, these districts also supply a number of other services, including delivery of water to municipal and industrial entities, and pond maintenance.

LIBRARIES

Deschutes Public Library has branches in Bend, Redmond, Sisters, La Pine, and Sunriver. They also operate a bookmobile program that focuses on children and parenting books and a program for supplying books to homebound residents.

HIGHER EDUCATION

Deschutes County is home to Oregon State University Cascades Campus (Bend) and Central Oregon Community College (Bend and Redmond). These campuses are expected to grow significantly in the future.

SOIL AND WATER CONSERVATION DISTRICT

Soil and Water Conservation Districts are authorized by the State of Oregon to provide for the conservation of its soil and water resources. Working in cooperation with stakeholders, the districts address issues such as control and prevention of soil erosion, conservation and development of water resources, water quality, and wildlife preservation. The Deschutes Soil and Water Conservation District is a legally defined subdivision of the state government, but, like all soil and conservation districts, functions as a local unity led by a locally elected board of directors who serve without pay.

PUBLIC WATER SYSTEMS

Public Water Systems are defined as those that have more than three connections, supply water at least 60 days/year and are used by at least 10 persons/day. All water systems are regulated under the federal 1974 Safe Drinking Water Act and 1981 Oregon Drinking Water Quality Act. Public Water Systems serving over 3,300 people are overseen by the Oregon Department of Human Services Drinking Water Program. The County acts as a contractor for the Department of Human Services to monitor approximately 180 Public Water Systems. Some privately owned systems are, for various reasons, regulated by the Public Utility Commission, which sets rates and rules for public utilities.

Privately Owned Facilities and Services

UTILITIES

Electric

Electricity is provided by Pacific Power around Bend and Redmond. Central Electric Cooperative and Midstate Electric provide service in the rest of the County. Phone service is provided by Qwest and numerous cell phone providers. Cable is provided by TDS and satellite providers. Internet access is provided by a variety of entities.

Hospitals

Cascade Healthcare Community manages two hospitals: St. Charles Bend and St. Charles Redmond. Additionally there are numerous health providers and clinics in the County.

Sewer Districts

Creating or expanding existing sewer systems outside an urban growth boundary or unincorporated community is governed by Statewide Goal 11 and OAR 660-011-0060. In order to protect rural areas from urban-style development, the rules regulate where and when rural sewers are appropriate. Some sewer districts, such as Oregon Water Wonderland Unit

2, have used the Statewide Goal 2 exception process to create or expand a sewer system.

INDIVIDUAL FACILITIES AND SERVICES

Private wells

Most rural properties are served by private wells that are approved and managed by the Oregon Water Resources Department. The County currently does not track the number of wells.

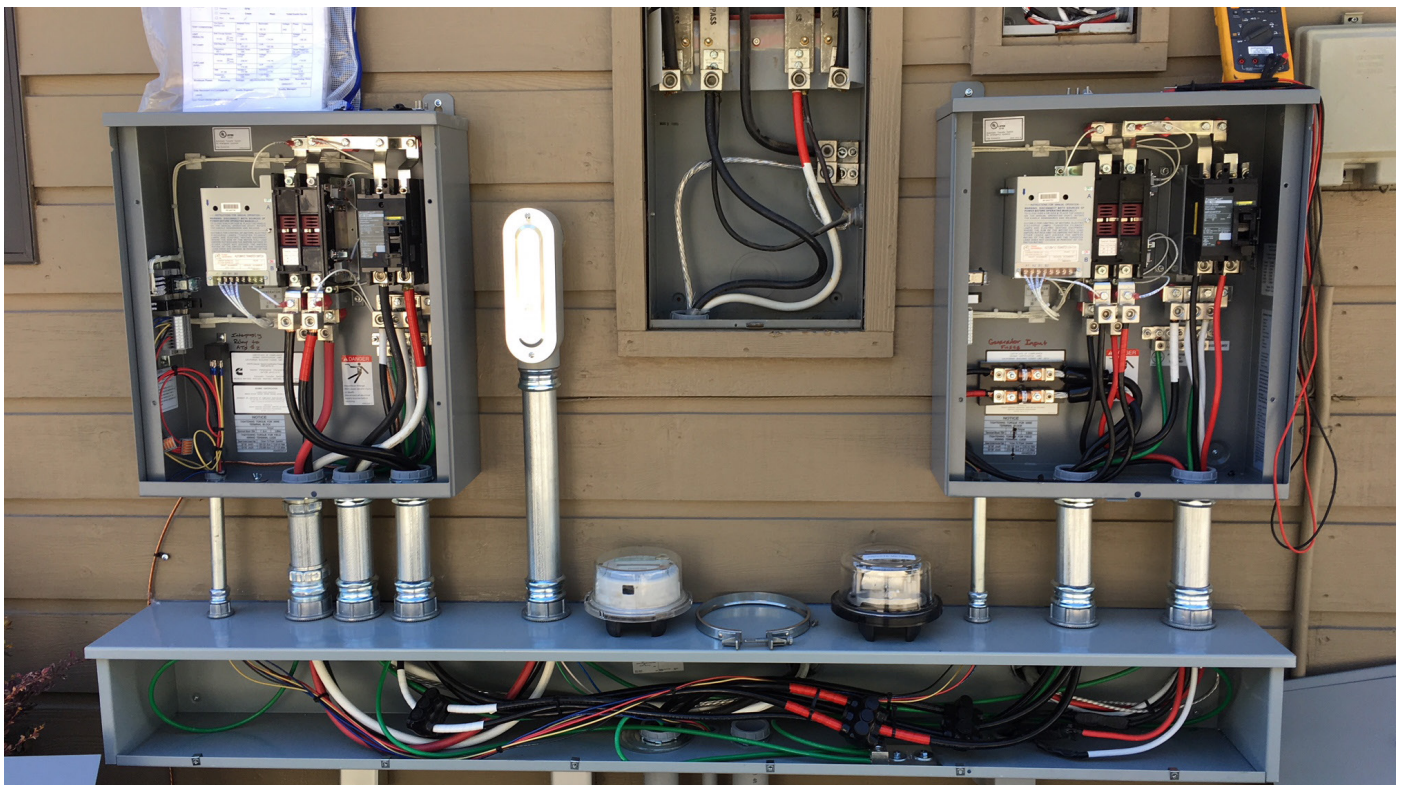
Individual septic systems

Most rural properties are served by septic systems that are approved by the Onsite Wastewater Division.

Key Community Considerations

The role that Deschutes County plays in the provision of public facilities and services was part of the community discussion during the update of this Comprehensive Plan. Highlights included:

- City governments currently own property outside of urban growth boundaries and within County jurisdiction. In some instances, these lands are used for water and wastewater treatment facilities. As the County continues to grow, additional facilities are likely to be needed, and coordination among jurisdictions regarding placement of these facilities will be key.
- Significant population growth will lead to an increase in solid waste, requiring at minimum the siting of a new landfill. Community members expressed a desire for consideration of livability among other factors when considering the placement of key public facilities.



Goals and Policies

Goal 12.1: Support the orderly, efficient, and cost-effective siting of rural public facilities and services.

Policy 12.1.1. Encourage and support the formation of special service districts to serve the need for public facilities in rural areas.

Policy 12.1.2. Encourage and support planning for and acquisition of sites needed for public facilities, such as transportation, water, and wastewater facilities.

Policy 12.1.3. Support the siting of community health clinics, hospitals, and private medical practices to serve rural residents throughout the County.

Policy 12.1.4. Continue to support the County Fairgrounds as a community gathering place, event facility and home to the annual County Fair.

Policy 12.1.5. Maintain the County Fairgrounds as an emergency readiness location and staging area in the event of a Cascadia Subduction Zone earthquake or other large disaster.

Policy 12.1.6. Prior to disposing of County-owned property, consider whether the land is appropriate for needed public projects such as schools, health clinics, fire stations, senior centers, or affordable housing.

Policy 12.1.7. Coordinate with rural service districts and providers to review development proposals.

Policy 12.1.8. Use the land use entitlement process to ensure new development addresses and mitigates impacts on existing and planned public facilities.

Policy 12.1.9. Support education districts, library districts and recreation districts in meeting community needs, such as meeting spaces.

Policy 12.1.10. Where practicable, locate utility lines and facilities within or adjacent to existing rights-of-way to avoid dividing farm or forest lands.

Policy 12.1.11. Use the development code to mitigate visual and other impacts of public facilities and cell towers.

Policy 12.1.12. Use the Comprehensive Plan and Development Code to guide rural development in a manner that supports the orderly and cost-efficient provision of public facilities and services.

Policy 12.1.13. Support siting and development of city owned water and wastewater facilities on rural lands, including innovative facilities that include additional community amenities.

Goal 12.2: Pursue sustainable, innovative, and cost-effective waste management practices.

Policy 12.2.1. Allow for siting of waste management facilities on rural lands, including but not limited to landfill facilities, transfer stations, organics management facilities, material recovery facilities, and recycling modernization facilities, in a manner that is sensitive to environmental and community concerns.

Policy 12.2.2. Provide incentives, education, and resources to promote reuse and recycling of construction waste.

Policy 12.2.3. Encourage waste reduction through community education and partnerships with community groups such as the Environmental Center

Policy 12.2.4. Support the creation of a landfill overlay zone.

Goal 12.3: Serve as a conduit for countywide resources.

Policy 12.3.1. Provide resources to connect community members with a variety of housing and health related issues in Deschutes County

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Transportation



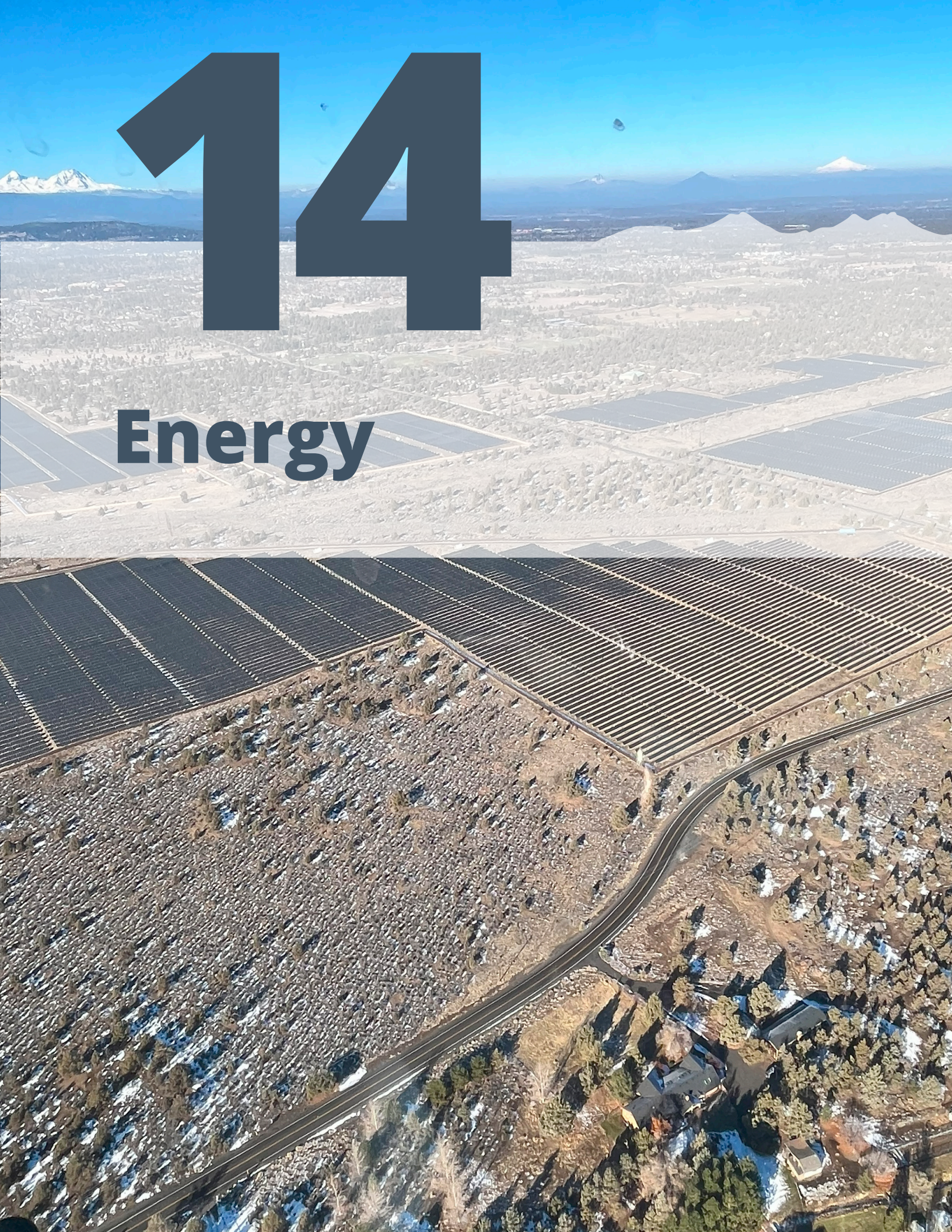


The Deschutes County transportation system includes roadways, bicycle facilities, pedestrian facilities, and transit facilities, as well as rail, air, marine, and pipeline systems. In general, the County only owns, manages, and maintains facilities in the unincorporated portions of the County. Facilities within the Urban Growth Boundaries of the incorporated cities of Bend, Redmond, Sisters, and La Pine are managed and maintained by those cities. In addition, the Oregon Department of Transportation (ODOT) owns and maintains a number of state highways throughout the County.

Information about existing conditions, planned investments, and policies related to transportation are contained in the Deschutes County Transportation System Plan (TSP), which is adopted as Appendix B of this Comprehensive Plan.

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Energy





Opportunities, Challenges, and Considerations

The amount, source, and distribution of energy used in Deschutes County is a fundamental component of how we live our lives, and it is influenced by land use and other decisions made at the County level. The State of Oregon requires land uses to be managed with an eye to their energy impacts.

Statewide Planning Goal 13

Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.



In Deschutes County, the key energy issues include:

- Community design in more urban areas to limit the need for large vehicles (generally powered with fossil fuel) for everyday tasks.
- Generating, transporting, and storing energy locally from a variety of sources, and managing the impacts of these facilities.
- Conservation of energy through building design and orientation, the use of energy-efficient technologies, and incentives/regulations/education to encourage others to do so.

Deschutes County coordinates with utility providers that serve the area, including:

- Central Electric Cooperative
- Midstate Electric Cooperative
- Pacific Power (PacifiCorps)
- Cascades Natural Gas

Context

The role of Deschutes County in planning for energy is addressed in more detail below.

SOLAR ORIENTATION

The solar orientation of structures can create significant energy savings and allows for photovoltaic energy generation. The County has long promoted energy conservation through a passive solar code that requires new structures to be sited so that they do not block the sun from falling on adjacent properties.

SITING LARGE-SCALE ENERGY FACILITIES

In general, cities and counties have siting authority over energy projects below a certain size or generating capacity. This includes individual projects powering or supplementing homes and businesses or small commercial projects which produce energy for sale. Larger facilities are regulated by the Oregon Energy Facility Siting Council. The thresholds for Siting Council jurisdiction are determined by the Legislature and are defined in Oregon Revised Statutes (ORS) 469.300. The Siting Council does not regulate hydroelectric development. Instead, the Oregon Water Resources Commission has the authority to issue licenses for hydroelectric development.

Deschutes County currently has five developed large-scale energy facilities, primarily located on the eastern side of the County, approved between 2015-2017. In 2018, the Department of Land Conservation and Development altered statewide rules related to these types of large-scale energy facilities on high value farmland, limiting development opportunities in parts of the County. Community members have expressed concern regarding impacts of these facilities on wildlife habitat and aesthetics.

In addition to solar, several irrigation districts have developed in conduit hydroelectric facilities in which existing canals are upgraded with equipment for power generation. Three of these facilities currently exist, two of which are owned

and operated by Central Oregon Irrigation District, and the third owned and operated by Three Sisters Irrigation District.

SMALL-SCALE RESIDENTIAL, BUSINESS, AND COMMERCIAL ENERGY GENERATION

The State oversees construction and approval of large commercial energy facilities, as noted above. However, there is a role for local governments to oversee smaller commercial projects. Commercial energy generation is considerably more complex than permitting small projects for homes and businesses. From a land use perspective, the scale, extended time frame, investment required and required off-site components all complicate the approval process. For example, to move the electricity generated at an alternative energy facility to market there is often a need for approval of roads, transmission lines or substations. The accessory facilities may or may not be in place at the same site as the main facility, but are an integral part of the project and are currently reviewed separately, based on State regulations.

Wind Energy Generation

Wind energy is most abundant in the eastern portion of Deschutes County. Potential impacts of this type of facility include temporary construction impacts, habitat loss and animal fatalities due to collision with turbines, visual impacts from towers and accessory structures, and noise. Deschutes County regulates small scale wind energy development generating less than 100 kilowatts of power. This allowance was added to the Deschutes County Code in 2010, although since that time no applications have been received to establish this type of facility.

Solar Energy Generation

Deschutes County is generally favorable to solar generation. Potential impacts of this type of facility include temporary construction impacts, habitat loss, animal fatalities due to reflected sunlight (for some solar facilities), and visual impacts. As noted previously, the Department

of Land Conservation and Development amended its rules in 2018 to limit solar development on high value farmland. Typically, solar developments require large acreage and relatively flat terrain for their operations. This requirement is a limiting factor in Deschutes County, as many of the properties that would meet large acreage and terrain requirements are actively used for farming purposes. The Bureau of Land Management is exploring an amendment to its rules to allow for greater opportunity for solar development in the western United States. The County anticipates limited solar development on private land going forward and an increase of leased BLM land for this type of development.

Commercial Biomass

Commercial biomass uses organic material such as wood, agricultural waste or crop residues to power boilers to generate heat. According to the Oregon Forest Resources Institute an estimated 4.25 million acres (about 15% of Oregon's forestland) have the potential to provide useful woody biomass through thinning to reduce the risk of uncharacteristic forest fires.

Potential impacts include temporary construction impacts, transportation impacts (as materials need to be transported to a central location), visual impacts, and air quality and climate impacts due to combustion of biofuels.

The County's first biomass facility is under construction through a partnership with the Deschutes National Forest and Mt. Bachelor Ski Resort. The project is located on federal land and outside of the purview of Deschutes County regulations.

Geothermal Energy Generation

Geothermal energy is a form of renewable energy derived from heat in the earth. This heat is transferred to water through various means and the steam produced is used to produce electricity. Geothermal energy is dependent on the location of geothermal resources; central Oregon may contain some of the best prospects for geothermal exploration in the continental United States.

Potential impacts include construction and visual impacts of geothermal facilities.

Deschutes County regulates geothermal energy in accordance with state law, although no geothermal development projects have been proposed to date.

Hydroelectric Energy Generation

Currently, Deschutes County has three approved "in conduit" hydroelectric facilities that are owned and operated by irrigation districts within existing irrigation district canals. Approval of these facilities have previously been contentious, with community members expressing concern about wildlife and impacts to other basin users. Irrigation districts have noted challenges in utilizing the existing county code for these projects, which were drafted to address "in channel" hydroelectric facilities. To promote renewable energy development using man-made waterways, irrigation districts have expressed interest in helping the County update the Deschutes County Code to more appropriately address "in conduit" hydroelectric facilities separate and apart from "in-channel" hydroelectric facilities".

Key Community Considerations

Community discussions related to energy have revolved around the following topics:

- Interest in planning for and adapting to climate change, including using more renewable energy sources.
- Concern about the design and location of energy facilities and their impacts on environmental resources and scenic views.
- Preparation for more use of electric vehicles in the future, which often require specialized charging infrastructure.

Goals and Policies

Goal 14.1: Promote energy conservation and alternative energy production.

Policy 14.1.1. Continue to incorporate energy conservation into the building and management of all County operations and capital projects using regular energy audits to refine the results.

Policy 14.1.2. Reduce energy demand by supporting energy efficiency in all sectors of the economy.

Policy 14.1.3. Encourage energy suppliers to explore innovative alternative energy conservation technologies and provide energy audits and incentives to patrons.

Policy 14.1.4. Provide flexibility and exemptions for small properties and anomalous sites in the development code to promote energy conservation. Promote affordable, efficient, reliable, and environmentally sound commercial energy systems for individual homes, and business consumers.

Goal 14.2: Promote affordable, efficient, reliable, and environmentally sound commercial energy systems for individual homes and business customers.

Policy 14.2.1. Promote development of solar, hydropower, wind, geothermal, biomass and other alternative energy systems while mitigating impacts on neighboring properties and the natural environment.

Policy 14.2.2. Provide incentives for homes and businesses to install small-scale on-site alternative energy systems consistent with adopted County financing programs.

Policy 14.2.3. Support development of electric vehicle charging stations and facilities to help promote use of electric vehicles.

Policy 14.2.4. Use the development code to promote commercial renewable energy projects while addressing and mitigating impacts on the community and natural environment.

Policy 14.2.5. Use Oregon's Rural Renewable Energy Development Zones to support the creation of renewable energy projects.

Policy 14.2.6. Identify, protect, and support the development of significant renewable energy sites and resources.

Policy 14.2.7. Include evaluation of adverse impacts to natural resources as part of renewable energy siting processes.



Appendix A - Terrebonne Community Plan

Appendix B - Tumalo Community Plan

Appendix C - Transportation System Plan

Appendix D - Newberry Country Plan

Appendix E - Goal 5 Supplemental Sections

Section 5.1 Introduction

Background

This chapter provides material that supplements the other chapters of the Plan. There are no goals or policies in these sections.

Purpose

The purpose of this chapter is to provide a glossary, list all acknowledged Goal 5 resources in one location (see Section 2.4) and list all Goal Exceptions and Goal 5 inventories. The final section in this Chapter is a table to track all amendments to this Plan. This table will ensure a clear legislative history is maintained.

The following information is covered in this chapter:

- Glossary and Acronyms
- Goal 5 Water Resources
- Goal 5 Wildlife Resources
- Goal 5 Open Space and Scenic Views and Sites Resources
- Goal 5 Energy Resources
- Goal 5 Wilderness, Natural Areas and Recreation Trails
- Goal 5 Surface Mining Resources
- Goal 5 Cultural and Historic Resources
- Goal Exception Statements
- Goal 5 Adopted Ordinances
- Ordinance History

Section 5.2 Glossary and Acronyms

Glossary

Note: Terms defined in Deschutes County Code 18.04 (Zoning Code) are not repeated here, but have the same meaning as DCC 18.04.

“Agricultural-tourism” or “Agri-tourism” means a commercial enterprise at a working farm or ranch, operated in conjunction with the primary farm or ranch use, conducted for the enjoyment and/or education of visitors, that promotes successful agriculture, generates supplemental income for the owner and complies with Oregon Statute and Rule.

“Aquifer” means a water-bearing rock, rock formation or a group of formations.

“Common Area” means ‘common property’ as defined in the Oregon Planned Communities Act at ORS 94.550(7).

“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.

“Conservation” means limiting or minimizing the use or depletion of natural resources, including such things as land, energy, water or wildlife habitat.

“Ecosystem” means the physical and biological components and processes occurring in a given area, which interact to create a dynamic equilibrium.

“Findings” means a fact, determination or reason, based on existing information, which, by itself or in conjunction with other findings, leads to a particular conclusion or course of action.

“Goal Exception” means a land use process through which a local jurisdiction justifies, based on factual evidence, that a policy embodied in a particular statewide planning goal should not apply to a particular property or set of properties.

“Green infrastructure” means design and construction practices that significantly reduce the negative impacts of buildings on the environment and occupants.

“Groundwater” means water beneath the earth's surface between saturated soil and rock that supplies wells and springs.

“Habitat” means a place that provides seasonal or year-round food, water, shelter and other necessities for an organism, community or population of plants and animals.

Appendix E - Goal 5 Supplemental Sections

"In-stream" as defined in ORS 537.332, means within the natural stream channel or lake bed or place where water naturally flows or occurs.

"Instream flow" means the minimum quantity of water necessary to support the public use requested by an agency.

"Post-acknowledgement plan amendment" means an amendment to an adopted and acknowledged Comprehensive Plan.

"Regional" is used in the context of projects and collaborative efforts with impacts beyond Deschutes County.

"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.

"Rural lands" means those lands outside recognized urban growth boundaries which are necessary and suitable for such uses as:

- A. Exclusive farm use;
- B. General agriculture;
- C. Forest;
- D. Rural residential;
- E. Rural service center;
- F. Destination resort, dude ranch, planned community;
- G. Landscape management;
- H. Special interest;
- I. Open space;
- J. Fish and wildlife protective area;
- K. Recreation;
- L. Surface mining.

"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.

"Statewide Planning Goals" means the 19 statewide planning standards adopted by the Land Conservation and Development Commission pursuant to OAR 660-015 to express Statewide policies on land use and related topics. Local comprehensive plans must be consistent with the statewide planning goals.

"Surface mining" means all or any part of the process of mining by removal of the overburden and extraction of natural mineral deposits.

Appendix E - Goal 5 Supplemental Sections

“Urban Growth Boundary” (UGB) means a boundary established to identify for each city, the land area needed to accommodate 20 years of growth for the city, 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.

“Urban Reserve Area” means a boundary established to identify for each city, the land area needed to accommodate from 20-50 years of growth for the city.

Frequently Used Acronyms

“BLM” stands for Bureau of Land Management

“CCI” stands for Committee for Community Involvement “DCC” stands for Deschutes County Code

“DLCD” stands for Oregon Department of Land Conservation and Development. “DEQ” stands for Oregon Department of Environmental Quality

“DOGAMI” stands for Oregon Department of Geology and Mineral Industries “ESA” stands for the federal Endangered Species Act

“ESEE” stands for Economic, Social, Environmental and Energy in regards to required Goal 5 analyses

“FEMA” stands for Federal Emergency Management Agency

“LCDC” stands for Oregon Land Conservation and Development Commission “NOAA” stands for National Oceanic Atmospheric Administration

“OAR” stands for Oregon Administrative Rules

“ODFW” stands for Oregon Department of Fish and Wildlife “ORS” stands for Oregon Revised Statute

“OWRD” stands for Oregon Water Resources Department “RPS” stands for Regional Problem Solving

“TSP” stands for Transportation System Plan “UGB” stands for Urban Growth Boundary “URA” stands for Urban Reserve Area

“USFS” stands for United States Forest Service

“USFWS” stands for United States Fish and Wildlife Service “USGS” stands for United States Geological Survey

Section 5.3 Goal 5 Inventory - Water Resources

Background

This section contains information from the 1979 Deschutes County Comprehensive Plan as revised and the 1986 Deschutes County/City of Bend River Study. It lists the water resources in Deschutes County. These inventories have been acknowledged by the Department of Land Conservation and Development as complying with Goal 5. No changes have been proposed for the 2010 Comprehensive Plan update.

Goal 5 requires the following water resources be inventoried and the inventories are listed below.

- Riparian corridors, including water and riparian areas and fish habitat
- Wetlands
- Federal Wild and Scenic Rivers
- State Scenic Waterways
- Groundwater Resources

Also included in these inventories are Significant Lakes and Reservoirs.

Riparian Corridors

INVENTORIES

Table 5.3.1 Deschutes County River Miles

<i>Waterway</i>	<i>Miles</i>
Deschutes River	97
Little Deschutes River	42
Whychus Creek (lower 6 miles in Jefferson County)	39
Tumalo Creek	16
Paulina Creek	10
Fall River	8
Crooked River	7

Source: Deschutes County/City of Bend River Study 1986

Table 5.3.2 Deschutes County Goal 5 Riparian Inventory

<i>Streams</i>	<i>Riparian Acres</i>
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Table 5.3.3 Deschutes County Goal 5 Floodplains Adjacent to Rivers and Streams

Deschutes River	Little Deschutes River
Crooked River	Spring River
Dry River	Paulina Creek
Indian Ford Creek	Long Prairie
Whychus Creek	

Source: 1979 Deschutes County Comprehensive Plan as revised and Federal Emergency Management Agency maps

Wetlands

Inventory: In 1992 Deschutes County Ordinance 92-045 adopted all wetlands identified on the U.S. Fish and Wildlife Service National Wetland Inventory Maps as the Deschutes County wetland inventory. Additionally, Deschutes County Ordinance 2011-008 adopted a Local Wetland Inventory (LWI) covering 18,937 acres in South Deschutes County.

Table 5.3.4 Deschutes County Goal 5 Perennial Streams

Bottle Creek	Full Creek	Spring Creek
Bridge Creek	Goose Creek	Three Creek
Brush Draw	Indian Ford Creek	SF Tumalo Creek
Bull Creek	Jack Creek	NF Whychus Creek
Cache Creek	Kaleetan Creek	Soda Crater Creek
Charlton Creek	Metolius Creek	NF Trout Creek
Cultus Creek	Park Creek EF	NF Tumalo Creek
Cultus River	Park Creek WF	MF Tumalo Creek
Deer Creek	Pole Creek	First Creek
Dry Creek	Rock Creek	Soap Creek
Fall Creek	Snow Creek	Todd Lake Creek

Note: All of these streams, except portions of Indian Ford Creek, Cache Creek and Dry Creek, are located on federal land and are subject to either the Deschutes National Forest or the Bureau of Land Management Resource Management Plans.

Source: 1979 Deschutes County Comprehensive Plan as revised

Table 5.3.5 Deschutes County Riparian Ownership

<i>River or Stream</i>	<i>Ownership</i>
Deschutes River	Private/Federal
Little Deschutes River	Private/Federal
Fall River	Private/Federal
Tumalo Creek	Private/Federal
Three Creek	Private/Federal
Whychus Creek	Private/Federal
Trout Creek	Private/Federal
Dry Creek	Private/Federal
Cache Creek	Private/Federal
Indian Ford Creek	Private/Federal
Cultus River	Federal
Charlton Creek	Federal
Deer Creek	Federal
Cultus Creek	Federal
Quinn Creek	Federal
Fall Creek	Federal
Moore Creek	Federal

Source: 1979 Deschutes County Comprehensive Plan as revised

FEDERAL WILD AND SCENIC RIVERS

Inventory: The following segments of the Deschutes River have been designated as Federal Recreation and Scenic rivers by the passage of the 1988 Omnibus Oregon Wild and Scenic Rivers Act of 1988. Congress mandates the US Forest Service to prepare a management plan for these segments of the Deschutes River.

Table 5.3.6 Deschutes County Wild and Scenic River Segments

<i>Waterway</i>	<i>Description</i>
Deschutes River	From Wickiup Dam to Fall River (22 miles)
Deschutes River	Fall River to N boundary Sun River (20 miles)
Deschutes River	N boundary Sun River to Bend UGB (13 miles)
Whychus Creek (formerly Squaw Creek)	Includes all tributaries within the Three Sisters Wilderness, Soap Creek and the main stem from the wilderness boundary to the stream flow gauge station

Source: County Ordinance 92-052

Table 5.3.8 Deschutes County Significant Lakes and Reservoirs

<i>River or Stream</i>	<i>Township</i>	<i>Range</i>	<i>Section</i>
Bobby Lake	T 22S	R 06E	14
Charlton Lake	T 21S	R 06E	14
Crane Prairie Reservoir	T 21	R 08E	16
Cultus Lake	T 20S	R 07E	24
Deer Lake	T 20S	R 07E	
Devils Lake	T 18 S	R 08E	NW1/2 SEC. 10
Davis Lake	T 22S	R 07E	
East Lake	T 21S	R 13E	31
Elk Lake	T 18S/19S	R 07E	5
Hosmer Lake	T 19S	R 08E	4
Lava Lake	T 19S	R 08E	22
Little Cultus Lake	T 20S	R 07E	
Little Lava Lak	T 19S	R 08E	22
North Twin Lake	T 21S	R 08E	28
Paulina Lake	T 21S	R 12E	84
South Twin Lake	T 21S	R 08E	28
Sparks Lake	T 18S	R 08E	23
Three Creeks Lake	T 17S	R 09E	14
Todd Lake	T 18S	R 09E	8
Upper Tumalo Reservoir	T 16S	R 11E	33
Winopee Lake	T 19S	R 11E	33
Wickiup Reservoir	T 22S	R 09E	7

Source: Deschutes County Ordinance 92-052

Scenic

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Section 5.4 Goal 5 Inventory - Wildlife Habitat

Background

This section contains wildlife resource information from the 1979 Deschutes County Comprehensive Plan as revised. These inventories have been acknowledged by the Department of Land Conservation and Development as complying with Goal 5. No changes have been proposed for the 2010 Comprehensive Plan update. However, an updated inventory has been provided as described in Section 2.6 of this Plan and will be incorporated at a later date.

Bird Sites

(source: 1979 Deschutes County Comprehensive Plan as revised)

Bald Eagle Habitat Sites on Non-Federal Land or with Non-Federal Sensitive Habitat Areas.

Site #	Taxlot	Quarter Section	Site Name
DE0035-00	15-10-00-1400	23NWNE	Cloverdale NW
DE0035-01	15-10-00-1400	23NENE	Cloverdale NE

Table 5.4.1 – Bird Inventory

Birds Selected List 1992	Use Period S = Summer W = Winter X = Year round	Relative Abundance A = Abundant C = Common F = Few R = Rare U = Unknown
American Avocet	S	F
American Bittern	S	F
American Coot	X	C
American Goldfinch	S	C
American Osprey	X	C
American Widgeon	X	C
Anna's Hummingbird	S	F
Ash-throated Flycatcher	S	F
Bald Eagle	X	F
Bank Swallow	S	F
Barn Owl	X	C
Barn Swallow	S	C
Barred Owl	X	U
Belted Kingfisher	X	F
Bewick's Wren	X	F
Black-backed Woodpecker	X	F
Black-billed Magpie	X	C
Black-capped Chickadee	W	F
Black-chinned Hummingbird	S	F
Black-crowned Night Heron	S	F
Black-headed Grosbeak	S	F
Black-throated Grey Warble	S	F
Blue Grouse	X	F
Blue-winged Teal	S	F
Bohemian Waxwing	W	F
Boreal Owl	X	F
Brewer's Blackbird	X	C
Brewer's Sparrow	S	F
Brown Creeper	X	F

Appendix E - Goal 5 Supplemental Sections

Birds Selected List 1992	Use Period S = Summer W = Winter X = Year round	Relative Abundance A = Abundant C = Common F = Few R = Rare U = Unknown
Brown-headed Cowbird	S	C
Bufflehead	X	C
Burrowing Owl	S	R
California Valley Quail	X	C
Calliope Hummingbird	S	F
Canada Goose	X	C
Canyon Wren	X	C
Caspian Tern	S	F
Cassin's Finch	X	C
Cedar Waxwing	X	C
Chipping Sparrow	S	C
Chukar Partridge	X	R
California Gull	X	C
Clark's Nutcracker	X	C
Cliff Swallow	S	C
Common Bushitit	X	C
Common Crow	X	R
Common Loon	S	R
Common Merganser	X	C
Common Nighthawk	S	C
Common Raven	X	C
Common Snipe	S	F
Coopers Hawk	X	C
Dark-eyed Junco	X	A
Dipper	X	F
Double-crested Cormorant	S	C
Downy Woodpecker	X	C
Dusky Flycatcher	S	F
Eared Grebe	W	F
Eastern Kingbird	S	F
Evening Grosbeak	X	C
Ferruginous Hawk	S	F
Flammulated Owl	S	F
Fox Sparrow	S	C
Franklin's Gull	S	F
Gadwall	W	F
Golden Eagle	X	F
Golden-crowned Kinglet	X	F
Goldeneye	X	C
Goshawk	X	F
Gray Jay	X	C
Gray Partridge	X	R
House Sparrow	X	C

Appendix E - Goal 5 Supplemental Sections

Birds Selected List 1992	Use Period S = Summer W = Winter X = Year round	Relative Abundance A = Abundant C = Common F = Few R = Rare U = Unknown
House Wren	S	F
Killdeer	X	C
Lark Sparrow	S	F
Lazuli Benging	S	F
Least Sandpiper	S	F
Lesser Goldfinch	X	R
Lesser Scaup	W	C
Lewis' Woodpecker	S	F
Lincoln's Sparrow	X	F
Loggerhead Shrike	X	F
Long-billed Curlew	S	R
Long-billed Marsh Wren	S	F
Long-eared Owl	X	F
MacGillivray's Warbler	S	F
Mallard	X	C
Merlin	W	R
Mountain Bluebird	X	C
Mountain Chickadee	X	C
Mourning Dove	X	C
Nashville Warbler	X	F
Northern Harrier	X	F
Northern Oriole	S	F
Northern Phalarope	S	F
Three-toed Woodpecker	X	F
Olive-sided Flycatcher	S	C
Orange-crowned Warbler	S	F
Osprey	S	C
Peregrine Falcon	X	R
Pileated Woodpecker	X	F
Pine Grosbeak	X	R
Pine Siskin	X	C
Pinon Jay	X	C
Pintail	W	C
Prairie Falcon	X	C
Purple Finch	X	F
Pygmy Nuthatch	X	C
Pygmy Owl	X	F
Red Crossbill	X	F
Red-breasted Nuthatch	X	C
Redhead	W	F
Red-shafted Flicker	X	C
Red-tailed Hawk	X	C
Red-winged Blackbird	X	C

Appendix E - Goal 5 Supplemental Sections

Birds Selected List 1992	Use Period S = Summer W = Winter X = Year round	Relative Abundance A = Abundant C = Common F = Few R = Rare U = Unknown
Ring-billed Gull	X	C
Ring-neck Duck	W	F
Ring-necked Pheasant	X	F
Robin	X	C
Rock Dove	X	C
Rock Wren	S	C
Rosy Finch	X	R
Rough-legged Hawk	W	C
Rough-winged Swallow	S	F
Ruby-crowned Kinglet	X	F
Ruffed Grouse	X	F
Rufous Hummingbird	S	F
Rufous-sided Towhee	X	F
Sage Grouse	X	F
Sage Sparrow	S	R
Sage Thrasher	S	C
Sandhill Crane	S	F
Song Sparrow	X	F
Sora	S	F
Spotted Owl	X	F
Spotted Sandpiper	S	F
Starling	X	C
Steller's Jay	X	F
Swainson's Hawk	S	R
Swainson's Thrush	S	F
Townsend's Solitaire	X	C
Tree Swallow	S	C
Turkey	X	C
Turkey Vulture	S	C
Varied Thrush	X	F
Vaux's Swift	S	F
Vesper Sparrow	S	F
Violet-green Swallow	S	C
Virginia Rail	S	F
Warbling Vireo	S	F
Water Pipit	X	F
Western Bluebird	S	F
Western Flycatcher	S	F
Western Grebe	S	C
Western Kingbird	S	F
Western Meadowlark	S	C
Western Sandpiper	S	F
Western Tanager	S	F

Appendix E - Goal 5 Supplemental Sections

Birds Selected List 1992	Use Period S = Summer W = Winter X = Year round	Relative Abundance A = Abundant C = Common F = Few R = Rare U = Unknown
Western Wood Pewee	S	F
White-breasted Nuthatch	X	F
White-crowned Sparrow	S	F
White-headed Woodpecker	X	F
Wigeon	X	F
Williamson's Sapsucker	X	F
Willow Flycatcher	S	R
Wilson's Phalarope	S	R
Wilson's Warbler	S	F
Winter Wren	X	F
Wood Duck	S	F
Yellow Warbler	S	F
Yellow-bellied Sapsucker	X	F
Yellow-headed blackbird	S	F
Yellowthroat	S	F

Source: 1979 Deschutes County Comprehensive Plan as revised

The Oregon Department of Fish and Wildlife (ODFW) has identified two bald eagle nests in Township

Table 5.4.2 – Amphibian and Reptile Inventory

Amphibians and Reptiles Selected List 1992	Use Period S = Summer W = Winter X = Year round	Relative Abundance A = Abundant C = Common F = Few R = Rare U = Unknown
Bullfrog	X	F
Cascades Frog	X	F
N. Grasshopper Mouse	X	F
Northern Water Shrew	X	F
Norway Rat	X	F
N. Pocket Gopher	X	U
Ord's Kangaroo Rat	X	C
Pacific Mole	X	U
Pallid Bat	S	U
Pine Marten	X	C
Pinon Mouse	X	F
Porcupine	X	C
Pronghorn Antelope	X	C
Raccoon	X	C
Red Fox	X	F
River Otter	X	C
Rocky Mtn Elk	X	C
Roosevelt Elk	X	C
Sagebrush Vole	X	C

Appendix E - Goal 5 Supplemental Sections

Amphibians and Reptiles Selected List 1992	Use Period S = Summer W = Winter X = Year round	Relative Abundance A = Abundant C = Common F = Few R = Rare U = Unknown
Shorttail Weasel	X	F
Silver-haired Bat	S	U
Small-footed Myotis	S	U
Snowshoe Hare	X	F
Striped Skunk	X	C
Townsend Ground Squirrel	X	C
Townsend's Big-eared Bat	X	F
Trowbridge Shrew	X	F
Vagrant Shrew	X	U
Water Vole	X	C
Western Gray Squirrel	X	C
Western Harvest Mouse	X	C
Western Jumping Mouse	X	F
Western Pipitrel	S	U
Whitetail Jackrabbit	X	R
Wolverine	X	R
Yellow Pine Chipmunk	X	C
Yellow-bellied Marmot	X	F
Yuma Myotis	X	F
Common Garter Snake	X	F
Ensatina	X	R
Gopher Snake	X	C
Great Basin Spadefoot Toad	X	F
Long-toed Salamander	X	F
Night Snake	X	U
Northern alligator Lizard	X	F
Pacific Tree Frog	X	C
Racer	X	F
Red-legged Frog	X	F
Roughskin Newt	X	R
Rubber Boa	X	F
Sagebrush Lizard	X	F
Sharp-tailed Snake	X	U
Short-horned Lizard	X	R
Side-blotched Lizard	X	U
Spotted Frog	X	F
Striped Whipsnake	X	U
Tailed Frog	X	F
Western Fence Lizard	X	C
Western Rattlesnake	X	F
Western Skink	X	F
Western Toad	X	F

Source: 1979 Deschutes County Comprehensive Plan as revised

Table 5.4.3 – Goal 5 Fish Distribution Inventory

	Atlantic Salmon	Coho Salmon	Rainbow Trout	Brown Trout	Cutthroat Trout	Brook Trout	Lake Trout	Dolly Varden Trout	Kokanee	Mountain Whitefish	Largemouth Bass	Bluegill	Brown Bullhead	Bridgip Sucker	Tui Chub	Gayling	Crayfish
Tyee Creek					2												
Hell Creek					2												
Spring River			2		2			1						2			1
Tumalo Creek			1		2												
Bridge Creek					2												
Fall Creek					2												
Satan Creek					2												
Soda Creek					2												
Crater Creek					2												
Goose Creek					2												
Indian Ford Creek			1		2								2				
Trout Creek			1														
Alder Creek			1														
Whychus Creek			1		2												
Pole Creek					2												
Snow Creek			1		2												
Deschutes River		3	*	2	2			3	1					2			1
Little Deschutes River			1	2	2			1			2			2			1
Park Creek					2												
Three Creeks Creek			3		3												
Sink Creek					2												
Deer Creek			1		2												
Quinn River			*		2			2	1					2			1
Quinn Creek	3				2												
Cultus Creek			*		2												
Cultus Lake, Big			3		2	2		1						2			1
Cultus Lake, Little			2		3												
Cultus River					2			2	1								
Moore Creek					2												
Charlton Creek					2												
Long Prairie Slough											2						2
Browns Creek			2	2	2			#	1								1
Fall River			*	2	2			1						2			1
Paulina Creek			3											2			1
Cache Creek			1														
Crane Prairie Res.			*		#			2	1	2				2			1
Wickiup Reservoir		3	3	#				#	1					2			1
Three Creeks Lake			3		3												
Devil's Lake			3		2												
Hosmer Lake	3				3												1
Irish Lake					3												

1 - Native, naturally reproducing

2 - Introduced, naturally reproducing

3 - Introduced, periodic stocking required to maintain population

* - 1 and 3

- 2 and 3

Source: 1979 Deschutes County Comprehensive Plan as revised

Table 5.4.4 Recommended Minimum Flows for Fish Life

Stream	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Deschutes River (1)	200	200	200	200	200	200	200	200	200	200	200	200
Deschutes River (2)	400	400	400	400	400	400	400	400	400	400	400	400
Deschutes River (3)	660	660	660	660	660	660	660	660	660	660	660	660
Deschutes River (4)	300	300	300	300	300	300	300	300	300	300	300	300
Deschutes River (5)	80	80	80	80	80	80	80	80	80	80	80	80
Deschutes River (6)	40	40	60	60	60	40	40	40	60	60	60	60
Whychus Creek (7)	20	10	10	10	10	10	10	10	10/20	30	20	20
Whychus Creek (8)	10	10/20	30	30	30	20	10	10	10	10	10	10
Indian Ford Creek	4	3	3	3	3	3	3	3	3/4	6	4	4
Tumalo Creek	35	35	47	47	47	5	10	10	10/35	47	35	35
Spring River	300	300	300	300	300	300	300	300	300	300	300	300
Little Deschutes River	80	80	80	200	200	150	100	100	100	100	200	200
Fall River	70	70	100	100	100	70	50	50	50	100	100	100
Browns Creek	15	15	25	25	25	15	15	15	25	25	25	25
Quinn River	20	20	20	20	20	20	20	20	20	20	20	20
Cultus Creek	20	20	32	32	32	20	5	5	5/20	32	20	20
Cultus River	50	50	50	50	50	50	50	50	70	70	70	70
Snow Creek	15	15	30	30	30	20	15	15	15	30	30	20
Quinn Creek	20	20	20	12	12	12	12	12	12/20	35	35	35
Soda Creek	20	20	20	6	6	6	6	6	6/20	31	31	31
Fall Creek	35	35	35	20	20	20	20	20	20/35	46	46	46
Goose Creek	7	7	7	4	4	4	4	4	4/7	10	10	10
Three Creek	7	7	10	10	10	7	2	2	2/7	10	7	7

¹ Flows are expressed in cubic feet per second. The recommended flows should arrive at the point of recommendation and continue to the mouth of the stream or to the next point for which a different flow is recommended. Stream flows recommended in Appendix I are designed for game fish production and are not necessarily adequate for wildlife, especially waterfowl and furbearers. Neither would they necessarily be recommended below future impoundments.

- (1) Bend to Round Butte Reservoir
- (2) L. Deschutes R. to Spring River
- (3) Spring River to Bend
- (4) Wickiup Dam to Little Deschutes River
- (5) Crane Prairie Dam to Wickiup Reservoir
- (6) At USGS Gage 14-0500
- (7) Below USGS Gage 14-0750
- (8) Below Camp Polk

Source: 1979 Deschutes County Comprehensive Plan as revised

15S, Range 10E, Section 23, Tax Lot 1400. The ODFW identifiers for these sites are DE0035-00 and DE0035-01. The sites are also known as Cloverdale. The sites are described in the Oregon Department of Fish and Wildlife Central Region Administrative Report No. 93-1. The sensitive habitat area is identified as the area east of Highway 20 that is within a 1/4-mile radius of each nest site.

Site #	Taxlot	Site Name
DE0036-00	17S-11E-26-5900	Shevlin Park

The Oregon Department of Fish and Wildlife (ODFW) has inventoried a former bald eagle nest site in Township 17S, Range 11E, Section 26, Tax Lot 5900. The ODFW identifier for this site is DE0036-00. The site is also known as Shevlin Park. The site is described in the Oregon Department of Fish and Wildlife Central Region Administrative Report No. 93-1.

Site #	Taxlot	Site Name
DE0037-00	22S-09E-04-4500	Wickiup Reservoir

Table 5.4.5 – Instream Water Right Program (3/1/92) Database Summary Report

BASIN 05	STREAM > PARENT STREAM	UPSTREAM LIMIT	DOWNSTREAM LIMIT	SPECIES	APP NO.	CERT #	DATE
05	Deschutes R > Columbia R	Crn Prairie Res	Wickiup Res	RB, BT, BR, CO, K	070764		10/11/90
05	Deschutes R > Columbia R	Little Lava Lk	Crn Prairie Res	RB, BT, K, WF	070763		10/11/90
05	Deschutes R > Columbia R	193.0	190.0		MPS	59777	11/03/83
05	Deschutes R > Columbia R	227.0	193.0		MPS	59776	11/03/83
05	Deschutes R > Columbia R	190.0	165.0		MPS	59778	11/03/83
05	Fall R > Deschutes R	Gage 14057500	Mouth	RB, BT, BR, WF	070762		10/11/90
05	Indian Ford Cr > Whychus Cr	Headwaters	Mouth	RB	070760		10/11/90
05	Little Deschutes R > Deschutes R	Crescent Cr	Mouth	RB, BT, BR, WF	070757		10/11/90
05	Metolius R > Deschutes R	Metolius Spring	Canyon Cr	BUT, K	070699		09/24/90
05	Snow Cr > Deschutes R	Headwaters	Mouth	RB, BT	070756		10/11/90
05	Whychus Cr > Deschutes R	S Fk Whychus Cr	Indian Ford Cr	RB, BT	070754		10/11/90
05	Tumalo Cr > Deschutes R	S Fk Tumalo Cr	Mouth	RB, BT, BR	070752		10/11/90

Source: 1979 Deschutes County Comprehensive Plan as revised

The Oregon Department of Fish and Wildlife (ODFW) has identified a bald eagle nest in Township 22S, Range 09E, Section 04, Tax Lot 500. The ODFW identifier for this site is DE0037-00, Wickiup Reservoir. The site is described in the Oregon Department of Fish and Wildlife Central Region Administrative Report No. 93-1.

<i>Site #</i>	<i>Taxlot</i>	<i>Site Name</i>
DE0038-00	22S-09E-34-500	Haner Park

The Oregon Department of Fish and Wildlife (ODFW) has identified a bald eagle nest in Township 22S, Range 09E, Section 34, Tax Lot 500. The ODFW identifier for this site is DE0038-00, Haner Park. The site is described in the Oregon Department of Fish and Wildlife Central Region Administrative Report No. 93-1. The sensitive habitat area includes the area within one-quarter mile of the nest site.

<i>Site #</i>	<i>Taxlot</i>	<i>Site Name</i>
DE0039-00	22S-09E-06-500	Wickiup Dam

The Oregon Department of Fish and Wildlife (ODFW) has identified a bald eagle nest in Township 22S, Range 09E, Section 06, Tax Lot 500. The ODFW identifier for this site is DE0039-00, Wickiup Dam. The site is described in the Oregon Department of Fish and Wildlife Central Region Administrative Report No. 93-1.

<i>Site #</i>	<i>Taxlot</i>	<i>Quarter Section</i>	<i>Site Name</i>
DE0046-00	20-10-34-3401	34NWSE	Bates Butte

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The Oregon Department of Fish and Wildlife (ODFW) has identified a bald eagle nest in Township 20S, Range 10E, Section 34, Tax Lot 3401. The ODFW identifier for this site is DE0046-00, Bates Butte. The site is described in the Oregon Department of Fish and Wildlife Central Region Administrative Report No. 93-1. The sensitive habitat area includes the area within one-quarter mile of the nest site.

Great Blue Heron Rookery – Black Butte Ranch

The Oregon Department of Fish and Wildlife (ODFW) identified a great blue heron rookery in Township 14S, Range 9E, Section 10 SENE. The County inventoried and adopted this site as a Goal 5 resources in Ordinance 92-041.

Golden Eagle Sites

Table 5.4.6 – Golden Eagle Nest Site Inventory on Non-Federal Land or with Non-Federal Sensitive Habitat Area

ODFW Site #	Taxlot	Quarter Section	General Location
DE-0002-00	14-13-11-100	11/SENW	Smith Rock State Park
DE-0002-01	14-13-11-100	11/SENW	Smith Rock State Park
DE-0002-02	14-13-11-100	11/SENW	Smith Rock State Park
DE-0002-03	14-13-11-100	11/NWNE	Smith Rock State Park
DE-0002-04	14-13-11-100	11/NWNE	Smith Rock State Park
DE-0002-05	14-13-11-100	11/NWNE	Smith Rock State Park
DE-0002-06	14-13-11-100	11/NWNE	Smith Rock State Park
DE-0006-00	15-12-00-1502	35/SENE	Mid Deschutes
DE-0006-01	15-12-00-1502	35/SENE	Mid Deschutes
DE-0006-02	15-12-00-1502	35/SENE	Mid Deschutes
DE-0006-04	15-12-00-1502	35/SENE	Mid Deschutes
DE-0006-05	15-12-00-1503	35/NESE	Mid Deschutes
DE-0009-00	14-12-22D-300	23/NWSW	N. Odin Falls
DE-0011-00	15-12-00-100	1/NWSE	Radio Tower/Deschutes
DE-0011-01	15-12-00-100	1/NESE	Radio Tower/Deschutes
DE-0012-00	15-11-00-800	3/NENE	Upper Deep Canyon
DE-0014-00	16-11-00-7800	29/NWSE	Tumalo Dam
DE-0015-01	14-11-00-400	3/NENW	Whychus Creek
DE-0015-00	14-11-00-400	3/SESW	Rimrock Ranch
DE-0029-00	20-17-00-3801	36/NWSE	Twin Pines
DE-0034-00	15-10-00-1400	15/SENW	Lazy Z/USFS
DE-0034-01	15-10-00-1400	15/SENW	Lazy Z/USFS

Source: 1979 Deschutes County Comprehensive Plan as revised

Table 5.4.7 – Prairie Falcon Nest Site Inventory on Non-Federal Land or with Non-Federal Sensitive Habitat Area

ODFW Site #	Taxlot	Quarter Section	General Location
DE-0016-00	22-16-00-100	12/SWSE	Dickerson Flat
DE-0031-00	16-11-00-5600	20/NESE	Tumalo Dam
DE-0031-01	16-11-20-400	20/SESW	Tumalo Dam
DE-0794-01	14-13-11-100	11/NWSW	Smith Rock State Park

Source: 1979 Deschutes County Comprehensive Plan as revised

Table 5.4.8– Osprey Nest Site Inventory on Non-Federal Land or with Non-Federal Sensitive Habitat Area

ODFW Site #	Taxlot	Quarter Section	General Location
DE-0080-00	20-11-00-1300	07/NWNE	Sunriver/ Meadowland

Source: 1979 Deschutes County Comprehensive Plan as revised

Table 5.4.9 – Upland Game Bird Habitat

Ring-necked Pheasant	200
Valley Quail	10,000
Mountain Quail	50
Chukar Partridge	300
Turkey	50
Blue Grouse	900
Sage Grouse	1,800
Ruffed Grouse	100
Mourning Dove	8,000

Source: 1979 Deschutes County Comprehensive Plan as revised

Table 5.4.10 – Sage Grouse Lek Inventory on Non-Federal Lands or with Non-Federal Sensitive Habitat Areas

ODFW Site #	Taxlot	Quarter Section	General Location
DE 0994-01	20-18-00-700	05/SWSE	Circle F Reservoir
DE 0995-01	20-19-00-800	06/NWSE	Merril Rd
DE 0996-01	22-17-00-600	06/SWSW	Dickerson Well
DE 0997-01	20-16-00-2400	25/SESW	Moffit Ranch
DE 0997-02	20-16-00-2400	26/NENE	Moffit Ranch Satellite
DE 0998-01	20-14-00-400	10/NWNW	Evans Well
DE 0998-02	20-14-00-400	10/SWNW	Evans Well Satellite
DE 0999-01	19-14-00-2200	26/SESE	Millican Pit

Source: 1979 Deschutes County Comprehensive Plan as revised

Section 5.5 Goal 5 Inventory - Open Spaces, Scenic Views and Sites

Background

This section contains information from the 1979 Deschutes County Comprehensive Plan as revised. It lists the open spaces, scenic views and sites resources in Deschutes County. These inventories have been acknowledged by the Department of Land Conservation and Development as complying with Goal 5. No changes have been proposed for the 2010 Comprehensive Plan update.

To protect scenic views, landscape management areas have been defined and a combining zone created. On lands outside urban growth boundaries and rural service centers along the portions of roadways listed below, landscape management zoning applies and a case-by-case site plan review is required. The area extends $\frac{1}{4}$ mile on either side from the centerline of the roadways and includes 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.

Landscape Management Roads, Rivers and Streams

Inventory: All land within one-quarter of a mile, as measured at right angles from the centerline, of any of the following designated Landscape Management Roadways. All land within the boundaries of a state scenic waterway or a federal wild and scenic river corridor; and all land within 660 feet of the ordinary high water mark of portions the following designated rivers and streams which are not designated as state scenic waterways or federal wild and scenic rivers.

Table 5.5.1 – Deschutes County Landscape Management Areas

<i>Landscape Management Roads</i>	<i>Miles</i>
U.S. Highway 97 North County line to Redmond UGB	7.5
U.S. Highway 97 Redmond UGB to Bend UGB	12
U.S. Highway 97 Bend UGB to South County line	35
U.S. Highway 20-126 North County line to Sisters UGB	11
U.S. Highway 126 Sisters UGB to Redmond UGB	21.5
U.S. Highway 20 Sisters UGB to Bend UGB	23
Smith Rock Road Highway 97 to Smith Rock	3.5
Sisemore Road Cloverdale to Bend UGB	19
Skyliner Road	15.5
Century Drive Bend to Mt Bachelor	25
South Century Drive	27
Cascade Lakes Highway	46
Waldo Lake Road	10
Cultus Lake Road	2
Little Cultus Lake Road	6

Landscape Management Roads	Miles
Twin Lakes Road	6
Keefer Road (East Crane Prairie Road)	16.5
East Deschutes Road	14
Deschutes Road	9
Wickiup Road	4
Pringle Falls Loop	8
La Pine Recreation Area Access Road	10
Paulina-East Lake Road	22.5
Lava Cast Forest Road	20.5
Highway 20 east to the County Line	25
Pine Mountain Road	7.5
Ford Road	6.5
Three Creeks Lake Road	16
Three Trappers Road	20.5
Dillon Falls Road	60
Matsen Road	2
State Highway 31	2.5
Road to Benham Falls	4.5
State Highway 242 McKenzie Highway	
Landscape Management Rivers and Streams	Miles
Deschutes River	
Little Deschutes River	43
Paulina Creek	19
Fall River	8
Spring River	1.2
Tumalo Creek	16.3
Whychus Creek (formerly Squaw Creek)	
Crooked River	10

Source: Deschutes County Ordinance 92-052

Areas of Special Concern Inventory

Inventory: The Resource Element of the Deschutes County Year 2000 Comprehensive Plan (1979) identified sites as Open Spaces and Areas of Special Concern. Table 5.5.2, lists the inventory of sites identified as Areas of Special Concern located on federal land.

Table 5.5.2 "2A" Areas of Special Concern

ID #	Name	Location
9	Bachelor Butte	T18S R09E SEC 29-32
11	Pine Mt. Observatory	T20S R15E SEC 33
13	Dry River	T19S R15E SEC 19 & 30 T19S R14E SEC 2, 11, 13, 14 & 24
14	Arnold Ice Caves	T19S R13 E SEC 22
15	Charcoal Cave	T19S R13 E SEC 22
16	Skeleton Cave	T19S R13E SESE SEC 4
17	Wind Cave	T19S R13E NW ¼ SEC 23; SW ¼ SEC 14
31	Tumalo Falls	T18S R10E NW ¼ SEC 08
33	Lava River Caves	T19S R11E SE ¼ SEC 26

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ID #	Name	Location
34	Pringle Falls Experimental Forest	T21S R09E SEC 21-23, 27 & 28
39	Benham Falls	T19S R11E SW ¼ SEC 9
45	Paulina Mountain	T22S R12E SEC 1-3 & 10-12
49	Lavacicle Cave	T22S R16E SENE SEC 05
50	Lava Cast Forest	T20S R12E SEC 15, 16, 21, 22, 27-35
51	Lava Butte Geologic Area	T19S R11E SEC 18
52	Pine Mountain North Slope	T20S R15E SEC 28, 29 & 33
54	McKenzie Summit	T15S R07E SEC 17
55	Newberry Crater	T21 R12E SEC 34-36
65	Bend Watershed	T17S R09E SEC 35 & 26 T18S R09E SEC 1, 2, 3, 10, 11, & 12
66	Bat Cave	T19S R13E SE ¼ SEC 14
68	Boyd Cave	T19S R13E SENW SEC 8
69	Frederick Butte	T22S R19E SEC 32

Source: Deschutes County Ordinance 92-052

Land Needed and Desirable for Open Space and Scenic Resources

Inventory: The following list shows land needed and desirable for open space and scenic resources:

Table 5.5.3 Land Needed and Desirable for Open Spaces and Scenic Resources

State Parks	Location	Size
Smith Rock State Park	T14S, R13 E, SEC 10, 11, 14 & 15	600 acres
Cline Falls State Park	T15S, R12E, SEC 14	9.04 acres
Tumalo State Park	T17S, R12E, SEC 6	320.14 acres
Pilot Butte State Park	T17S, R12E, SEC 33 & 34	100.74 acres
La Pine State Recreation Area	T20S, R10E, SEC 33 & 34 T21S, R10E, SEC 3, 4, 8, 9, 10, 11, 12 T21S, R11E, SEC 7	2,333.12 acres

Source: Deschutes County Ordinance 92-052

Section 5.6 Goal 5 Inventory - Energy Resources

Background

This section contains information from the 1979 Deschutes County Comprehensive Plan as revised. It lists the energy resources in Deschutes County. These inventories have been acknowledged by the Department of Land Conservation and Development as complying with Goal 5. No changes have been proposed for the 2010 Comprehensive Plan update.

Hydroelectric Resources of the Upper Deschutes River Basin

Inventory: Available information is adequate to indicate that the resource is significant. The City of Bend/Deschutes County River Study inventoried 16 proposed hydroelectric project sites in Deschutes County. Twelve were located on the Deschutes River; two on Tumalo Creek; two on Whychus Creek; and one on the Crooked River in Deschutes County. For a more detailed discussion of the hydroelectric resources in Deschutes County see the Deschutes County/City of Bend River Study, April 1986 (River Study), Chapters 2, 3, and 4. Also refer to the River Study staff report. The River Study and River Study staff report are incorporated herein by reference.

Table 5.6.1 Hydroelectric Resources of the Upper Deschutes Basin*

<i>Deschutes River</i>	<i>River Mile</i>	<i>Capacity (megawatts)</i>
Crane Prairie	239	0.6
Wickiup Dam	226.8	7.0
Pringle Falls	217	1.6
Lava Diversion	182.4	11.5
Dillon Falls	177.6	7.2
Aspen Diversion	175.2	3.2
Island Diversion	174.6	7.5
Arnold Flume	174.5	4.2
COI Siphon	170.0	6.5
North Canal Dam	164.8	2.0
Bend Canal Diversion	162.4	3.0
<i>Tumalo Creek</i>	<i>River Mile</i>	<i>Capacity (megawatts)</i>
Columbia Southern	9.5	9.3
<i>Whychus Creek</i>	<i>River Mile</i>	<i>Capacity (megawatts)</i>
Whychus Creek	25	0.6
Whychus Creek	30.5	3.5
<i>Crooked River</i>	<i>River Mile</i>	<i>Capacity (megawatts)</i>
Crooked River Drop	164.8	10.7

Source: Deschutes County Ordinance 92-052

* Note that the conflicting use analysis from the River Study and subsequent amendments prohibit new hydroelectric facilities that are not physically connected to an existing dam, diversion or conduit. (Ord.86-017, 86-018, 86-019, 92-052)

* Note that the conflicting use analysis from the River Study and subsequent amendments prohibit new hydroelectric facilities that are not physically connected to an existing dam, diversion or conduit. (Ord.86-017, 86-018, 86-019, 92-052)

The prohibition refers to the following:

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1. Deschutes River, from its headwaters to River Mile 227, above but not including Wickiup Dam, and from Wickiup Dam to River Mile 171 below Lava Island Falls;
2. Crooked River;
3. Fall River;
4. Little Deschutes River;
5. Spring River;
6. Paulina Creek;
7. Whychus Creek (was Squaw Creek);
8. Tumalo Creek.

Geothermal Resources

Inventory: The County adopted Ordinance 85-001 which complies with Goal 5 (OAR 660-016). The ordinance amended the Comprehensive Plan and adopted a Geothermal Resource Element including a resource inventory and ESEE analysis.

Section 5.7 Goal 5 Inventory - Wilderness, Natural Areas, and Recreation

Background

This section lists wilderness areas, natural areas and recreation trail resources in Deschutes County.

Wilderness Areas

Inventory: Wilderness areas are represented by all lands within the existing Mt. Washington and Three Sisters Wilderness Areas as shown on the Deschutes National forest Land and Resource Management Plan Map, and all lands included in the Bureau of Land Management's (BLM) State of Oregon Wilderness Status Map for Deschutes County and BLM Wilderness Study Areas (WSA) as shown on the Brothers / La Pine Resource Management Plan.

Ecologically and Scientifically Significant Natural Areas

Inventory: The following sites are the inventories ecologically significant natural areas in Deschutes

Table 5.7.1 Wilderness Areas

Name	Acres
Mt. Washington Wilderness Area	13,563
Three Sisters Wilderness Area	92,706
Badlands	32,261
Hampton Butte	10,600
Steelhead Falls	920

Source: Deschutes County Ordinance 92-052

County by the Oregon Natural Heritage Program and there is sufficient information based on site reports from the Heritage Program to complete the Goal 5 review process.

Approved Oregon Recreation Trails

None listed

Table 5.7.2 Ecologically and Scientifically Significant Natural Areas

Name	Location	Quality	Quantity
Pringle Falls Research Natural Area	T21S, R9E, SEC 3, 34 & 35	Excellent	1,160 acres
Horse Ridge Research Natural Area	T19S, R14S, SEC 15 & 22	Excellent	600 acres
West Hampton Butte	T22S, R20E, SEC 31 & 32	Good	1,280 acres
Little Deschutes River / Deschutes River Confluence	T20S, R11E, SEC 7	Excellent	400 acres
Davis Lake	T22S, R7 E, SEC 25 & 26 T22S, R8E, SEC 31	Good	4,000 acres

Source: Deschutes County Ordinance 92-052

Section 5.8 Goal 5 Inventory - Mineral and Aggregate Resources

Background

This section contains information from the 1979 Deschutes County Comprehensive Plan as revised. It lists the surface mining resources in Deschutes County. These inventories have been acknowledged by the Department of Land Conservation and Development as complying with Goal 5. No changes have been proposed for the 2010 Comprehensive Plan update.

Table 5.8.1 – Deschutes County Surface Mining Mineral and Aggregate Inventory

#	Taxlot	Name	Type	Quantity*	Quality	Access/Location
246	151010-00-00205, 207, 300, 302, 303	Tewalt	S & G	10,000	Good	Hwy 20
248	151012-00-00100	Cyrus	Cinders	30.2 M	Excellent	Cloverdale Road
251	151211-D0-01400, 151214-A0-00800	Cherry	S & G	125,000	Good	
252	151200-00-04700, 04701	Thornburgh	Rock	2.5 M	Good	
271	151036-00-00800	Deschutes County	S & G	2 M	Mixed	Harrington Loop Road
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 Road
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	171112-00-00500, 600, 700, 800	RL Coats	S & G	3 M	ODOT Specs	

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#	Taxlot	Name	Type	Quantity*	Quality	Access/Location
296	171100-00-02702	Crown Pacific	Cinders	100,000	Excellent	Shevlin 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	171433-00-00600	Deschutes County	S & G	100,000	Good	
313	171433-00-00600, 120	Deschutes County	Storage			Dodds Road/Alfalfa
314	171332-00-01100	Deschutes County	Dirt	150,000	Good	
315	140900-00-02100	Stott	Rock	93,454 tons	ODOT Specs	Highway 20
316	140900-00-00202	Black Butte Ranch	S & G	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
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	EA 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	

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#	Taxlot	Name	Type	Quantity*	Quality	Access/Location
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 Road/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
392	181223-00-00300	Rose	Rock	10 M Est	Mixed	
392	181223-00-00300	Rose	Dirt	7.5 M	Good	

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#	Taxlot	Name	Type	Quantity*	Quality	Access/Location
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	Coarse	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	

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#	Taxlot	Name	Type	Quantity*	Quality	Access/Location
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	
465	141333-00-00900	Oregon State Hwy	Cinders	100,000	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	200,000	Good	Cloverdale Road
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	

#	Taxlot	Name	Type	Quantity*	Quality	Access/Location
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
601	211100-00-00700	La Pine Redi Mix	S & G	479,000	DEQ Specs	Paulina Lake Road

* Quantity in cubic yards unless otherwise noted

Source: 1979 Deschutes County Comprehensive Plan as revised

Table 5.8.2 – Deschutes County Non-Significant Mining Mineral and Aggregate Inventory

Site #	Taxlot	Name	Type	Quantity*	Comments
100	15-10-14-700	Whychus Creek Irrigation District—Watson Reservoir I.	Silt, sand, & dirt	200,000 cy	Reservoir Size is 80 acres.
101	15-10-14-700	Whychus Creek Irrigation District—Watson Reservoir II.	sand & dirt	600,000 cy	Reservoir size is 40 acres.
102	14-11-33-500	Whychus Creek Irrigation District—McKenzie Reservoir	Silt, sand, & dirt	100,000 cy	Reservoir size is 12 acres
103	14-11-33-500	Whychus Creek Irrigation District—McKenzie Reservoir	Sand & dirt	250,000 to 300,000 cy	Reservoir expansion size is 20 acres

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<i>Site #</i>	<i>Taxlot</i>	<i>Name</i>	<i>Type</i>	<i>Quantity*</i>	<i>Comments</i>
		Expansion			

* Quantity in cubic yards unless otherwise noted

Source: 1979 Deschutes County Comprehensive Plan as revised

Section 5.9 Goal 5 Inventory - Cultural and Historic Resources

Background

This section lists Locally Significant Historic Resources and National Register Resources in rural Deschutes County. These inventories are acknowledged by the Department of Land Conservation and Development. In 2020, Deschutes County's inventories were updated to comply with Oregon Administrative Rule (OAR) 660-023-0200, Historic Resources. OAR 660- 023-0200 was amended in 2017.

Locally Significant 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 1700.
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.

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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- 10-00 TL 2805 & 14-10-34 TL 100, 300.
12. Cloverdale School: School building in Cloverdale, located near 68515 George Cyrus Road. First building built in Cloverdale. 15-11-7 TL 600.
13. Eastern Star Grange: Grange hall for earliest grange organized in Deschutes County, located at 62850 Powell Butte Road. 17-13-19 TL 1900.
14. 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 1900 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.
15. 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.
16. Harper School: One-room schoolhouse, located west of South Century Drive, south of Sunriver, moved halfway between the Allen Ranch and the Vandever Ranch from the former townsite of Harper. 20-11-17 TL 1200.
17. 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.
18. 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.
19. 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.

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20. 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.
21. 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.
22. 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.
23. 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.
24. 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.
25. 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.
26. 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 Nimtz 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.
27. 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.
28. 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.
29. Tumalo Creek – Diversion Dam The original headgate and diversion dam for the feed canal was constructed in 1914. The feed canal's purpose was to convey water from Tumalo Creek to the reservoir. The original headworks were replaced and the original 94.2 ft low overflow weir dam was partially removed in 2009/2010 to accommodate a new fish screen and fish ladder. The

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remaining original structure is a 90 foot (crest length) section of dam of reinforced concrete. Tax Map 17-11-23, Tax Lot 800 & 1600.

30. 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.
31. 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.
32. 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. 20-11-18D TL 13800.
33. 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.
34. 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.
35. 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.

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.

National Register Resources listed before February 23, 2017

36. Pilot Butte Canal: A gravity-flow irrigation canal constructed in 1904 that diverts 400 cubic feet of Deschutes River water per second. The canal conveys water through a 225- miles-long distribution system of successively narrower and shallower laterals and ditches on its way to those who hold water rights, serving about 20,711 acres by 1922. The canal was built in an area that had a population of 81 people when it was constructed. The historic district measures 7,435 feet long and encompasses 50 feet on either side of the canal centerline to create a 100-foot corridor. The district has a character-defining rocky, uneven bed, and highly irregular slopes, angles, cuts, and embankments.

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37. Elk Lake Guard Station: A wagon road built in 1920 between Elk Lake and Bend sparked a wave of tourism around the scenic waterfront. To protect natural resources of the Deschutes National Forest and provide visitor information to guests, the Elk Lake Guard Station was constructed in 1929 to house a forest guard.
38. Deedon (Ed and Genvieve) Homestead: The homestead is located between the Deschutes River and the Little Deschutes River. All of the buildings were constructed between 1914 and 1915.
39. Gerking, Jonathan N.B. Homestead: Jonathan N.B. Gerking, "Father of the Tumalo Irrigation Project," played a crucial role in getting the project recognized and funded.
40. McKenzie Highway: The McKenzie Salt Springs and Deschutes Wagon Road, a predecessor to the modern McKenzie Highway, was constructed in the 1860s and 1870s.
41. Paulina Lake Guard Station: The station typifies the construction projects undertaken by the Civilian Conservation Corps and signifies the aid to the local community provided by the emergency work-relief program through employment of youth and experienced craftsmen, purchase of building materials and camp supplies, and personal expenditures of enrollees.
42. Paulina Lake I.O.O.F Organization Camp: The Paulina Lake I.O.O.F. Organization camp was constructed during the depression era and are the result of cooperative efforts by nonprofessional builders. Such camp buildings are important in Oregon's recreational history as an unusual expression of both its rustic style and its vernacular traditions.
43. Petersen Rock Gardens: The Petersen Rock Gardens consist of stone replicas and structures erected by Rasmus Petersen. The site has been a tourist attraction for over 60 years.
44. Rock O' the Range Bridge: Rock O' The Range is the only covered span east of the Cascades in Oregon. To gain access to his property, William Bowen instructed Maurice Olson – a local contractor – to build a bridge inspired by Lane County's Goodpasture Bridge.
45. Skyliners Lodge: The Skyliners are a Bend-based mountaineering club organized in 1927. In 1935, the group started building the Skyliners Lodge with help from the Deschutes National Forest, the Economic Recovery Act and the City of Bend.
46. Santiam Wagon Road: The Santiam Wagon Road went from Sweet Home to Cache Creek Toll Station. The road was conceived of in 1859 to create a route across the Cascades. By the 1890s, the road had become a major trade route.
47. Wilson, William T.E. Homestead: This homestead house was built in 1903 and has an "American Foursquare" architectural style.

National Register Resources listed on / after February 23, 2017

48. Central Oregon Canal: A gravity-flow irrigation canal constructed in 1905 and enlarged in 1907 and 1913. The canal retains its impressive historic open, trapezoidal shape, dimensions and characteristics. It is characterized by the volcanic rock flows, native materials, rocky bed and sides, and its hurried hand-hewn workmanship. The historic district is 3.4 miles long, crossing rural land between the Ward Road Bridge on the western edge and the Gosney Road Bridge on the eastern edge. In the historic district, the canal ranges in width from 34' to 78', averaging around 50', and

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its depth varies from 1' to 9', averaging around 4' deep, depending on the amount of volcanic lava flows encountered, the terrain, and slope. The canal through the historic district carries nearly the full amount of water diverted from the Deschutes River, 530 cubic feet per second during the irrigation season, April through October. The historic district encompasses 50' on either side of the canal centerline to create a 100' corridor that includes the whole of the easement held by COID, and all the contributing resources. (Date listed: 03/18/2019)

Section 5.10 Goal Exception Statements

Background

The purpose of this section is to identify the lands where Deschutes County demonstrated an exception to meeting the requirements of the Statewide Planning Goals. The intent of goal exceptions is to allow some flexibility in rural areas under strictly defined circumstances. Goal exceptions are defined and regulated by Statewide Planning Goal 2 and Oregon Administrative Rule 660-004 (excerpt below).

660-004-0000(2) An exception is a decision to exclude certain land from the requirements of one or more applicable statewide goals in accordance with the process specified in Goal 2, Part II, Exceptions. The documentation for an exception must be set forth in a local government's comprehensive plan. Such documentation must support a conclusion that the standards for an exception have been met.

Statewide Planning Goals with Deschutes County Exceptions

- Goal 3 Agricultural Lands
- Goal 4 Forest Lands
- Goal 11 Public Facilities and Services
- Goal 14 Urbanization

Three types of exceptions are permitted by Oregon Administrative Rule 660-004

- Irrevocably committed
- Physically developed
- Reasons

The summary below identifies approved goal exceptions and identifies the adopting ordinance for those interested in further information. The ordinances listed are incorporated by reference into this Plan.

1979 Exceptions

Comprehensive Plan entire County – PL 20 - 1979

During the preparation of the 1979 Comprehensive Plan it was apparent that many rural lands had already received substantial development and were committed to non-resource uses. Areas were examined and identified where Goal 3 and 4 exceptions were taken. At this time exceptions to Goals 11 and 14 were not required.

The total area excepted was 41,556 acres. These lands were residentially developed, committed to development or needed for rural service centers.

Additional Exceptions

Bend Municipal Airport – Ordinances 80-203, 1980 and 80-222, 1980

The Bend Municipal Airport received an exception to Goal 3 to allow for the necessary and expected use of airport property.

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La Pine UUC Boundary – Ordinance 98-001, 1998

Exceptions to Goals 3, 11 and 14 were taken to allow lands to be included in the La Pine UUC boundary and planned and zoned for commercial use.

Spring River Rural Service Center – Ordinances 90-009, 1990; 90-010, 1990; 96-022, 1996; 96-045, 1996

A reasons exception was taken to Goal 14 to allow the establishment of the Spring River Rural Service Center on residentially designated lands.

Burgess Road and Highway 97 – Ordinance 97-060, 1997

An exception was taken to Goal 4 to allow for road improvements.

Rural Industrial Zone – Ordinances 2010-030, 2010; 2009-007, 2009

Two separate ordinances for rural industrial uses. The 2009 exception included an irrevocably committed exception to Goal 3 and a reasons exception to Goal 14 with a Limited Use Combining Zone for storage, crushing, processing, sale and distribution of minerals. The 2010 exception took a reasons exception to Goal 14 with a Limited Use Combining Zone for storage, crushing, processing, sale and distribution of minerals.

Prineville Railway – Ordinance 98-017

An exception was taken to Goal 3 to accommodate the relocation of the Redmond Railway Depot and the use of the site for an historic structure to be utilized in conjunction with the Crooked River Dinner Train operations.

Resort Communities – Ordinance 2001-047, 2001

An exception was taken to Goal 4 for Black Butte Ranch and Inn of the 7th Mountain/Widgi Creek during the designation of those communities as Resort Communities under OAR 660- 22.

Barclay Meadows Business Park – Ordinance 2003-11, 2003

A reasons exception was taken to Goal 3 to include certain property within the Sisters Urban Growth Boundary.

Sisters School District # 6 – Ordinance 2003-11, 2003

A reasons exception was taken to Goal 3 to include certain property within the Sisters Urban Growth Boundary.

Sisters Organization of Activities and Recreation and Sisters School District #6 – Ordinance 2003-017, 2003

A reasons exception was taken to Goal 4 to include certain property within the Sisters Urban Growth Boundary.

Oregon Water Wonderland Unit 2 Sewer District – Ordinances 2010-015, 2010; 2003-015, 2003

A reasons exception was taken to Goals 4 and 11 to allow uses approved by the Board of County Commissioners in PA-02-5 and ZC-02-3 as amended by PA-09-4.

City of Bend Urban Growth Boundary Amendment (Juniper Ridge) – Ordinance 97-060. 1997

An exception was taken to Goal 3 to allow an amendment of the Bend Urban Growth Boundary to incorporate 513 acres for industrial uses.

Appendix E - Goal 5 Supplemental Sections

Joyce Coats Revocable Trust Johnson Road and Tumalo Reservoir Road Properties – Ordinance 2005- 015, 2005

An irrevocably committed exception was taken to Goal 3 to allow a change of comprehensive plan designation from Surface Mining to Rural Residential Exception Area and zoning from Surface Mining to Multiple Use Agriculture for Surface Mine Sites 306 and 307.

Watson/Generation Development inc – Ordinance 2005-015

An exception was taken to Goal 3 to include a portion of agricultural property.

Oregon Department of Transportation – Ordinance 2005-019, 2005

An exception was taken to Goal 3 to include a portion of agricultural property.

Conklin/Eady Property – Ordinance 2005-035, 2005

An exception was taken to Goal 3 to include a portion of agricultural property.

City of Sisters Property – Ordinance 2005-037, 2005

An exception was taken to Goal 4 to include a portion of forest property.

McKenzie Meadows Property – Ordinance 2005-039, 2005

An exception was taken to Goal 4 to include a portion of forest property.

Bend Metro Park and Recreation District Properties – Ordinance 2006-025

A reasons exception was taken to Goal 3 to include a portion of agricultural property.

Harris and Nancy Kimble Property and Portion of CLR, Inc Property A.K.A. the Klippel Pit Property – Ordinance 2008-001, 2008

An irrevocably committed exception was taken to Goal 3 to allow reclassification and zoning from Surface Mine to Rural Residential Exception Area and Rural Residential 10 acre for Surface Mine Site 294.

Sunriver Service District, Sunriver Fire Department – Ordinance 2014-021, 2014

A reasons exception was taken to Goal 4 to include a portion of forest property. To ensure that the uses in the Sunriver Utility District Zone on the approximate 4.28 acre site of Tax Lot 102 on Deschutes County Assessor's Map 19-11-00 are limited in nature and scope to those justifying the exception to Goal 4 for the site, the Sunriver Forest (SUF) zoning on the subject site shall be subject to a Limited Use Combining Zone, which will limit the uses on the subject site to a fire training facility and access road for the Sunriver Service District and Sunriver Fire Department.

Frances Ramsey Trust Property – Ordinance 2014-027, 2014

An "irrevocably committed" exception was taken to Goal 14 to allow for reclassification and rezoning from agricultural property to Rural Industrial for a 2.65 acre portion of a parcel zoned EFU/RI.

Section 5.11 - Goal 5 Adopted Ordinances

As noted in Chapter 5 of this Plan, adopted and acknowledged Goal 5 inventories, ESEEs and programs are retained in this Plan. Generally the Goal 5 inventories and ESEEs were adopted into the previous Comprehensive Plan or Resource Element and the Goal 5 programs were adopted into the Zoning Code. The County does not have a complete listing of Goal 5 inventory and ESEE ordinances, but will continue to research those ordinances. The following list is a start in listing all Goal 5 ordinances that are retained in this Plan.

- 80-203 Misc. Goal 5
- 85-001 Geothermal Resources
- 86-019 Deschutes River Corridor
- 90-025 Mining
- 90-028 Mining
- 90-029 Mining
- 92-018 Historic and Cultural
- 92-033 Open Space, LM
- 92-040 Fish and Wildlife
- 92-041 Fish and Wildlife (wetlands and riparian)
- 92-045 Wetlands RE
- 92-051 Misc. including Goal 5
- 92-052 Misc. Goal 5
- 92-067 Mining
- 93-003 Misc. Goal 5
- 94-003 Misc. Goal 5
- 94-006 Historic and Cultural
- 94-007 Wetlands and Riparian areas
- 94-050 Mining
- 95-038 Misc. Goal 5
- 95-041 Mining
- 96-076 Mining
- 99-019 Mining
- 99-028 Mining
- 2001-027 Mining
- 2001-038 Mining
- 2001-047 Mining
- 2001-018 Fish and Wildlife
- 2003-019 Mining
- 2005-025 Historic and Cultural
- 2005-031 Mining
- 2007-013 Mining
- 2008-001 Mining
- 2011-008 South Deschutes County LWI
- 2011-014 Mining