THE MASTER PLANNING PROCESS
STATE PARKS MASTER PLAN PROCESS CHART
VICINITY MAP
THE SETTING - DESCHUTES COUNTY

BACKGROUND

DESHUTES COUNTY STATE PARKS
PURPOSE OF THE MASTER PLAN

In accordance with the Oregon Revised Statutes, park master plans are prepared to guide the development and use of each state park. Each plan includes "an assessment of resources and a determination of the capacity for public use and enjoyment of each park." ORS 390.180

Master plans are developed to provide information and guidance to managers and staff involved in the decision-making process, as well as to the general public. The plans are a tool to be used in day-to-day management and long-range planning. They are useful references for information on all aspects of park resources and agency coordination.

The process of developing park master plans is continually evolving and improving as pressures increase to provide more and better recreation facilities and yet preserve our natural heritage.

The master plans allow these two occasionally conflicting needs to be addressed rationally and clearly. The completed plans provide for the development of the most appropriate recreation facilities while protecting those natural and cultural features which are the basis for the State Park System.
THE MASTER PLANNING PROCESS

Public Announcement

This action initiates the master planning process. Appropriate state and local media, various agencies and groups are notified that master plans are being prepared for State Parks.

Site Research and Analysis/Mapping

Public agencies and private experts are contacted as are local governments, special-interest groups and concerned citizens. Information is gathered about the natural and cultural features found in and around the park.

Existing features such as topography, buildings, and boundaries are mapped on park base maps.

Inventory Maps and Composite

The information gathered during the research phase is mapped on a series of transparent overlays. Mapped information includes geology and geologic hazards, soil types, land forms, water features, vegetation, wildlife habitat, scenic resources, and relevant historic and cultural data. These overlays are placed on top of one another and a composite map is formed. This map shows which areas of the park are suitable for development and which areas need protection.

Land Use Plan

The information from the composite map is used to formulate the Land Use Plan.

Each parcel of park land is assessed, based on the quality of natural and recreational resources, and the natural resource systems' ability to tolerate development impacts and each parcel is assigned an appropriate land use designation.

The land use plan is the basis for future park development and management.
Recreation Needs Analysis

While the land use plan is being prepared, a determination is made about the recreation capacity of the park and the recreation needs of the park visitors. A park visitor survey is conducted and the park staff is interviewed to help determine the recreation needs of the park. Local government agencies are contacted for information on recreation needs and uses.

Preliminary Plan

The Land Use Plan and the information gathered from the recreation needs analysis are used together for the basis of the preliminary development plans. These plans outline park development for the next 20 years.

Public Input and Plan Review/Review and Analysis

After the preliminary plans are prepared, they are presented to the general public, government agencies, and various organizations. Comments are received and analyzed, and incorporated into the plan if appropriate. During the review period, park planners begin preparation of detailed management documents.

Draft Final Plan

The draft final plan is prepared.

Parks Advisory Committee/APA Adoption

The draft final plan is presented to the Parks Advisory Committee and then adopted by Administrative Rule under the Administration Procedures Act. If an additional public meeting is requested, it is held at this time.

Final Plan

The final plan takes 2 forms: a summary plan prepared for the general public and a detailed notebook prepared primarily for park managers, planners and administrators.
STATE PARKS MASTER PLAN PROCESS

- PUBLIC ANNOUNCEMENT
- SITE RESEARCH & ANALYSIS
  - MAPPING
- INVENTORY MAPS & COMPOSITE
- LAND USE PLAN
- RECREATION NEEDS ANALYSIS
- PRELIMINARY PLAN
- PUBLIC INPUT & PLAN REVIEW
- REVIEW & ANALYSIS
- DRAFT FINAL PLAN
- PARKS ADVIS. COMMITTEE
- PUBLIC MEETING
  (if required)
- A.P.A. ADOPTION
- FINAL PLAN
  print and distribute
LAND USE PLANS

The Land Use Plan forms the basis of park development and management. The plans identify both the quality and distribution of the parks natural resources and development potentials.

The plan is derived from natural and cultural resource information. Geologic features and hazards, soil types, land forms, water features, vegetation, wildlife habitat, scenic resources and relevant historic and cultural information are all mapped as transparent overlays. The various types of information are then assessed for their value within the park and a decision is made about the appropriate land use classification for the resource. A composite map is then made which shows all the areas to be protected and those areas where development can safely occur. From this the Land Use Plan is made.

There are four land use designations used in the land use plan:

Primary Protection Areas (PPA) are the most use-restrictive designation and are used to protect essential park attractions or to prohibit development in potentially dangerous areas.

Secondary Protection Areas (SPA) indicate common natural resource and recreational values. SPAs provide further protection and buffering for PPAs and also serve to reserve land for future use flexibility if unforeseen needs for development arise.
Limited Development Areas (LDA) indicate areas where natural systems can accommodate certain types of development but where intensive types of use would require special precautions or extra expense. Natural resource and recreational values are generally not exceptional in these areas.

Major Development Areas (MDA) define those sections of the park which are both suitable and needed for future intensive development.

The land use designations also define what types of activities and uses are allowed within each land use category:

PPAs limit activities only to those with minimal impact or resources.

SPAs allow for resource management activities and low impact recreational uses similar to those allowed in PPA's.

LDAs provide for limited recreational and development uses with low impacts and moderate construction needs.

MDAs designations allow for intensive uses such as campgrounds, parking, paved access roads and other high impact recreational activities.

Through the Land Use Plan, park development and use are guided to protect each park's most valuable scenic and natural assets and provide recreational opportunities appropriate to each park's resources.

Areas of Concern (AOC) are areas which are outside of the park boundaries but which may have an impact on park development or protection. These areas are also shown on the Land Use Plan.
DEVELOPMENT PLANS

The Development Plan guides the future development of facilities and improvements in a state park. The size of the park, its role in state and local recreational needs and its resources form the basis of the Development Plan.

The Development Plan works with the Land Use Plan to provide specific information on resources, recreational opportunities and future land use to guide the management and the future development of each state park.

Research, statistical data on park use, interviews with parks personnel and local recreation specialists, and user surveys indicate what facilities might be most appropriate for each park.

Based on the recreation capability and needs of the park, recreation and management development goals and objectives are set and the Development Plan is formulated.
There are two major parts to each master plan. One is the summary document prepared for the general public and the other is the detailed management notebook prepared primarily for park staff use.

**Plan Summary Document**

The summary document describes briefly the existing conditions for each park, the proposed land use plan and the general development plan for each park. This document is sent to all public agencies and interested citizens.

**The Notebook**

The notebook includes that same general information found in the summary plus additional information on the natural and cultural resources found in the park, detailed development proposals and costs, park management goals and objectives, resource management techniques and detailed planning data.

The notebook provides the detailed background information necessary for park management. It is tool for the park manager, the planning staff and the park administration to use in future park planning and day-to-day management.

**Notebook Information and Organization**

Most notebooks contain information on more than one park. When this is the case, the general information which pertains to all parks is presented first in the Background section. The specific information for each park is presented under that park's heading. General Planning data for all parks is placed together after the specific park information. Appendix data for all parks follows this.
Additional Information

In addition to the detailed information presented in the notebook, there are also lists of references and people to contact if further information on a particular topic is needed.

The office staff who prepared the notebooks are a good source of information for the field. These landscape architects, planners, natural resource and forest management specialists can be contacted at any time for further clarification and information on planning, development and management issues.

The phone number of the Design Unit Supervisor is 378-6289.
THE SETTING—DESHUTES COUNTY

The setting of the Deschutes County State Parks is composed of both natural and cultural elements. A general discussion of major environmental and human patterns in this area of the state will provide a background for understanding the important components of the state parks in Deschutes County.

Climate

Climate and microclimate are major factors influencing the environment. The climate in Central Oregon is responsible for significant natural characteristics and human use patterns, and has contributed to the development of Central Oregon as one of the foremost year-round recreational areas in Oregon.

General climatic patterns consist of warm, sunny summers with very little summer rain, and cold, sunny winters with most precipitation occurring as snowfall. Local variations are provided by topography. There is an annual average of 130 clear days and 94 days of partly cloudy skies in Deschutes County. Temperature variations can be extreme in the summer months. High temperatures over 100 degrees are common, and in some areas, such as LaPine, frost can occur on any day of the year. Average annual maximum temperatures are between 80 and 85 degrees and average annual minimum temperatures are from 32 to 35 degrees.

The variations in both temperature and precipitation are generally the result of proximity to the Cascade Mountains and of elevation considerations. Precipitation varies throughout the area, ranging between 10 and 20 inches for most areas. Significant amounts of snowfall, between 15 and 50 inches annually, can accumulate depending on elevation and distance from the mountains. Winds in Central Oregon are generally very moderate, but are influenced locally by topography, especially by river canyons or mountains. Winds are generally from the south/southwest with a significant secondary wind direction from the north/northwest.
Geology

Central Oregon provides a showcase of geologic evidence of past volcanic activities. It is noted in ODGAMI* Bulletin 89 that:

Deschutes County could perhaps be called the land of a thousand volcanoes. It is likely that Deschutes County contains a greater abundance and variety of volcanic landforms than any other area of similar size in the United States...

The earliest rocks in Deschutes County, located along the north and eastern boundaries, date from Tertiary times. The volcanoes, cinder buttes and lava flows most apparent in the contemporary landscape are evidence of geologic events during the Pleistocene (500,000-11,000 years ago) and Holocene (11,000 years ago-present) Epochs when volcanic activity was most intense.

Geologic formations and features which are most obvious in Deschutes County state parks include the striking basalt rimrocks which cap much of the Deschutes River canyon north of Bend and are apparent at Tumalo State Park, the cinder cone formation of Pilot Butte, the deep, cindery soil and highly erodible banks of the Deschutes River as it flows through LaPine State Recreation Area, and the waterfalls and rapids created as Fall River tumbles over and along lava flows from Cascade volcanoes.

The volcanic activity in Central Oregon, while producing unusual landscapes, has also largely precluded the occurrence of metallic minerals. The known mineral resources of Deschutes County are of the industrial mineral type and include pumice, scoria, diatomite and clay-type deposits which are the results of volcanic activity and depositional processes.

There are also geothermal resources in Deschutes County, mostly in the Newberry Crater area.

*Oregon Department of Geology and Mineral Industries
Soils

Soils in the Deschutes County area strongly reflect the influence of volcanic activity. The soils are generally derived either from the breakdown of volcanic rock or from ash, pumice or other volcanic materials which have been enriched by organic matter.

Most soils in the state parks tend to be light-colored and coarse textured, moderately to slightly acid. Drainage varies from well- to excessively well-drained to poorly drained, depending on parent materials and underlying strata. Soils information and underlying geology are especially important considerations for determining development suitabilities and costs.

Water Features & Hydrology

Water is one of the most critical environmental factors in Central and Eastern Oregon. As an arid region that experiences only moderate rainfall, water resources are most important elements requiring special management consideration.

The Deschutes River is the major watercourse in Central Oregon. Fall River and Tumalo Creek are secondary watercourses. Other resources include numerous lakes of exceptional beauty and recreational value which are found in the foothills of the Cascades.

Ground water reserves in Central Oregon have assumed increasing importance in recent years. The water table is variable throughout the area, measuring in depth from within ten feet of the surface to hundreds of feet in more arid areas. Maintaining ground water quality has become an important issue for Central Oregon especially due to increases in population and subsequent development which might contribute to pollution of existing ground water resources.
Vegetation

Vegetation in Central Oregon is characterized by three main zones: the western juniper zone, the ponderosa pine zone, and the lodgepole pine zone. The most important factors in determining vegetation types are moisture and temperature.

Western juniper plant communities represent vegetation typical of the drier areas of Central Oregon. Rainfall averages between 5 to 10 inches annually with an average low temperature of about 32°F and an average high temperature of 70°F.

The ponderosa pine zone intergrades with the western juniper zone and is found in areas of greater moisture and cooler temperatures. Much of the moisture of the ponderosa pine zone falls in the winter as snow. Daily summer temperatures generally fluctuate widely with hot days and cold nights. In many areas frost can occur any night of the year.

The distribution of the lodgepole pine zone is determined by temperature, elevation and soil type. The climate of the lodgepole pine zone is characterized by low summer rainfall, wide daily temperature fluctuations and a relatively short growing season with annual precipitation ranging from 15 to 25 inches. Elevations for the lodgepole pine zone lie between 4000 to 5000 feet. One of the most important factors determining the distribution of lodgepole pine instead of ponderosa pine appears to be the tolerance of lodgepole pine seedlings to frost and poorly drained soils.
Wildlife Habitat, Wildlife and Fish

Wildlife habitat and vegetation are closely linked. Plant associations within the previously described vegetative zones provide the framework for determining wildlife habitat types. There are also unique or specialized habitats created by unusual environmental circumstances within each general plant association.

Riparian and water-associated habitats promote the greatest diversity in wildlife species and are most important to protect and maintain. Three of the four state parks in this master plan have important riparian habitat areas as well as other habitats of varying quality and less importance.

Wildlife

In recent years, wildlife has been assuming greater importance as a natural resource. Wildlife populations and distribution can be considered a measure of ecological quality. Wildlife is usually classified as big-game wildlife, furbearers, upland game birds, waterfowl and non-game wildlife.

The most common big-game animal in Central Oregon is the mule deer. Other big-game species found in Central Oregon but not in the state parks in this master plan include elk and antelope.

Aquatic furbearing animals (mink, muskrat and beaver) are not very numerous. Other furbearing species such as fox, raccoon or skunk are also not very common. The coyote, however, is a furbearer found throughout the county and the coyote population is relatively high.

Most abundant upland game birds include Valley or California quail, grouse and mourning doves. Quail and mourning doves are common in the Deschutes County State Parks.
The county-wide waterfowl population is varied. The most common species are mallard ducks and Canada geese. The county is also the winter home for a sizable population of coots.

Non-game wildlife species include many small mammals, birds and reptiles. The least chipmunk is the most common wild mammal along with the golden mantled ground squirrel and Belding ground squirrel.

The osprey is moderately abundant in riparian areas and represents a species of importance due to its rarity in other regions. The great blue heron is also common along watercourses.

The most common reptiles are western fence and sagebrush lizards (Sceloporus spp.). Frogs and some toad species are abundant in riparian areas.

Fish

The water resources of Central Oregon host a large and diverse population of fish species. Brook and brown trout are native to the various rivers and streams as are mountain white fish, tui chub and several other species. Additional fish species stocked by the Oregon Department of Fish and Wildlife include rainbow, Dolly Varden and lake trout, and some kokanee salmon.

Cultural Background

The natural environment is only one aspect of the Central Oregon area. Man's use of natural resources in the past and present is also important to consider in acquiring an understanding of the Deschutes County area.

Archeological evidence indicates that human presence in Central Oregon dates back at least 13,000 years. Numerous sites of these earliest inhabitants exist in Central Oregon and are especially common at lake margins and along the main watercourses. The Native Americans in Central Oregon traveled widely, gathering food, hunting, and trading. They continued their hunter/gatherer lifestyle until the arrival of Caucasians, who radically changed the Central Oregon environment.
The first white man in Central Oregon was probably Peter Skene Ogden who explored the Deschutes area and the high Tava plains in the winter of 1825. In 1834, Nathaniel Wyeth explored the upper Deschutes River basin in the Pringle, Dillon and Benam Falls areas. The decade of the 1840s witnessed a large increase in the number of immigrants passing through Central Oregon on their way to the Willamette Valley. The gold rush in the 1860s to the John Day River basin brought permanent settlers into Central Oregon. In 1860 the first bridge across the Deschutes River was built at Sherars Crossing. Transportation connections between the more populous and mild Willamette Valley and Central Oregon over the Cascade Mountains remained a problem until 1962 when the Santiam Pass was completed and opened for year-round travel.

In 1905 the Central Oregon Irrigation Company began transforming the sagelands of Central Oregon into irrigated fields. Another decisive event for Central Oregon was the completion in 1911 of J.J. Hill’s railroad from The Dalles to its terminus in Bend. The completion of the railroad resulted in a period of economic growth in Central Oregon linked to lumber production. Lumber and ranching were economic mainstays in Central Oregon until the boom in tourism and recreation of the last decade. Central Oregon is today one of the most rapidly growing areas in the state due to its exceptional scenic qualities and recreational opportunities.
LAPINE STATE RECREATION AREA (S.R.A.)

Location: LaPine SRA is 22 miles south of Bend and 4 miles west of U.S. 97 via a state park road, in Deschutes County.

Acreage: 2,333.12 acres.

Description: LaPine SRA is mostly on the left bank of the Deschutes River as it meanders through a flat area covered with lodgepole and ponderosa pines. The state's largest ponderosa pine is located here, as are excellent examples of riparian habitat. LaPine SRA is located in a well-known deer migration corridor between summer and winter ranges for the region's mule deer population.

Day-Use Facilities and Attendance: 34 picnic sites, fireplaces, toilet facilities, water, parking, swimming area.

15,900 day-visitors FY 83-84

Campground Facilities and Attendance: 95 trailer sites, 50 improved sites, dump station.

22,399 camper nights FY 83-84
LAND USE PLAN ACREAGE SUMMARY
PRIMARY PROTECTIVE AREAS
SECONDARY PROTECTIVE AREAS
LIMITED DEVELOPMENT AREAS
MAJOR DEVELOPMENT AREAS
<table>
<thead>
<tr>
<th>LAND USE PLAN SUMMARY</th>
<th>LAPINE SRA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Park Acreage</td>
<td>2333.12 ac.</td>
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</tbody>
</table>

**Primary Protection Areas (PPA)** 472.79 ac. 20%

The two PPAs at LaPine preserve the unique vegetation and wildlife habitats along the Deschutes and Fall Rivers. Water quality and scenic resources are protected by restricting development in these areas. Hiking, rafting, nature study and fly fishing are allowed recreational uses. Some foot trails will be built.

**Secondary Protection Areas (SPA)** 1239.50 ac. 53%

These areas buffer and reinforce the PPAs and accommodate the deer migration corridor which traverses the park. Foot and horse trails will be built in these areas. Several bark beetle control test plots are maintained here by the Oregon Department of Forestry.

**Limited Development Areas (LDA)** 75.08 ac. 03%

These areas will accommodate small, low impact developments such as a hand boat launching area, unpaved parking facilities and a primitive boat-in camp.

**Major Development Areas (MDA)** 545.67 ac. 24%

The MDA encompasses the existing major recreation facilities and areas where resources can tolerate further development. Future improvements here include a group-camping facility and horse camp. This area is also the site of a major bark beetle control project and visual-quality improvements.

**Areas of Concern (AOC)**

Privately-owned lands near the SPA need to be monitored for impacts from conflicting development.
The Primary Protection Areas of the SRA preserve unique vegetation and wildlife habitat in the Fall River and Deschutes River vicinities. Natural resource and scenic values are very high and represent important park assets. Passive recreational activities are allowed and development is generally prohibited.

Deschutes River

153.66 ac. 33% of PPA
6% of Total Park Acreage

The banks of the Deschutes River throughout the recreation area are designated PPA to preserve riparian wildlife habitat and unique vegetation communities. The Dead Slough area PPA and a small tract of PPA across the river from the Dead Slough protect plant communities in unusually good natural condition.

Passive recreational activities (hiking, nature-watching, rafting) which do not affect scenic and recreational values and which will enhance understanding and appreciation of the protected resources are allowed uses.

Fall River

319.13 ac. 67% of PPA
14% of Total Park Acreage

The Fall River PPAs protect areas of unique scenic quality and important wildlife habitat. A major goal is to protect and maintain Fall River's excellent water quality. Bald eagle nesting habitat (with an active nest) and osprey nesting habitat are included within the boundaries of the PPAs.

Passive recreational uses include hiking, nature-watching and fly fishing. Foot trails are proposed along the river in areas where they are currently lacking to help limit indiscriminate trampling or degradation of the riverbank by human use.
SECONDARY PROTECTION AREAS 1239.58 ac. 53% of Park

Secondary Protection Areas in LaPine SRA are designated to buffer PPAs and to accommodate the deer migration corridor which traverses the SRA. The resources protected by the SPA are variable in quality but are important in supporting existing scenic and recreational opportunities.

Deschutes River 628.61 ac. 51% of SPA 27% of Total Park Acreage

The Deschutes River SPA serves to buffer PPAs from developed areas, to reinforce river bank protection provided by PPAs and to maintain some flexibility of land uses in this area if unforeseen increases in use warrant expansion or addition of facilities. The SPA designation is also important for maintaining the deer migration route through this section of the SRA.

The quality of the resources of the area are variable since most vegetative cover has been disturbed by human activities or is in poor condition due to pine bark beetle infestation or other natural hazards. Since this area adjoins the most heavily used sections of the park, it is important to initiate some timber management practices to preserve and upgrade existing scenic and recreational resources.

Allowed uses include hiking, nature-watching, fishing, rafting and horseback riding.

Development in the SPA is limited to supportive functions such as underground utilities, trails and interpretive devices. No development is planned for this area beyond trail construction, installation of interpretive devices and continued maintenance of the Big Tree parking area.

Fall River 167.44 ac. 13% of SPA 7% of Total Park Acreage

The Fall River Secondary Protection Area serves to reinforce the preservation orientation of the northern section of the recreation area and buffers the PPAs from land uses outside the park boundaries.

LAPINE SRA - LAND USE PLAN
The forest areas protected by the SPA designation are variable in quality and generally have been modified by human activities. Recreational uses are mainly hiking and fly-fishing. Although the park closes in winter, cross-country skiing and snowmobiling may be wintertime activities when snowfall depth permits.

No development is planned for this area except foot trail improvements and a horse trail system which will connect with a trail system to be planned in cooperation with the Deschutes National Forest.

Central

443.53 ac. 36% of SPA
19% of Total Park Acreage

The central section of the SRA is designated SPA to protect resource considerations and to maintain the deer migration corridor. The scenic and recreational quality of this area is variable due to impacts of past logging practices, off-road vehicle use, and the pine bark beetle infestation. Management of the area to upgrade existing resources is important.

Allowed uses include hiking, horseback riding, and maintenance and emergency vehicle routes. The Oregon Department of Forestry maintains several bark beetle control test plots in the area which are allowed. Electrical powerline easements transect the SPA and while these are not underground, cost considerations allow their continued use.

The only future development planned for the area is foot and horse trail construction.
LIMITED DEVELOPMENT AREAS
  75.08 ac. 3% of Park

Limited Development Areas in LaPine SRA are based on capability of resource systems to accommodate development and on the type of recreational facilities needed.

Deschutes River
  51.13 ac. 67% of LDA
  2% of Total Park Acreage

The LDA designation is applied to several situations in the Deschutes River locale. These situations represent circumstances in which soils or slope steepness require special development considerations or where needed facilities will have only moderate impacts on scenic and recreational resources.

Allowed uses include parking, dispersed picnicking, primitive camping, boating or other low to moderate impact activities. Development for these uses should have minimal impact on the condition of the park resources.

The LDAs around the Deschutes River bridge define where facilities are needed and where resources can accommodate moderate development. A handboat launching area is needed in the bridge vicinity to prevent further erosion of the bank and to accommodate the needs of boating/rafting users. Parking for the Dead Slough interpretive area should be provided. The parking area will be unpaved until use warrants paving. Day-use facilities will not be provided since extensive facilities already exist in other park areas. Simple interpretive structures may be constructed in addition to the parking area.

A primitive boat-in camp is located on the north bank of the Deschutes River at the edge of the secondary protection area. This camp will remain undeveloped until use justifies providing facilities to minimize impacts on existing natural resources.
Fall River

23.95 ac. 33% of LDA
1% of Total Park Acreage

The Fall River LDAs include existing development. Uses are mainly transportation oriented and include a minor road and parking for the Fall River area.

No further development in the area is planned, only improvement and clean-up of existing parking and providing some interpretive signing for the natural and cultural resources of the area.
MAJOR DEVELOPMENT AREAS  545.67 ac. 24% of Park

Deschutes River  545.67 ac. 100% of MDA
24% of Total Park Acreage

Major Development Areas in LaPine SRA encompass existing major recreational facilities and areas where resources can tolerate further development. Scenic values and natural resource conditions are variable and will absorb development impact or will be improved by more intensive management.

Allowed uses include intensive camp and picnicking facilities, paved parking areas, utilities, play areas, building areas and other high impact uses.

A group camp facility is planned in the vicinity of the existing overnight camp. Development will not require any extensive site modification and is compatible with the existing overnight camping area. A horsecamp is also to be developed close to the overnight camp and will result in only moderate impacts on existing resources. Management of the MDA should include bark beetle control provisions and a plan to improve the visual qualities of the lodgepole pine forest in the campground area.
AREAS OF CONCERN

The main concerns for LaPine State Recreation Area focus on land ownership and management of areas abutting the State Recreation Area. Most important are the subdivision developments to the south and east of the state property.

Eastern Boundary of SRA

The small parcel of privately-owned land west of the Deschutes River along the State Recreation Area's eastern boundary poses potentials for trespass and conflicts caused by development abutting the Secondary Protection Area within the State Recreation Area. This area should be monitored for impacts which degrade the condition of the resources (noise pollution, ground water/river pollution, trash dumping) and might affect recreational values.

Residential Development on North Bank of Fall River

Another area of concern is the residential development on the north bank of Fall River at its confluence with the Deschutes. The development abuts a Primary Protection Area along the river and it is important that impacts to this area be limited in order to maintain the quality of the river and its riparian zone. Further residential development in the area should be limited to the capacity of the natural resource base to absorb the more intensive use or the recreational values of the State Recreation Area will be affected.
# LAPINE STATE RECREATION AREA

## LAND USE DESIGNATIONS

<table>
<thead>
<tr>
<th>RESOURCE ELEMENT</th>
<th>PEA</th>
<th>SPA</th>
<th>LOD</th>
<th>MDA</th>
<th>Notes:</th>
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<tbody>
<tr>
<td>GEOLOGIC FEATURES AND HAZARDS</td>
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<td>The banks of the river are very erosion-prone and will be protected from all unnatural erosion-producing impacts.</td>
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<td>Steep Bank Erosion Hazard</td>
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<td>SOILS* AND SLOPES</td>
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<td>Perched H2O tables can cause well and septic drainfield problems.</td>
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<td>Slopes Greater Than 10%</td>
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<td>Slopes Less Than 10%</td>
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<tr>
<td>HYDROLOGIC FEATURES</td>
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<td>Oxbow meanders are unique features susceptible to flooding as are river-associated wetlands. These and flood-potential areas are unique features and present flood hazards.</td>
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<td>Oxbow-Meander Features</td>
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<td>Wetlands</td>
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<td>Flood Potential Areas</td>
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<td>VEGETATION</td>
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<td>The best representative natural plant communities as evaluated by The Nature Conservancy will be protected. Poor condition or disturbed plant communities are not suitable for total protection.</td>
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<td>Good Condition</td>
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<td>WILDLIFE HABITAT</td>
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<td>All unique wildlife habitat will be preserved. The deer migration corridor does not represent unusual habitat but it is important to limit development to preserve the vegetative cover necessary for deer movement.</td>
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<tr>
<td>Eagle Nesting Habitat</td>
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<td>Osprey Nesting Habitat</td>
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<td>Riparian Habitat</td>
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<td>Wetlands Habitat</td>
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<td>Migration Corridor</td>
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<td>SCENIC RESOURCES</td>
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<td>The most important scenic sensitive resources are river-associated and will be preserved from development impacts. Other resources of scenic value will be preserved or managed to improve their quality.</td>
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<td>Scenic Sensitive</td>
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*Soil Conservation Service is currently field surveying the Deschutes County Area. At this time, soils information is available only through on-site surveys.*
GOALS AND OBJECTIVES
DEVELOPMENT PLAN MAP
REHABILITATION PROJECTS
CAPITAL IMPROVEMENT PROJECTS
GOALS AND OBJECTIVES

GOAL 1: INCREASE USE OF EXISTING CAMPING AND DAY USE FACILITIES.

OBJECTIVES:

A. Provide more explicit road signs on Highway 97 indicating the recreational opportunities of the SRA.

B. Change designation from State Recreation Area to State Park.

C. Provide needed improvements in the camping area; Deschutes River, Fall River and Big Tree Day-Use Areas.

GOAL 2: PROVIDE MORE DIVERSE RECREATIONAL FACILITIES AND OPPORTUNITIES

OBJECTIVES:

A. Provide a safe, enjoyable camping area appropriate for use by large groups.

B. Provide a primitive camp site which will be convenient for and encourage use by river floaters.

C. Provide a safe float-boat launch and landing area for park users at a site with convenient access and minimal impact on natural resources.

D. Provide facilities which will encourage use of the SRA by equestrians.

E. Develop a hiking trail system which will provide hikers access to the interesting and diverse recreational resources of the SRA.

F. To provide the opportunity for visitors to educate themselves about the unique environment of the Deschutes River, the lodgepole pine forests and other interesting features.
GOAL 3: IMPROVE CIRCULATION SYSTEMS IN THE PARK AND IN THE LOCAL AREA AFFECTED BY THE STATE RECREATION AREA.

OBJECTIVES:

A. Provide an access road through the SRA to the subdivision development abutting the park and transfer maintenance responsibility to Deschutes County.

B. Realign the emergency exit in the SRA to provide more direct exit and sign the emergency exit clearly with permanent signs compatible with park aesthetics.

GOAL 4: PROTECT, MAINTAIN AND ENHANCE CURRENT RECREATIONAL ATTRACTIONS OF THE STATE RECREATION AREA.

OBJECTIVES:

A. Develop traditional and creative manpower resources which will provide the means to maintain the State Recreation Area.

1. Research and develop proposals for acquiring additional employees to help maintain the State Recreation Area.

2. Provide work-camp for seasonal, special program employees. The work camp will not be used to house juvenile or adult correctional employees or probationary or pre-sentence employees. Specific conditions for camp development and operation will be proposed when a definite facility is planned and a Deschutes County conditional use permit is applied for.

B. Design developments within the SRA for the least impact on natural resource systems and scenic values.

LAPINE SRA - DEVELOPMENT PLAN
C. Prohibit development which will contribute significantly to noise or visual pollution.

D. Develop a forest management plan to improve the condition of existing vegetative resources and to increase wildlife and scenic values.

GOAL 5: TO MAKE A MORE LOGICAL PARK BOUNDARY

OBJECTIVES:

A. Acquire BLM property at Big Tree access road to improve the SRA boundary.

B. Return property in Section 8, T21S, R10E to BLM.
REHABILITATION PROJECTS

Access Road and Parking
Big Tree Day Use Area

Cost: $8,200   Annual Maintenance: -0-   Staff: -0- FTE

Existing Conditions:

The access road to the Big Tree parking area is not gravelled or paved. The soils in the State Recreation Area are very dry and dust is a problem on the access road and in the parking area. Toilets are temporary chemical toilets.

Proposals:

Gravel the access road to the parking area and the parking area. Replace the chemical toilets with vault toilets.
REHABILITATION PROJECTS

Parking Area

Fall River Day Use Area

Cost: $1,400  Annual Maintenance: -0-  Staff: -0- FTE

Existing Conditions:

There are currently two parking areas at Fall River. One area is located on the bank of the river at the road crossing. A larger area is up on a bench or terrace off the river at the trailhead to Fall River Falls. The larger lot is not developed except for some fencing and signs.

Proposal:

Remove, repair or replace the existing fencing to encourage use of the larger upper parking area.

Gravel the parking area to keep dust down.
CAPITAL IMPROVEMENT PROJECTS  

Improvements

Deschutes River Day-Use Area

Cost: $2,000  Annual Maintenance: 5-0-  Staff: 0-  FTE

Existing Conditions:

Area presently gets little use.

Proposal:

1. Provide an additional drinking fountain in day-use picnic area.

2. Improve signs for existing day-use picnic area at the parking area.
CAPITAL IMPROVEMENT PROJECTS  

Float-Boat Launch

Cost: $35,000  Annual Maintenance: $5,700  Staff: -0- FTE

Existing Conditions:

There are increasing numbers of recreational rafters and boaters using the Deschutes River between Pringle Falls and Bend. Use is anticipated to increase in the future. There are currently no developed public float-boat launch facilities in LaPine State Recreation Area. A site upriver from the bridge over the Deschutes River in the SRA is being used for boat launch and parking. The riverbank is steep in this area and is eroding due to this use.

The Statewide Boating Facilities Plan identifies a need for a non-motorized boat launch in LaPine SRA.

Proposal:

Develop a boat launch at an appropriate site to provide a needed facility for river users and protect the more fragile areas of the river from unnecessary abuse.

This facility will include a gravelled parking area, a gravelled staging area, a graded bank which slopes to the river's edge to facilitate launching, and a vault toilet building. An existing access road will be improved by widening the turn-off at the main road and graveling the surface to the main launch area. Bollards will be installed to prevent launching of motorized boats and indiscriminate off-road driving which might damage the riverbank area.
Development Guidelines:

1. Build a gravelled parking and staging area for rafters.

2. Install a graded launch ramp to facilitate hand boat launch and prevent use by cars.

3. Install chemical or vault toilets if a need is established.
FLOAT BOAT LAUNCH FACILITY

This facility is primarily a hand-launch facility and is not designed for trailer or motor boat use.

Additional parking area is provided by clearing vegetative understory and thinning lodgepole pine to allow parking but provide shade and screening from the river.

LAPINE
STATE RECREATION AREA
Deschutes County 1984

1" = 50'
CAPITAL IMPROVEMENT PROJECTS

Horse Camp

Cost: $18,000  Annual Maintenance: $3,400  Staff: -0- FTE

Existing Conditions:

There are no existing facilities in LaPine State Recreation Area to allow campers with horses to use the SRA. Oregon Equestrian Trails, a statewide organization of trail riders, supports a horse camp location at LaPine SRA and has expressed a special need for facilities that will allow travelers with horses to unload their animals for the night.

Proposal:

A horse camp at LaPine SRA would allow equestrians to ride on trails within the SRA as well as in the Deschutes National Forest to the Three Sisters Wilderness and the Paulina Peak area where additional horse camps are located. The horse camp would permit riding in spring and fall months when the high country trails are still closed and offer additional recreation facilities and opportunities such as fishing and river floating not present at other horse camp locations.

The horse camp at LaPine SRA will consist of self-contained recreational vehicle pull-through sites. Water will be available through extension of an existing water line. Pit toilet sanitary facilities will be provided. Fire rings and picnic tables could also be provided if a need develops for these. Horse stalls, a corral and hitching rails will be installed, possibly with volunteer help from Oregon Equestrian Trails.
Development Guidelines:

1. Develop an area with facilities appropriate for equestrian day-use.

2. Designate an area for overnight use by travellers with horses where the animals can be unloaded.

3. Develop an overnight camping facility for equestrian activity if potential for use is identified.
CAPITAL IMPROVEMENT PROJECTS  Primitive Boat-In Camp

Cost: $3,000  Annual Maintenance: $2,500  Staff: 0.1 FTE

Existing Conditions:

Use of the Deschutes River by floaters is increasing dramatically. The nearest public camping area on the river below Pringle Falls is the Big River Forest Service Campground at General Patch Bridge, a long day's float from Pringle Falls where river floaters usually launch.

There are no camping facilities currently available in LaPine SRA for use by river floaters.

The Oregon State Marine Board recognizes the need for increased boating facilities on the upper Deschutes River and has noted in the Statewide Boating Facilities Plan the opportunity to fill some of these needs by locating a boat-in camp at LaPine State Recreation Area.

Proposal:

The primitive boat-in camp at LaPine SRA will consist of two unimproved camp sites. Fire rings and one pit toilet will be provided.

Development Guidelines:

1. Site the camp in a location accessible from the river and likely to provide a sense of solitude.

2. Provide facilities for the camp, i.e., fire pits and chemical toilets, when use of the camp site is established and a need is identified.

LAPINE SRA - DEVELOPMENT PLAN
CAPITAL IMPROVEMENT PROJECTS

Play Area

Campground

Cost: $5,000  Annual Maintenance: $1,000  Staff: 0-0  FTE

Existing Conditions:

There is no play area in the existing campground.

Proposal:

A children's play area will be installed in the overnight campground between "E" loop and "F" loop. The play equipment will be simple and heavy-duty in construction for easy maintenance and durability.
CAPITAL IMPROVEMENT PROJECTS

Trail System

Cost: $32,000  Annual Maintenance: $4,300  Staff: -0- FTE

Existing Conditions:

There is no developed interconnected trail system in LaPine State Recreation Area. A fishing trail along parts of the Deschutes River, a paved trail from the parking area to Big Tree and segments of fishing trail along Fall River already exist. A number of off-road vehicle tracks and maintenance and service roads are also located in the SRA and could be used for trails.

Proposal:

Hiking trails which connect the Deschutes River and Fall River sections of the park will provide recreational opportunities not currently available in the park and encourage park visitors to explore and enjoy more fully the SRA's assets.

A horse trail will be routed through the central part of the park and along the margins of the Fall River area to cross Fall River at the road crossing and continue north through the park to Deschutes National Forest lands. The Deschutes River section of trail will be used by both riders and hikers.

Other sections of hiking trail will connect the overnight campground with the day-use area, boat launch and interpretive area.

The hiking and riding trails will have natural surfaces and will be routed to take advantage of the park's most scenic resources and to provide a sense of solitude.
Development Guidelines:

1. Hiking trail system should include the following trails:
   - Linking the camp area, day-use area and boat ramp
   - Along the Deschutes River to Big Tree
   - Along Fall River
   - Linking Fall River and the Deschutes River areas

2. Hiking trail system should provide interpretation opportunities in the following areas:
   - Dead Slough natural area
   - Pine Bark Beetle infestation areas and test plots
CAPITAL IMPROVEMENT PROJECTS 

Pedestrian Bridge
Deschutes River Day Use Area

Cost: $40,000  Annual Maintenance: $2,000  Staff: -0- FTE

Existing Conditions:

The campground area and day-use area in LaPine SRA are separated by the Deschutes River. The only crossing of the Deschutes River in the SRA is at the access road bridge, an uncomfortable walking distance from both the campground and day-use areas.

The facility most requested by park users in the master plan user survey is a swimming beach.

The day use area in the park includes a swimming beach which campers generally don’t have access to without hiking or driving.

Proposal:

A pedestrian bridge across the river, along with a trail system, would provide the needed connections between the overnight camp and the day use areas and would allow campers to use the existing swimming beach.
CAPITAL IMPROVEMENT PROJECTS

Interpretive Area

Cost: $60,000  Annual Maintenance: $3,300  Staff: -0- FTE

Existing Conditions:

A number of interesting natural features are found in LaPine State Recreation Area which illustrate some of the unique elements of Central Oregon. Explanation of these features would help visitors understand and appreciate more fully the natural resources of the region.

Proposal:

The interpretive area will include a gravelled access road and parking for six cars, a sign board and a paved path to the Big Tree area. Vandal-resistant signs explaining the geologic features, vegetation and natural processes will be sited along the path.

Development Guidelines:

1. Install a central interpretive information area with parking and an information shelter for visitors.

2. Build a trail system which makes the various significant aspects of the park accessible for interpretation, including the prime bark beetle management test areas.

LAPINE SRA - DEVELOPMENT PLAN
CAPITAL IMPROVEMENT PROJECTS

Cost: $15,000  Annual Maintenance: $4,300  Staff: 0 FTE

Existing Conditions:

There are currently no group camp facilities at LaPine State Recreation Area but, due to low overnight camp occupancy, "G" loop is generally held in reserve for "club" or "group" campers.

Proposal:

Overnight use of LaPine SRA is expected to increase and eventually require "G" loop of the overnight camp to be used for individual campers. An unimproved group camp which will provide level tent sites and sanitary facilities will be developed for use by groups. A water source may be supplied at a later date.

Development Guidelines:

1. Maintain Loop "G" as the group camping area until use warrants development of a separate area.

2. Designate a site for location of future group camp to be developed when needed.

3. Provide a large open space for gatherings in the design of the current and future group camp.

4. Provide vault toilets.
FOREST MANAGEMENT CONSIDERATIONS

LaPine State Recreation Area

The lodgepole and ponderosa pine timber stands in this park are in urgent need of management to avoid their total loss to the mountain pine bark beetle (Dendroctonus ponderosae). According to recent surveys, the stands exhibit high vulnerability to beetle attack because of their age, density, and relatively low individual tree vigor. Over the past five years, we have noticed an increase in the incidence of beetle-kills. Last year we lost dozens of trees in the development area alone. Forest agencies warn us of an infestation spreading into this area. While the beetle is nature's way of harvesting the old and making way for the new forest (fire is often a consequence), such a loss would be devastating to the aesthetic and wildlife values of this park.

In keeping with the master plan, we propose to thin the stands in Secondary Resource Areas to remove the low vigor trees and promote growth of high vigor trees. In order to be effective, this may involve removal of up to two-thirds of the trees in some areas, with a spacing of 18 feet to 26 feet between the reserve trees. Several demonstration plots are located in the park which illustrate required thinning intensities. Obviously, thinnings will have a significant effect on localized scenery and some wildlife.

However, we would soften these effects by leaving irregularly shaped islands and stringers of unthinned trees throughout the area and favoring a wide age spread from area to area. Besides adding variety to the scenery, these stringers would provide visual and thermal cover for deer which migrate through the area. Numerous logs and snags would also be left for these purposes and arranged to provide natural-appearing fuel breaks. Of course, the areas within view of park roads, developments and trails (2A & 2B Forest Mgt. classes) would be more manicured than in remote areas (2C & 2D Forest Mgt. classes).
Since the U.S. Bureau of Land Management (BLM) has title to timber resources here, an arrangement must be made to involve the BLM in preparation of forest management proposals. Under the same agreement which provided the demonstration plots, the State Forestry Department will provide technical assistance. All of this would be coordinated by Parks to protect our interests.

In the development areas, some low-key thinning will be required to maintain stand vigor and promote natural regeneration of new trees. Ground-based applications of chemicals such as Sevin-mol may be necessary to protect individual trees of high value to the development.

Generally, trees which have high potentials for failure and striking facilities or the public will be felled. Felled trees, or parts of felled trees, which do not pose obstructions or fire hazards, may be left to provide landscape relief, wildlife habitat and traffic control. (It may be necessary to peel the bark from such logs or apply pesticides to kill beetle larvae.) Products resulting from such management will be used within the park system.

No timber removal will occur in the Primary Protection Areas. Hopefully, the thinnings in surrounding Secondary Protection Areas will buffer these areas from the infestation, or if these become infested, the buffers will contain the infestation and protect the rest of the park timber.
Fire protection is also a major concern, especially with the increase in dead, dry material from the beetle infestation. Shaded fuel breaks may be necessary in Secondary Protection and Development Areas, especially where they border Primary Protection Areas. Water access for fire-fighting tanker trucks should be incorporated into the plan wherever compatible with recreational use and natural protection.

Rehabilitation of damaged forests will involve doing what is necessary to encourage desirable re-vegetation as quickly as possible. Because of the severity of seasonal weather and soil conditions in this area, tree planting is generally not feasible except in developed areas where plantings can be easily maintained and protected from the elements. Re-seeding by natural means must be encouraged. This may require decisions on whether to scarify and/or burn specific areas. Composition of newly established stands must be controlled in the earliest stages to prevent later problems such as mass-susceptibility to bark beetles.

Safety. The safety of the public from forest-related hazards is also a primary objective of Park forest management. As mentioned before, hazard tree management is necessary in development areas. Proper vegetation management now will minimize safety hazards in the future. In the event of wildfire, alternate escape routes are provided for the public. These are discussed elsewhere in the master plan.
GEOLOGY AND GEOLeGIC FEATURES
TOPOGRAPHY AND SOILS
WATER FEATURES AND HYDROLOGY
VEGETATION
WILDLIFE HABITATS
SCENIC RESOURCES
CULTURAL AND HISTORIC RESOURCES
GEOLGY AND GELOGIC FEATURES

LaPine State Recreation Area is dominated by two groups of geologic features. The most common is alluvium and sediments deposited in relatively recent times. These sediments consist of unconsolidated gravels, sands and silts deposited by streams and some wind-deposited silts and ash.

The second major geologic feature is Pleistocene Age (500,000-11,000 year old) basalt flows which occur north of Fall River in the park. These flows are generally gray basalts originating on or about the flanks of the Newberry Volcano or from vents associated with the High Cascades.

The basalt flows north of Fall River probably originated from vents in the base of the High Cascade volcanos. Generally, the flows are dark red or black and dense. Older basalt flows are also located along the northern boundaries of the park and some may have originated from Pistol Butte.

The extensive amounts of alluvium in the area have resulted from the almost continuous obstruction of the Deschutes River by basalt lava flows and hot ash avalanche deposits. Lava flows from the Newberry volcano dammed the river countless times and forced it westward, while volcanic activities in the Cascades tended to direct the channel of the Deschutes towards the east.

Extreme meanders of the Deschutes River in this area indicate the river is flowing through a very flat area. Cut-off river meanders, small oxbow lakes, and swampy ground are features of streams in broad valleys or flowing across plateaus with little drop in elevation.
Management Concerns

Erosion and bank instability problems occur where the Deschutes River has cut its channel through the alluvium deposits which cover much of LaPine State Recreation Area. Development adjacent to the river should be set back from the top of the bank at least 100 feet and the course of the river carefully observed to determine where bank erosion is most likely to take place.

The different strata of sediments in the area can pose potential problems for sanitary facilities and well water supplies. Layers of silts, clays, or lava can hinder drainage or trap water and produce locally perched water tables which can cause septic systems to fail or can pollute domestic water supplies. A county sanitary or soils scientist should survey the site of any proposed new domestic water supply or sanitary facilities.
TOPOGRAPHY AND SOILS

Most of LaPine State Recreation Area is very level with topography consisting mostly of lodgepole pine flats. A few areas of slope gradient greater than 10 percent occur on old river terraces and existing banks of the Deschutes and Fall Rivers.

Detailed soils mapping of the LaPine State Recreation Area has not been completed. However, a Soil Conservation Service field check disclosed the distribution of Steiger soils in areas of the park planned for future development.

S.C.S. soil interpretation sheets describe the Steiger series as:

deep, somewhat excessively drained soils that formed in pumiceous ash. Steiger soils are on terraces, lava plains, ridges, and cinder cones, and have slopes of 1 to 15 percent. The mean annual precipitation (where these soils occur) is about 30 inches and the mean annual air temperature is about 43 degrees F.

LaPine and Shanahan soil series may also occur in the park but their distribution has not been confirmed by any field checks. Both series are similar to the Steiger soils series, and are described as consisting of well-drained to somewhat excessively well-drained soils formed in tuffaceous cinders and ash. Shanahan soils are generally on terraces, ridges and other landforms and have slopes of 1 to 45 percent. LaPine soils occur on many landforms and have slopes of 1 to 55 percent, but are somewhat deeper than the Shanahan series with depths of more than 40 inches to loamy buried soils.

Management Concerns

Soils in LaPine SRA do not pose any severe development or construction problems but have several characteristics which require special considerations in certain circumstances.

LaPINE SRA - SITE INVENTORY
In general, all the soils commonly occurring in the SRA are well-drained to excessively well-drained. This presents seepage problems for the more elaborate types of sanitary facilities such as sewage lagoons or sanitary landfills. Septic tank absorption fields pose no difficulty except in situations when slopes are greater than 15%, because poor slope stability adversely affects absorption field functions.

Excavations of almost any type present severe problems due to slope instability, and any cutbank will pose cave-in problems. Frost action can also cause problems for structures or roads.

Water management facilities also have substantial problems due to the well-drained character of the soils. Pond or reservoir areas are subject to seepage; embankments, levees and dikes also present seepage problems in addition to structural weaknesses because of the poor soil compaction. For most structures and roads, constraints are only slight on slopes of less than 8 percent.

Recreational facilities are appropriate uses on Steiger, LaPine and Shanahan soil series although not ideal due to sandiness and stoniness. Constraints to recreational uses increase to severe on slopes greater than 15%.

Another problem in the LaPine area is that the soils are extremely variable and can cause locally perched water tables and poor sub-surface drainage. Before any development requiring septic facilities is constructed, a soil scientist should be consulted for specific information on the development site.
WATER FEATURES AND HYDROLOGY

LaPine State Park contains two major water features of significance: the Deschutes River and Fall River. The Deschutes River starts at Wickiup Reservoir and flows at 753 cubic feet per second. Fall River flows at 153 cubic feet per second. These two waterways constitute the main scenic attractions within the park and also provide important wildlife habitat and recreational opportunities.

Within the park boundaries, the Deschutes River flows within banks at least 12 feet high, cutting through cindery soils into a broad riparian meadow in the east and north areas of the park. Oxbow and meander features provide an interesting history of the former courses of the river.

Fall River is a delightfully high-quality stream noted for its "fly-fishing-only" recreational opportunities.

Groundwater resources are difficult to inventory within the park due to the complex soils and locally perched water tables. Well reports for the state park wells note well depths of 210 feet (with "bad-smelling" water at 21 to 90 feet). Well depths in areas around the park vary from 10 feet to dry holes at 250 feet.

Management Concerns

As two of the major attractions of the park, both the Deschutes River and Fall River should be preserved. Any development should be sensitively planned and carefully evaluated for its impact on the quality of the rivers.

Deschutes River

The banks of the Deschutes River are very unstable and susceptible to erosion in the western portion of the park. Where the river flows through the wetland meadow, great care should be taken to preserve this unique habitat and special consideration given to the flood potential of the low-lying riparian areas.
Management of the Deschutes River should include discussing issues of stream flow and stream flow variation between summer and winter months with the Central Oregon Irrigation District, the agency responsible for stream flows on the Deschutes River south of Bend. The Deschutes River is generally at low flow during winter months, but during spring, at the onset of the irrigation season, the Central Oregon Irrigation District releases a large flood of water down the river which could potentially contribute to streambank erosion problems. A program of gradual flow increase may help minimize the stream bank impact problem.

An application for a low-head hydroelectric project permit has been submitted to the Oregon Department of Energy for facilities proposed to be located at Pringle Falls. The proposal should be monitored for any potential impact on LaPine State Recreation Area.

Fall River

Fall River is noted for its exceptional water quality. No development or activity should take place which might result in degradation of either scenic or water resources of the river. Access to Fall River should be maintained at its current level to preserve the scenic condition of the area, although no significant changes have occurred to date. Development of private property upstream from Fall River may impact the quality of the river flowing through the state park. Development proposals for this upstream area should be monitored and evaluated for any adverse effects. A study for determining suitability of Fall River for inclusion in the Oregon State Scenic Waterways program should be initiated within the next five years.

Extensive sections of both Fall River and the Deschutes River flow through the Deschutes National Forest, so any management decisions which impact these waterways should be coordinated with the National Forest.
VEGETATION

There are four forest plant community types and two non-forest plant community types in La Pine State Recreation Area. The significant tree species in the forest plant communities are lodgepole pine and ponderosa pine; the non-forest communities are dominated by grasses.

The most common forest plant community of the SRA is the ponderosa pine/bitterbrush/Idaho fescue community. This community is in generally poor natural condition throughout the park due to logging practices, offroad vehicle impacts, grazing by cattle and road construction. Two small areas where this most common plant community is in excellent natural condition are found along Fall River near the confluence of the Fall and Deschutes Rivers, and on the island created by Dead Slough and the Deschutes River. There are several areas of the lodgepole pine/bitterbrush/Idaho fescue plant community in the SRA which were found to be in very good natural condition. These areas are located along Fall River and adjacent to Dead Slough in the southern portion of the park.

The non-forest plant communities found in LaPine SRA are the steep bank riparian community and a willow/grass/sedge wetland association which occur along the margins of Fall River and the Deschutes River. Most significant of these associations is the willow/tufted hairgrass/sedge community. This plant community is distributed along the riverbanks and floodplains of the Deschutes and Fall Rivers in the SRA and on adjacent private property, and represents the most extensive area of this unmodified wetland community that has been found in Oregon.

Habitat for Penstemon peckii, a rare plant, was identified on the Dead Slough island but the plant itself was not found.
Peck's penstemon is a member of the Figwort Family with pretty, pale blue flowers. It one to two feet tall. It is limited in abundance throughout its range but currently stable.* Parts of Jefferson and Deschutes Counties constitute the entire range.

*Oregon Natural Heritage Data Base, the Nature Conservancy, March, 1985

Management Considerations

Vegetation in the LaPine State Recreation Area has been surveyed and evaluated by The Nature Conservancy for its importance in the Statewide Natural Heritage Plan. On the basis of this evaluation, it is recommended that all the areas of riparian vegetation within the LaPine State Recreation Area be preserved from development impacts. Other areas of important vegetation in significantly good natural condition also are to be preserved. The most important plant communities to be protected in coordination with the Natural Heritage Plan include the willow/tufted hair-grass/sedge communities of the Deschutes and Fall Rivers; steep bank riparian area of the Deschutes River; lodgepole pine/bitterbrush/Idaho fescue community; lodgepole pine/blue wild ryegrass community; ponderosa pine/Idaho fescue community; and those areas where the vegetation is preserved in a good natural state.

Aside from preserving areas of notable natural vegetation, the major concern at LaPine State Recreation Area is management of the mountain pine bark beetle infestation. Central Oregon is heavily infested with an outbreak of the mountain pine beetle and there is ample evidence of presence of the beetle in LaPine State Recreation Area. The beetle is a major vegetation management concern within the state park, since trees infested with the beetle eventually die and detract from the scenic quality of the park and contribute significantly to wildfire hazards. The timber management plan, which will address the pine bark beetle situation, will be developed as quickly as possible before park vegetation deteriorates beyond value as both a scenic and wildlife resource.
KEY TO PLANT COMMUNITIES

PICO/ELGL  
Pinus contorta/Elymus glaucus  
(Todgepole pine/blue wildrye)

PICO/PUTR  
Pinus contorta/Purshia tridentata/  
Festuca idahoensis (Todgepole pine/  
bitterbrush/Idaho fescue)

PICO/PUTR*  
Pinus contorta/Purshia  
tridentata/Festuca idahoensis  
(Todgepole pine/bitterbrush  
Idaho fescue).

PIQ/PUTR  
Pinus ponderosa/Purshia tridentata/  
Festuca idahoensis (ponderosa  
pine/bitterbrush/Idaho fescue).

PIQ/PUTR*  
Pinus ponderosa/Purshia tridentata/  
Festuca idahoensis (ponderosa pine/  
bitterbrush/Idaho fescue).

PICO/FEID  
Pinus ponderosa/Festuca idahoensis  
(ponderosa pine/Idaho fescue).

SALIX/DECA  
Salix/Deschampsia caespitosa-Carex  
(willow/tufted hairgrass/sedge).

STEEP RIP.  
Steep bank riparian plant communities.

* Poor Condition

Additional information on plant communities can be found in the Appendix.
WILDLIFE HABITATS

LaPine State Recreation Area's most essential wildlife habitats are those areas of riparian vegetation along the banks of the Deschutes and Fall Rivers.

Riparian habitats are most important to mule deer, coyote and golden-mantled ground squirrels.

Many varieties of ducks use riparian habitats in LaPine State Recreation Area for nesting. These ducks include the mallard, wood-duck and green-winged teal, which often use the river's edge for nesting. Other bird species of interest found in riparian habitats include the great horned owl, the great blue heron and the mourning dove. Bald eagle nesting habitat is found in the State Recreation Area and includes the most successful bald eagle nest on state park lands.

A mule deer migration corridor goes through the park in a northwest/southeast direction. The most active migration is in the fall and spring when deer migrate between the mountains and the lower valley wintering grounds.

The Deschutes River and Fall River both support a variety of fish species. Fall River is a prime trout stream and is currently designated for fly fishing use only. The section of Fall River within LaPine State Recreation Area is important as a natural trout spawning area and is currently being managed for wild trout, although Fall River above the State Recreation Area is stocked with hatchery trout. The Deschutes River contains wild brown trout and is stocked with hatchery rainbow and whitefish. There are a few wild rainbows. Other species include the brown bullhead catfish and the chum chub. Kokanee trout and coho salmon from Wickiup Reservoir also migrate through the recreation area in the Deschutes River.
Management Concerns

In order to preserve wildlife values of the steep-bank riparian habitat, it is recommended that all development be set back 100 feet from the top of the bank of the Deschutes and the Fall Rivers, except in designated land-use development areas. A setback of 100 feet from the edge of the wetland riparian zone should also be followed. The bald eagle nesting habitat will be preserved and exempted from any development consideration. Fall River provides some good osprey nesting habitat and to encourage osprey use of the area, any development should be excluded from the area and access limited to foot-trails only.

Management of the deer migration corridor is one of the most important issues in considering park development outside the riparian areas. Wildlife biologists have stated it is important to maintain enough vegetative cover to permit deer movement throughout the park. The need by deer for a certain amount of downed trees and brush to facilitate movement will be addressed in the timber management plan and coordinated with the mountain pine beetle control effort. Seasonal deer hunting is allowed in the State Recreation Area. The deer hunting should be allowed to continue at current levels subject to management recommendations of the Oregon Department of Fish and Wildlife.

Management of the rivers for fish should include maintaining water quality within the park by not allowing any activities which might contribute to an increase in sediment content or pollution of the river or reducing shade along the river's edge. Snags in the river provide cover for fish and should not be cleared unless the snags pose an immediate safety hazard. Any management activities which may impact the nature of Fall River in particular should be discussed with the Oregon Department of Fish and Wildlife as specified in the June 1980 Memorandum of Understanding between State Parks and the ODFW.

Additional information on wildlife can be found in the Appendix.
SCENIC RESOURCES

The most important scenic resources within LaPine State Recreation Area are the Deschutes River and Fall River, and the plant and wildlife communities associated with them.

The Fall River area is the most scenic in the park because of clear-flowing water and the high quality and diversity of the plant communities in the area. Fall River Falls provides a destination point in the State Recreation Area for hikers and nature lovers.

The Deschutes River provides another type of scenic experience with its meanders and the contrast presented by the willows and grasses of the river and the ponderosa pines of the river terraces to the monotony of the lodgepole pine forests.

The scenic character of the recreation area varies from the monotony and claustrophobic quality of the extensive lodgepole pine forest to sudden clearings in the forest which present views of the rivers, the Mt. Newberry area, the Cascade peaks and nearby buttes and cinder cones. Most of the scenic variety of the area is provided by changes in vegetation from forest to meadow. Much of the State Recreation Area has been logged in the past, an activity which has changed the natural scenic character considerably.

There are two main classifications for scenic resources in LaPine State Recreation Area. The first classification, Scenic Sensitive, describes those areas that are most important to preserve because they represent essential scenic resources within the park. The second classification, Scenic Value, includes portions of the park which are important to preserve or to improve because they contribute significantly to the recreational experience, or are visually prominent to park visitors.
Management Concerns

It is most important in managing scenic resources to address two situations:

1. Preserving areas that have outstanding scenic qualities.

2. Enhancing the scenic quality of areas of highest recreational use.

In LaPine State Recreation Area, Fall River offers the highest quality scenic experience. The current access levels and fly fishing designation of the stream will be maintained to limit adverse impacts. Improved foot trails for anglers may prevent any future problems of indiscriminate river-bank trampling. The most scenic areas of the Deschutes River are located along the river itself. Any development in the SRA should be evaluated for visual impact from the river, since rafting and boat-floating are important recreational pastimes.

It is important also to retain or enhance the scenic qualities of those areas of highest use to provide a high quality recreational experience to park visitors. Any further development or alteration of the campground or day-use areas should be assessed for impact on the overall scenic character of the park and designed to be compatible with the surrounding environment.
CULTURAL AND HISTORIC RESOURCES

LaPine State Recreation Area contains only two sites of historical or cultural interest. The first one is the site of the Corbett family summer lodge located just northeast of the Fall River parking lot. The Corbetts were a notable Portland family in the early 20th Century. A Paleoindian site (9,000-13,000 years old), containing a few artifacts is also located along Fall River, not far from its confluence with the Deschutes River. A site report was filed with the Historic Preservation Office in 1948 by F.A. Redell. The site condition was described as "poor" at that time.

Management Considerations

Few artifacts remain at the site of the Corbett House, but a simple interpretive sign could be interesting to hikers and fishermen in the area. It is doubtful that any remains of the Paleoindian site could be easily located since the site was described as in "poor condition" at the time of the site report. However, the site is located in a Primary Protection Area and should not be disturbed. Only a superficial survey for archeological sites in the LaPine State Recreation Area has been completed. Archeologists working for the Deschutes National Forest have uncovered numerous sites of Indian artifacts on national forest lands along the Deschutes River. It is known that this area was inhabited in prehistoric times and a more thorough survey for archeological sites within the park should be completed.
ZONING AND LAND USE
LAND DEVELOPMENT AND MANAGEMENT
EASEMENTS AND LEASES
PERMITS AND AGREEMENTS

PLANNING DATA
LAPINE STATE RECREATION AREA
ZONING AND LAND USE

LaPine State Recreation Area is zoned Open-Space and Conservation on the Deschutes County zoning map, with a flood-plain zoning designation for the Deschutes River flood-plain area. A landscape management "Combining" zone (a zone located in combination with another zone) is designated in the Fall River area and with the flood-plain zone along the Deschutes River. The landscape management zone is meant to conserve scenic and natural resources from detrimental visual impacts.

The areas abutting the park immediately to the north and the west are zoned F-2, Forest Use. The intent of this zone is to protect forest, agriculture, wildlife and scenic values from incompatible uses. The eastern and southern boundaries of the park are abutted by zone RR-10, Rural Residential, which define the areas already developed in homesites. The F-2 zone is the common designation for those areas not already subdivided.

Management Concerns

All the zones with their allowed and conditional uses are compatible with current development and use plans within the park. However, the Fall River section of the park, which was acquired after the zoning maps were completed, is zoned F-2, which specifies parks as a conditional use. Since no development is planned for this section in the immediate future, application for a zone change isn't necessary, but should be requested of the Deschutes County Planning Commission when the county plan is updated (tentatively scheduled for 1986).

The zoning of the abutting lands is compatible with the State Recreation Area, but should be monitored for any changes which may impact the operation of the park. Most important are any proposed changes of F-2 zoned land to any residential or surface mining designation. Changes to other forest use zones would be consistent with current and future park management.
OS & C
F - 2
R - 10
FP
(LM)
Open Space and Conservation
Forest Use
Residential
Flood Plain
Landscape Management

LAPINE
STATE RECREATION AREA
Deschutes County 1984
LAND OWNERSHIP AND MANAGEMENT

The land surrounding LaPine State Recreation Area is diverse in ownership. Significant parcels along the west and north boundaries are managed by the Bureau of Land Management and the U.S. Forest Service in the Deschutes National Forest. The southern and the eastern boundaries of the park abut developed homesite subdivisions. A small inholding of homesite lots exists on the west side of the Deschutes River along the eastern boundary. Another small parcel of land included in the Deschutes River Recreational Homesites subdivision is located on the west side of the Deschutes River surrounded by State Parks land. A small timbered parcel in private ownership (Diamond Group, a timber products corporation) abuts the park on the west, surrounded by BLM and Forest Service land.

Of the subdivision ownership, 55 percent of the property owners have out-of-state addresses; the other 45 percent are Oregon owners. Only a few sites are locally owned. This seems to indicate many of these lots may be second homesites.

Management Concerns

Land ownership patterns around the park present potential conflicts due to residential development and the possibility of trespass and access problems. The subdivision property owners use the state park road for access to their property. This has recently resulted in resurfacing the access road to withstand use as a residential access. Deschutes County has agreed to assume jurisdiction and maintenance of the road. An access road through the park to the subdivision on the south has also been planned and will be constructed and maintained by Deschutes County.

LAPINE SRA - PLANNING DATA
The inholding parcels represent no great conflicts, but care should be taken to prevent trespass problems, both to and from the private property. Maintaining explicit signs will help prevent conflicts. The small isolated parcel located south of the main inholding is owned by the subdivision property owners association. It is designated as "recreation" property and is very unlikely to be developed in the future.

The Diamond Group parcel has had some logging activities. Slash has not been cleaned up and represents a wildfire hazard. The logging operations should be monitored and the owners negotiated with if slash and/or logging conditions pose serious problems to the park's scenic and recreational values.

The Forest Service and BLM managed property pose no conflicts to State Recreation Area management as long as communication and coordination of all major activities is maintained.
PROPERTY ACQUISITION

OREGON STATE HIGHWAY DEPARTMENT

BOUNDARY

For LAPINE STATE RECREATION AREA

Highway THE DALLES - CALIFORNIA

County DESCHUTES

Scale 1" = 2000'

Date 8-19-89

Rev 10-13-81
EASEMENTS/LEASES

There are several electrical line easements in La Pine State Recreation Area. These easements include maintenance roads. The Oregon Department of Forestry also has three mountain pine bark beetle management demonstration plots located within the recreation area.

Management Concerns

There are no real problems with any of the easements with the exception of access to the electric easement's maintenance road. Access should be limited to try to control vehicle impact on the park area.

Simple interpretive signs might be useful in explaining the demonstration plots to educate the public on the problems of mountain pine bark beetle infestation management.

Research concerning the exact routes and placement of underground telephone lines and utilities should be conducted before any major development takes place in the recreation area.
## PERMITS AND AGREEMENTS

<table>
<thead>
<tr>
<th>Date</th>
<th>Ac. To</th>
<th>From</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/1/67</td>
<td>Mid St. Elec. Co-op. Parks</td>
<td>Elec. line</td>
<td></td>
</tr>
<tr>
<td>6/22/70</td>
<td>-</td>
<td>Elec. line</td>
<td></td>
</tr>
<tr>
<td>12/14/81</td>
<td>-</td>
<td>Trans. line</td>
<td></td>
</tr>
<tr>
<td>9/10/73</td>
<td>PNB Telephone Co. Parks</td>
<td>Phone line</td>
<td></td>
</tr>
<tr>
<td>11/13/73</td>
<td>-</td>
<td>Buried cable</td>
<td></td>
</tr>
<tr>
<td>7/10/75</td>
<td>-</td>
<td>Phone line</td>
<td></td>
</tr>
<tr>
<td>8/80</td>
<td>ODFW/St. Parks/USFS</td>
<td>Memo of understanding</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lower Falls Mgt. Plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6/30/81</td>
<td>State Forestry Parks</td>
<td>Forest pest mgt. demonstration plan</td>
<td></td>
</tr>
</tbody>
</table>

The next map shows the permit areas for the Forest Pest Management Demonstration Project. Note that the actual project areas 1A and 1B both lie outside of the permit area. This was due to a plotting error in the field.
<table>
<thead>
<tr>
<th>ACQUIRED FROM</th>
<th>DATE</th>
<th>ACRES</th>
<th>COST</th>
<th>FILE NO.</th>
<th>SEC.</th>
<th>TWP/RNG</th>
<th>P</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>County of Klamath</td>
<td>3-18-66</td>
<td>1.85</td>
<td>17,000</td>
<td>38210</td>
<td>3</td>
<td>151847</td>
<td>2</td>
<td>(44 1/2 Bldg)</td>
</tr>
<tr>
<td>John Choclo</td>
<td>3-18-66</td>
<td>4.00</td>
<td>17,000</td>
<td>38213</td>
<td>3</td>
<td>151848</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

| USA - BLM | 5-1-71 | 1.95  | 12,000 | 38215   | 344 | 215156  |   |                          |

| Wildwood Properties Corp | 7-12-72 | 56.00 | 125,000 | 47395   | 33 | 205106  |   |                          |

| USFS | 6-30-73 | 2,000 | 328,000 | 328,000 | 33 | 205106  |   |                          |

|                          | 8-14-81 | 325   | 100,000 | 32841   | 3   | 205110  |   | PORT OF UMPQUA LIGHTHOUSE 28 |
TUMALO STATE PARK

Location: Off U.S. Highway 20, on both sides of the Deschutes River, about five miles northwest of Bend and one mile south of Tumalo, in Deschutes County, Oregon.

Acreage: 320.14 acres in two separate parcels. The first acquisition for this park was a gift from Deschutes County of 115 acres in 1954.

Description: The park was dedicated to preserve the scenic beauty of the Deschutes River, and to provide camping and picnic facilities.

Day-Use Facilities and Attendance: 83 picnic sites, Toilet Building Parking areas, Swimming area
102,608 day-users FY 83-84

Campground Facilities and Attendance: 20 trailer sites, 68 tent sites Group camping for 50 people
25,828 camper nights FY 83-84
1,076 group campers FY 83-84
LAND USE PLAN ACREAGE SUMMARY
PRIMARY PROTECTIVE AREAS
SECONDARY PROTECTIVE AREAS
LIMITED DEVELOPMENT AREAS
MAJOR DEVELOPMENT AREAS
**LAND USE PLAN SUMMARY**

**TUMALO STATE PARK**

**Total Park Acreage**

320.14 ac.

**Primary Protection Areas (PPA)**

144.80 ac. 45%

Three areas in Tumalo State Park are designated as PPAs. They are the banks of the Deschutes River, the rimrocks above the developed areas of the park and a remote portion of the Deschutes River Canyon. Hiking, nature study, fishing and swimming are the principle recreation activities in these areas.

**Secondary Protection Areas (SPA)**

139.51 ac. 44%

These areas are buffers around the more pristine PPAs. Activities are similar and the only developments planned are trail construction interpretive sign installation.

**Limited Development Areas (LDA)**

- ac. 0%

No LDA's are designated in the park.

**Major Development Areas (MDA)**

35.83 ac. 11%

MDA's include all existing facilities as well as future developments such as a hiker-biker camp and realignment of the existing day-use area parking.

**Areas of Concern (AOC)**

Development of areas outside the park which could adversely affect the park include developments at the edge of the rimrock and possible surface mining near park boundaries.
**PRIMARY PROTECTION AREAS**  
144.80 ac. 45% of Total

The Primary Protection Area (PPA) designation in Tumalo State Park is applied to areas where unique scenic or natural resources will be preserved or where they constitute major park attractions. This designation also defines areas where natural conditions may be hazardous for development of intensive uses. Only passive recreational activities are allowed, including fishing, hiking, swimming and innertubing. Development is prohibited except for trails and interpretive devices and structures.

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
<th>% of PPA</th>
<th>% of Total Park Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deschutes River</td>
<td>32.88</td>
<td>23%</td>
<td>10%</td>
</tr>
</tbody>
</table>

The Deschutes River PPA is designed to protect river-associated resources. These resources include important riparian plant communities and wildlife habitat. Fishing, swimming and innertubing are allowed and have minimal impact on resource quality.

No development is allowed or planned for the riverbanks in the PPA. Management of the riverbank for protection from further use impacts is a high priority. No chemical spraying for vegetation management is allowed and activities which may result in increased bank erosion are prohibited.

<table>
<thead>
<tr>
<th>Area</th>
<th>Acres</th>
<th>% of PPA</th>
<th>% of Total Park Acreage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rimrock</td>
<td>12.98</td>
<td>9%</td>
<td>4%</td>
</tr>
</tbody>
</table>

The rimrocks above the developed areas of the park are designated PPA. These rimrocks represent an important scenic element of both the park and the Deschutes River canyon landscapes in general. Unique plant communities and wildlife habitats are found in the rimrocks which should be preserved from disturbance. Safety hazards are also posed by falling rocks and unstable slopes.

Allowed activities and uses include hiking and nature-watching. An interpretive trail is proposed for the PPA with signs to interpret the unusual resources. Other types of development are prohibited.
Canyon

98.94 ac. 68% of PPA
31% of Total Park Acreage

The Canyon PPA is south of the developed section of the park in a relatively remote area of the Deschutes River Canyon. The scenic and natural resource values of the PPA are high and should be preserved from adverse impacts.

Hiking, nature-watching, fishing and swimming are the dominant activities and are allowed uses in PPAs.

A trail is proposed for this area which will connect with Bend Metro Park and Recreation District trails. A foot bridge may be installed across the Deschutes River at the confluence of Tumalo Creek and the Deschutes. Portable toilet units may also be located in the general area if use justifies the expense. Other development is prohibited and a scenic setback from the canyon edge (required by county development ordinances) will preserve the visual integrity of the area.
SECONDARY PROTECTION AREAS 139.51 ac. 44% of Park

Secondary Protection Areas (SPA) in Tumalo State Park serve to buffer PPAs from more intense recreation uses.

Allowed uses are similar to those of the PPA designation. Hiking, swimming and fishing are the most common activities and are compatible with a Secondary Protection Area designation.

The only developments planned for SPAs are trail construction and interpretive signs.

Deschutes River 21.71 ac. 16% of SPA
7% of Total Park Acreage

The Deschutes River SPA functions primarily as a buffer between intensive use areas and PPAs. Natural resource values are not distinctive and don't require PPA status.

Uses include passive recreational activities associated with the river.

No development is anticipated in this SPA beyond maintenance of existing facilities and any activities required to protect resources from the adjacent major development area.

Deschutes River West 4.92 ac. 3% of SPA
2% of Total Park Acreage

The SPA in the western area of the main park serves to provide for future flexibility in land use. The resource and recreational values of the area are low. This section of the park has the capability for classification as a Major Development Area (MDA) but will be retained as an SPA until increases in park use justify expanding existing facilities.

Current uses are very moderate and include hiking and nature-watching, allowed activities in SPAs.
Rimrock

16.82 ac. 12% of SPA
5% of Total Park Acreage

The SPA provides a buffer between areas of higher use and the actual rimrocks. Resource and recreation values are low due to use impacts.

Primary recreation activities are hiking and nature-watching.

No development is planned for this area except for an interpretive trail and some simple signs.

Canyon

96.06 ac. 71% of SPA
30% of Total Park Acreage

The Canyon SPA designation is based on quality of vegetation and delineates areas where vegetation has been altered from its natural condition by grazing or other uses.

Recreational uses includes hiking, swimming and fishing.

No development is planned for the Canyon SPA. If use is increased substantially when the Deschutes River and Tumalo Creek trails are completed, portable toilets may be located in the SPA to accommodate hikers and anglers.
LIMITED DEVELOPMENT AREAS

There are no Limited Development Areas (LDA) in Tumalo State Park. This is based on resource capability and projected needs and uses.

Expansion of facilities will most likely occur in areas adjacent to existing facilities. Soil capabilities and depth to bedrock are the critical factors in differentiating between Major Development and Limited Development Areas. Specific information on these factors is not yet available for this section of the park.
MAJOR DEVELOPMENT AREAS

35.83 ac. 11% of Park

Major Development Areas (MDA) encompass all existing facilities in the park and those areas of most intense use or likely future expansion. These are areas where natural resource systems are capable of absorbing development impacts.

Additional development planned for Tumalo State Park MDA includes a hiker-biker camp and realignment of the existing day-use parking. Further expansion is not anticipated unless current use levels increase dramatically.
AREAS OF CONCERN

Areas of concern in Tumalo State Park are areas outside the park where development may have an impact on park use. These include potential visual impacts and surface mining and zoning designations.

Areas of visual or scenic importance include the rimrock above the state park and south of the main park in the canyons of the Deschutes River and Tumalo Creek. Insensitive development of these areas would be detrimental to the natural quality of the canyon and would be visible from the use areas of the park.

A major concern for Tumalo State Park is posed by the Surface Mining zoning designation of areas in close vicinity to the park. If the areas zoned for surface mining (not currently developed) were to be developed in the future, severe impacts on the quality of the recreational experience of park users would result from the increased noise level and large quantities of dust produced by mining activities.

A public hearing is required for development of any of the surface mining areas. State Parks should provide testimony during the public hearing process and participate in conflict mediation procedures as specified in the Deschutes County Comprehensive Plan and the Deschutes County Zoning Ordinance.
# TUMALO STATE PARK

## LAND USE DESIGNATIONS

<table>
<thead>
<tr>
<th>RESOURCE ELEMENT</th>
<th>PPA</th>
<th>SPA</th>
<th>LDA</th>
<th>MDA</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOLOGIC FEATURES AND HAZARDS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The rimrock areas pose safety hazards and are unique features.</td>
</tr>
<tr>
<td>Rimrock-Rockfall Areas</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOILS* AND SLOPES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Perched H2O tables can cause well and septic drainfield problems.</td>
</tr>
<tr>
<td>Slopes Greater Than 10%</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slopes Less Than 10%</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYDROLOGIC FEATURES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Flood potential areas pose safety hazards.</td>
</tr>
<tr>
<td>Flood Potential Areas</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VEGETATION</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Riparian vegetation is a valuable park resource and will be protected with other significant vegetation as evaluated by The Nature Conservancy.</td>
</tr>
<tr>
<td>Significant Community</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poor Condition</td>
<td></td>
<td>●</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Heavily Disturbed</td>
<td></td>
<td></td>
<td>●</td>
<td>●</td>
<td></td>
</tr>
<tr>
<td>WILDLIFE HABITAT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Most significant unique habitat will be protected from any development. The seasonal deer habitat is not critical but provides important winter range.</td>
</tr>
<tr>
<td>Riparian Habitat</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rimrock Habitat</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seasonal Deer Habitat</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SCENIC RESOURCES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>The most scenic parts of the park are the rimrocks and riverbank. Viewsheets are other scenic resources and any development will be monitored for visual impact.</td>
</tr>
<tr>
<td>Scenic Value</td>
<td>●</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scenic Sensitive</td>
<td>●</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

*Soil Conservation Service is currently field surveying the Deschutes County Area. At this time, soils information is available only through on-site surveys.
LAND USE PLAN

TUMALO STATE PARK
Deschutes County 1984

MDA - Major Development Area
SPA - Secondary Protection Area
PPA - Primary Protection Area
Area of Concern

0 400 800 1600

north
GOALS AND OBJECTIVES
DEVELOPMENT PLAN MAP
REHABILITATION PROJECTS
CAPITAL IMPROVEMENT PROJECTS
GOALS AND OBJECTIVES

GOAL 1: MAINTAIN OR INCREASE CURRENT LEVELS OF PARK USE IN AN ENJOYABLE AND SAFE ENVIRONMENT.

OBJECTIVES:

A. Make improvements to existing facilities as needed to accommodate existing and projected use levels.

B. Acquire property which would allow expansion of the existing day-use area if and when demand becomes apparent.

C. Provide additional facilities as needs become apparent.
   1. Hiker Biker Camp
   2. Interpretive Trail
   3. Deschutes Tumalo Trail

GOAL 2: IMPROVE OR ENHANCE SCENIC CHARACTER OF THE PARK.

OBJECTIVES:

A. Screen the park barrow pit from the rest of the park.

B. Provide tree plantings in camp areas where shade is inadequate or screening might be needed.
REHABILITATION PROJECTS

Parking Realignment and Toilet Building

Cost: $75,000  Annual Maintenance: -0-  Staff: -0- FTE

Existing Conditions:
The existing access road and parking lot for the day-use area is insufficient for safe circulation and adequate parking. The only restroom facilities for the southern end of the day-use area are two pit toilets which are inadequate for the use this area receives.

Proposal:
Realign the parking area to safely accommodate more parking.

Development Guidelines:
1. Increase number of parking spaces
2. Provide one-way circulation to reduce congestion and increase auto and pedestrian safety.
3. Provide paved pedestrian circulation paths to picnic areas.
4. Rehabilitate previously paved parking and driveway to turf.
5. Provide additional restroom facilities.
Cost: $35,000  Annual Maintenance: $5,600  Staff: -0- FTE

Existing Conditions:

Demand for more hiking trails is expected to increase with population growth and the popularity of Central Oregon as a major recreational center for the Northwest.

The Bend Metro Parks and Recreation District, in coordination with appropriate jurisdictions, is planning a trail system from Bend downriver along the Deschutes River to Tumalo Creek, then up the creek to the Three Sisters Wilderness area. The planned trail system will include an existing State Parks trail segment.

The existing trail, on several undeveloped parcels of State Parks land upriver and not contiguous with Tumalo State Park, is narrow and unimproved. A fishing and hiking easement along the Deschutes River has been negotiated by State Parks to allow recreational use of the existing trail along the privately-owned sections of land between the developed part of Tumalo State Park and the upriver parcels of State Parks land.

Proposal:

The State Parks section of existing trail will be widened and graded in places to allow more use and will have a natural surface. Signs may be added as necessary. A bridge crossing and sanitary facilities may be provided if future use and need warrants the expense.
Development Guidelines:

1. Route the trail to connect with other existing or planned trails managed by other jurisdictions.

2. Provide appropriate signs for the trail.

3. Provide step-styles or turn-styles at fences where needed.

4. Provide a footbridge across the Deschutes River when the trail system is completed if needed.

5. Provide chemical toilets at appropriate locations when trail use indicates a need.
CAPITAL IMPROVEMENT PROJECTS

Hiker-Biker Camp

Cost: $5,600  Annual Maintenance: $2,000  Staff: -0-  FTE

Existing Conditions:

Several cross-country bicycle routes are located in the Bend vicinicity. These bike routes and the completion of the Deschutes River-Tumalo Creek hiking trail may generate more demand for primitive campsites.

There are currently no designated hiker-biker campsites at Tumalo State Park. Bicyclists and hikers must rent a higher cost standard campsite which includes unneeded facilities.

Proposal:

The hiker-biker camp would consist of two sites with level areas for pitching tents and a fire ring for each site. Picnic tables may be provided at the discretion of the park manager.

Development Guidelines:

1. Provide level areas for tents, picnic tables and firepits.

2. Site the camp with convenient access to toilet facilities and water.

3. Locate in the existing overnight camping area for fee collection.

4. Provide screening from road and other overnight campsites.
CAPITAL IMPROVEMENT PROJECTS

Interpretive Trail

Cost: $4,000  Annual Maintenance: $ 800  Staff: -0-  FTE

Existing Conditions:

There are a number of interesting features at Tumalo State Park which are representative of the unique Central Oregon environment.

Proposal:

Education of park users about the unusual features of Tumalo State Park will make visitors more appreciative of the resources of the park and surrounding area. The trail will be routed from the overnight ground to the rimrock area and loop back to the campground in the vicinity of the amphitheatre. The trail will be surfaced with cinders or left natural. Vandal-resistant signs which explain interesting or important park features will be located along the path.

Development Guidelines:

1. Construct a soft-surfaced walking loop from the camp area to the foot of and along the canyon rimrock.

2. Provide simple vandal-resistant signs along the path, explaining the natural features of the park.

TUMALO STATE PARK - DEVELOPMENT PLAN
GEOLOGIC FEATURES AND HAZARDS

The oldest geologic formation in the Tumalo State Park area is the Madras formation which consists mostly of what is described as welded dacite tuff. This geologic feature is the result of avalanches of red-hot ash and materials that flowed down the flanks of Broken Top volcano into local drainages. Tumalo Creek was one of those drainages. On the west side of the river are Quaternary age basalts (a type of molten volcanic rock) which overlay the Madras formation and are found extensively throughout Central Oregon. Another element of the geologic composition of Tumalo State Park is a series of relatively recent pumice avalanche deposits found in areas surrounding the park. These dacite pumice deposits are younger in age than the dacite deposits of the Madras formation and are white to pinkish in color. The distinct coloring of this geologic feature can be observed in road cuts and excavations in the area. The youngest formation in the Tumalo area occurs on the east side of the Deschutes River in the park and consists of the basalts which form the distinctive rimrocks of the canyon. These basalts were discharged after the hot ash avalanches and are presumed to be only a few thousand years old.

The most recent additions to the park geology are the sands and silts deposited by the Deschutes River on bottomlands and terraces and in the floodplain area north of the park.

Management Concerns

Hazards posed by the geologic formations in Tumalo State Park come from the relatively young basalts which form the rimrock areas of the Deschutes River canyon. Rockfall is a potential safety hazard which should be addressed by a setback of at least 50 feet at the top of the rimrock and 150 feet at the foot.
The other formation of importance and interest is the dacite pumice deposit found in the area. These areas don't represent a geologic hazard in themselves but they have commercial value and occur in areas where mining and excavation is possible. There is a potential for detrimental impacts on the park if these deposits in the immediate park area are actively mined.

The occurrence of rock at shallow depths is also a characteristic of the geology of the park and causes great constraints to construction by requiring blasting and other expensive methods of excavation.
GEOLOGIC FEATURES AND HAZARDS

TUMALO STATE PARK
Deschutes County 1984

Qyb - Quaternary Young Basalts
Qb - Quaternary Basalts
Qpa - Dacite Pumice
QTmt - Madras Formation

- Rimrock
- Rockfall Hazard

Map with various geological features and markings.
SOILS AND TOPOGRAPHY

A Soil Conservation Service soils scientist made a field check of soils in Tumalo State Park to determine the common soil types since there was no recent soils survey of the area. The field check determined that soils similar to the Sisters soil series dominate the developed portion of the park.

Sisters soils are loamy sand or loamy coarse sand soils and are found on level to steep slopes at elevations of 3000 feet to 4500 feet. The soils are formed in mixed alluvium with 20 to 60 percent volcanic ash. The soils are somewhat excessively drained with slow runoff and rapid permeability. The frost-free period in areas where these soils occur is generally 0-50 days annually.

Topography in Tumalo State Park ranges from floodplain areas to steep, rocky canyon walls and side slopes. Outcrops of basalt and lavas are very common.

Management Concerns

The soils and topography of the park present a variety of development constraints. In areas adjacent to the river there is a hazard of flooding. Cobblestones (large stones and rocks) are found at depths of more than 10 inches in the floodplain areas and cause excavation and construction problems.

In other areas of the park, the soils are prone to erosion and rapid water runoff where the soil is bare. The soils in the park are fairly infertile and organic material and topsoil must be added before grass can be established.

These soils allow adequate filtration for septic tank absorption fields on level slopes but present hazards due to seepage for larger facilities (such as sewage lagoon areas) or on slopes greater than 7 percent. The soils have poor capability for excavations because of lack of compaction and shallow depth to bedrock.

Recreational development is considered an acceptable use on these soils although conditions are not ideal.

TUMALO STATE PARK - SITE INVENTORY
WATER FEATURES AND HYDROLOGY

There are two main water features of importance which affect Tumalo State Park.

The Deschutes River flows through the park and represents the primary scenic and recreational attraction. The flow of the Deschutes River downstream from Bend is regulated by the local irrigation districts which have water rights to most of the river flow. Wintertime is generally high water time, and summertime represents lower flows, depending upon rainfall and snowmelt. A hydrologic survey of the Deschutes River has defined the flood-prone areas of the river as generally 5 feet to 10 feet above the current bank elevation.

Tumalo Creek flows through a parcel of undeveloped Parks-managed property to its confluence with the Deschutes River. Tumalo Creek is important because of its potential scenic and recreational contribution to the resources of the more developed area of Tumalo State Park.

There are no known major aquifers in the state park area. Depth to groundwater varies considerably and is directly related to proximity to the river. Aquifers are generally very deep except on the river's floodplain.

Management Concerns

Water management concerns in Tumalo State Park include the depth to water, flood potential, water pollution potential and stream flow fluctuation.

The park currently needs another well, but there have been problems locating potable water at a convenient site. A local hydrologist may be able to provide information on locations most likely to result in a satisfactory well.
Areas of the state park which are adjacent to the river are susceptible to seasonal flooding and high water. Riverbank erosion has been occurring in the day-use area in the vicinity of the small swimming beach. Since this is an area of intense river use in the summer, the bank should be rip-rapped in an aesthetic manner or low rock retaining walls should be constructed which would help protect the bank during winter high-water times and provide attractive seating areas in the summer.

Because the flow of the Deschutes River is monitored by the irrigation districts, the likelihood of an uncontrolled flood is small. However, development which may be damaged by flooding should not be allowed within the floodplain. Future septic facilities for the day-use or overnight areas should not be allowed on the floodplain due to potential pollution.

Hydroelectric project construction on the Deschutes River has become a possibility. Any projects which may result in decreased summer stream flow or changes in water quality which will affect the scenic or recreational values of the state park should be opposed.
VEGETATION

Soils, climate and micro-climate are very important factors which determine what types of plants are found in the park. At Tumalo State Park the character of the soils, the distribution of moisture, and the proximity of the Deschutes River have dictated the vegetation patterns. Much of the vegetation in the park has been modified from its natural condition by human use.

Eight distinct plant communities have been identified. The most common in Tumalo State Park have juniper or juniper-ponderosa pine canopies. Bitterbrush and big sage are common shrubs in some of these communities. Bluebunch wheatgrass (Agropyron spicatum), a native bunchgrass, is dominant in nearly all of the park's communities. Idaho fescue (Festuca idahoensis) is an important grass in three of the communities. The big sage-bitterbrush/Idaho fescue type is in poor condition because of overgraving.

A less common but more important plant community is found in association with the Deschutes River. The riparian plant community consists of birch and mountain alder as the main tree species (sometimes occurring as large shrubs), with willows and Douglas spirea as the dominant shrubs. A variety of sedges, rushes, and herbaceous plants are also found along the water's edge.

Another less common plant association occurs within the rimrock areas of the park. This grouping is identified by the occurrence of native chokecherry, Oregon grape and bitterbrush.

No habitat for rare or endangered plants was located on state park land.

Management Concerns

Plant communities in the best natural condition or representing unique occurrences of plants should be preserved from development or intensive use impacts. These communities include the riparian vegetation of the willow and western birch association found along the edges of the Deschutes River and the chokecherry/Oregon grape association of the rimrock walls.

TUMALO STATE PARK - SITE INVENTORY
An association called the juniper-ponderosa pine/oceanspray-bitterbrush/Idaho fescue community, in unusually good condition, occurs on the east walls of the Deschutes River canyon upriver from the developed section of Tumalo State Park. The remoteness of this area will provide good protection from impacts which might affect the vegetation. Access to this area should be primarily by foot and no development which will significantly increase or change the use of this area should be permitted without first carefully evaluating the potential impacts.
KEY TO PLANT COMMUNITIES  

Tumalo State Park

JUOC  
Juniperus occidentalis/Artemisia tridentata/Agropyron spicatum (western juniper/big sagebrush/bluebunch wheatgrass).

JUOC/ARTR-PUTR  
Juniperus occidentalis/Artemisia tridentata-Purshia tridentata/Agropyron spicatum (western juniper/big sagebrush-bitterbrush/bluebunch wheatgrass).

JUOC-PIPO/ARTR  
Juniperus occidentalis-Pinus ponderosa/Artemisia tridentata-Purshia tridentata-Agropyron spicatum-Festuca idahoensis (western juniper-ponderosa pine/big sagebrush-bitterbrush/bluebunch wheat-grass).

JUOC-PIPO/HODU  
Juniperus occidentalis-Pinus ponderosa/Holodiscus dulosus-Purshia tridentata-Agropyron spicatum (western juniper-ponderosa pine/glandular oceanspray-bitterbrush/Idaho fescue).

PRVI-BERE  
Prunus virginiana-Berberis repens-Purshia tridentata (chokecherry-creeping Oregon grape-bitterbrush).

BEOC-ALIN  
Betula occidentalis-Alnus incana/Salix-Spiraea douglasii (western birch-mountain alder/willow-Douglas' spiraea).

Additional information about plant communities can be found in the Appendix.
WILDLIFE AND WILDLIFE HABITAT

There are two main habitat types of significance in Tumalo State Park. The most important habitat is riparian and consists of the willow breaks along both banks of the Deschutes River. Mammals that use the riparian habitat in Tumalo State Park include mule deer, beaver, coyote and several species of ground squirrels and chipmunks. The riparian zone is also very important to bird populations. The most abundant bird at Tumalo is the California quail, with a few great blue herons using the willow breaks, primarily as resting cover.

The second habitat of importance, due to uniqueness, is the basalt rimrock cliffs along the eastern boundary of the park. A number of bird species use the cliffs as nesting sites.

The juniper/sage plant association (i.e., JUOC/APTR-PUTR) is not of great significance for game animals but is habitat to a number of bird species, rodents and reptiles.

A group of four communities with juniper, ponderosa pine, western birch and mountain alder (JUOC, JUOC-PIPO/HODU, JUOC-PIPO, and BEOC-ALIN) is found in the more remote areas of the Deschutes River canyon is important winter range for mule deer.

Management Concerns

Wildlife is usually found where appropriate habitat occurs. One of the most effective ways to attract or maintain wildlife populations is to preserve and protect the sources of food and shelter upon which these wild creatures depend for their existence. At Tumalo State Park riparian vegetation represents the most valuable wildlife habitat and is to be maintained both as a resource for the wildlife which use the area and for park wildlife watchers. Activities which will result in a decrease in the quantity or quality of the riparian habitat should be prohibited or monitored closely for negative effects.
The basalt cliff habitat and the winter deer range are remote enough from the developed areas of the park that most use will be dispersed and not result in any noticeable impacts. If development or use levels increase significantly, the effects should be evaluated for possible impacts on wildlife and wildlife values.

Additional information about wildlife can be found in the Appendix.
SCENIC RESOURCES

The scenic character of the Tumalo State Park area is dominated by open vistas of the Cascade Range and juniper-dotted lava plains. There is considerable visual variety provided by the intermingling of farmland, natural-looking rangeland and some residential and industrial development in the immediate area of the park. The park itself is located in the Deschutes River canyon and the viewshed is restricted from developed parts of the park to the canyon area.

Colors and tones in the landscape are generally muted. Most prevalent are the grey-green shades of juniper and sage and the buff and beige tones of soils and rock formations. Accents of darker tones are provided by the foliage of the riverbottom vegetation and the geologically-recent basalts of the rimrock.

Within the park, the Deschutes River provides the most important scenic resource. The visual variety of the riparian vegetation, the river's flow, and the colors and seasonal change are essential elements in the appeal of the park. The green lawns and junipers of the developed areas of the park are also a refreshing and interesting contrast with the visual character of the surrounding areas.

The rimrock areas above the developed part of the park are also important to the park's scenic character. The rimrocks and bluffs of the river canyon provide contrasts in tone and texture and add visual drama and emphasis to the park landscape. The top of the canyon offers a spectacular vista of the Cascade peaks of Central Oregon.

The viewshed of the park is limited to the river canyon and and it is important to the scenic resources of the park to buffer it from detrimental visual impacts.

TUMALO STATE PARK - SITE INVENTORY
Management Concerns

Any area classified as "Scenic Sensitive" on the resource map should be preserved from development as much as possible. These areas constitute the most scenically important resources in the park and development in these areas should be discouraged. If development is essential, the visual impacts should be compatible with the existing visual character.

Areas of "Scenic Value", which generally include viewsheds, can be developed. However, any development should be designed for aesthetic compatibility with the surrounding environment.

Areas in the developed portion of the park are classified as having Scenic Value because of their high visibility to the park visitor. Any development in these areas should be compatible with the existing visual character of the surrounding area. Less attractive areas in the developed sections should be improved to make them more visually appealing or should be screened from view.
CULTURAL AND HISTORIC RESOURCES

There are no recognized sites of historic or cultural importance in Tumalo State Park. There are also no documented sites of prehistoric significance. A thorough survey of the park for Paleoindian activities or use has not been made however, and it would be important to do a survey if any ground is disturbed or excavated on the riverbank or terrace areas.
ZONING AND LAND USE
LAND DEVELOPMENT AND MANAGEMENT
EASEMENTS AND LEASES
PERMITS AND AGREEMENTS
ZONING AND LAND USE

The main area of Tumalo State Park is currently zoned as "Open Space and Conservation" on the Deschutes County zoning map. This is an appropriate designation for the park and allows park development as an outright use. No special land use permits will have to be obtained from the County. The riverbottom areas of the park are zoned "Floodplain". This zoning is to protect the public from flood hazards and is compatible with park use. No permanent structures are allowed. A section of park property on the eastern boundary is zoned "Multiple Use Agriculture". This zoning designation is intended to allow agricultural uses and compatible small scale commercial and residential development. Public use is conditional. Another parcel of Parks property on the west side of the Deschutes River is zoned "Exclusive Farm Use". Public park use is conditional.

The land use zoning of the areas surrounding the park is varied. Property abutting the south boundary and part of the western boundary of the park is zoned for Exclusive Farm Use and most land use activities and development allowed in this zone are compatible with park uses.

Land lying directly north of the park and in the river bottom is zoned "Floodplain". This designation restricts development due to potential flooding and is compatible with park zoning and uses.

The zoning of property to the east of the park is Multiple Use Agriculture. This designation is generally compatible with park functions. Planned and cluster developments are conditional uses in this zone. These types of residential development can be more sensitive to siting and design issues than traditional speculative subdivisions and would probably not be compatible with existing park uses.
Several parcels of land west and south of the park are zoned for surface mining. Surface mining activities are incompatible with park functions and aesthetics.

Management Concerns

Zoning designations for Tumalo State Park represent concerns for State Parks in several situations. Those parcels of park land which are not included in Open Space and Conservation zoning should be rezoned to Open Space and Conservation. The best way to accomplish this is during the review and update of the Deschutes County Comprehensive Plan. At the time of the review, State Parks should request that these parcels be rezoned to the appropriate designation.

The parcels of land with Surface Mining zoning represent special concerns. The largest areas of that designation lie directly west and south of the main developed part of the state park and both parcels are currently undeveloped. The Deschutes County zoning ordinance requires a site plan to be filed with the Deschutes County Planning Director before the site can be actively mined. The Planning Director may hold a meeting to discuss the site plan before approval or to impose more stringent operating requirements on the site when a high level of conflict between land uses exists. State Parks should participate as an affected property owner in any discussion of surface mining proposals for these parcels of property.
SM Surface Mining
FP Flood Plain
EFU - 20 Exclusive Farm Use
MUA - 10 Multiple Use Agriculture
SMR Surface Mining Reserve
OS & C Open Space and Conservation
LM Landscape Management

TUMALO STATE PARK
Deschutes County 1984
EASEMENTS

There are currently three easements in effect which affect this park.

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The next map shows park acquisitions and locates property easements in effect. The chart which follows notes all park acquisitions and divestments.
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