The Cove Palisades State Park

Master Plan 2002

Nature HISTORY Discovery

Oregon Parks and Recreation Department

ACKNOWLEDGEMENTS

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ADDITIONAL COVE PALISADES STATE PARK MASTER PLANNING DOCUMENTS

The following documents are incorporated into the Cove Palisades State Park Master Plan:

Resource Maps:

- Geologic Features and Hazards
- Water Features and Hazards
- Vegetation Cover Types
- Wildlife Habitat
- Protected Species
- Scenic Resources
- Cultural Resources
- Composite Suitability

The above documents are available for viewing at the following locations:

- Oregon Parks and Recreation Department
  1115 Commercial Street N.E.
  Salem, OR 97301-1002

- The Cove Palisades State Park Office
  at The Cove Palisades State Park

INTRODUCTION
CHAPTER ONE

This document is the master plan for the future use and management of The Cove Palisades State Park, an Oregon Parks and Recreation Department property. This is an amendment of the 1981 master plan for the park. This document summarizes the official department master planning purpose and process. It also contains descriptions of the existing facilities, future recreation demand and needs, suitability of the land for public recreation uses, issues related to public use and management, and recommended goals and objectives for the future uses and development of the property and management of the park's resources. It is intended to serve for 15-20 years from its date of adoption.

Master Plan Authorization and Purpose

The Oregon Parks and Recreation Department (OPRD) prepares master plans for its properties as mandated in ORS 390.180. The purpose of state park master plans is to plan for both the protection and public enjoyment of the state park's resources. Master plans identify and provide for the most appropriate recreation-related uses for the parks based on resource opportunities and constraints, development opportunities and constraints, public recreation needs and the Department's role as a public recreation provider. The master plan may also identify desired lands for Department acquisition in relation to the park being master planned; and identify any related Endowment parcels. It also provides a basis for preparing land use compliance requests for local governments, partnership agreements, budget and management priorities and detailed development and management guidelines.

Master Planning Process

The process chart, shown in this chapter, illustrates the basic steps for completing an OPRD master plan.

First steps include information gathering regarding natural, cultural and scenic resources, existing facilities, recreation and interpretive needs and information about the local community.

Issues involving the use, development or management of the parks are collected through meetings with department staff, an appointed steering committee and the general public.

A set of goals for the future use and development of the park and management of its resources are completed. More detailed resource management guidelines and development concepts are also done.

All of the information mentioned above is complied into a draft master plan document that is reviewed by department staff, the steering committee, public meetings and by the department Director and the Parks and Recreation Commission. Comments are collected and guidance is sought from the Director and Commission on edits to be made to the draft plan. Commission review of the draft follows steering committee and public meetings on the draft plan.

Formal adoption of the plan as a part of state rule, and local adoption or approval follows.

Once the master plan is adopted by rule and granted land use approval, any development in the park must be consistent with the master plan. Minor variations from the adopted master plan may be allowed if such variations are determined by OPRD and Jefferson County to be consistent with the master plan in accordance with OAR 736-018-0040. Any use that is not consistent with the master plan requires a master plan amendment. Master plan amendments must follow the same process used to adopt the master plan, as

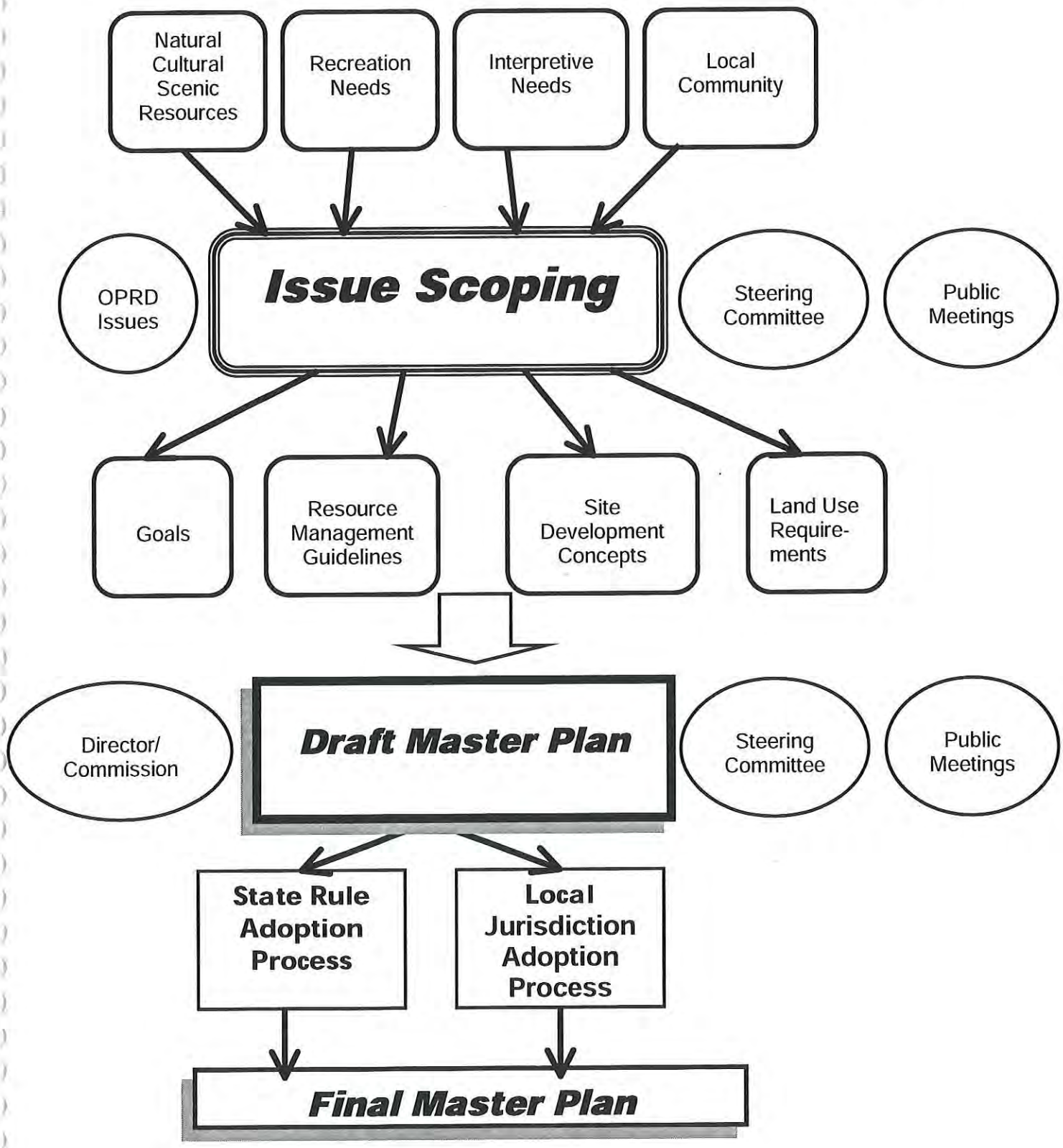
described in OAR 660 Division 34 and OAR 736 Division 18, which includes re-adoption as a state rule and land use approval by the County.

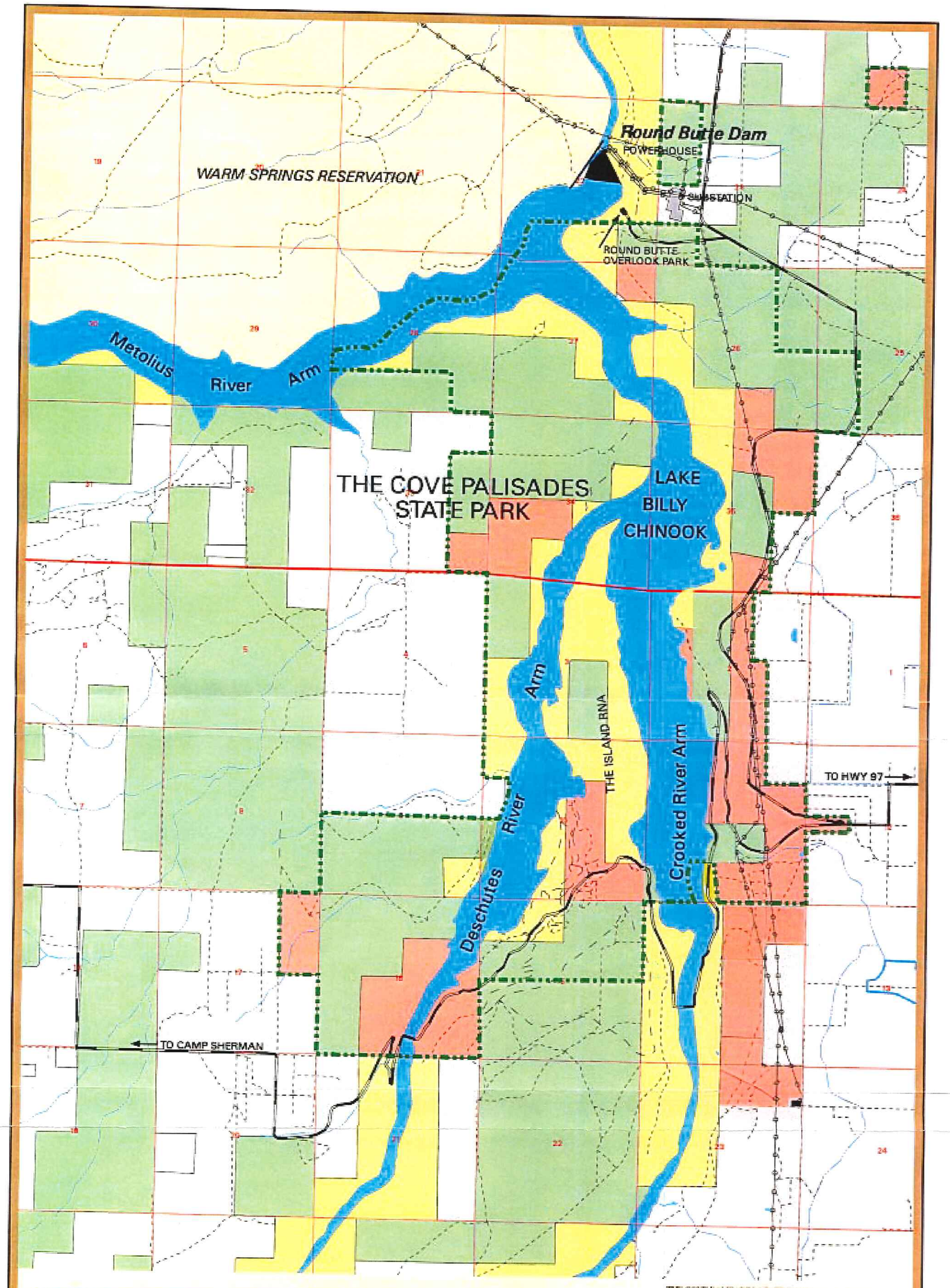
Park master plans are amended when changes in circumstances are significant enough to merit changing the plan. The OPRD director considers the recommendations of OPRD staff and outside interests in prioritizing the park master plans to be adopted or amended each biennium. The director's decisions are based on consideration of the following factors:

1. Significant changes in:
    a. Impacts on or condition of the natural, scenic or cultural resources within or surrounding the park.
    b. Knowledge of and need for best management practices for natural, cultural or scenic resources within the park.
    c. Recreation demand, needs and crowding within the park, or the vicinity of the park.
    d. Partnership opportunities for the state park or its management.
    e. Impacts or potential for impacts from surrounding land uses.

2. Alternatives to master plan amendments that will address changes, such as inter-agency management agreements, non-OPRD managed partnerships, etc.

OPRD MASTER PLANNING PROCESS





THE COVE PALISADES STATE PARK

VICINITY OWNERSHIP

Legend

- Crooked River National Grasslands (USFS)
- USDA Forest Service
- USDI Bureau of Land Management
- The Confederated Tribes of the Warm Springs Reservation of Oregon
- State
- Private
- Park Boundary

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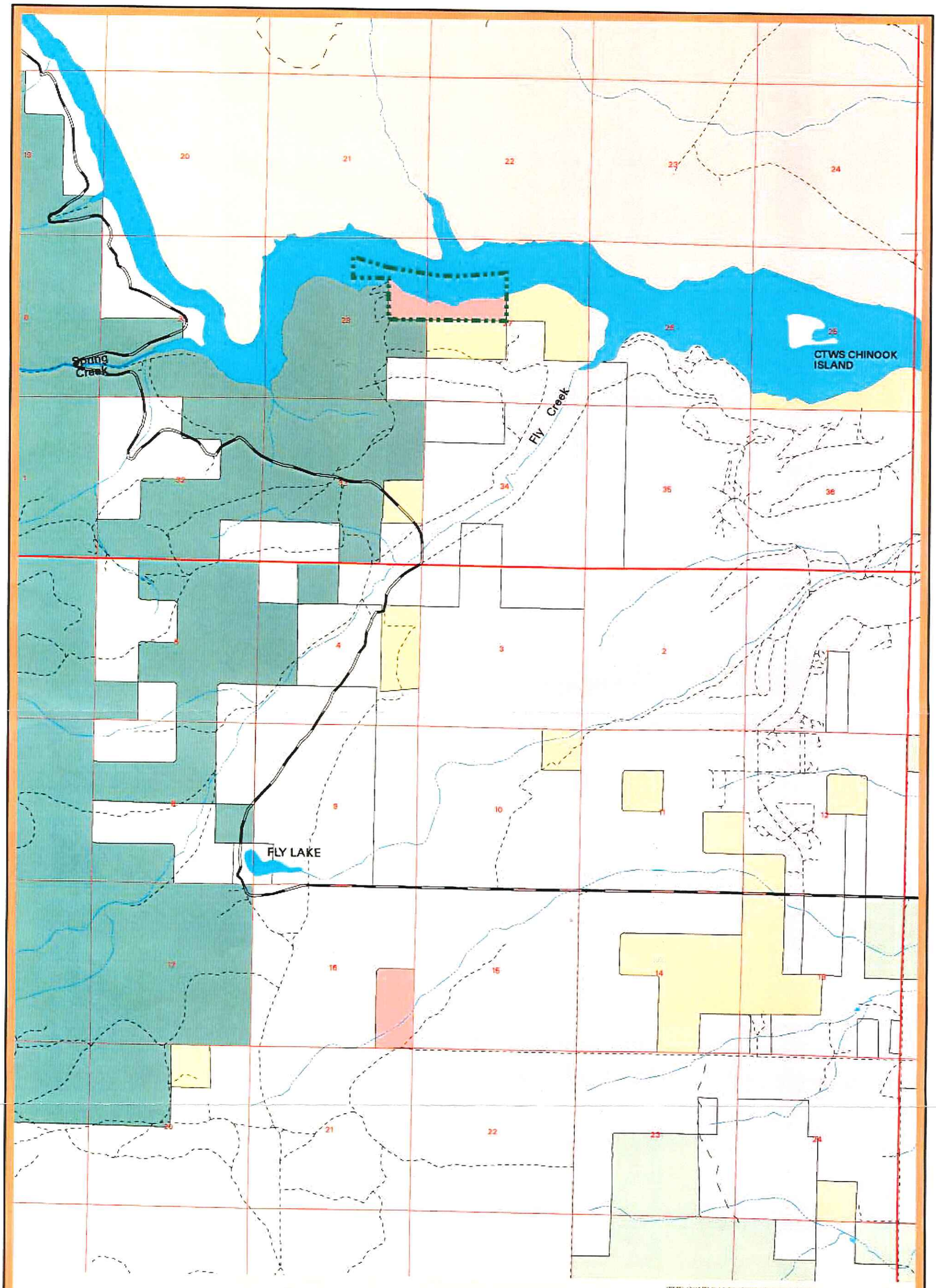

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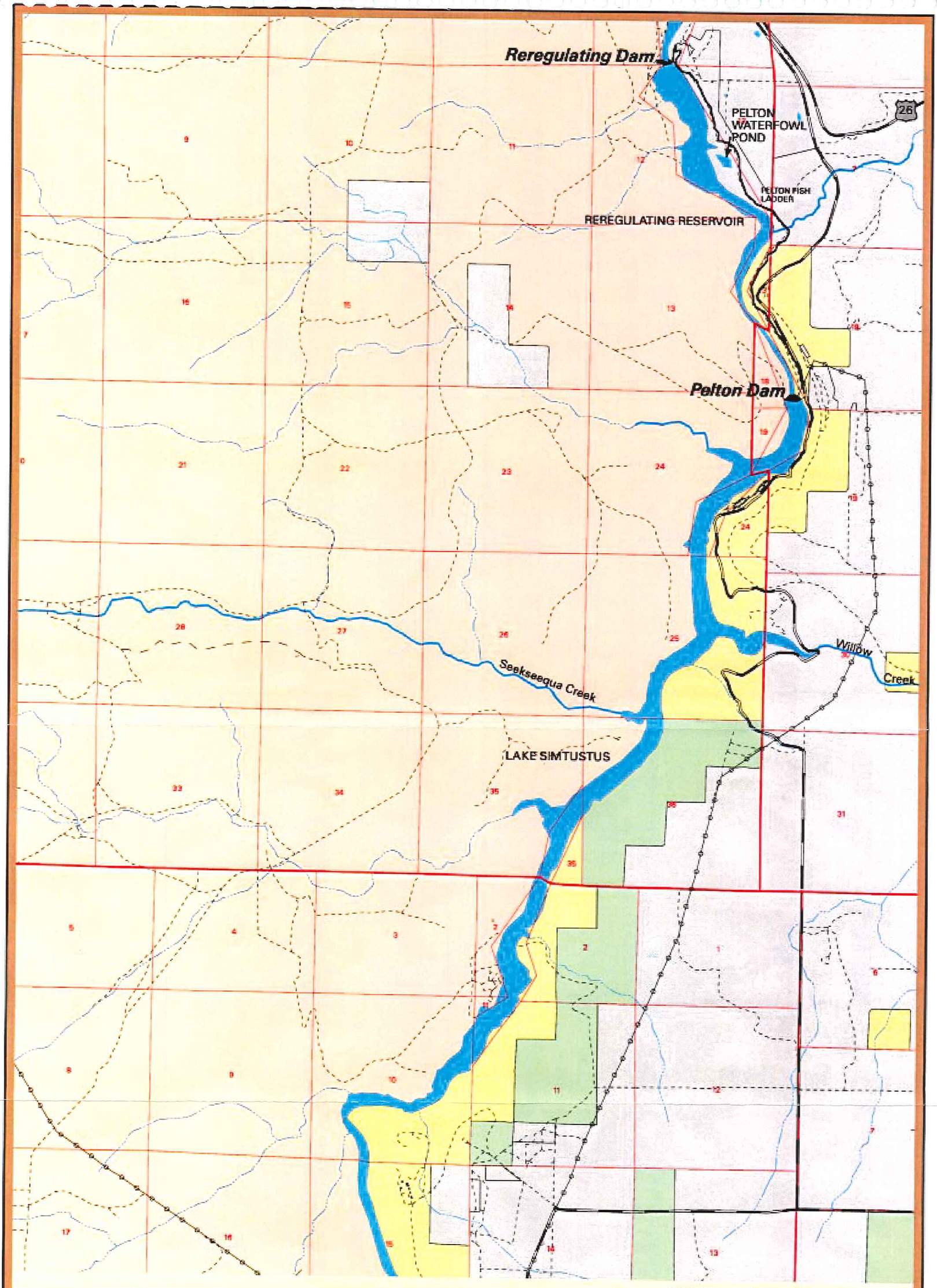

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MASTER PLAN SUMMARY
CHAPTER TWO

The Cove Palisades State Park is one of the premier destinations for public recreation in central Oregon. It is one of the largest state parks in Oregon and provides camping, day use, boating access, hiking and interpretation on the shores of Lake Billy Chinook. The park is extremely popular for its boating, water skiing, swimming and fishing opportunities within a highly scenic canyon setting.

Primarily visitors from the Portland metropolitan area, but also by Deschutes and Jefferson county residents heavily use the park in the summer months. And it is very important to the local economies of the nearby communities of Culver, Madras and others, and is well loved by the local residents as a beautiful, nearby oasis.

Many of the park facilities need rehabilitation and major maintenance, after years of deferring that work due to budget shortages. Buildings, roads, parking lots and utilities require intensive repairs, and in some cases, replacements to ensure their availability for public use in the years to come.

Current staffing is not adequate to provide the level of visitor service and supervision expected by the park's visitors.

Interest in recreating at "The Cove" continues to grow, resulting in crowded facilities, overflowing parking and displaced campers. Visitors expect solutions to crowding and conflicts and want to see more interpretation and high quality facilities, in addition to getting to the water and finding a camping space.

There are several important issues related to the use of Jordan Road. It carries a lot of park visitor traffic as well as traffic from the Three Rivers communities, and is often congested on peak summer days. The county road has a major landslide problem that needs to be remedied. OPRD supports this work and recommends it as a top priority for hydro-relicensing mitigation funding.

Overall, the master plan proposes actions to better accommodate existing numbers of visitors and their vehicles.

Relocating and upgrading the facilities for the group camp at a more spacious site is recommended.

Some new cabins are recommended which will enhance shoulder season use without creating significant increases in peak summer use levels.

The park is a good regional and local place to provide better interpretation facilities.

Administrative facilities and staff housing are needed.

The following is a summary of the goals and proposals described in this document:

- Support the county in securing funding for the slide and bridge improvements. Make this a hydroelectric mitigation priority.
- Continue discussions with the county regarding the "fair share" for on-going Jordan Road maintenance funding.

- Offer emergency-only Crooked River Ranch access/egress with the park. Site to be selected through additional discussions.
- Update land management/trade agreements with Bureau of Land Management and US Forest Service and implement. Coordinate with hydroelectric license requirements. In the long-term consolidate OPRD management and/or ownership of lands within the park to those where park facilities or public use occurs or is proposed.

- Designate the Cove as an OPRD Target Park for critical rehabilitation funding, as a top priority.

- Provide additional staffing to better supervise visitors in the summer months. Pursue hydroelectric-related M&O funding to support.

- Improve the management of important natural and cultural resources in the park to protect them from damage by visitation or inappropriate development. Use interagency partnerships to accomplish.

- Remodel day use area parking, picnicking and swimming facilities and grounds, boat ramps and docks within existing use capacities for parking within the canyon. Move some parking from along the county road to inside the day use areas in new parking lots. Support closing county road to parking near day use sites. (Although there is space on the lake for more boats and space on the rim for additional parking, this plan does not include proposals for more parking capacity on the rim and the use of shuttles to get people and boats into the lake.)

- Do not expand regular camping. Move group camping to Crooked River Campground.

- Provide needed office, visitor contact and maintenance facilities, and staff lodging closer to east entrance.

- Provide additional orientation and interpretation facilities and programs, including an improved entrance gateway, orientation pull-off and visitor contact or interpretive center building at east entrance. Rework east rim viewpoints to be more efficiently managed.

- Provide some cabins, tepees and yurts to upgrade the amenity level for camping, and to encourage more shoulder season visits. Tepees and yurts would be located in existing campsites with no increase in capacity. Cabins would be in new sites, but would involve a minor increase in capacity during the peak season.

- Provide some boat-in campsites where they would not conflict with other uses or resources.

- Identify Areas of Concern for addition to the park, when available.

EXISTING FACILITIES
CHAPTER THREE

Location: The Cove Palisades State Park can be reached via U.S. Highway 97 and local roads. It is about 15 miles southwest of Madras on the canyon land shore of Lake Billy Chinook. The park can also be reached via gravel roads from the Camp Sherman area from the west. County-owned Jordan Road passes through the park. The Portland area is about 130 miles away, the Willamette Valley is 150 miles to the west and Bend is 40 miles to the south.

Size and Ownership: 4,129.80 acres of land are owned or leased by OPRD within the official boundary for the park. Bureau of Land Management-owned lands within the park boundary bring the total land acreage to about 5200 acres. This does not include the water surface on Lake Billy Chinook, within the park. The Bureau of Land Management or U.S. Forest Service lands within the park are managed as a part of the state park through interagency leases and agreements. Those agencies have jurisdiction and need to be a part of any federal EA process.

General Description: The Park has long been recognized as Oregon's most significant park east of the Cascades. The park includes deep canyons, extensive reservoir waters and plateau benches that embrace the confluence of the Deschutes, Crooked and Metolius Rivers at Lake Billy Chinook. The park roughly encompasses the lake from the Jordan Road bridges downstream nearly to the Round Butte Dam.

Striking views of Cascades peaks are visible to visitors entering the park from the east. Descending into the Crooked River canyon, views shift to the impressive columnar basalt cliffs of The Island and east rim and to the sparkling water of Lake Billy Chinook. The county road takes visitors on a winding exploration of the base of the east rim and around The Peninsula to the Deschutes River arm of the lake and its own impressive canyon.

The plant communities and habitats in the park are typical of central Oregon high desert ecosystems, including an array of sagebrush, rabbitbrush, juniper and grassland communities. "The Island", located within the confluence of the Deschutes and Crooked Rivers, an ecologically pristine, 195-acre site, is reserved for scientific research and observation as one of the few remaining examples of pre-European settlement landscapes in the western U.S..

Topography in the canyons is generally very steep, consisting of several hundred foot basalt cliffs and talus slopes. The few gentle benches in the canyon are the sites of various park facilities and recreational areas. The park also includes the western, southern and eastern rims of the canyons and a considerable portion of the adjoining tabletop lands. These areas are generally devoid of development today, but once hosted homesteads and Native American use. The tablelands act as buffers for the park from surrounding agriculture and rural residential development. The combination of canyon walls and lake waters creates an impressive scenic setting.

The state park was established in the early 1940's, prior to the construction of the dam, and its facilities were originally located in the canyon bottom, on former orchard lands, along the shores of the Crooked River. In the 1960's the dam was completed and much higher, reservoir shorelines required the construction of new park facilities on higher ground. Most of the facilities used today were constructed for the new reservoir.

In 1981, a master plan was completed for the park, but no major improvements were made to the park. Seventeen years later, boating access has increased and crowding has worsened at the boat ramps and docks,

on the roads and in the campgrounds. The time has come to investigate whether the capacity of the lake has been reached or exceeded and how best to address current crowding.

Coincidentally, the Pelton-Round Butte hydroelectric facility is nearing its deadline for relicensing. Both Portland General Electric and the Confederated Tribes of Warm Springs have conducted current assessments of recreation facilities, public demand and areas of impacts in the vicinity of the dam. They have also completed detailed inventories of plant communities, habitat, protected species and cultural resources. This has included the state park and other recreation sites on Lake Billy Chinook and Lake Simtustus. The resulting information has been very beneficial in updating the master plan for the park and in determining, in a more objective manner, what the capacity of the park might be. A summary of the resource and recreation needs assessments can be found in the "Heritage Assessment" and "Recreation Needs Assessment" chapters.

The Neighborhood: On the plateau to the east of the park the communities of Metolius and Culver are located. The High Chaparral rural subdivision lies adjacent to the eastern entrance to the park, and a few residences look down from the east rim into the park above the Crooked River Campground. To the east, irrigated agricultural lands extend from the park boundary to Highway 97 and beyond. A little farther to the north is the small town of Madras. It is through this setting of small towns, rural residences and agricultural fields that visitors approach the park.

Other neighbors are located to the south, between the steep canyons of the Deschutes and Crooked Rivers. This area is collectively known as the Crooked River Ranch and consists of extensive rural residences, which are accessed via Highway 97 in the Terrebonne area. To the west a large rural community has grown up in the Big Canyon and Juniper Canyon area and near the private Three Rivers Marina. To the north, across the Metolius River, The Confederated Tribes of the Warm Springs Reservation is our neighbor. The large reservation stretches to Highway 26 and beyond to the north. And the dam itself and associated hydroelectric facilities and operations are significant neighbors to the north.

State park visitors share the public roads with the residents of local communities, as well as the benefits of the park settings and facilities. Issues related to congestion on the roads and lake, and crowding at the park facilities are important to local residents, park visitors and to park managers as well.

Park Facilities: The Park has several distinct recreational accesses and facilities areas, each with a somewhat different character and emphasis on uses and activities. Traveling along Jordan Road from the east, the first area encountered is the Crooked River Campground, on a broad shelf of the canyon. Down into the Crooked River canyon is the Crooked River Day use Area with boating access, swimming and picnicking facilities and The Cove Marina with overnight moorages, gasoline pump, marine sewer dump station, cabins and a cafe and store. Across the Crooked River, at the northern base of The Peninsula, is the current group use camp. To the north at the base of The Island is the park headquarters office and maintenance facilities, and the Lower Deschutes Day use Area that provides boating access and picnicking. Up the Deschutes is the Deschutes Campground and the Upper Deschutes Dayuse Area with boating access and picnicking.

The following chart outlines the types and amounts of facilities in each area:

Table 3.1. Park Facilities

Area Name	Parking	Boating	Camping/Cabins	Dayuse
Crooked River Campground	Extra vehicle & boat trailer pkg	No boating access	91 electrical sites (2 vehicles each)	None
Crooked River Dayuse Area	87 long spaces 84 short spaces	Small 4 lane boat ramp Courtesy dock	None	40 picnic tables Swim beach
Cove Marina	48 long spaces 88 short spaces	127 slips Gas/boat rentals 1 lane ramp for limited use	3 rental cabins (2 vehicles each)	Cafe Store
Deschutes (Pennisula) Group Camp	20 spaces	No boating access	Three group areas, 150-person max.	None
Deschutes Campground	Boat trailer parking area	No boating access	87 full hookup 94 tent (2 vehicles each)	None
Headquarters & maintenance shop/yard	Limited visitor and staff parking	NA	2 staff caretaker residences Host RV sites	NA
Lower Deschutes Dayuse Area	50 long spaces 99 short spaces	Small 2 lane ramp Courtesy docks	None	30 picnic tables Swim beach
Upper Deschutes Dayuse Area	88 long spaces 28 short spaces	Small 3 lane ramp Courtesy docks	None	22 picnic tables Swim beach

Trails: There are several designated hiking trails in the park. The best known is the Tam-a-lau Trail, a 9-mile loop. A small trailhead is located in the upper parking lot of the Upper Deschutes Dayuse Area. From there the Tam-a-lau trail crosses Jordan Road and winds up the west slope of The Peninsula just south of the Deschutes Campground. The trail loops around the rim of The Peninsula and then returns across its neck to the return down the west slope.

The park also includes 3 miles of hiking trails between the Deschutes Campground and Upper and Lower Deschutes Dayuse Areas. Incorporated into this trail is a short interpretive loop.

The former trail to The Island has been closed to protect this important research area from visitor impacts. An interpretive panel on Jordan Road near the old access to the trail explains the importance of The Island and the location of the alternative Tam-a-lau Trail.

Other trails parallel the lakeshore in the dayuse areas. There is also a short undesignated trail from the Crooked River Campground to the east rim.

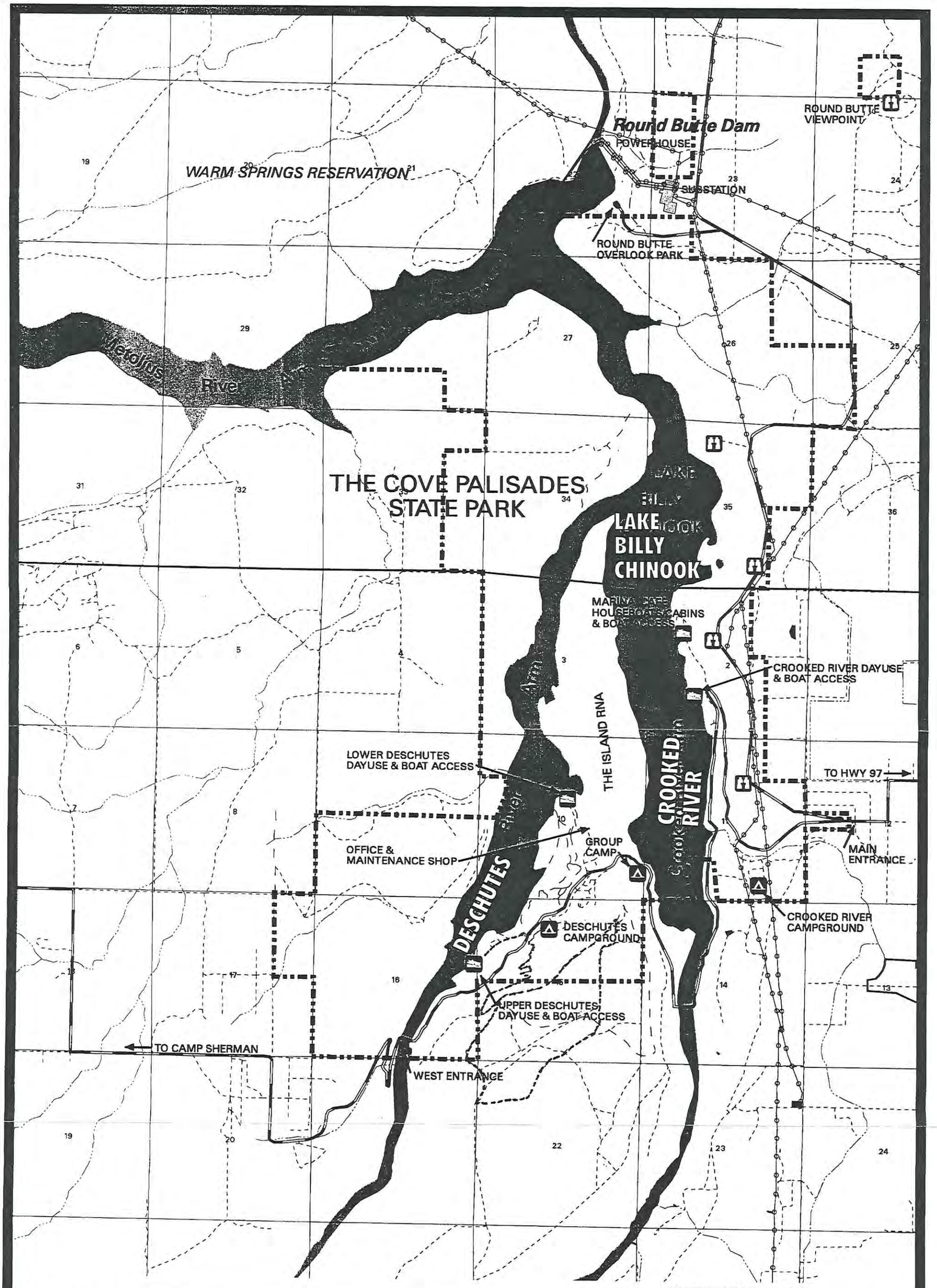
Viewpoints: There are currently four viewpoints along the east rim off of Mountain View Drive, which are located within the state park boundary. They are remote enough to be subject to repeated vandalism and are currently in disrepair. There is also a viewing area and pull-off for the Crooked River petroglyph across from

the park headquarters area, along Jordan Road. A small interpretive sign accompanies the rock. (The rock was relocated here to escape the rising waters of the reservoir from its former location that is now under water.)

Zoning: Most of the development areas in the park are within the County's "Park Management" (PM) zone. The "Exclusive Farm Use" (EFU) A-1 zone and the "Flood Plain Combining" (FP) zone apply to certain development areas. Other zones in the park, where no development is proposed, include the "Range Land" (RL) zone, "Forest Management" (FM) zone, "Wildlife Overlay Combining" (WA) zone, and the "Sensitive Bird Sites Overlay" zone.

Other Classifications: The BLM has designated The Island as an Area of Critical Environmental Concern / Research Natural Area. The U.S. Forest Service owns a minor portion of The Island, and has also proposed to designate that portion as a Research Natural Area. There are several archeological and historic sites that are eligible for listing with the National Register of Historic Places, but none have been listed to date. The sections of the Metolius and Deschutes Rivers within the park are not State Scenic Waterways or Federal Wild and Scenic Waterways.

Significant and potentially significant caves are protected under the Federal Cave Resources Protection Act (FCRPA). At least one cave nominated for significance under FCRPA is located within the project area. (Specific cave location cannot be given, as this information is considered confidential under FCRPA.) Any proposed facilities would be sited to avoid impacts to significant cave resources. OPRD should consult with the BLM during the preparation of preliminary and final designs for proposed facilities.



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HERITAGE ASSESSMENT SUMMARY CHAPTER FOUR

This chapter provides a summary of the resource inventories and assessments that were used in completing the master plan. Detailed mapping of these resources contributed to the completion of the Composite Resource Suitability Map, which is addressed in the next chapter. Detailed maps and background information are stored at the OPRD headquarters office, in Salem, and may be viewed there upon request. Maps can also be viewed at The Cove Palisades office.

Regional Overview:

The Cove Palisades State Park is located in the Lava Plains Ecoregion, as described by wildlife biodiversity groups and as mapped in the 1998 Oregon Natural Heritage Plan. This area is uniquely an Oregon landscape as it is contained entirely within the state boundary. It consists of a high lava plateau, which has been dissected by the Deschutes, Metolius, Crooked and John Day Rivers to create deep canyons and valleys. The area is generally of high elevation, ranging between 1,400 and 6,500 feet above sea level.

The climate in the area is dry, with only 10-20 inches of precipitation each year. Most of the water in the rivers passing through this area has come from surrounding mountainous areas. Prior to dam construction the area had no major lakes and few wetlands. Summers are warm and sunny, and winters are moderately cold and generally sunny.

Western juniper is prevalent in the area. However prior to European settlement sagebrush, native grasslands and riparian woodlands were widespread. Juniper has spread into this high steppe area with the cessation of regular wildfires. Much of the area is farmed for alfalfa, grains and mint in irrigated valleys and plateaus. The area between Bend and Madras has the most extensive agricultural lands. Housing and other development has been rapidly expanding in the area as well. Agriculture and recreation are key components of the local economy.

Central Oregon has many large lakes and reservoirs for recreationists to choose from. The Cove Palisades is generally the most popular for visitors from Portland and the Willamette Valley. Other large reservoirs, in the area, such as Prineville Reservoir, are gaining in popularity as access and facilities there improve.

Historically areas within the park were farmed, but are now either under the waters of Lake Billy Chinook or have been abandoned due to a lack of irrigation water. Prehistorically, Native Americans frequented the area as evidenced by the extensive lithic sites and some petroglyphs.

OPRD has several other parks in Central Oregon including Smith Rock, Peter Skene Ogden, Cline Falls, Ochoco and Prineville Reservoirs, Tumalo and Pilot Butte. All of these parks offer views of the geology, and plants and animals of the High Lava Plains, but none are as dramatic in natural beauty and geologic features as The Cove, in combination with high quality camping and day use facilities. From this perspective, The Cove Palisades State Park may be viewed as a regional center for the state park system and for interpretation and visitor interest.

Classification:

The Cove Palisades is classified as an OPRD State Park, based on its extensive scenic setting and variety of recreational opportunities and important resources. Management and protection of the visual aspects of the park is one of the most important priorities for State Parks. Protection of, as well as providing public access to, the important natural, recreational, scenic and cultural resources are also priorities for the State Parks class

of OPRD properties. However, large areas within a State Park may be designated for very limited levels of access and use to protect important resources.

Vegetation Cover Types:

The park hosts a variety of plant communities, some of which are in pristine or nearly pristine condition. However, in many areas of the park the plant communities have been impacted by past grazing, invasion of weedy species or directly by intensive recreational use.

Major plant associations in the park include juniper dominated forest, sagebrush and mixed shrub steppe, bunchgrass grasslands, and small areas of riparian vegetation. The reservoir shoreline within the park is generally devoid of riparian vegetation. Only in areas along perennial streams or irrigation canal outlets, or in protected coves with small drainages is riparian vegetation found.

Most of the developed recreational areas retain many native tree and shrub species, although some areas have been converted to irrigated lawns. At the Crooked River Campground a wide variety of horticultural tree and shrub species have been planted.

The area of best plant community quality is The Island, although some of the more remote areas on the Canadian Bench and The Peninsula are in good condition.

Wildlife Habitat:

A variety of common wildlife live in the park including mule deer, rabbits, coyote, porcupine, river otter, marmot, ground squirrels, raccoon, snakes, lizards, hawks, prairie falcons and others. Golden eagles are found in the park. Mourning doves and quail are very common, as are introduced chukar partridge. Less common but occasionally seen are bobcat and cougar, porcupine, muskrat and mink. There are a wide variety of bat species on The Island and a colony of whip-tailed lizards near the base of The Island.

The west rim of the park is part of an important winter range for mule deer. The rocky talus and cliff areas are important for raptors and their prey. The lake itself is a part of the important Central Oregon Flyway for migrating waterfowl and is the second largest winter gathering site for wintering bald eagles and osprey in the state.

Fishing interest focuses on Kokanee salmon (mostly in the Metolius arm) and on rainbow and Dolly Varden trout, large and small mouth bass and crawfish. Anadromous fish currently cannot reach Lake Billy Chinook due to the dams. Bull trout are found in the lake also.

The entire park is closed to hunting.

Protected Species:

Plant and animal species that are considered to be sensitive under one or more federal or state programs were inventoried as part of the requirements for the proposed FERC relicensing of the Pelton-Round Butte Hydroelectric Project. The inventory includes sensitive species identified by the US Fish and Wildlife Service, US Forest Service, BLM, Oregon Department of Agriculture or Oregon Natural Heritage Program (ONHP). Many of the species inventoried for that project are known to occur, or are likely to occur, in the area of the park. Such occurrences are most likely in the remote areas of the park that are removed from recreational development areas.

One bald eagle nesting site has been documented in the park. The bald eagle is listed as a "threatened" species under both the federal and state Endangered Species Acts (ESA), although a proposal to remove this species from the "threatened" list is currently pending. A number of golden eagle nesting sites have also been

documented within or near to the park boundary. The golden eagle is not listed as "threatened" or "endangered", or as a candidate for such listing, under federal or state ESA's. However, bald and golden eagles are both protected under the federal Bald Eagle Protection Act. In addition, nesting sites for prairie falcon have also been documented within or near to the park boundary. This and various other bird species that are likely to occur in the park are protected under the federal Migratory Bird Treaty Act. The locations of all of the documented nesting sites are confidential, and are not disclosed in this Master Plan. There are no documented occurrences of plant species listed as "threatened" or "endangered" under state or federal legislation, or candidate species for such listings, within the park.

Geology:

"When you drive through the Madras region on U. S. Highway 97, you see a gently rolling plain dotted with low hills and flat-topped buttes. Since the plain appears to extend westward uninterruptedly to the foothills of the Cascades Range, little would you imagine that between you and the mountains lurk three awesome canyons, totally invisible until you nearly reach the brink. Three rivers - the Deschutes, the Crooked and the Metolius - have cut these gashes into the plain and have laid open for observation a sequence of remarkable geologic events."* Many eras of volcanic activity and deposition have been interspersed with eras of river erosion cutting canyons into the volcanic rocks of the area, and can be viewed in the park.

Ship Rock, at the northern base of The Peninsula, (a part of the Deschutes formation) is a well-known example of the many-layered sediments to be seen from the road. The waters of the reservoir now cover a natural geologic formation of interest in regard to the early state park, known as The Lighthouse or Eagle Rock.

Landslides and rockfall are common geologic problems in the park, associated with the oversteepened slopes of the canyon walls, some of which are destabilized by road cuts.

**From "Geologic Tour of Cove Palisades State Park Near Madras, Oregon", Peterson and Groh, The ORE BIN, Volume 32, No. 8, August 1970*

Cultural Resources, Prehistoric and Historic Resources:

For thousands of years people have passed through and lived in The Cove Palisades area. At least 8,000 years ago, and possibly 10,000 years ago, people frequented the river canyons and plateau tables. Earliest peoples were nomadic, using rock shelters at times and leaving evidence of stone pointing. Later prehistoric people benefited from an improved climate. Their populations expanded and they lived in more permanent winter villages where food was stored. Even later settlement shifted to a salmon-centered existence with villages occurring more often in close proximity to major rivers. In the last several hundred years, it is known that the area of the park has been used both by Columbia River and Great Basin groups. Archeological sites indicate that the park area was visited to obtain certain resources, but people mostly lived elsewhere. Native American populations did well in this area until the arrival of European diseases, which significantly reduced their numbers.

Early Euro-American visitors to the area were fur trappers, followed by early setters in the Deschutes and Crooked River valleys. Tensions between native peoples and settlers increased as native life ways were increasingly disrupted by disease and loss of traditional natural resources, eventually resulting in hostilities. The Warm Springs Reservation was created in 1855 through treaty between the U.S. government and four Tenino groups and three Upper Chinookan groups.

The Homestead Act brought more settlers to the area. Homesteads sprung up on the banks of the Crooked River and on the high plateaus (22 or more). The homesteader, Clark Green Rogers, is reported to have named the area "The Cove". By the 1930's most homesteads had been abandoned for a lack of irrigation water and the land went to the government, the banks and large livestock companies.

In the late 1930's and through the 1940's and '50's the state acquired parcels of land and entered into agreements with federal land owners to assemble what is now know as The Cove Palisades State Park.

In relation to Pelton-Round Butte Dam construction and creation of Lake Billy Chinook in the 1960's, Portland General Electric funded the construction of new facilities on higher ground, while the State Parks division acquired needed lands for placement of the new facilities. There are no remaining park buildings or structures of historic importance above water.

Many prehistoric sites have been documented in the park, but their locations are confidential. These sites are important for additional study and consideration for National Register nomination. Several remains of homesteads are also in evidence in certain areas of the park. Others have been lost beneath the reservoir. Of interest to visitors to the Upper or Lower Deschutes Dayuse Areas is the view of one of the historic "water roads" used by early settlers to obtain water from the river with wagons and barrels.

References: 1. "Archeological Survey of The Cove Palisades State Park, Jefferson County, Oregon", 1997, Oetting.
2. "Final Technical Report of Cultural Resource Studies, Pelton-Round Butte Hydroelectric Project", 1998, Pettigrew.

Scenic Values and Recreational Settings:

As has been mentioned, The Cove Palisades is an extremely important park for its scenic resources. Visitors flock to the park to experience the "wild" settings as viewed from within highly developed areas with all the amenities of an oasis. OPRD has mapped the locations and extent of the developed or "urban" settings, surrounding "natural" areas and more distant semi-primitive areas to be used as a basis for protecting those wilder settings from visual intrusions such as development. Official and accessible public viewpoints, within the park, have also been mapped, to aid staff in determining whether developed areas fall within the "view sheds" and if so what kinds of precautions should be recommended to avoid negative impacts to the viewed area.

Recommended management guidelines for protecting view sheds, viewpoints and settings are discussed in detail in the "Natural and Scenic Resource Management Guidelines" chapter.

A summary of the scenic resources includes: Four viewpoints on the east rim, views from each of the two Jordan Road bridges, as well as views to the cliffs opposite any of the developed areas, and views from Jordan Road for motorists.

Most of the viewed areas are remote and primitive and will not be considered for any new development. The Crooked River Dayuse Area and Cove Marina can be seen from east rim viewpoints, but they are minor sites within an extremely expansive view of the canyons and even the Cascades peaks beyond. Also, the park maintenance area roofs can be seen from the east rim and Jordan Road coming down into the park. Views from Jordan Road are generally not obscured by development along its length within the park, except where it passes by the Crooked River Dayuse Area. In the Deschutes Campground, the developed sites are fairly well screened along the road. Consideration should be taken as to colors and materials used in replacing roofs and buildings and in planting screening vegetation whenever possible to lessen the visibility of buildings, vehicles and roads.

RECREATION NEEDS ASSESSMENT CHAPTER FIVE

The discussion in this chapter covers studies and statistics, as well as first hand observations, of what kinds of activities visitors want to participate in and what kinds of facilities they need to pursue their desired activities. It also describes where crowding occurs and what opportunities there may be to alleviate crowding. The statements in this chapter should not be misconstrued to be OPRD proposals or goals. They are merely considerations that are prerequisites to deciding what the goals and proposals should be. Goals and development concept proposals can be found in following chapters. Not all of the opportunities to expand, mentioned in this chapter, have been recommended for goals or proposals.

"The recreation opportunities surrounding the Pelton and Round Butte Hydroelectric Project in central Oregon are some of the most popular in the state. Recreational boating in Oregon has grown continuously over the last 40 years and has been a major contribution to Oregon's economy. Registered recreational boating is estimated to have generated nearly $538 million in personal income and 25,000 jobs in 1995 (Neely et al., 1997). Lake Billy Chinook had more boat use days (112,010) in 1995 than any other lake or reservoir in Oregon, and is the fourth most popular boating destination in the state (Shuyler, 1996). Cove Palisades State Park had 738,019 visits in 1997 and was the ninth most visited state park in Oregon, and the third most visited non-coastal state park (Oregon Parks and Recreation Department, 1998.)

Recreation opportunities in the Project Area* are currently quite varied, although most use is concentrated in the reservoirs. An earlier study showed that visitors to Lake Billy Chinook and Lake Simtustus identified boating (19%), water skiing (17%), fishing (12%), swimming (5%), and personal watercraft use (4%) as their primary activities, which means that 57% of the primary activities are water-based. Camping is the primary land-based activity of 21%, while only 1% are there primarily to hike (Hall and Shelby, 1998.) Many demographic and recreational trends indicate that demand for recreational opportunities in this area will continue to increase in the future (Dedrick et al., 1998). As the agencies managing these resources look to the future, it is important to assess the recreation needs of both current users and potential users." (Johnson, 1998)

Regional Demand:

There are two sources of information regarding regional demand for recreation in the central Oregon area, centering on Madras. These include The State Comprehensive Outdoor Recreation Plan (SCORP) surveys and projections, and the 1998 "Pelton-Round Butte Hydroelectric Project Recreation Needs Assessment" by Johnson and The Research Group.

The SCORP projections were formulated in 1991 and are projected to the year 2000, limiting their long-term value. However, they are the official projections used by OPRD and merit mention here. SCORP bases it's assessments on regions that are peculiar only to SCORP. For central Oregon, the SCORP region #10 includes 8 counties: Hood River, Wasco, Sherman, Gilliam, Jefferson, Wheeler, Crook and Deschutes. This is a very broad representation of the recreational area related to Lake Billy Chinook and its environs and brings into its assessments much information that is more appropriate to the Columbia River Gorge recreational area. However, for background purposes it is generally informative.

SCORP has projected overall statewide demand for 11 general recreation activities, which are displayed below in Table 5.1. Note that all of these activities are projected to grow faster than projected state population growth, reflecting a growing percentage of residents who desire to participate in outdoor recreational activities. (1.2% per year.)

*Project Area includes Lake Billy Chinook, Lake Simtustus and the surrounding area.

Projected demand for SCORP Region 10 activities follows in Table 5.2.

Table 5.1. SCORP Overall Statewide Demand Projections

SCORP Overall Statewide Demand Projections

Table 5.1

	Activity	Yearly Increase
1.	Fishing	4.9%
2.	Water activities	5.2%
3.	Nature study, food gathering	8.5%
4.	Hiking, walking, climbing	8.9%
5.	Camping	5.5%
6.	Sightseeing, picnicking	6.8%

Table 5.2. SCORP Demand Projections for Region 10

SCORP Demand Projections for Region 10

Table 5.2

	Activity	Increase 1987-2000
1.	Fresh water boat fishing	60%
2.	Fresh water bank fishing	34%
3.	Outdoor beach swimming	46%
4.	Water skiing	43%
5.	Motorized lake boating	19%
6.	Nature observation	145%
7.	Visits to interpretive centers	52%
8.	Day hiking on trails	94%
9.	RV camping	64%
10.	Tent camping	33%
11.	Boat camping	7%
12.	Group camping	14%
13.	Bicycling on the road	114%
14.	Picnicking	48%
15.	Sightseeing	44%

More recent studies based specifically on the central Oregon area surrounding Madras, will show that growth in some of the activities listed above is not happening so much in the Madras area, and that other activities are popular in the Madras area at Lake Billy Chinook and at the Cove Palisades State Park.

The 1998 study, conducted by Johnson and The Research Group, focused on a region centering on Madras and extending to Maupin, Prineville, Bend and the Cascades mountains. Their surveys questioned two segments of the population of Oregon and SW Washington, those who were familiar with the Madras area and those who were not. When asked about the top five outdoor recreational activities in which their

household usually participates the most common answers for the unfamiliar/familiar market segments were: hiking (53%/59%), camping (56%/54%), bank fishing (37%/36%), and boat fishing (32%/33%). Those who were unfamiliar with the area were asked if they would be likely to use certain facilities and opportunities if they were offered in the Project Area. Most likely to be used were: vehicle campgrounds (48%), hiking and biking trails (41%), an interpretive center (29%), and boat launch ramps (25%). Less than 10% were very likely to use group facilities or take a dam tour.

Respondents who were familiar with the area were also asked if they would be likely to use new or expanded facilities in the Project Area. Most likely to be used were: additional vehicle campgrounds (38%), an interpretive center (33%), additional hiking and biking trails (28%), and a lodge (27%). Less than 10% were very likely to use group facilities or take a dam tour.

Respondents who had visited the Project Area in the last three years participated in boat fishing (39%), water skiing (39%), camping (34%), and hiking (33%). Many took the opportunity to comment on the crowded conditions.

Because recreational activities and locations were well-represented in the survey responses it is likely that the facilities in the area would be well used by respondents. Since some of the opportunities in the area were unfamiliar to other respondents, better marketing would be needed to increase visitation to the area or to certain facilities or locations in the area. Information about household characteristics showed that respondents familiar with the area have substantially higher incomes than the general population, likely reflecting the high cost of boating and RV camping, and implying that they would be willing to spend money on additional or improved facilities or amenities such as interpretation.

Of all specified central Oregon recreation facilities visited in the last three years, Lake Billy Chinook was listed the most often (33%), followed by resort areas (19%), reservoirs (18%), and high Cascades lakes (13%). Over 24% of the responses were for locations not listed in the survey categories and many were for locations well south of the Project Area, toward Bend and south.

The majority participated in water related activities, and over half have visited during the off-season. Off season visitation was due to crowding mostly, but also due to better weather and fishing.

Within the region there are several focus areas for recreationists, based on surveys. Those visiting the upper Metolius River area seldom visit the Lake Billy Chinook area in the same trip and are mostly seeking more dispersed activities and settings than those who go to Lake Billy Chinook. The majority of those who visit Haystack, Prineville and Ochoco Reservoirs also do not visit Lake Billy Chinook and many stated that they have changed their trips from Lake Billy Chinook to the other reservoirs to escape crowding. Also, recreationists to the region who are primarily seeking to hike, whitewater raft or fish in fast rivers are not targeting Lake Billy Chinook for their visits, but rather are going up or downstream or into the surrounding mountains.

Impacts on sites in the more dispersed locations are being reported as their use increases due to increasing demand for their settings and activities or due to displacement from Lake Billy Chinook due to crowding. At the same time, facilities at Lake Billy Chinook, especially in The Cove Palisades, experience overflow conditions on many peak summer weekends and are arguably operating at or beyond capacity. The following section discusses whether there are areas at The Cove Palisades where additional use can be accommodated without damaging the experience on the water and in the sites.

Lake Billy Chinook Versus Lake Simtustus: Several studies and reports completed in 1998 by Shelby, Hall, Everett, Dedrick and Brown evaluate the Lake Simtustus/Lake Billy Chinook area and its recreational users, preferred and primary activities, demand factors, spatial distribution and crowding and assess its carrying capacities. The reader may refer to these reports for more detailed descriptions of the methods and results. For

brevity, the master plan will focus on a summary of the results and conclusions and will form conclusions to guide OPRD actions regarding development priorities and justifications.

Surveys of recreation users of Lake Simtustus and Lake Billy Chinook show that overall 84% are boaters and 91% stay overnight in the area, mostly camping. 80% come during the peak season July through September and 40% come off-season primarily during May, June and October. 50% feel there is too much crowding in The Cove Palisades State Park sites and there is a need for more shore access, grassy areas, picnic tables, docks, parking, improved ramps, camping and trails.

71% of the respondents prefer to visit Lake Billy Chinook to Lake Simtustus and other areas. Those who favor Lake Simtustus are apparently going there to escape the relative crowding of the Lake Billy Chinook sites. They also have slight differences in activity preferences, favoring boat fishing, and tent camping more. Those favoring Lake Billy Chinook tend to participate more in swimming, boating for pleasure, picnicking and RV camping. These differences may in large part be due to the type and quality of facilities available at The Cove Palisades State Park, and some other Lake Billy Chinook sites, where grassy picnic areas, designated swimming beaches, full hook up and electric camp sites and larger boat ramps, docks and marinas may be available. Differences in fishing opportunities may also be a factor.

Lake Billy Chinook itself has three distinctive "arms" created by each of the three rivers that converge at the dam. Use levels vary greatly between the "arms" and even between segments of each arm of the lake. The highest number of boats on the water, during peak summer weekend afternoons, occurs on the middle segment of the Deschutes arm and on the upper segment of the Metolius arm. Somewhat lower numbers of boats occur, during the same peak periods, on the most of the Crooked River arm. Lower numbers of boats occur on lower segments of the Deschutes arm, and on the middle and lower segments of the Metolius arm. Generally, high numbers of boats on the water coincide with occurrence of nearby, high quality, large, shore accesses for boating. But many boats travel to the Metolius arm and the lower reaches of the Deschutes and Crooked River arms from the Deschutes and Crooked River ramps.

Capacity Discussion: It is important to understand what the capacity of the park sites and the reservoir itself is to be able to determine if it would be detrimental to expand camping, day use and boating opportunities at The Cove Palisades State Park. As discussed by Shelby and Hall, there are three types of capacity to consider: physical capacity, facility capacity, and social capacity.

Physical capacity, in this case, refers to how much space is available on the surface of the reservoir for boating and how many boats are attempting to travel, fish or water ski. For this master plan we looked at the physical capacity or crowding levels on the lake at different times of the day and compared that to minimum space requirements for water skiing, and for casual boating to see if capacities are acceptable.

How many parking spaces there are, or campsites and how many vehicles may use a site generally limit facility capacity. There is a link between facility capacity and physical capacity, as boaters cannot get into the lake if there are no parking spaces for them at the boat ramps. Theoretically, more parking spaces could be constructed on the rim, and boats and visitors could be shuttled to the ramps, or could be required to use specially constructed, highly efficient marina storage facilities. In this manner crowding can be avoided at the day use parking areas while allowing more boats on the water. As long as more boats can be accommodated on the water this innovative approach could work at The Cove Palisades.

Social capacity is measured by whether visitors "feel" or "perceive" that there are too many people around them, or that their experience is becoming worse due to crowding. This is a more subjective assessment, but is often an early clue that a site is approaching physical or facility capacity.

Physical Capacity on Lake Billy Chinook:

The capacity analysis completed by Dedrick, Hall, Shelby and Everett, 1998, states that the standard for water skiing is 5-40 acres per boat. This is based on Bureau of Reclamation standards. However, casual boating, without water skiing can happen at higher densities without being physically impaired.

Based on observations and counts of boats on different segments of the lake, at different times of a peak weekend day, the physical crowding level can be determined.

Numbers of boats on the lake, even on weekends, in April is very low and there is no crowding at that time. The same is true for September through March. In May during the Memorial Day weekend, and for all weekends during June, July and August, boating numbers are quite high, near the physical limit for water skiing, on segment R of the Deschutes arm, as shown on the following map. On the Crooked River arm, segment U, boat numbers are similar to those for segment R, except they are slightly higher on Memorial Day weekend and somewhat lower on weekends in June, July and August. The level of physical crowding on the Crooked River arm during the summer weekends is near the minimum requirement for water skiing.

The figures for segments Q, T and V are quite similar to those for R and U. The highest total number of boats observed on segments Q and R combined is 78; and for segments T, U and V, 72.

However, farther down river, on all three arms, numbers of boats per acre drop dramatically, even on peak weekends, allowing plenty of space for water-skiing within a short trip from any of the park ramps.

This supports the observation that water-skiing near the ramps generally occurs on weekends in the morning and evening, to avoid crowded afternoon conditions. During summer weekdays, the numbers of boats on Segment R (Deschutes arm) and Segment U (Crooked River arm) drop to less than half of the peak weekend numbers, offering more opportunities for water-skiing during warm weather. Also many boaters are traveling from the ramps in the park to uncrowded areas of Lake Billy Chinook. Also the segments of the lake near the ramps are not physically overcrowded for non-water-skiing use, even during peak summer afternoons.

(It is also interesting to note that the largest number of boats observed at one time on the Crooked River arm is about 72, but the number of boat trailer spaces available at Crooked River dayuse area and at the Marina total 135. Plus up to 81 boat trailers are parked on the road in this area on a crowded day. This makes up to 216 boats that have gotten into the lake on the Crooked River, but most don't stay there. Some tie up at the bank to picnic, but many must be traveling to other arms of the lake. The same thing happens on the Deschutes arm. With the largest number of boats observed on the water on the Deschutes arm being about 78 and boat trailer parking at Upper and Lower Deschutes totaling 154, boats are also leaving the Deschutes arm also. They must be traveling to the much less crowded extreme lower Deschutes and Metolius arms. Current boat numbers for these more distant areas of the lake show room for growth before crowding would reach even social capacity levels on the water.)

Facility Capacity:

The Crooked River Dayuse Area parking lots are generally full on peak weekend afternoons, and are beyond capacity, given the number of vehicles parking on the road. During summer weekdays and weekend mornings use levels at the parking lots at The Crooked River Day use Area reach only 80%. The Crooked River picnicking grounds and swimming beaches are full to capacity and beyond on peak days. During the shoulder season use levels fall dramatically, except for Memorial Day weekend, and no crowding is experienced. There is space available to provide for up to 40 car spaces at Crooked River Day use Area, but not enough space for more boat trailer parking. There is also some space for extending the picnicking grounds and shoreline area.

The Cove Marina experiences a similar level of over capacity use during peak afternoons. Boaters park their trailers in the lot north of the cafe, even though they are using the Crooked River ramp, as there is often no closer space available. In addition, the Marina parking is pressured with traffic coming from all over the park to use the cafe and store. The cafe and store are crowded on peak days, with customers waiting in line to get in. The existing sewer drainfield is at capacity for the existing use level. Also, the Marina has the only dockside gas pump and sewer dump station in the park. Large traffic jams of boats occur during peak days at the pump, as boaters wait their turn to fill up. There is some space available north of the Marina parking lot for additional parking for some cars and some boat trailers. However, this area may also be needed for expansion of the sewer drainfield. Cabins at the Marina are operating at 80% capacity over the summer season, and are full on summer weekends.

Lower Deschutes Day use Area parking lots are only 80% full on peak weekends and less so on summer weekdays. This is partly because the upper lot is farther from the ramp and picnicking area and is not popular. The picnic area is full to capacity on peak afternoons. There is obvious space for more parking in the upper lot, and a site for construction of another large lot closer to the little cove and the picnic area. There is also space for expanding the picnicking grounds and shoreline area. Up to 50% of the boat trailer 2-3 cars use spaces each, on peak day.

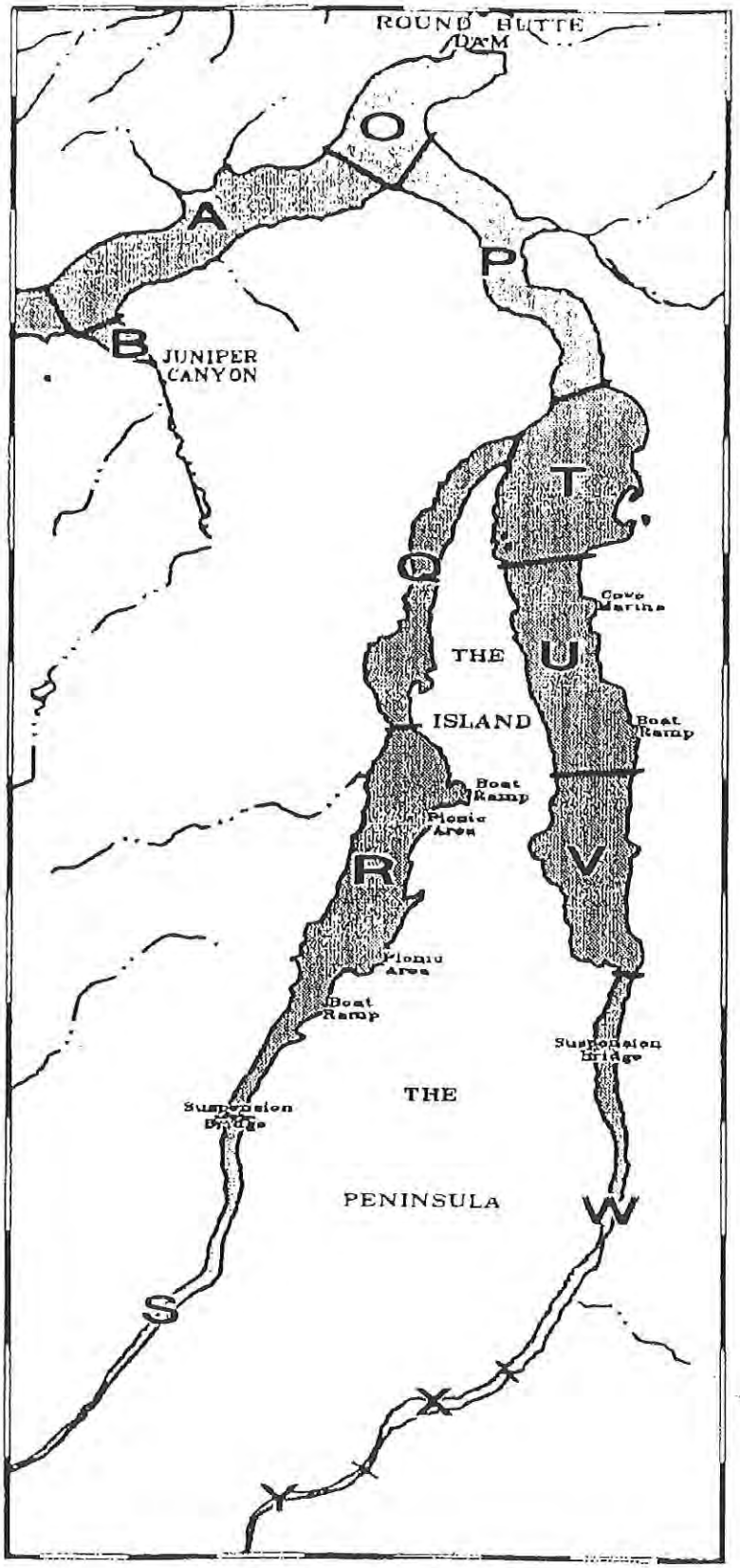
River Segment Map:

The Upper Deschutes Dayuse Area parking lots are only 60% full on peak afternoons. This is due to both parking lots being located a distance from the water. However, the picnic ground is popular, and is small enough to experience near facility capacity on peak afternoons. There is no practical space at this site for additional parking. But there is space for expanding the picnicking grounds and shoreline access area. Here also, up to 70% of the boat trailer spaces in the north lot are used by 2-3 cars each on peak days.

Crooked River Campground is full on peak summer weekends and has 70-90% occupancy during summer weekdays. During the shoulder season the rate drops to 10-50% average. About 90% of the campsites, on peak weekends, have two vehicles, the maximum allowed. There is a large area for expansion of camping at this site, or for other uses such as interpretation and administrative facilities.

The Deschutes Campground is full during peak summer weekends and has a 60-90% occupancy rate during summer weekdays. In the shoulder season occupancy drops to between 15-50%. About 90% of these campsites have two vehicles during peak weekends, also. There is some limited space across the road for additional camping. Showers here are often used beyond capacity.

The current group camp has room for cars and RV's, but parking is largely undesignated. Roughly three areas are divided out to allow up to three groups to camp in the area. Up to 150 persons, maximum, are allowed at the site at one time. In general, given this maximum number, up to 18 vehicles will be parked at the site at one time. Up to half of these may have boats and boat trailers associated with them. The site has a toilet building, but no showers. Campers use the showers at the Deschutes camp, often exceeding capacity. On peak weekends, the group camp is always rented out, as well as during most of the summer weekdays. There is no space at the current site to spread out the use. The space across the road from Deschutes Campground or at the Crooked River Campground could be considered for expanding group use.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Social Capacity:

Each of the sites in the park have a different mix of user activities and sense of crowding. However, surveys indicate all of the sites have been surveyed to reach or exceed the social capacity during peak weekend afternoons.

The Crooked River Dayuse Area is the first lake access site in the park that visitors reach along Jordan Road coming from the east. This is the one site in the state park where the majority of visitors, 56%, are not staying overnight. It appears that the site's close proximity to the highway and local communities and its pleasant picnic grounds and swimming areas attract a large number of visitors who are not boaters, but who want to swim and picnic at this beautiful site. There are, however, also many boaters coming to the site, both dayuse only and overnight visitors, although numbers for this breakout are not available. And some boaters coming to this site want to linger at the site to picnic, swim, water ski off the shore and cruise on the lake nearby. Some even come to hike or bicycle and to operate personal watercraft. This site experiences the most diverse mix of user types of all of The Cove Palisades sites.

Crowding is experienced during peak weekends in the parking lots, at the boat ramps, and in the picnic grounds. Adding some parking at this and other sites could do a lot to alleviate crowding on the parking lots prohibiting parking along the county road near this site would alleviate crowding on the road. Better defining the boat ramp lanes and staging areas and providing more courtesy docks would lessen crowding at the ramps. And expanding the picnic grounds and shoreline access would reduce crowding here.

The Cove Marina has a limited use boat ramp, a 127 slip marina, gas pump for boaters, and boat rental and maintenance shop. Up to 25 of the slips may be rented for overnight moorage on a short-term basis. The rest are rented out for the season. The site experiences ramp, dump station and gas pump-related congestion and boat trailer parking problems similar to Crooked River Dayuse Area. Visitors also complain about crowding at the cafe and store. The expansions mentioned in the Facilities Capacity section would do a lot in alleviating much of the social crowding. As long as parking lot expansion is designed to accommodate those parking in undesignated areas but not to increase overall use, the crowding sensation may be lessened by these actions.

Lower Deschutes Dayuse Area has a boat ramp, extensive courtesy docking areas, boat trailer parking for only 52 spaces, a designated swimming area, and a nice terraced picnicking area. However, the area is somewhat limited in size compared to the Crooked River Dayuse Area. It has a smaller, upper level parking lot with some boat trailer spaces and some car spaces, but the lot is removed enough from the water's edge to discourage dayuse visitors from using it.

About 78-87% of the visitors to this site are staying in the park overnight and only 29% are dayuse visitors only. More of the visitors at this site are hiking and biking than at Crooked River, up to 37%. This may reflect better trail connections to the group camp and Deschutes camp and overland to the Upper Deschutes Dayuse Area and the Tam-a-lau trailhead there.

Visitors compete to get a parking space and a table at the limited lower area. Here too there is crowding at the ramp on peak days, and similar solutions to those described for the Crooked River Dayuse ramp would improve the use of this ramp.

Expansion of the grassy, picnic area and shoreline would greatly enhance this site as a destination for dayusers. Accommodating the many undesignated or displaced visitors from Crooked River here would require additional parking construction near enough to the shore to be desirable but far enough away to not detract from the experience at the shore.

Because this site has so much use by campers, with their boats, it has been examined to see if the cove there could accommodate some overnight moorages for campers to use. Providing overnight moorages would lessen

crowding at the ramp, as visitors would no longer need to put their boats in and take them out each day. They could store their boat trailer at the camp site or at a designated area in the campground and open up more long parking spaces for others.

Upper Deschutes Dayuse Area has a moderately sized boat ramp, limited docks at one end, and an isolated grassy picnic area and swimming area at the other end. None of the parking lots connect well with the dayuse/picnicking area and users perceive the large grade difference between this part of the site and the first parking lot to be daunting and unacceptable. A second parking lot is also fairly far from the ramps and is very far from the dayuse area.

Most of the visitors to Upper Deschutes Dayuse Area are also overnight campers. Only 13% of the visitors to this site are dayuse only, reflecting how poorly the site functions for dayuse and how far it is from the park entrance. Another important use for this site is hiking, with 49% of its visitors participating. This is likely due to the Tam-a-lau trailhead being located at the upper parking lot.

Even though the parking lots don't fill up, visitors see this site as crowded due to the distance from parking lots. Examination of the site's opportunities reveals that expansion of the dayuse area along the shore to the south and a more gradual grade connection from the new portion of the dayuse area to the existing parking lot would greatly enhance the desirability of this site for dayuse. Also, providing more courtesy docks and shoreline area for boaters would enhance the use of this ramp and area for boating. Given these opportunities this site may be a good place to direct overflow from Crooked River and even from Lower Deschutes.

The Group Camp views to the canyon and lake below are grand, but the site is cramped for large groups. In addition, groups drive down to Deschutes Camp and use the showers there, causing crowding and conflicts at the campground shower building and many complaints. Also, groups attempting to use the regular camp by booking several sites have negative effects on neighboring camp sites. This also causes large numbers of visitor complaints.

Although the studies showed group camping to be a minor activity in the region overall, it is very sought after at The Cove Palisades State Park, with many groups being turned away each year due to a lack of space. In general, large groups more often come from the local area, including church and scout groups and large family gatherings, than from the Portland area. Having adequate group camping at the park is an important aspect of ensuring that local recreational needs are being addressed.

It may be advisable to move the group camp to a location where it can be more spaciously accommodated and where adequate toilet/shower/meeting facilities can be sited without significantly increasing the capacity of the park. Two sites in the park offer promise for relocated group use camping. One is across Jordan Road from Deschutes Campground, and the other is on the east side of the Crooked River Campground. However, the Deschutes site is not large enough to accommodate the 150 person capacity now allowed at the current group camp, and would even be tight for a smaller group. Group camping could be made a more enjoyable and efficient activity at the Crooked River Campground site, with little additional capacity imposed on the park.

Deschutes Campground has 87 full hookup sites and 94 tent sites in a naturalistic setting of junipers and rock walls. Two vehicles are allowed per site and this may include a boat trailer for each vehicle. Up to six persons may camp in each site. About 60% of the Deschutes Campground campers use tents only, and 40% are RV campers.

There is a perception of serious summer crowding in the camp by about 50% of the visitors surveyed. Some of this perception is due to the enclosed setting of the loops and smaller area in the center of the loops. But there is also crowding at the shower buildings and on camp roads when groups come down to use the showers. Campers may leave their boat trailers in a special parking area at the camp, but more often the trailers are parked in the camp sites, adding to a sense of crowding.

For peak weekends there is more demand to camp than there is space and surveys have shown that about 50% of the respondents would like to see more vehicular camping in the park. There is some space across the road to install one additional loop that could serve 25-30 sites. However, tradeoffs would need to be considered about using this site for group camping versus individual site camping, or whether it should be left undeveloped.

Most of the Deschutes Campground campers use the Upper or Lower Deschutes Dayuse Areas and boat ramps. About 50% of the campers are there to boat. Providing some overnight moorages at Upper and/or Lower Deschutes for campers to use could cut down on some of the congestion at the boat ramps.

Crooked River Campground has 91 electrical sites in an expansive, green lawn setting with horticultural trees and shrubs. There is more screening between sites and the loops are larger than the Deschutes camp loops, adding to the spacious feeling. In addition, the camp is located on a broad terrace and is not hemmed in by canyon walls. This camp has the same vehicle and person limits per site as the Deschutes Camp. Surveys show that about 72% of the campers here use tents only, and about 28% use RV's. The additional tent camping at this site as opposed to Deschutes Campground may be partially due to the availability of only electrical sites at Crooked River Campground and partially because of the greener, softer setting.

As is true for the Deschutes Campground, more visitors want to camp here than there is space for on peak weekends. Providing additional camping would need to address the same tradeoffs with group camping as at the Deschutes Campground.

Most of the Crooked River Campground visitors are also boaters, about 63%. Most of them go to the Crooked River Dayuse Area to put their boats into the water, although some travel to the Upper and Lower Deschutes Dayuse Areas. Providing overnight moorages in the Crooked River/Marina area could help to cut down on crowding at the boat ramp.

Crowding on the County Road:

Jordan Road serves park visitors and residential or private camping lots in the Three Rivers Area. Given the existing parking opportunities, on the road and in the sites, and the use patterns, there are about 1000 vehicles in the park on peak days. (This does not include vehicles passing through the park.) Campers make up the lion's share of visitors, and they use both the campgrounds and the dayuse areas. Campers arrive and depart throughout the week during the summer time, with a surge on Friday and Sunday afternoons and evenings. During the day there is a surge of traffic to the boat ramps in early afternoons, during the summer, and especially on summer weekends. There is a corresponding surge in late afternoon as boaters are leaving the ramps and heading back to camps, motels or homes.

OPRD had a traffic study for Jordan Road, through the state park, completed by David Evans and Associates (DEA) over a one year period ending in July 2000. For the analysis, DEA examined existing conditions and future year forecast conditions. The observations of existing traffic volumes throughout the year provided a determination of traffic that is generated by the state park and those generated by other destinations within the study area. Three future scenarios were examined for year 2010 and 2020 forecasts: 1) modest expansion in the number of cabins at the state park, 2) annual growth at Three Rivers community, and 3) construction of a new road connection for the Crooked River Ranch community through the park to Jordan Road.

The purpose of the existing conditions traffic analysis was to determine what percentage of traffic on Jordan Road relates to the park, the Three Rivers community, other recreational destinations, and through traffic. Following the analysis of the individual counts, the average weekly traffic was calculated at both the east and west park entrances according to trip origin and destination.

At the east park boundary, the park related traffic comprises 82% of the traffic. Park related traffic refers to any trips that begin or end within the state park. Traffic heading to or coming from the Three Rivers community without stopping in the park was calculated to account for 16% measured at the east park boundary. Perry South campground traffic and other through trip traffic accounts for 2% of the total traffic at the east park boundary.

At the west park boundary, the traffic volumes are considerably lower and the percentage of traffic is different. At the west park boundary, traffic that originates or terminates within the park comprises 55% of the traffic. The Three Rivers community traffic accounts for 40% of the traffic at the west park boundary. The remaining traffic heading to or from Perry South campground and the through trips comprises 5% of the traffic.

Future Scenarios:

Three future scenarios were examined for the year 2010 and 2020 forecasts: 1) modest expansion in the number of cabins at the state park, 2) annual growth at Three Rivers community, and 3) construction of a new road connection for the Crooked River Ranch community through the park to Jordan Road.

- STATE PARK CABINS
  Except for a modest increase in the number of cabins, no expansion of facilities at the state park is anticipated. The new trips induced by the expansion of cabins were computed and compared with the total volume of traffic on Jordan Road within the park. A moderate increase in the number of park cabins would generate 373 new trips per week. The new trips are negligible compared to the overall volume on Jordan Road.

- THREE RIVERS COMMUNITY ANNUAL GROWTH
  According to an association representative, the Three Rivers community is currently growing at 12 house each year. A trip generation rate was calculated using the average existing weekly volume for the Three Rivers community and the existing number of dwellings. Based on a continuation of this growth trend and the current trip characteristics, the total weekly trips traveling to or from Three Rivers through the east park entrance for 2010 and 2020 were calculated to be 1,920 and 2,783, respectively.

  Combining the possible increase of cabins at the state park and the planned annual growth for the Three Rivers community would result in new trip percentages in the future. Because planned growth at the Three Rivers community is far greater than planned growth of park facilities, the traffic percentages on Jordan Road would change substantially. At the east park entrance, the percentage of traffic related to the park is calculated to decrease from 82% in year 2000 to 66% in year 2020. Traffic traveling to or from the Three Rivers community is calculated to increase from 16% in year 2000 to 33% in year 2020.

- CROOKED RIVER RANCH NEW ROAD CONNECTION
  The Crooked River Ranch (CRR) community is located south of the study area between the steep canyons of the Deschutes and Crooked Rivers. It has been suggested that a second access be constructed from CRR through the park and connecting to Jordan Road. Several scenarios were used to predict the traffic distribution traveling within the study area on Jordan Road if this connection were made.

  The calculation of trip percentages was accomplished by multiplying the total trips generated at CRR by a range of distribution percentages representing the likely traffic that would travel through the state park. Scenario one assumes 10% of the CRR traffic travels through the park while scenario two assumes 20% of the CRR traffic travels through the park. The trips generated at CRR traveling through the state park, on a potential new CRR road connection range between 4,600 and 9,200 in year 2010 and between 5,750 and 11,500 in year 2020.

If a new connection were constructed allowing traffic between Crooked River Ranch and Jordan Road, the percentage of trips associated with the park would be significantly decreased from the current percentages. Depending upon the rate of growth at CRR and the destination of CRR traffic, the percentage of park related traffic at the east boundary would decrease from 82% in year 2000 to between 33 and 46% in year 2010 and to between 28 and 40% in year 2020.

Based on the known information, crowding on Jordan Road is happening mostly on peak weekends on Friday evenings, and Saturday and Sunday early and late afternoons. Points of congestion, on Jordan Road, include the parking entrances to the Crooked River dayuse area, narrow sections of the road along the Crooked River arm, the Crooked River Bridge, and at the entrance to Lower Deschutes and the Deschutes Campground. This situation will worsen as more homes are allowed to be built in the Three Rivers area. Jordan Road crowding would become very bad during the summer, if a new county road were built from Deschutes Campground south onto The Peninsula, to connect with the Crooked River Ranch area. However, providing a gravel, gated emergency access/egress road there would not increase traffic, under normal circumstances.

Certain measures could be taken by OPRD to alleviate some of the congestion. These could include working with the county to close parking along narrow sections of Jordan Road and widening the access to Deschutes Campground to keep overflow onto the highway to a minimum. Keeping any increase in parking capacity to a minimum is important in regard to controlling road crowding.

Interpretation:

Currently the park has a few interpretive panels at key locations and camp talks are conducted at the Deschutes Campground. In addition, the park staff provide a variety of programs, walks and events that are both informative and supportive of the community. More could be done and the staff are anxious to upgrade the quality and quantity of interpretation in the park. Also, new visitors are often confused about where to find the various sites within the park, as there is no orientation area upon entering the park.

Surveys show interest in interpretation by visitors to the area, and up to 30% voiced interest in seeing an interpretive center in the area. The park currently has no centralized facility for orienting, educating and gathering the public.

Capacity Conclusions:

Given this information about facility, social and physical crowding on Lake Billy Chinook staff have made the following conclusions:

1. Park managers have already lowered the maximum number of vehicles allowed at each campsite to two and the number of persons in a campsite to six. Given informal counts, this action alone has significantly lowered crowding at the boat ramp access sites. This level should be continued.

2. As is often true of recreation sites, managing the amount and location of parking will control the capacity of the park sites and impacts on the road and local services, unless a lot of visitors arrive by bus. The Cove Palisades is not now, and should not be, a major future tourist bus stop.

3. The amount and location of parking has a lesser effect in controlling the number of boats on different portions of the lake, as boaters tend to travel from crowded areas to uncrowded areas on the lake. Boat densities on the lake near the ramps never exceed a comfortable level for non-water skiing use. Boaters can find plenty of room to water ski, even on peak summer afternoons by traveling to the lower reaches of the lake. Many of the boats getting into the lake at Crooked River or Deschutes River sites are moving down to the lower reaches or lower Metolius arm on peak afternoons.

4. There is some capacity available on the lake for more boats, given the uncrowded segments identified through surveys. To put more boats on the lake without increasing crowding in the canyon new parking lots would need to be placed on the rim, and visitor and boat access would need to occur by shuttle service and with special marina facilities for storing boats and placing them in the water without the use of ramps.

5. Moving unofficial parking from the county road shoulder, to new spaces within the dayuse parking lots will reduce congestion on the road at those points, and will not increase the total number of vehicles coming into the park (as long as those portions of the road near the dayuse areas are closed to parking). Parking on other portions of the county road may remain open, without charge and with few conflicts, as long as the shoulder space is sufficient to accommodate them without encroaching onto the road.

6. Moving the group camp to Crooked River Campground would greatly reduce conflicts between regular campers and group campers. Providing some additional group RV camping capacity at Crooked River Campground would provide opportunities for campers to register there instead of reserving several regular sites. Diversifying the group camp, at the proposed new location, to include RV spaces as well as a group tent area will increase somewhat the number of vehicles in the park, about 24 additional vehicles. However, given the fewer number of visitors per vehicle for RV camping the total number of visitors allowed in the new group camp would not exceed the number currently allowed in the existing group camp.

7. Converting the current group camp site to 15 cabins, and the office area to 3 group cabins would provide only a minor increase in boats on the lake, via the Deschutes arm, and up to 39 more vehicles on the road that is a very low increase beyond current use levels.

8. Placing up to 10 cabins at the North Cove near the Marina would provide a minor increase in boats on the lake, via the Crooked River and up to 20 more vehicles on the road. This is also a very low increase beyond current use levels.

9. Given the current size of the grassy dayuse areas and developed shoreline, use is above social capacity at all of the dayuse sites on peak afternoons, and is near capacity at other times, except during the off season, and shoulder season weekdays. Measures should be taken to alleviate a sense of crowding in the dayuse areas and at the ramps, including ramp delineation and courtesy dock additions, expanding picnicking areas and making them easy to get to from parking, and providing overnight moorages to lessen the number of trips at the ramp. Also, better supervision, rule enforcement and signage would help keep traffic moving at the ramps.

10. Providing more square footage for the cafe and store, boat rental and maintenance building will not increase the capacity of the park, as that is controlled by the number and location of parking spaces and limited bus traffic.

11. Providing an additional maintenance and staff lodging facility near the east entrance will not increase the capacity of the park for visitation, and will improve the level of supervision, orientation and maintenance.

12. Providing a visitor contact station and possibly an interpretive center near the Crooked River Campground, above the canyon, will result in a very minor increase in visitation to the canyon itself. No additional parking is planned in the canyon to accommodate interpretive center visitors. Many will either already be coming to use the dayuse areas or campgrounds, and most will not be coming to stay at the park for more than the time it takes to tour the interpretive center and then move on to another destination.

13. There is demand for some boat-in camp sites although the limited availability of suitable areas will keep the number to about two-dozen sites. Overnight boaters will need designated parking for their cars and boat trailers. There will be no increase in capacity if designated parking is accommodated within the proposals for the canyon parking lots.

SUITABILITY ASSESSMENTS CHAPTER SIX

Existing and proposed recreational uses should coexist with and complement the natural and cultural resources in The Cove Palisades State Park. To this end, land within the park has been assessed to identify discrete areas where different levels of recreational use and facilities would be appropriate. This is done by assessing the "suitability" of areas of the park against the criteria listed below. The result has been an identification of areas of the park that are suitable for intensive development without negatively harming important natural or cultural resources.

OPRD analyzes the sensitivity of Vegetation, Wildlife Habitats, Protected Species, Water Features and Hazards, Wetlands, Geological Features and Hazards, and Cultural Resources found in the park. One of four suitability levels is assigned to areas of the park based on the sensitivity of these resources. Then an overlaid, composite of the suitability assessments, derived from each resource analysis, is completed. This composite suitability mapping provides the basis for determining where development should occur. For Cultural Resources development may occur in their vicinity as long as the integrity of the resource is not compromised. For the other resources, it is recommended that intensive development be kept away from the resources. The Composite Suitability Map for The Cove Palisades can be found at the end of this chapter.

In addition, OPRD assesses whether any of the department properties associated with the park are not needed for resource protection or recreation. These parcels may be identified as Endowment lands. Endowment lands are explained at the end of this chapter.

Outside the park, or in regard to inholdings, OPRD assesses whether there are lands that could be a threat to park resources or recreational use, or which could provide needed additional resources or recreation in relation to the park. These lands are identified as Areas of Concern. Areas of Concern may be commented on in the land use process. OPRD may seek agreements, easements or leases with the owners, or OPRD may seek to purchase the property if it becomes available.

Composite Suitability Assessment:

The following is an outline of the criteria used in assigning the suitability levels, a description of what types of resources and lands are found to be in each suitability category and how many acres of the park are designated for each level.

Suitability Level One: Approximately 21% of the park.
Level One areas have very limited development suitability. At The Cove Palisades Level One areas are made up of lands with water features, pristine plant communities and wildlife habitat or important cultural resources. Level One areas have one or more of the following characteristics:

- Plant communities of native species composition, excellent condition, pristine or free from historic disturbance by humans, special protective categories such as Natural Heritage sites and Research Natural Areas, mature forest structure or other rare communities.
- Wetlands.
- State or federally listed or candidate protected species.
- Known severe geologic hazards, or important open rocky areas.

- Perennial water courses, lakes, ponds, bays, 100 year flood plains.
- State, nationally or regionally significant and high integrity historic or prehistoric features or sites.
- Having very limited existing development, mostly trails, minor roads and trailheads.

Suitability Level Two: Approximately 55% of the park.
Level Two areas have limited development suitability. At The Cove Palisades Level Two areas are made up of somewhat disturbed plant communities and habitats, generally with remote and protected locations. Level Two areas have one or more of the following characteristics:

- Plant communities or wildlife habitats of good condition, and only limited human disturbance with primarily a native species composition.
- Historic or prehistoric sites or features with only local significance, but which are important for interpretation.
- Having limited existing development, mostly trails, minor roads and trailheads. May include small primitive dayuse or campsite areas.

Suitability Level Three: Approximately 22% of the park.
Level Three areas have moderate development suitability. At The Cove Palisades Level Three areas are made up of plant communities and habitats that have been moderately disturbed by grazing or other human activities. Level Three areas have one or more of the following characteristics:

- Plant communities or wildlife habitats that have been moderately disturbed and may include a significant component of non-native species, or are very common in the region.
- Forests which are of moderate condition (very dense, younger single age and species).
- Having a moderate level of existing development. May include small to moderately sized dayuse areas, boating facilities, campgrounds or administrative areas.

Suitability Level Four: Only about 2% of the park.
Level Four areas have intensive development suitability. At The Cove Palisades Level Four areas primarily include currently developed areas and the heavily maintained or impacted sites associated with them. Level Four Areas have one or more of the following characteristics:

- Generally developed, and/or highly maintained, but may include some native species.
- Unvegetated.
- Plant communities and/or habitats in poor condition or quality.

Endowment Lands and Areas of Concern:

In addition to Resource and Composite Suitability Assessments, OPRD completes Endowment and Area of Concern assessments.

The only Endowment Areas identified for The Cove Palisades are two non-contiguous parcels to the north of the main park which would be offered to the USFS in trade for USFS property within the main park related to OPRD facility areas. Federal jurisdiction requires proposals be processed through the federal environmental

assessment process and patent process if a change in ownership is intended. In lieu of ownership changes OPRD will keeps its lease and use agreements current with the USFS and BLM. This law includes agreements on resource management responsibilities.

There are only a couple of adjacent, privately owned parcels that have been identified in this master plan as Areas of Concern. They are considered to be important buffers to the Crooked River Campground, and OPRD would like to see their use continue to be of a low intensity. If the parcels were available for purchase, OPRD would consider acquiring them.

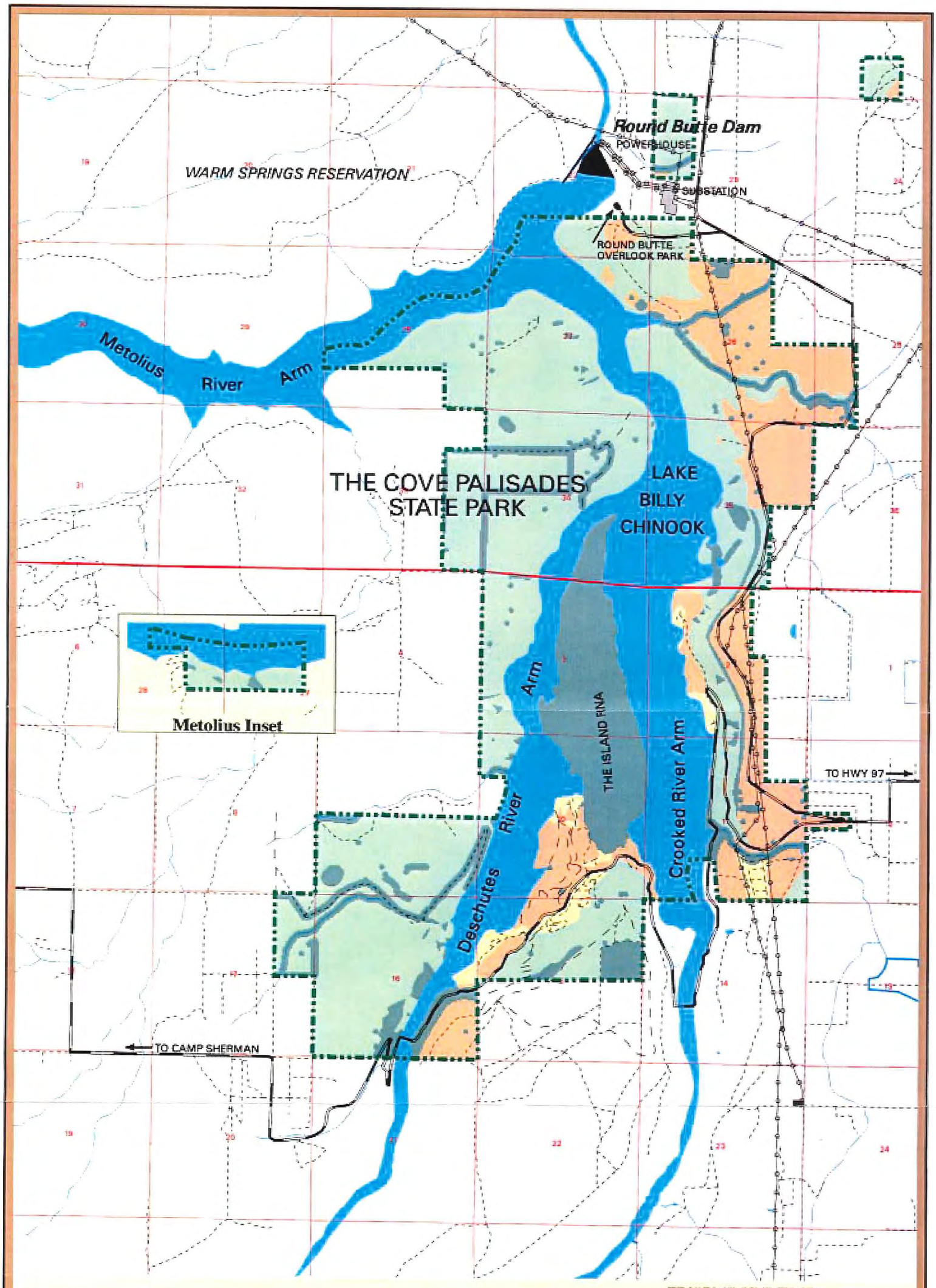
Following the completion of the draft Master Plan and prior to its adoption, OPRD purchased the farmland parcel identified as an "Area of Concern" located south of the Crooked River campground. Jefferson County expressed concern that this property would be removed from the agricultural land base under OPRD ownership. OPRD's purpose for this parcel is to preserve it as an agricultural buffer between the park and the adjacent private lands. No development is proposed for this property. OPRD intends to keep the land in agricultural production under a lease agreement with a private party. OPRD also intends to keep the water rights acquired with the property in use for agricultural production under the lease agreement. Continual use of the water rights is necessary to prevent the lapse of the water rights.

PGE owns a large tract of land on the Canadian Bench. They are likely not to develop the tract, but would keep it as wildlife habitat. If PGE is not interested in owning the land and managing it, OPRD would consider adding it to the park, if PGE wanted to donate it.

USFS and BLM have identified parcels they own on the Deschutes and Crooked Rivers, which may be considered for surplus. If offered, OPRD will review those parcels and consider whether state management would be appropriate for any of them.

OPRD will discuss with BLM the future management of the BLM-owned parcel on the Crooked River that encompasses the slide hazard area. OPRD will pursue the inclusion of this parcel within the park boundary as part of an effort to consolidate OPRD's management of lands that affect the park directly. OPRD has proposed that the affects of the slide be addressed under the FERC mitigation requirements for relicensing the Pelton-Round Butte hydroelectric project. The joint applicants for relicensing of this project are cooperating with Jefferson County in assuming the responsibility for funding the on-going maintenance of Jordan Road as it is affected by the slide.

Within the current park boundary, OPRD would like to obtain fee title ownership of the current USFS parcels that have OPRD facilities located on them. OPRD would negotiate trading out ownership of state parcels to the west and north for these parcels. There are also BLM parcels within the park, which contain other OPRD facilities. For these parcels OPRD seeks designation under the RP&P process. No trades are required for this process. See the following map for locations of Areas of Concern, RP&P parcels and trades from OPRD.



THE COVE PALISADES STATE PARK

COMPOSITE SUITABILITY

Legend

- Value 1
- Value 2
- Value 3
- Value 4
- Park Boundary

November 1998

0 1500 3000

Scale in Feet

CH2MHILL

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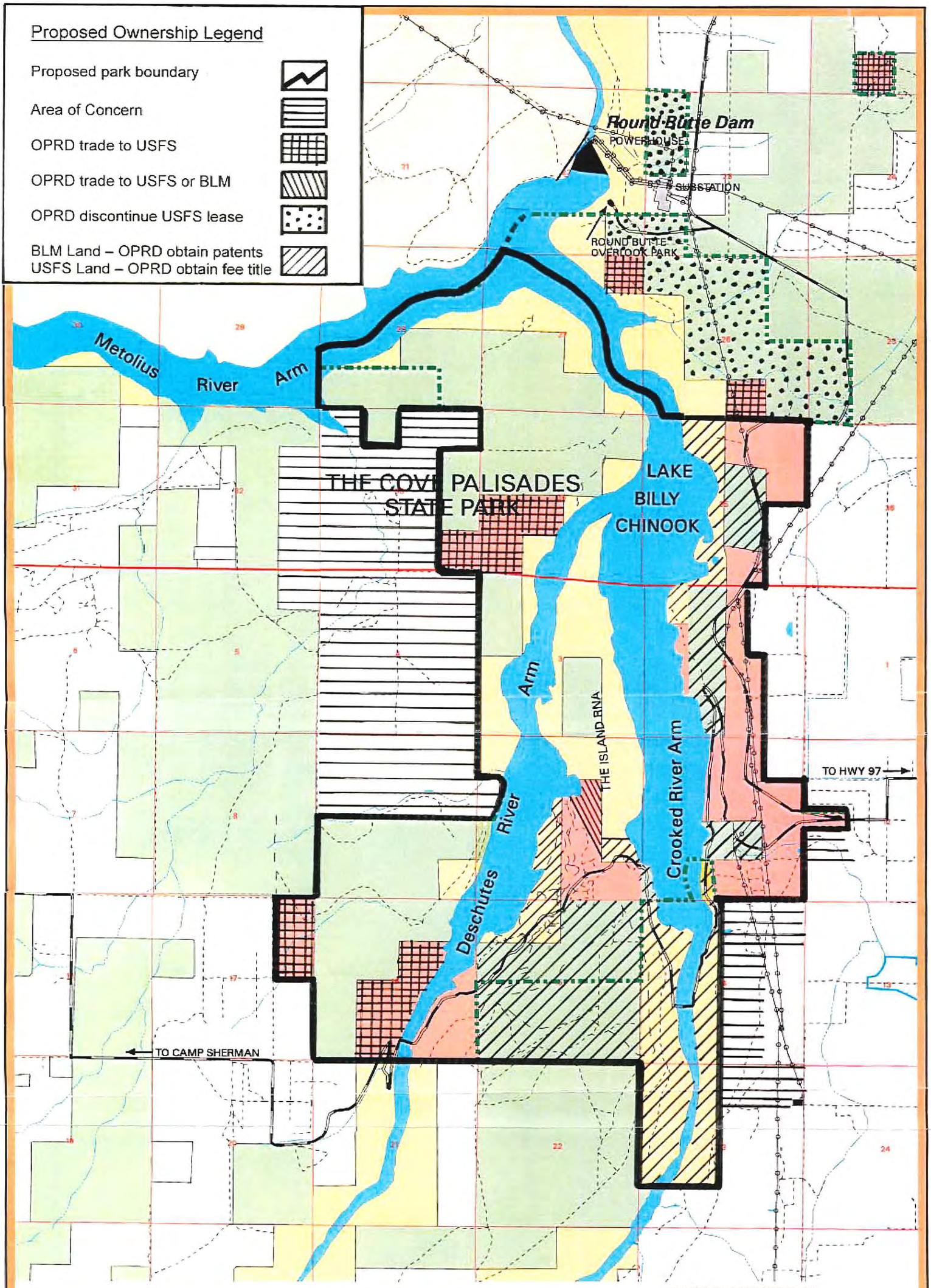
Tile T2



THE COVE PALISADES STATE PARK

PROPOSED OWNERSHIP

Legend

- Crooked River National Grasslands (USFS)
- USDA Forest Service
- USDI Bureau of Land Management
- The Confederated Tribes of the Warm Springs Reservation of Oregon
- State
- Private
- Park Boundary

November 1998

0 1500 3000
Scale in Feet

CH2MHILL

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Tile T2

ISSUES
CHAPTER SEVEN

OPRD field and program managers and staff, with input from The Cove Palisades Master Plan steering committee and the public, have identified the issues summarized in this chapter and suggested solutions related to recreational use and management of The Cove Palisades State Park. Master plan issues are generally related to park resource management, public recreational use of the park, development of needed facilities for recreation and management, and avoiding or mitigating impacts on local services or land uses. This chapter is a summary of the issues discussed in relation to the park master plan and does not necessarily mean that goals have been proposed for all of the issues discussed. Some issues are not generally addressed in master plans, and are more appropriately handled at the field operations level, or by the Director's office. Others have been determined to not be appropriate for OPRD to pursue.

1. **Resource Protection:** This issue is very important and was often voiced by the participants in this and related planning processes. The protection and appropriate management of the natural, cultural and scenic resources in the park are accepted by all as the primary issues to address the park to be able to provide what is important to visitors for many generations to come. Some discussion focused on the need to enhance certain natural and cultural resources that are currently in poor condition. Protecting shorelines from erosion, enhancing riparian areas, providing for snag tree retention and addressing other water quality issues were a few of the mentioned enhancement measures to pursue. Other measures are mentioned in the National Grasslands Management Plan and other federal and FERC proposals.

2. **Maintenance, Management and Rehabilitation:** Another primary issue for most participants is OPRD's management of facilities and visitors providing adequate staffing to cover heavy use periods and catching up on deferred roof replacements, repaving projects, modernizing utilities and performing related "rehab" work. Expanded sewer and water systems at The Marina were especially needed. The docks need to be retrofitted. Field management stated a need provide seasonal staff lodging to accommodate larger numbers of staff during the peak season, as well as some additional maintenance and crew office space. Additional staff were said to be needed to provide better supervision of crowded areas such as the boat ramps, and to better police areas prone to vandalism such as the overlooks on the east rim road. Better supervision at the campgrounds, throughout the day and night was asked for, as well. Others stressed the importance of bringing facilities up to the required level for disabled access. Jet ski rule enforcement was another need that was often voiced.

3. **Access and Circulation:** Several participants commented on the congestion on Jordan Road during peak weekends and the difficulty of getting through the park at those times. Some of them asked that parking along the road be disallowed, at least in certain areas. Others wanted to see parking continue along the road in certain places, such as where people walk down the banks to fish and where youngsters like to climb on the bridge and jump off. Others mentioned the benefit of better orientation entering the park from the east. Many felt that the road should be continued as a "through-road" and that agencies work together to find feasible solutions to difficult repair issues for the road and bridges. Many also felt that the east rim road should remain open to traffic and should be improved. Several wanted more trail connections and better opportunities to bike in the park. There was no request for equestrian trails. If horse related activities are to be pursued it is felt that the west bench, or Canadian Bench area would be a better location than the more populated areas of the park. Some participants would like to see trails in the park connected to community trails, such as the potential Willow Creek rail-trail in the Madras area.

   There was a request for residential access through the park from the Crooked River Ranch, which is now one of the largest rural residential communities in the state and has the potential, to grow to a community

of 10,000 people. Their request was in relation to an emergency route for escaping wildfires. Some felt the road needed to be two paved lanes with no access restrictions to allow better access to the park and Madras.

There is an urgent need to find funding to stabilize the Jordan Road slide or relocate the bridge and road to avoid it.

4. **Future Recreational Needs: Participants discussed the crowding and overflow use that occurs** at most of the sites in the park, on peak weekends. Many felt there is a need to better provide for the current overflow and to improve the design of facilities to lessen crowding in the parking lots, at the ramps, in the campgrounds and in the picnic areas. There were several complaints about the impacts of large groups on the campgrounds and visitors there. Some would like to see more camping and parking constructed. Others would like to see no more development. Others would like to see amenities improved such as enlarging the restaurant and store, adding another camp talk area and developing more interpretive opportunities. Some asked that great discretion be used in determining how much more could be used or built at The Cove without making the experience there much too urban. Some proposed the construction of a "jetty" to the north of "ski beach" at the Crooked River Dayuse Area, to provide more shoreline for skiing and picnicking and to provide a breakwater for the swimming area. Many felt that determining the appropriate amount of official parking spaces to be provided and then enforcing their use was the best way to provide for future use in a responsible manner. They also believed that looking at the carrying capacity of the environment, as well as of the experience is important. Many want to see more floating toilets and overnight moorages in the lake. Some mentioned that any new construction should harmonize with the setting and not have a commercial or "McDonalds" appearance. Others wanted better access to the marine sewer dump station and gasoline stand. Some felt that cabins should not be allowed along the shoreline. Some did not want to see the group camp moved.

5. **Interpretation and Education:** Surveys and input from advisory groups have indicated a desire, by a certain sector of recreationists, to have a visitor center and possibly an interpretive center in the park. In addition, many commented that additional interpretive signage would be beneficial to park users' understanding of the natural and cultural resources in the park and challenges in managing them with so many visitors. The steering committee clarified, that such a center should not replace the PGE Overlook Park facility that focuses on dam and hydro-electric related topics. Several felt the east rim overlooks provide good opportunities for more interpretation.

6. **Supervision and Rules:** This type of issue is primarily addressed by decisions made by the park manager, rather than by master planning directives. Other actions would need to be approved by the county. However, they are listed here as a summary of the kinds of concerns that participants have about the level of supervision or certain rules: Use police cadets more. Provide space for Marine patrols. Separate boats and jet skis on the water. *Enforce jet ski* regulations better. OPRD should not be renting out houseboats. Take care of the goose refuse problem. Prohibit jumping into the lake from the bridge. Allow bridge jumping but manage it so that youngsters don't interfere with traffic. Keep some roadside parking open without charging a fee. Provide more garbage cans, especially at the fish cleaning stations. Schedule groups to attend the park during weekdays only. Provide a place to stash camping equipment before or after checking out. Designate overnight parking for overnight boaters.

7. **Fees, Financing and Efficiencies:** Many persons provided opinions and suggestions relating to the funding of the park. These issues are either addressed by the agency at large, or by the park manager. Comments included: Allow local businesses opportunities to obtain concessions in the park. The park is a large economic value to Jefferson County. Use a volunteer work force or prison crews whenever possible. Fees collected in the park should be spent on the park. If funding is short, keep the popular parks open. Its hard to understand why the legislature has not provided adequate funding for park rehab and staffing.

Let the private sector handle houseboat rentals. Impose an out of state camping fee. Sell ice in the campgrounds.

8. **Lowering the Reservoir**: It is possible that wildlife managing agencies will require the hydroelectric licensee for the Pelton-Round Butte project to significantly lower the water level of the reservoir to better accommodate fish run restoration. These levels could be low enough to make the current recreational facilities at The Cove Palisades unusable. Comments stated that a balance is needed between providing for fish enhancement and protecting existing recreational opportunities, so that current facilities do not need to be moved, and so that current types and numbers of boaters would not be changed.

GOALS
CHAPTER EIGHT

OPRD establishes a series of master planning goals for guiding the appropriate management and use of The Cove Palisades State Park, for the next 10-20 years. The goals are based on the suitability assessments and recreation needs assessments. The comments from Issue Scoping are considered in deciding what the goals will be.

Goal 1: Protect and enhance the outstanding natural, cultural and scenic resources of The Cove Palisades State Park.

Protecting important wetlands, riparian areas, wildlife habitats, plant communities and forests, views, vantage points, settings and cultural, historic and prehistoric resources is the number one goal for the management of an Oregon state park. Enhancement of selected portions of these resources is also an important goal for state parks.

OPRD will manage the park's natural, cultural and scenic resources in a manner that is consistent with the Pelton-Round Butte Comprehensive Management Plan, March 1999.

Any proposed development or public use will be located and designed to avoid significant impacts on important natural or cultural resources. Within important historic areas, certain kinds of development may be pursued if compatible with the integrity of the resources and their settings. Scenic settings are considered in planning new development, as well.

Master plan development proposals are illustrated and described in the "Development Concepts" chapter. This includes references to resource constraints to be incorporated into the final designs and construction.

General objectives or guidelines for recommended natural, cultural and scenic resource management are described in the "Natural and Scenic Resource Management Guidelines" and "Cultural Resources Management Guidelines" chapters of this document.

Goal 2: Improve park maintenance, management and rehabilitation.

OPRD will conduct periodic reviews of the Cove Palisades Emergency Procedures Program. Prior to the adoption of this Master Plan by Jefferson County, and at least every three years following the adoption of the Master Plan, OPRD will complete a review of the park's Emergency Procedures Program in cooperation with Jefferson County. The Program will be updated as needed to assure that it adequately addresses emergency response issues relative to the park uses. These reviews will involve park staff, the County Administrator or his/her designee, and affected emergency service providers.

Another high priority for The Cove Palisades is stepping up the maintenance and rehabilitation of its facilities and infrastructure. The work list for these tasks is generally not included in a master plan document, but is identified by the park management and agency engineering division on a six year and biennial basis. In general, needed rehab for the park includes replacing or upgrading docks and boat ramps, pavement, utilities and older buildings, and especially roofs.

In addition, a primary priority for this park is increasing the staffing level during the peak summer season to provide better supervision of crowded areas; and adding some year round staff to attend to routine park operation and maintenance. Park management will also use volunteer groups and individuals, and any "prison" type crews available in the area that are affordable and able to provide the kind of work needed. Special work groups such as youth work groups, displaced migrant work groups and others will be used when available. Funding priorities and budgeting for maintenance, rehab, staffing and for using "special work groups" is determined on a biennial basis as a part of the overall department budget.

Goal 3: Encourage Implementation & Investment Partnerships

OPRD needs to seek management and development partners to assist in implementing the goals and concepts in the master plan. This can include working with volunteer, prison, youth and work groups. Seeking business partners to run certain facilities such as the marina, and who may also be willing to complete market assessments, detailed facility designs and to participate in the cost of construction is one way of stretching or leveraging state funding for some facilities.

The master plan goals, constraints, concepts and guidelines should be used as a basis for directing implementation partnerships.

Goal 4: Improve Park Access and Orientation

A. **OPRD supports stabilization of Jordan Road, or the relocation of the bridge or some other feasible solution to the landslide problem, as a top priority for FERC mitigation funding.**

B. **The department will consider providing emergency access only from the Crooked River Ranch, north into the park.**

The department recommends that Jefferson County not support a general road connection from the Crooked River Ranch into the park, as Jordan Road is already used near peak capacity by the residents of the Three Rivers area and park visitors, and cannot feasibly be enlarged. OPRD realizes that the construction of a new east/west county access road to the Crooked River Ranch and Three Rivers area cannot be constructed in the park, and would be very expensive to construct outside the park, due to the high cost of bridges over the Deschutes and Crooked River canyons.

However, the department encourages the Three Rivers and Crooked River Ranch communities to secure additional paved road access from the south via Highways 20 and 97,

C. **OPRD encourages the county to close sections of Jordan Road to parking, in the park, where it is close to park facilities or where there are narrow or no shoulders.**

It is also necessary to either enforce better behavior by divers at the bridge, and stop them from blocking traffic, or encourage the county to close the bridge to diving. Parking along the road could continue near the bridge without any charge as long as there is sufficient shoulder space to avoid conflicts with road traffic.

D. **OPRD agrees to complete a traffic study which determines the current and projected percentage of use of Jordan Road, in the park, between park users and through traffic. OPRD will not pursue construction of the proposed 15 cabins at the current group**

camp or 10 cabins at the North Cove, or any increase from the size of other facilities proposals from the draft master plan approved by the Oregon Parks and Recreation Commission, prior to the completion of this study. The county retains jurisdictional approval authority on an OPRD proposal to build beyond the capacity shown in the draft plan after the traffic study is completed.

The traffic study was completed by David Evans & Associates, July 2000, prior to adoption of the Master Plan

E. **OPRD will work with Jefferson County to develop a cooperative agreement regarding the maintenance of Jordan Road within the park. The purpose of the agreement will be to establish a fairly shared maintenance responsibility between the state and the county for this road. These discussions will include consideration of the results of the traffic study mentioned in "D", alternatives for providing an access for Crooked River Ranch and the respective roles of the county and OPRD in managing roads within the park.**

Where Jordan Road crosses the BLM-owned slide hazard area, OPRD has proposed that the affects of the slide be addressed under the FERC mitigation requirements for relicensing the Pelton-Round Butte hydroelectric project. The joint applicants for relicensing of this project are cooperating with Jefferson County in assuming the responsibility for funding the on-going maintenance of Jordan Road as it is affected by the slide.

F. **OPRD will improve the pavement and certain viewpoints on Mountain View Road within the park, and will offer the road to the county for inclusion in their road system.**

OPRD will advise the Jefferson County Public Works Director of any scheduled maintenance on Mountain View Road each time OPRD's road maintenance schedule is updated.

There is substantial local traffic on this road and limited tourist activity there. OPRD would retain ownership and management of the surrounding property and will keep at least two of the existing viewpoints open. Caretakers may be installed at certain viewpoints to cut down on vandalism and to enhance visitor contact. OPRD encourages an interagency approach to directing vehicles from the highway toward the Overlook Park site, to the viewpoints and to the state park from the north, but wishes to continue to emphasize the existing route from the highway to the state park as the main route for accessing The Cove Palisades.

G. **OPRD does not support increased vehicular access into the Canadian Bench portions of the park.**

This area is best left as a remote natural area which can buffer the lake from growing Three Rivers rural residential use. Any existing roads in this area or other remote areas of the park should be gated to public vehicular use.

H. **OPRD does not feel that widening Jordan Road through the park is feasible and discourages bicycling on Jordan Road during peak use periods.**

I. **To better orient park visitors improvements are needed at the east entrance.**

1. Construct an entry sign which "reads" as a gateway to the park.
2. Construct an orientation pulloff just inside the park in the old quarry along Jordan Road. Use sign structures to display what can be seen in the park and where to find it.
3. Install "state of the art" directional signs throughout the park according to the OPRD sign manual.
4. Direct visitors with questions to a new Visitor Center near Crooked River Campground.

GOAL 5: Provide for Current Recreational Needs

It is important to continue to offer lower cost options for using the park, such as tent camping and shoulder season prices and to encourage the purchase of season passes.

This section also outlines several objectives related to needed facility redesign and expansion. Drawings of proposal site designs or concepts and more detailed proposal descriptions are found in the "Development Concepts" chapter. After looking at the recreation needs assessment and constraints to development such as crowding and lack of space and limited road capacity the master plan proposes the following objectives for providing appropriate levels of park attendance. The number and location of parking spaces control capacity.

- **Provide more designated parking, as space allows, to accommodate current boating and dayuse overflow parking on Jordan Road,** to the extent that the total visitor parking capacity specified in the Master Plan is not exceeded. The County's decision to allow or disallow parking along Jordan Road will determine the extent to which the designated parking lots proposed in the Master Plan are developed.

  Accommodating additional use of the park mainly involves taking care of the unofficial, undesignated parking along the county road. As The Cove Palisades is among the most popular boating access parks in the state, it's important to make sure that the park can provide for all those who use the lake now and that the process of getting into and out of the water is as smooth and enjoyable as possible. In the recreation needs assessment it was explained that The Cove Palisades boating access sites function, to a large degree, as portals to the rest of Lake Billy Chinook. It follows that providing for undesignated parking in areas where there is room would not increase the overall use of the lake for boating, but would create some tradeoffs at the access sites.

  OPRD plans to accommodate any additional future boating access needs at other parks, such as Prineville and Ochoco Reservoirs and possibly at future parks that have not been identified.

- **Provide some additional group camping opportunities, and relocate and redesign the group camp to lessen conflicts and crowding.**

  Group camping is too cramped and invasive in regard to the showers at the Deschutes Campground at the current site. It needs to be relocated and reworked to avoid conflicts, improve the experience of group camping and its management.

- **In regard to camping, there is such a direct relationship between expanding camping and expanding boating use, that expanded regular camping is not recommended for the park.**

- **Alleviate crowding in the picnic & dayuse areas.** Dayuse swimming and picnicking happens mostly at the Crooked River Dayuse area, but also up to 25-33% at the Deschutes sites in the park. This activity is very crowded and the areas need to be expanded and redesigned to better accommodate the existing level of use.

  The store and cafe at The Marina are overflowing on peak days and need to be reworked to better accommodate existing levels of use.

- **Take measures to encourage more shoulder season use.** These measures include special pricing as well as the construction of some cabins, tepees and yurts which provide easy camping in more inclement conditions.

  OPRD needs to take measures to provide another type of overnight opportunity in the park that offers different recreational experience, and which encourages shoulder season and possibly off-season use. These measures usually include the construction of some cabins, tepees or yurts for overnight use. Some may be installed in existing camp sites. Others would be placed on new sites. Those placed on new sites would be additional opportunities for visiting the park and would increase attendance during the peak season somewhat. There is space for about 25 new cabin sites, and 3 group cabins if the current office area were converted to group cabin use.

Provide facilities to better accommodate current use by taking the following actions:

A. **Crooked River Dayuse Area:** Pursue closing the nearby county road shoulder to parking except for creating disabled parking along the right-of-way near the disabled dock. Improve the picnic and ski beach area and add a group use shelter. Provide a group use shelter. Rework the ramp and ramp approach to increase the speed and convenience of getting boats into and out of the water. Rework the disabled access area to work better from the new parking lot and in relation to toilets. Direct overflow parking to The Marina and North Cove and to the Deschutes arm sites. Protect existing native vegetation by directing pedestrian access. Do not pursue the construction of a jetty north of the current ski beach.

B. **The Marina and North Cove:** Rework the existing parking lot to provide better circulation. Provide another boat and car parking lot toward the North Cove, as space allows, to accommodate some undesignated parking displaced from the shoulder of Jordan Road. Also provide a new sewer drainfield and expand the cafe and store to better provide for peak use. Rework the maintenance and boat rental shop, to work closely with a new public toilet and shower facility and a caretaker/concessionaire apartment adjacent to the marina. Add one more gas pump and sewer dump station at the docks. Provide up to 40 overnight moorages in the North Cove to cut down on day trips at the ramp. Provide a connecting trail between the North Cove and Crooked River Dayuse Area. Protect important native vegetation with railings or rock walls that direct pedestrian access.

C. **Lower Deschutes Dayuse Area:** Reorganize the existing parking lots to provide the correct proportion of car and boat trailer parking. Provide another boat trailer and car parking lot to accommodate as much of the undesignated current parking as space allows. Rework the ramps and staging areas to the increase speed and convenience of boat launching and recovery. Provide up to 100 overnight moorages in the nearby cove as space allows, with convenient access from parking to reduce the number of daily trips at the ramp. Phase in after monitoring shows success. Improve and expand the picnicking lawn and add two group use shelters. Protect important native vegetation with railings or rock walls that direct pedestrian access.

D. **Upper Deschutes Dayuse Area**: Rework the north parking lot to be car parking only. Direct overflow boat trailers to the south lot. Rework the north end of the south lot to be car parking only for trailhead use. Expand the grassy picnic area and shoreline use area to the south. Expand a portion of the shoreline adjacent to the expanded dayuse area. Create more level pedestrian access from the north lot into the new picnic area and from there to the north into the existing picnicking area. Add a group use shelter. Rework the ramps and staging areas to increase the speed and convenience of boat launching and recovery. Protect important native vegetation with railings or rock walls that direct pedestrian use.

E. **Deschutes Campground**: Widen the access drive from Jordan Road to allow additional lanes. Encourage boat trailer parking in the storage area at the north end of the campground, instead of in the campsites.

F. **Deschutes Group Camp**: Relocate the group camp to a site near the Crooked River Campground. Design the camp to be easily used by either RV and tent campers.

   Provide a group meeting hall, shelters and a shower/toilet building.

G. **Crooked River Campground**: Provide a camp talk area and a wood storage bin. Add a toilet to the registration building. Add a children's playground. Encourage boat trailer parking in the extra lot under the electric lines.

H. **Maintenance, Administration and Staff Lodging**: Replace the caretakers residence at the Deschutes arm headquarters and relocate it to the north. Retain the other caretaker's mobile home. Provide up to four volunteer RV sites. Fence and gate the shop/maintenance facility, but keep the administrative office accessible to the public until the office is converted to a group cabin.

   Provide an additional maintenance shop and crew space at one of two alternate Crooked River sites, near the Crooked River Camp.

   Place dormitory-style housing for up to 12 seasonal staff at one of two Crooked River sites.

I. **Create a Visitor Center and Central Administrative Office**: Provide a visitor contact station or visitor center and park manager office in the area of the Crooked River camp location.

J. **Provide Boat-in Camp Sites on the Deschutes and Crooked River Arms.**

Provide some new types of overnight use which encourage shoulder season and off season use:

K. **North Cove:** Provide up to 10 cabins along the south shore ridgeline of the North Cove (north of the Marina cafe and store). Provide an access road from the vicinity of the existing parking lot north of the store, and up to 2 vehicle parking spaces at each cabin or nearby. Parking may be clustered. Provide a shared finger dock for cabin users on the nearby shore and a new sewer drainfield for The Marina sized to provide for this possible future development.

L. **Peninsula Group Cabin Area:** Provide up to 15 cabins at the current group camp site. Provide a group meeting hall and a shower/toilet building. These uses may be combined. Provide parking for up to 2 vehicles per cabin. Provide fencing to direct pedestrians away for fragile vegetation and cliff edges. Encourage users to store their boat trailers here.

M. **Convert Current Park Office & Residence to Group Cabin Use:** This would involve the conversion of the existing park office and caretaker house to group use and require the construction of a new office at Crooked River Campground. A third group cabin could eventually be constructed at the current office site. Maintenance facilities would remain behind the existing site.

GOAL 6: Improve Disabled Access

There is fairly accurate information available about park facility improvements needed to provide the kind of disabled access that is currently required (Everett, "Inventory and Preliminary Evaluation of Developed Recreation Facilities", 1998). This information should be used, along with other OPRD information and consultation with disabled group representatives, to develop a six-year and biennial budget request for disabled access-related improvements in The Cove Palisades. This should address improvements for enabling those with ambulatory difficulties, as well as hearing, sight and mental difficulties.

Any new facilities would be constructed to provide access for the disabled as is required by the setting and opportunities. A good model to follow is the latest USFS publication for determining the appropriate levels of access by setting.

In addition, any new development should take into account the growing percentage of the recreating public which suffer temporary or "unofficial" disabilities or hindrances such as legs in casts, parents with strollers, and elderly visitors who have limited endurance for walking and standing, and those with poorer eyesight, hearing loss and mental challenges.

GOAL 7: Improve Interpretive and Educational Opportunities

Provide an interpretive and visitor contact center. The Cove Palisades is a key site for interpreting the amazing geologic and archaeological history of this area of the state. It also provides opportunities to interpret the ecosystems and the history of the area. The park has space on the east rim or Crooked River Campground terrace for construction of a modest to extensive interpretive facility, which could serve as a regional center for interpretation, and could direct visitors to other important sites in the area. There is also space for extensive displays, interactive opportunities, an indoor or outdoor "auditorium", and associated parking, snack shop and gift shop facilities. The facilities should provide amenities for the "touring, sightseeing and interpretive-interest" sector, as well as campers and boaters.

Providing interpretive opportunities on the east rim would include access to views of the park and the river canyons along with facilities to support learning about the place and its resources without encouraging additional access into the canyons. These visitors are often

interested in short visits to interpretive centers and trips along interpretive driving routes, rather than lengthy stays in campgrounds or boating activities.

OPRD views the Cove Palisades as an important regional center for interpretation. A programmatic and schematic concept is provided for such a facility in the "Development Concepts" chapter.

Prior to beginning detailed plans and specs for an interpretive facility at the park, a park-wide interpretive plan should be completed. The interpretive plan should include an assessment of the other attractions in the area and in the park and will include the preparation of an interpretive network, in which public "capture, orientation, information and educational" opportunities will be located and described. Such a plan will have an emphasis on central orientation and group activities along with directing visitors out to view the "real resources" in the park and outside the park. Recommendations will be made about what sites to use for viewing the "real resources", what types of media, themes and formatting to use in interpreting it. The interpretive plan would also include recommended educational and interactive programs to be provided by the department and/or its other agency partners and how best to interface with local schools.

For now, the Crooked River petroglyph site could be enhanced.

GOAL 8: Outside the Park

This goal usually refers to looking at opportunities or threats outside the boundary of the park. And there are some of those topics to discuss here. But the primary focus of this goal for The Cove Palisades is the consolidation of the park parcels to provide the appropriate agency ownership and management of the various areas currently considered to be the state park.

Over half of the "park" is actually owned by some agency other than OPRD. The U.S. Forest Service, and the Bureau of Land Management own most of the park and those lands are either under lease to OPRD or are under pending patents for recreational management by OPRD. Most of these lands are in the remote portions of the park where the major concern is appropriate natural and cultural resource management and enhancement. They include portions of the park on the Canadian Bench, The Island, the east rim and the lower Deschutes arm of Lake Billy Chinook.

In addition, there are several parcels currently owned by USFS and BLM on which OPRD facilities are located. OPRD seeks these parcels to better manage the facilities and visitors there. There are other USFS and BLM parcels outside and adjacent to the current park boundary which could provide needed buffers for the park. OPRD proposes trading with the USFS for their lands with OPRD facilities, and pursuing recreation management agreements for the similar BLM lands. OPRD would offer in trade certain parcels it currently owns along the fringes of the park to the agencies from which it seeks to obtain other parcels. The majority of the current park boundary is proposed to stay the same, except for two disconnected parcels to the north, which should be removed from the boundary and possible additions on the west, south, and east. OPRD will pursue agreements with USFS and BLM to implement the boundary and ownership changes shown on the map.

There a few other areas outside the park, that OPRD identifies as Areas of Concern. These areas are adjacent to the park and offer the possibility of changes in uses that may not be compatible with adjacent park use, and opportunities to provide more space around some of

the developed areas of the park. No development is proposed for these parcels as a part of this master plan. See the "Vicinity Ownership" map to identify the specific trade parcels.

GOAL 9: FERC Mitigation Recommendations

OPRD understands that fish mitigation may become a large portion of the FERC relicensing work and could even include significant changes in the level of Lake Billy Chinook, to aid an andromous fish re-establishment program. If this should happen OPRD would need to rely on recreation mitigation funding related to the relicensing to completely rebuild park facilities so that they could operate with a much lower lake level. We would also need support from the license-holder for keeping the lake at a useable level for boating during the summer season.

If lake levels are not to change significantly, The Cove Palisades State Park is still the largest and most popular, recreational opportunity on Lake Billy Chinook, and attendance there is much higher than attendance at sites on Lake Simtustus. The park's importance for public recreation is directly related to the reservoir and its management. As the licensee funded the lion's share of park development when the reservoir was completed, there should be sufficient funding at this time to continue that kind of support for this major state park and reservoir access facility. OPRD will seek funding support, from the recipient of the new hydro-electric relicense for the Pelton Round Butte project, for certain improvements in the park or related to park access, reservoir access, rehab and management of supporting facilities, site redevelopment to ease crowding within the park, and interpretation and education about the area. The following list reflects OPRD's priorities for hydroelectric licensing mitigation:

1. Repair of the slide area on Jordan Road or relocation of the Crooked River bridge, as is determined to be needed through engineering studies.

2. Rehabilitation of existing facilities to meet ADA requirements for the disabled.

3. Rehabilitation of park utilities, pavement and buildings; and of the boating docks, piers and moorages and repair of bank erosion, to better provide for the current use levels.

4. Dedicating a portion of the stakeholder fund for on-going maintenance and operations for The Cove Palisades, to help to provide a stable level of routine repairs and to sustain an adequate staff for the numbers of visitors and facilities.

5. Providing additional facility support for boating including overnight moorages, and floating restrooms.
6. Upgrading the communications system within the park and between the park and emergency and local services, and "project wide".

7. Constructing the shelter, wall and interpretive panel for the Crooked River petroglyph.

8. Funding participation in the creation of a visitor or interpretive center and orientation turnout at The Cove Palisades. The center could have a regional interpretive focus to complement the Overlook Park facility.

DEVELOPMENT CONCEPTS CHAPTER NINE

OPRD has prepared the following facility development concepts for implementation at The Cove Palisades State Park over the 20-year period following the completion of the master plan. The concepts include a site plan for each of the recreational areas in the park, and a narrative of design parameters for each project. The concepts are intended to fit within the goals and suitability assessments described elsewhere in the master plan document but are meant to be somewhat flexible within those limits. Final designs may change somewhat from the conceptual designs provided that they remain consistent with the intent of the master plan and are within the limits imposed by OAR 736-018-0040.

Design Parameters

OPRD is dedicated to proposing facilities that are needed to adequately support recreation in the park, and which are appropriate to the department's role as a recreation provider in Oregon and in the region surrounding the park. Development proposal sites are selected to avoid significant impacts on important resources in the park. Conceptual drawings are prepared to show the approximate location, layout, size and type of facilities to be constructed or remodeled. Narratives accompany each concept drawing and further describe the location, size, type and any important parameters for implementation. Design parameters include:

- Avoiding conflicts with existing park uses and facilities;
- Providing good access and circulation for vehicles and non-motorized travel within the park;
- Placing facilities, roads and trails in a manner which is understandable by the public, and aids easy orientation from place to place;
- Avoiding significant impacts on important natural or cultural resources in or adjacent to the park;
- Presenting an appearance that is harmonious with the setting and the region;
- Providing choices for visitors who may have very different desires regarding amenity level and settings;
- Avoiding or mitigating conflicts with local services or adjacent uses;
- Avoiding or mitigating potential impacts on the park by adjacent uses;
- Achieving compliance with regulatory requirements including the state land use goals, local comprehensive plans, building codes, resource laws, etc.;
- Providing opportunities for access by visitors with disabilities or different economic or cultural backgrounds.

Proposed Limits on Visitor Capacities:

The proposals in this master plan will result in a minor increase in total visitor capacity and parking in the park. Refer to the following capacity chart for changes in capacity. The increase is primarily due to diversifying overnight facilities in the park to include some more cabins and improving the group campground.

The visitor capacities described in this master plan that are associated with the campgrounds, cabins, and parking for day use areas and the interpretive center are intended to be the maximum capacities allowed without amending the master plan. The numbers of camp sites, cabins and visitor parking spaces described for these facilities will not be increased through application of the provisions in OAR 736-018-0040 ("Minor Variations From Master Plans") or 736-018-0043 ("Existing State Park Uses"). Any existing visitor parking lots or campgrounds in the park that are not specifically mentioned herein will also not be increased in visitor capacity through application of the rules cited above. The intent is to prevent excessive crowding and congestion during peak use periods.

The proposed day use parking capacities, summarized in the "Vehicle Capacity" table below, are presented based on the assumption that the County will decide to discontinue the undesignated parking that occurs along the shoulder of Jordan Road. As reflected in the table, the undesignated parking amounts to an estimated 130 total spaces (65 long and 65 short). The intent is that the undesignated parking would be displaced to the designated parking lots. Whether the undesignated parking along the road is discontinued will be a County decision made independently of this Master Plan. OPRD intends that the total parking capacity be limited to the total spaces reflected in the table. Therefore, the designated parking lots will be developed to the total capacity below only if the County discontinues the undesignated road-side parking, or only to the extent that the intended total parking capacity is not exceeded.

Table 9.1. Existing and Proposed Parking Capacities

The Cove Palisades Master Plan Existing & Proposed Parking Capacities		
	Vehicle Parking Spaces for Visitors	
Campgrounds	**Existing**	**Proposed**
Crooked River	182 spaces (for 91 sites)	182 spaces (for 91 sites)
Deschutes	362 spaces (for 181 sites)	362 spaces (for 181 sites)
Group Camp	20 spaces	49 spaces (for 36 RV sites & tent camp)
Total	**564**	**593**
Net Change		**29**
Cabins	**Existing**	**Proposed**
Marina	6 spaces (for 3 cabins)	6 spaces (for 3 cabins)
Peninsula	0	30 spaces (for 15 cabins)
North Cove	0	20 spaces (for 10 cabins)
Deschutes	0	11 spaces (for 3 cabins)
Total	**6**	**67**
Net Change		**61**
Day Use Areas	**Existing Car/Boat trailer**	**Proposed Car/Boat trailer**
Crooked River	171 spaces (84/87)	177 spaces (96/81)
Marina	136 spaces (88/48)	136 spaces (88/48)
North Cove	0	18 spaces (0/18)
Lower Deschutes	149 spaces (99/50)	201 spaces (102/99)
Upper Deschutes	116 spaces (28/88)	176 spaces (90/86)
Undesignated	130 spaces (65/65)	0
Totals	**702 (364/338)**	**708 (376/332)**
Net Change		6
Totals	**1272 spaces**	**1368 spaces**
Net Change	**96 spaces**	
Percent Change Overall	**7.5 %**	

NEPA Reviews Prior to Project Development:

Prior to and during preliminary and final design of planned projects on federally owned lands, OPRD will coordinate with affected federal agencies to assure that the projects comply with the procedures required under the National Environmental Policy Act (NEPA).

Discovery of Cultural Resource Sites During Project Activities

OPRD will take appropriate steps to protect unrecorded historic and prehistoric sites discovered during project activities. Any human remains or cultural or paleontological resources discovered as a result of project activities will immediately be reported by telephone to the authorized officer. All operations in the immediate area of the discovery shall be suspended until written notification to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer, in consultation with a qualified cultural resource specialist, to determine appropriate actions to prevent the loss of significant cultural or scientific values.

Development Proposal Locations:

The following sections of this chapter describe the various facility proposals for The Cove Palisades State Park on a location basis. The "Proposed Development Locations" map, which is found at the end of the chapter, shows where each of the development concepts can be found in the park. Following the location map is a series of concept site plans or drawings. The concept site plans include:

1a. Entrance Sign Concept

1b. Orientation Pull-off Concept

2. (Deleted prior to Master Plan adoption.)

3. Crooked River Visitor Contact Station with Maintenance Yard and Staff Lodging Alternative

4. Crooked River Group Camp with Maintenance Yard and Staff Lodging Alternative

5. Crooked River Dayuse Area Concept

6a. The Marina Concept

6b. The Restaurant/Store Concept

7a. The North Cove Concept A (Cabins with parking)

7b. The North Cove Concept B (Cabins without parking)

8. Mountain View Road Viewpoint Concepts

9. Peninsula Group Cabin Area Concept

10. Deschutes Maintenance Concept with Retreat Alternative

11. Lower Deschutes Dayuse Area Concept

12. Deschutes Camp Entrance Improvements Concept

13. Upper Deschutes Dayuse Area Concept

14. Trails Concept (no drawing)

15. Crooked River Petroglyph Site Enhancement Concept

16. Streaker's Cove Boat-in Camp Concept

17. North Cove Boat-in Camp Concept

1a. & 1b. Entrance Sign and Orientation Pull-off Concepts

These concepts include greater definition of the east entrance to the park and the creation of a pull-off area with orienting maps and signs near the east entrance. The placement of a gateway structure and the creation of another access to the county road will require county approval by the road master.

- **Replace the existing entrance sign with a larger one (50 sf maximum). Retain the stone base if possible.**

- **Construct a corresponding stone gateway structure in the vicinity of the entrance sign.**

- **Construct a new vehicular access from the north side of Jordan Road into the old quarry site near the east entrance of the park.** Create a looped drive with short term, parallel parking spaces for up to 12 long vehicles. Construct a small identification sign. Complete a interpretative panel structure that will hold a large map of the park and vicinity and will show the names and locations of the various recreational facilities in the park. Provide space for additional panels, which may include interpretive or informational material or message board. Provide a foot trail connection between the rim viewpoints.

- **Place a directional sign at the intersection of Mt. View Drive and Jordan Road that directs visitors to the park facilities.**

2. Mountain View Road Maintenance/Staff Housing Alternative

(Concept 2 was deleted prior to Master Plan adoption.)

3. Crooked River Visitor Contact Station with Maintenance Yard and Staff Lodging Alternative

This concept would be located near the west rim of the large terrace where the Crooked River Campground is located. It would be accessed from Jordan Road either via the existing access, or by relocating the access to the east to provide better sight distances. The concept may be implemented in phases. This concept could be implemented without the maintenance buildings and staff lodging at this location.

- **Construct a new park headquarters building. (1200 sf)** This will include a small lobby and reception counter, clerical space, park manager and assistant park manager offices and one additional staff office. The building will also include a break room, restroom and storage area. Parking for staff (up to 10 spaces) and for the public (up to 10 spaces) will be constructed as the first phase along with the building. The remaining parking will be constructed when and if the larger interpretive building is constructed. Public parking should include at least 5 RV size spaces. The new park headquarters building should be sited to allow space for the later construction of a visitor center/interpretive center

to the north. Once the visitor center is constructed it would become the main visitor contact facility, and the headquarters would continue to be the administrative office for the park.

- **Construct a Visitor Center/Interpretive Center building. (Up to 10,000 sf, but may be much smaller.)** This building should include space for a lobby and public restrooms, a reception counter and orientation space, display areas, an audio-visual room, an indoor auditorium, staff break space and storage, and a gift shop and snack shop. The building should be low in height and constructed of materials that are harmonious to the setting, to avoid intruding on the scene as viewed from Jordan Road. The center should be designed to allow visitors to proceed outside to the rim to enjoy views of the canyon and Cascade peaks. A protective wall and/or railing should be constructed along the portion of the rim where visitors will be directed. Interpretive panels would be located along the pedestrian walks and rim wall. An outdoor seating area, for up to 600 seats with audio-visual capacity should be built in conjunction with the visitor center. Parking for up to 70 cars and 15 RVs should be constructed for the visitor center. Trail connections should be completed between the visitor center and its outdoor talk area and the Crooked River Campground.

  The visitor center building and parking capacity for this project cannot be increased through application of the "minor variation" rule in OAR 736-018-0040.

- **This** concept depicts 10 parking spaces that may be designated for use by visitors to the Eyerly Ranch. The ranch is located outside of the park and is owned and administered by the Confederated Tribes of Warms Springs. The Tribes intend to shuttle visitors from the parking lot to the Crooked River Day Use area, then by boat to the ranch.

- **This concept depicts one of the two alternative locations for the maintenance yard facilities proposed for the east side of the park.** The interpretive center and administrative offices may be constructed without the maintenance facilities at this location. If the maintenance facilities were located here they should be visually screened from the other activities occurring on or below the ridge.

- **Construct an 8 bay, enclosed shop building with at least one bay for a crew break room and restrooms. (2400 sf)**

- **Construct a 6 bay, covered storage building. (1800 sf)**

- **Install one year-round caretaker's residence. (1800 sf)**

- **Install up to three volunteer RV sites.**

- **Construct a seasonal, dormitory facility for up to 12 staff, a maximum of 3500 sf.** This facility is for use by temporary and seasonal park staff who cannot afford conventional multiple family housing. Prior to building a dormitory facility in the park, OPRD will explore the availability of other comparable low-cost housing options within the communities of Madras, Metolius and Culver that would meet the needs of the temporary and seasonal staff.

4a. Crooked River Group Camp with Maintenance Yard and Staff Lodging Alternative

Lodging Alternative Description

This concept could be constructed with or without the maintenance staff-lodging alternative. This concept illustrates one of the three alternative sites for a maintenance facility on the east side of the park located to serve the Crooked River Facilities.

- **At the main Crooked River Campground: Add a toilet to the registration building, construct a wood storage building, and playground.**

- **Construct three group use loops with pull-through sites for up to 12 RVs per loop.** The loops will be single pull through. (Max. 36 RVs and 108 persons.) The camp sites capacity for this project cannot be increased through application of the "minor variation" rule in OAR 736-018-0040.

- **Construct a group-meeting hall that can be divided for use by two groups. Provide adjacent "courtesy" parking for up to 8 vehicles.** It should include restrooms, a kitchen, and a wood burning stove, space for tables and some storage space. (*2000 sf*). The parking is not to be used as campsites or extra vehicle camping, but will serve for courtesy use by vehicles registered in the designated campsites in this project area. The 8 space parking capacity cannot be increased through application of the "minor variation" rule at OAR 736-018-0040.

- **Construct a restroom/shower building (52' x 36') in the group use area.**

- **Construct a group tent camp area to the south of the group RV area.** Provide parking for up to 10 cars and 3 RVs and 25 persons. The camp sites and parking capacity described for this project cannot be increased through application of the "minor variation" rule in OAR 736-018-0040.

- **Construct 1 Small Group Shelter** (1500 sf maximum)

- **Alternative location for maintenance, office and staff housing facilities. Construct a 6 bay open storage area, and an 8 bay enclosed maintenance and staff office building. Construct one caretaker residence, up to 3 volunteer RV sites and a seasonal dormitory for up to 12 staff.** (Same purpose and capacity as in concept #3.)

5. Crooked River Dayuse Area Concept Description

This concept includes improvements and some minor expansion of the facilities at the Crooked River boat ramp and picnicking area. Any shoreline work or work in the water will need to be coordinated with Oregon Department of Fish and Wildlife and possibly with the Oregon Division of State Lands. A reported archeological site nearby should be documented prior to preliminary design. Areas of native trees and shrubs should be protected from construction damage.

- **Widen the boat ramp and stripe for a maximum of 4 standard lanes. As an alternative concept, construct a new access way to improve ready, tie down area and maneuver areas (requires the removing of parallel parking along curb). In either case, the efficiency of the launch lane will be improved by providing better maneuvering space for the trucks and trailers entering the ramp.** Install instructional signage and parking time limits.

- **Install two courtesy or boarding docks at the ramp as required by the desired launch configuration.**

- **Widen the pavement on the north and south sides of the approach to the ramps to provide staging coming and tie down area if the alternative access way is not pursued.** Relocate the staff booth as needed.

- Improve parking lot configuration. Enlarge parking lot to edge of Jordan Road right of way. Reconfigure parking spaces to meet or exceed Marine Board standards. Designate oversized spaces (15'x 50') for oversized trucks and trailers. Enlarge parking spaces where possible. Install wheel stops along the center of the boat trailer parking area to restrict trucks and trailers from pulling through. Provide a maximum of 96 short spaces and 81 long spaces, with no increase in the total number of spaces in this lot. The parking capacity at this lot cannot be increased through application of the "minor expansion" rule in OAR 736-018-0043.

- Construct a fish cleaning station.

- Construct up to 6 disabled car parking spaces to the south of the existing lot. Locate these spaces as close as feasible to the water access facilities. The parking capacity in this project cannot be increased through application of the "minor variation" rule in OAR 736-018-0040.

- Construct a new ADA accessible, vault toilet building at the ramps and connect with accessible paths to the new parking lot and to the accessible fishing dock.

- Remodel the existing bathhouse to make better use of the unused space in the building. Provide additional toilet stalls. Possibly convert a portion of the building to a storage area, and/or space for a small snack concession.

- Construct a group picnic shelter. (1200 sf)

- Construct a new, Type 4 toilet building near ski beach.

- Improve the lawn and add railings and rock walls where needed to protect vegetation and prevent erosion, at ski beach.

- Construct a trail from Ski Beach to the marina.

6a. The Marina Concept Description

This concept includes rehabilitation of the docks and expansion and relocation of some of the facilities. A new drainfield will be needed to accommodate the improvements listed here and for the North Cove cabin and parking lot expansion. Any work on the shoreline or in the water will need to be coordinated with Oregon Fish and Wildlife and possibly with Oregon Division of State Lands. Buildings may be remodeled or rebuilt to achieve the objectives.

- Convert the dock anchors to pilings, if the subgrade allows.

- As the docks and piers need to be replaced, complete a redesign of the marina dock layout that allows better and increased circulation and staging space for boats. Incorporate into the design good access to a marine dump station, a gas pump and the houseboat rental area, while reducing congestion and conflicts with adjacent uses. Construct a new breakwater that encloses the new design. Designate dock usage between rental boats and long-term storage. The design should allow for possible future installation of stacked boat storage facilities.

- Include as an alternative up to 40 more boat slips in the marina, for overnight moorage, as an alternative to placing overnight moorage at The North Cove.

- **Rebuild the boathouse to include up to 1000 sf more maintenance/rental area. Design public showers in the space presently used as rental. Relocate rental area to existing maintenance area. Move store to new structure. Provide up to 1000 sf upstairs caretaker/concessionaire apartment.**

6b. Restaurant/Store Concept Description

- **Rebuild the existing toilet building to be used in conjunction with the reconstructed and larger store and cafe and related pedestrian plaza, or incorporate toilets into the cafe remodel.** Size the numbers of stalls to match the expanded cafe requirements.

- **Construct new store and concession area as part of pedestrian plaza (Maximum 1000 sf)**

- **Remodel or rebuild the cafe to expand seating.** Reorient restaurant structure to take advantage of views to lake. Increase square feet of restaurant --only increase seating capacity by 20 seats (New seating capacity 80, including 20 more than existing.). Develop outside seating on terrace overlooking lake. Separate service area from public space. Construct new access road to service court located behind the restaurant and store.

  The restaurant and store concession currently sells food, beverages and sundries. Any significant changes in the types of services offered by the concession, such as the addition of a liquor license for on-site consumption of hard liquor alcoholic beverages, will require consultation with Jefferson County to determine if and how such changes would be allowed.

- **Redesign the existing parking lot to provide better circulation.** Provide short-term parking spaces closest to the cafe/store. The existing parking capacity cannot be increased through application of the "minor expansion" rehabilitation rule in 736-018-0043.

7a. The North Cove Concept Description (Cabins with parking)

This concept includes reworking the existing parking lot, north of the cafe; and providing up to 10 cabins, parking and overnight moorage overlooking and in the cove north of the Marina. The proposed parking lot could provide some relief for the undesignated parking along the Crooked River arm. Any work along the shoreline or in the water will need to be coordinated with Oregon Fish and Wildlife and possibly with Oregon Division of State Lands.

- **Provide up to 10 cabins along or near the ridge to the north.** Provide parking nearby for up to 20 vehicles. Each cabin may be as large as 600 sf and they do not include kitchens, but may include a toilet, a shower and a sink. 6 persons and 2 cars are allowed for each cabin. The cabin and parking capacity cannot be increased through application of the "minor variation" rule in OAR 736-018-0040.

- **Provide up to 40 overnight moorages in the cove to the north.** Connect to new parking by trail.

- **Add a new parking lot for up to 18 boat trailers with space to accommodate large boats.** The parking capacity in this project cannot be increased through application of the "minor variation" rule in OAR 736-018-0040.

7b. The North Cove Concept Description (Cabins without adjacent parking)

Primarily the same as concept # 7a except the parking has been removed from spaces adjacent the cabins into a centralized lot, with the same parking capacity as shown in 7a. Parking capacity cannot be increased from

that shown in 7a through application of the "minor variation" rule in OAR 736-018-0040. Access to the 10 cabins would be by foot. Wheelbarrows or golf carts could be available to assist the visitors loading and unloading.

- **This concept depicts the parking lot at the North Cove as a secured parking lot as an alternative to a non-regulated open day use lot.** A secure fee lot may be considered if the constructed lot is not used efficiently due to its isolated location. The park could lease spaces for trailers moored at the marina during the peak season and use the site to store the houseboats during the off-season.

8. The Mountain View Road Viewpoints Concepts Description

Two of the four existing viewpoints on the east rim along Mountain View Road may to be closed and the other two are to be improved with better surfacing, walls and railings and interpretive panels. If feasible all four viewpoints could be opened at the discretion of the park manager. A caretaker site may be installed at one or both viewpoints. Panels should be constructed so that they can be easily removed for off-season storage. Existing walls and railings should be redesigned to provide safe and attractive viewing and to be very vandal resistant. Parking should be designated near each of the viewpoints but be far enough away to allow pedestrian space at the rim walls. Parking should include sufficient turning radius to accommodate large vehicles. A trail may be constructed between the viewpoints and the proposed orientation pull-off.

9. Peninsula Group Cabin Concept Description

This concept involves discontinuing the RV/tent camping use currently happening at the site and relocating that use to another site in the park. It also includes converting the site to group cabin use, which could be rented individually or by groups.

- **Add 3 unisex showers to the existing toilet building.**

- **Construct up to 15 camper cabins.** Cabins may be grouped or combined into fewer larger cabins which do not exceed the total capacity. 9,000 sf total capacity, 90 persons maximum accommodation and 30 car parking spaces max. Cabins will not have separate kitchen or bathroom facilities. Arrange them to take advantage of views to the lake and to retain privacy between them and to be somewhat hidden from view from the lake. Parking may be clustered. The cabin and parking capacity for this project cannot be increased through application of the "minor variation" rule in OAR 736-018-0040.

- **Construct a meeting hall.** This building should include a kitchen, table area and wood-burning stove. (1200 sf)

10. Deschutes Maintenance/Staff Lodging Concept Description with Retreat Alternative

- **Remodel the existing office building for use as a group cabin.** Change the three offices to three bedrooms, each with double bed. Convert the lobby to sitting area with a wood stove. Add a shower. (Max. 6 persons & 3 vehicles.) Cabin and parking capacity cannot be increased through application of the "minor variation" rule in OAR 736-018-0040 or the "minor expansion" rule in OAR 736-018-0043.

- **Construct 2 group cabins clustered behind the existing office to create a retreat area.** (6 person maximum, 1800 sf max. 4 parking spaces each). Cabin and parking capacity cannot be increased through application of the "minor variation" rule in OAR 736-018-0040.

- **Rehab or reconstruct existing caretakers residence.** Construct new access road to house.

- **Site 3 host RV sites near existing maintenance yard.**

- **Maintain existing maintenance yard.** Construct new access road off of Jordan Road to reduce conflicts with retreat area.

- **Revegatate old bone yard area and restore with native plant materials.**

11. Lower Deschutes Dayuse Area Description

This concept includes additional parking to accommodate undesignated parking that would no longer be allowed on nearby portions of Jordan Road. It also includes a large number of overnight moorage to lessen the daily pressure on the boat ramp. This together with an expansion of the picnic area should significantly lessen the crowding at this site and others.

- **Redesign the existing lots and construct a new parking lot to the east of the existing lot and just south of the cove.** The combined parking capacity cannot exceed 201 spaces, with a maximum of 102 short and 99 long spaces. These capacities cannot be increased through application of the "minor variation" rule OAR 736-018-0040 or the "minor expansion" rule in OAR 736-018-0043.

- **Construct finger docks for overnight moorage for up to 100 boats in the cove to the north.** Construct connecting pedestrian paths to the picnic area and to the new parking lot, which are wide enough to accommodate service vehicles.

- **Remodel the existing bathhouse to make better use of the unused space in the building.** Provide additional toilet stalls. Possibly convert a portion of the building to a storage area, and/or space for a small snack concession.

- **Construct up to two group picnic shelters. (1200 sf each)**

12. Deschutes Camp Improvement Concept Description

This involves reworking the entrance road to the campground registration booth to lessen congestion at peak times.

- **Add up to 2 additional lanes.**

13. Upper Deschutes Dayuse Area Concept Description

This concept includes expanding the Dayuse area to work better from the lower parking lot, and emphasizing that lot for non-boating parking. The upper lot would then accommodate a lot of the boat trailer parking for the ramp here.

- **Expand the grassy picnic area to the south.** Construct rock walls and railings as needed. Harden the shoreline to control erosion and provide for crowded pedestrian use. Add a new restroom building and one group use shelter. Connect a main pedestrian way from the south end of the new picnic area to the north end of the north parking lot.

- **Restripe and slightly expand the north lot for car parking only.** Parking capacity cannot exceed 75 car parking spaces. No boat trailer parking spaces will be provided here. The parking capacity cannot

be increased beyond 75 spaces through application of the "minor expansion" rule in OAR 736-018-0043.

- **Restripe and slightly expand the south lot.** Parking capacity cannot exceed 15 car and 86 boat trailer parking spaces. Parking capacity cannot be increased beyond this capacity through application of the "minor expansion" rule in OAR 736-018-0043.

- **Improve the ramp.** Add a courtesy or boarding dock on the south side. Add a fish cleaning station. Add an incoming and exiting staging lane for boat trailers. As an alternative consider new access drive to provide better staging, maneuvering and tie down areas. Add instructional signage and post parking time limits.

14. Trails Concept Description (no drawing)

Provide better shoreline connections between dayuse areas on each arm of the lake. Connect the Deschutes Campground to the lake sites by trails without creating conflicts with the proposed Streaker's Cove boat-in camp area. Provide trails around the Crooked River Campground area and proposed visitor contact station and interpretive complex, and trail connections between these facilities and the viewpoints along the east canyon rim. Do not pursue trail construction along Jordan Road due to seasonal traffic conflicts. Any trail connection from the proposed rim trail or from local trails into the canyon will need to wait until a safe, stable route can be located and engineered over the canyon rim to the Crooked River Dayuse area. If an emergency road is located between Crooked River Ranch and the park, it may be used as a trail within the park. It may be used as a trail beyond the park is the county and federal agencies agree.

15. Crooked River Petroglyph Site Enhancement Concept Description

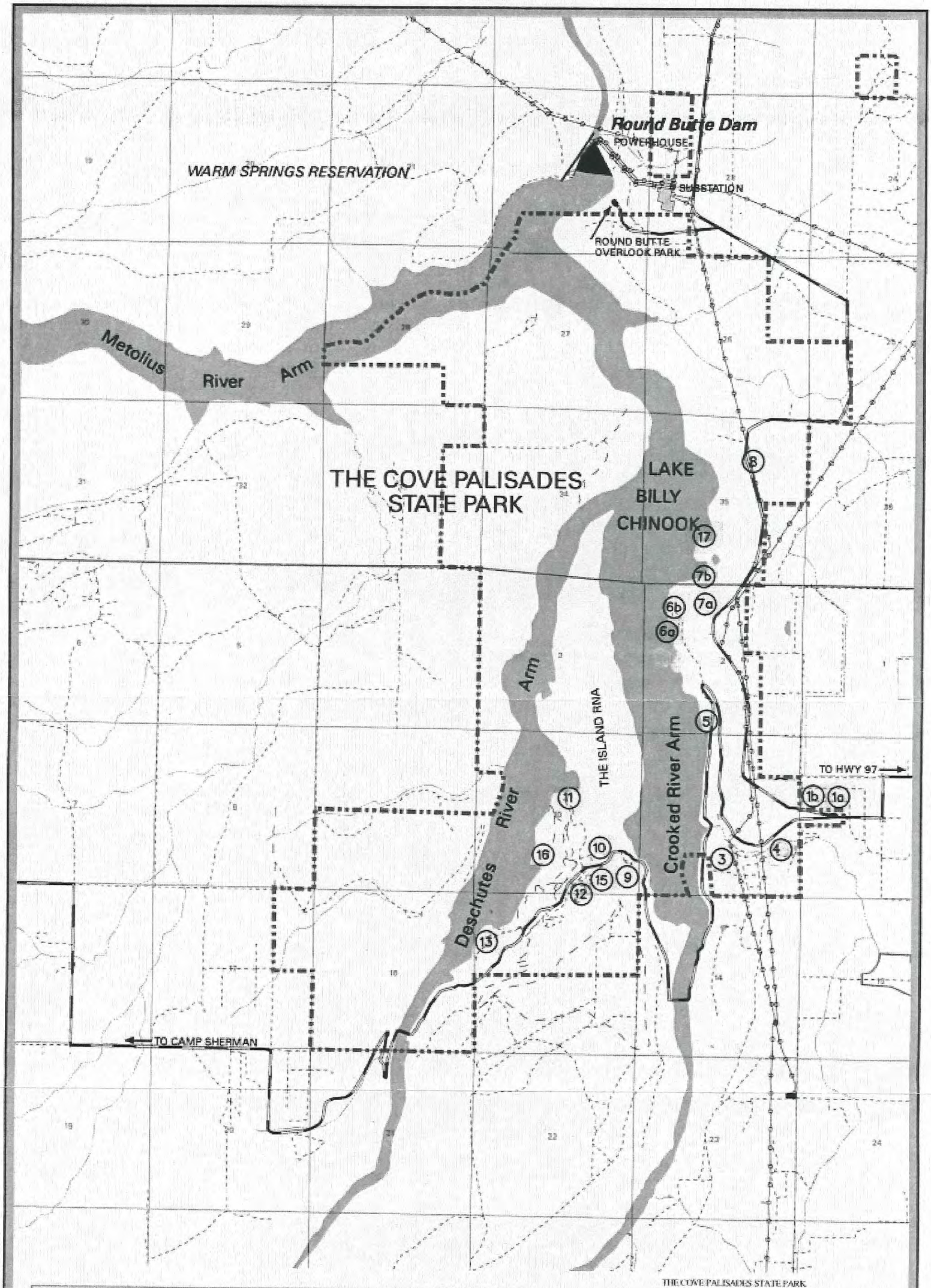
Construct the shelter and rock wall according to the architectural drawings.

16. Streaker's Cove Boat-in Camp Sites Concept Description

Construct a shared overnight moorage dock, small toilet building, individual fire rings, picnic tables and tent sites (15 sites max). Camp site capacity cannot be increased through application of the "minor variation" rule in OAR 736-018-0040.

17. North Cove Boat-in Camp Sites Concept Description

Construct a shared overnight moorage dock, small toilet building, individual fire rings, picnic tables and tent sites. (10 sites max.) Camp site capacity cannot be increased through application of the "minor variation" rule in OAR 736-018-0040.



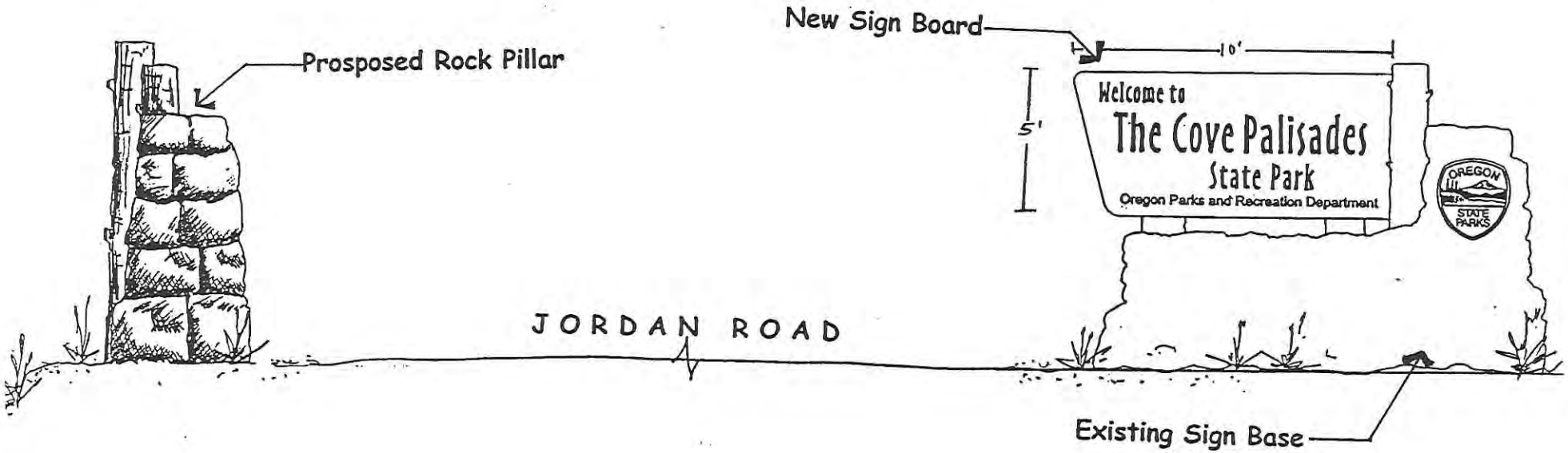
Legend

Development Proposal Locations

CH2MHILL

RDD/tiles.aml template 12 06 Nov 98

Tile T2



Entrance Sign

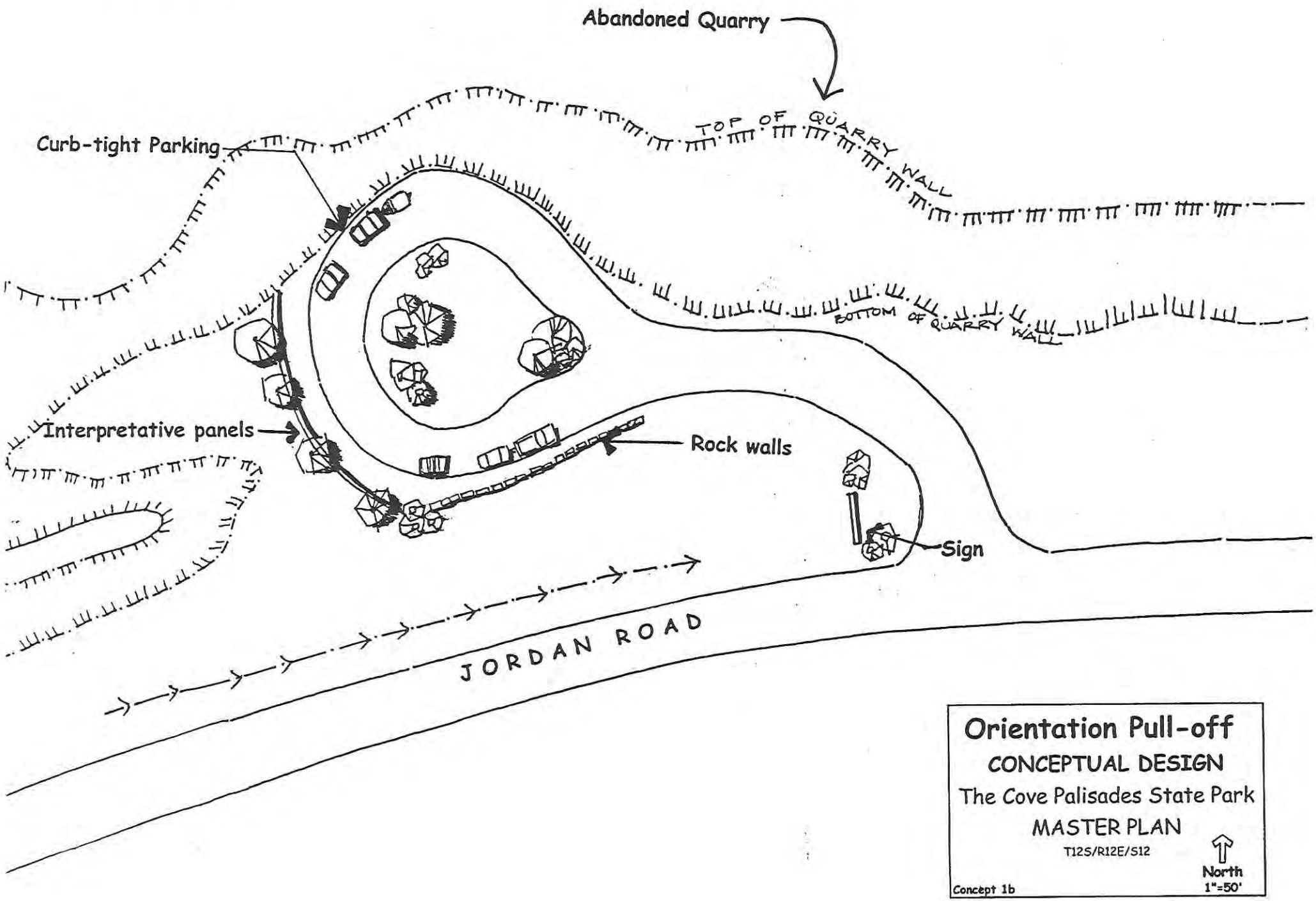
CONCEPTUAL DESIGN

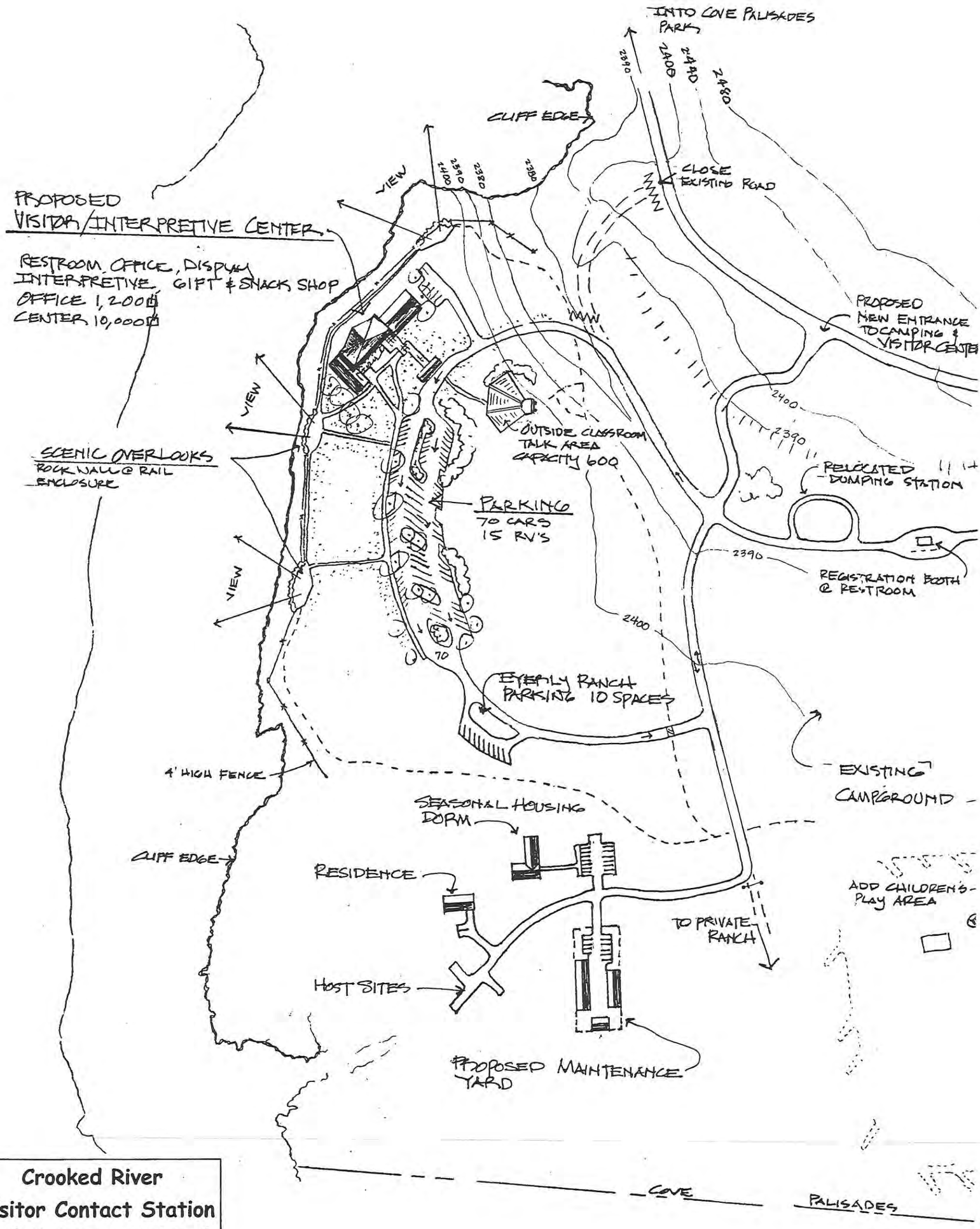
The Cove Palisades State Park

MASTER PLAN

T12S/R12E/S12

Concept 1a

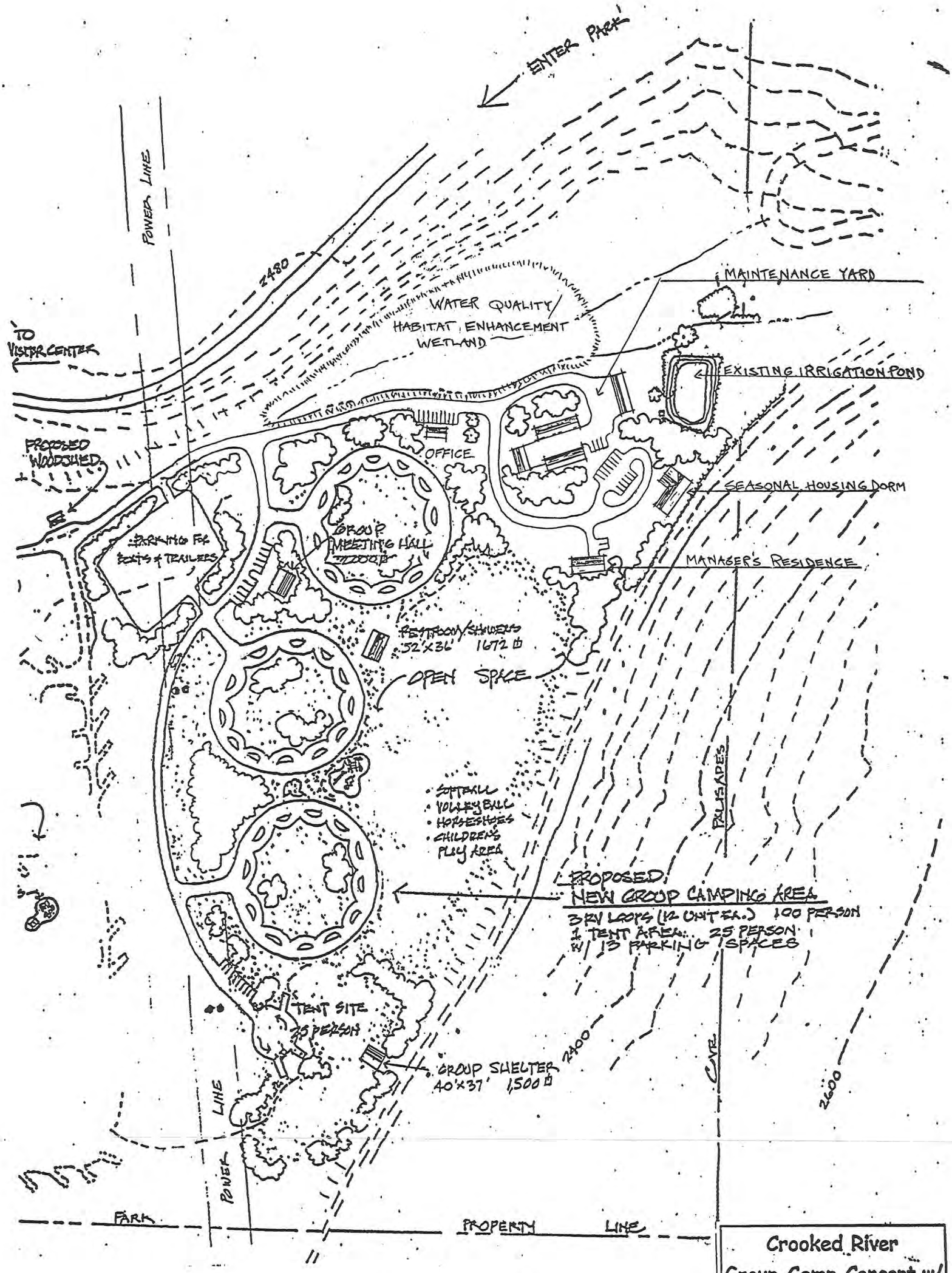

Abandoned Quarry
Curb-tight Parking
TOP OF QUARRY WALL
BOTTOM OF QUARRY WALL
Interpretative panels
Rock walls
Sign
JORDAN ROAD
Orientation Pull-off
CONCEPTUAL DESIGN
The Cove Palisades State Park
MASTER PLAN
T12S/R12E/S12
North
1"=50'
Concept 1b



Crooked River
Visitor Contact Station and Maintenance Yard
CONCEPTUAL DESIGN
The Cove Palisades State Park
MASTER PLAN
T12S/R12E/S11

North
Scale 1"=200'

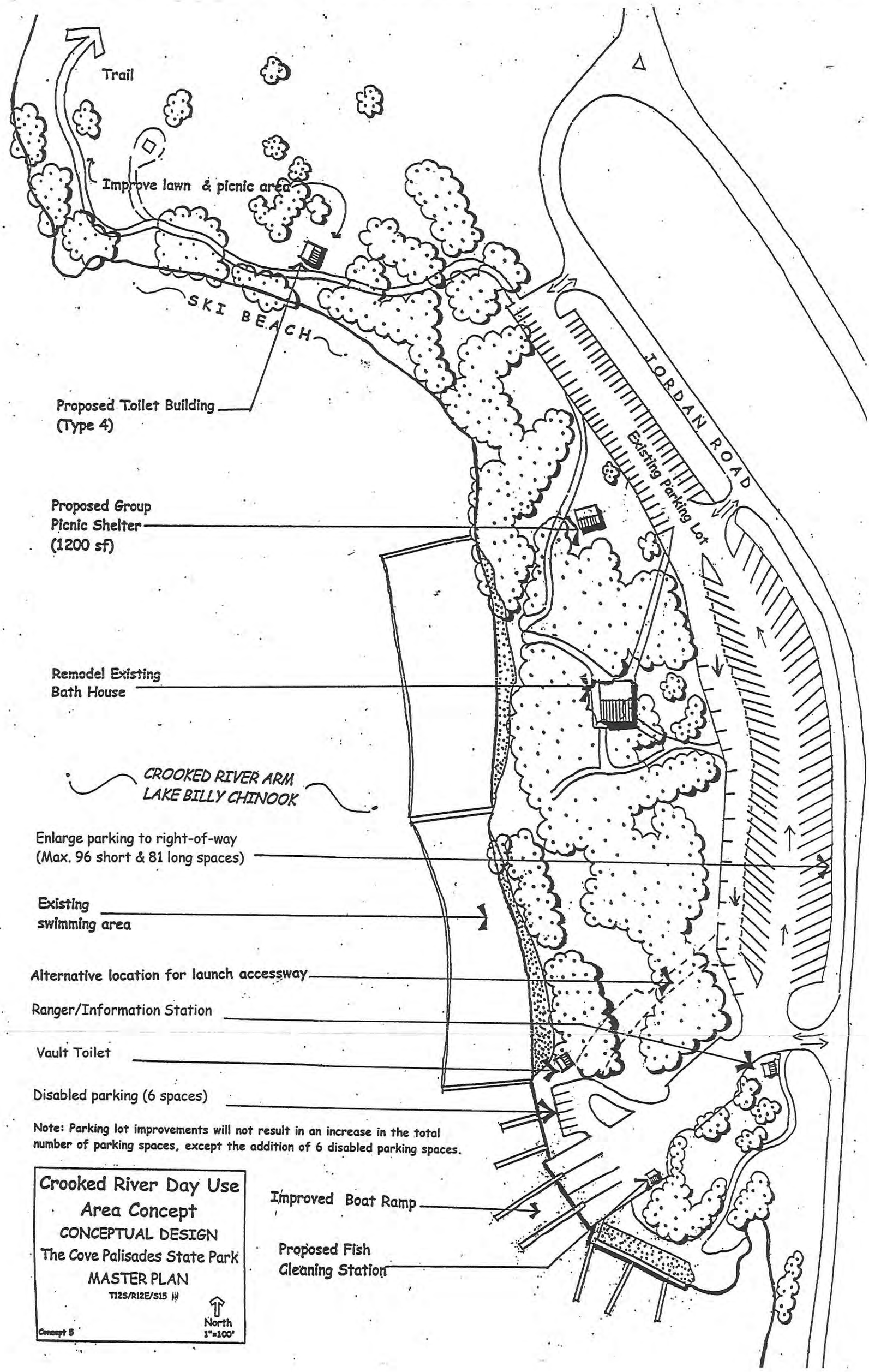
Concept 3



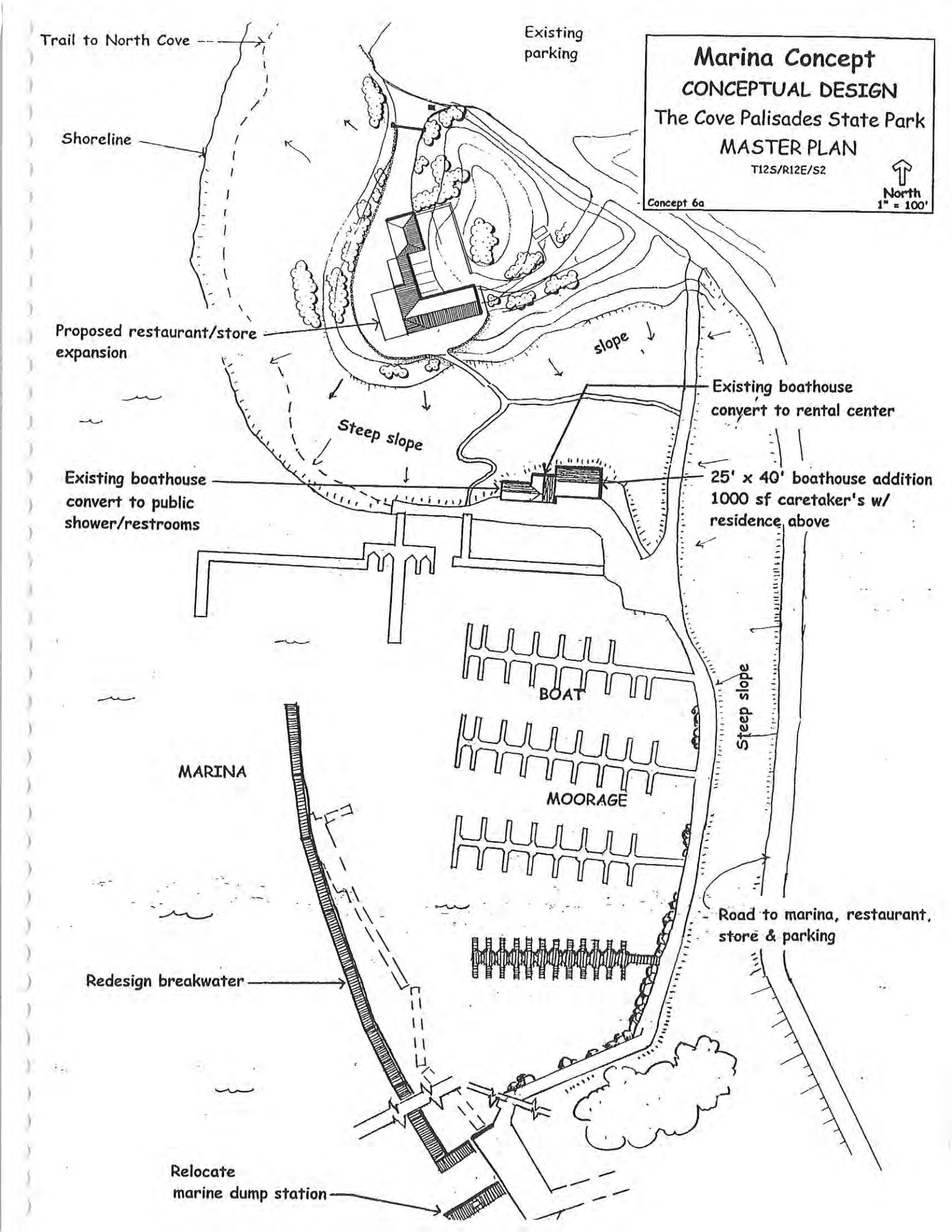
Crooked River
Group Camp Concept w/
Maintenance/Staff
Lodging Alternative
CONCEPTUAL DESIGN
The Cove Palisades State Park
MASTER PLAN
T12S/R12E/S11

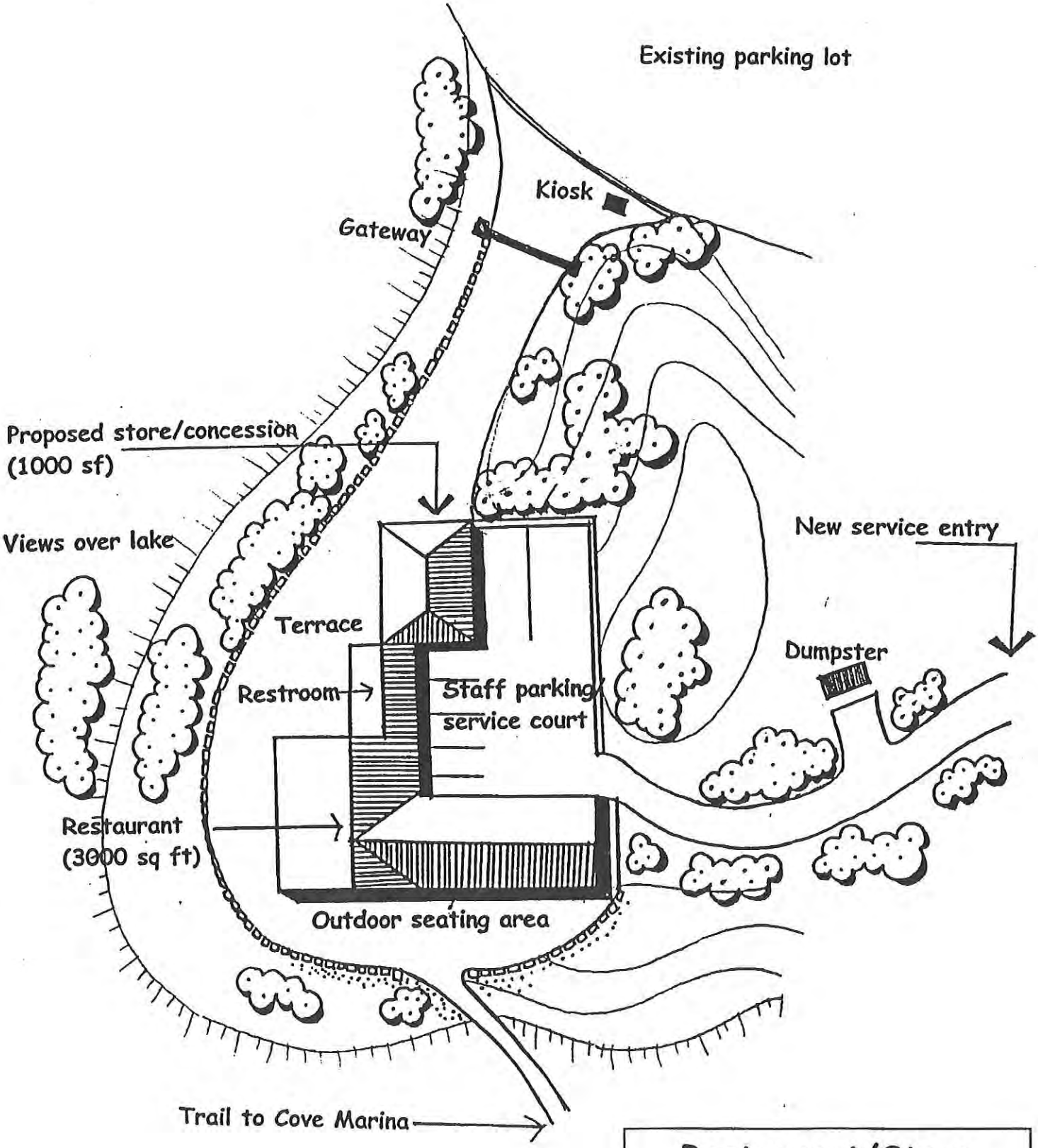
North
1"=200'

Concept 4



Note: Parking lot improvements will not result in an increase in the total number of parking spaces, except the addition of 6 disabled parking spaces.


Marina Concept
CONCEPTUAL DESIGN
The Cove Palisades State Park
MASTER PLAN
T12S/R12E/S2
Concept 6a
North
1" = 100'
Trail to North Cove
Existing parking
Shoreline
Proposed restaurant/store expansion
slope
Existing boathouse convert to rental center
Steep slope
Existing boathouse convert to public shower/restrooms
25' x 40' boathouse addition 1000 sf caretaker's w/ residence above
BOAT
MOORAGE
MARINA
Steep slope
Road to marina, restaurant, store & parking
Redesign breakwater
Relocate marine dump station



Restaurant/Store

CONCEPTUAL DESIGN

The Cove Palisades State Park

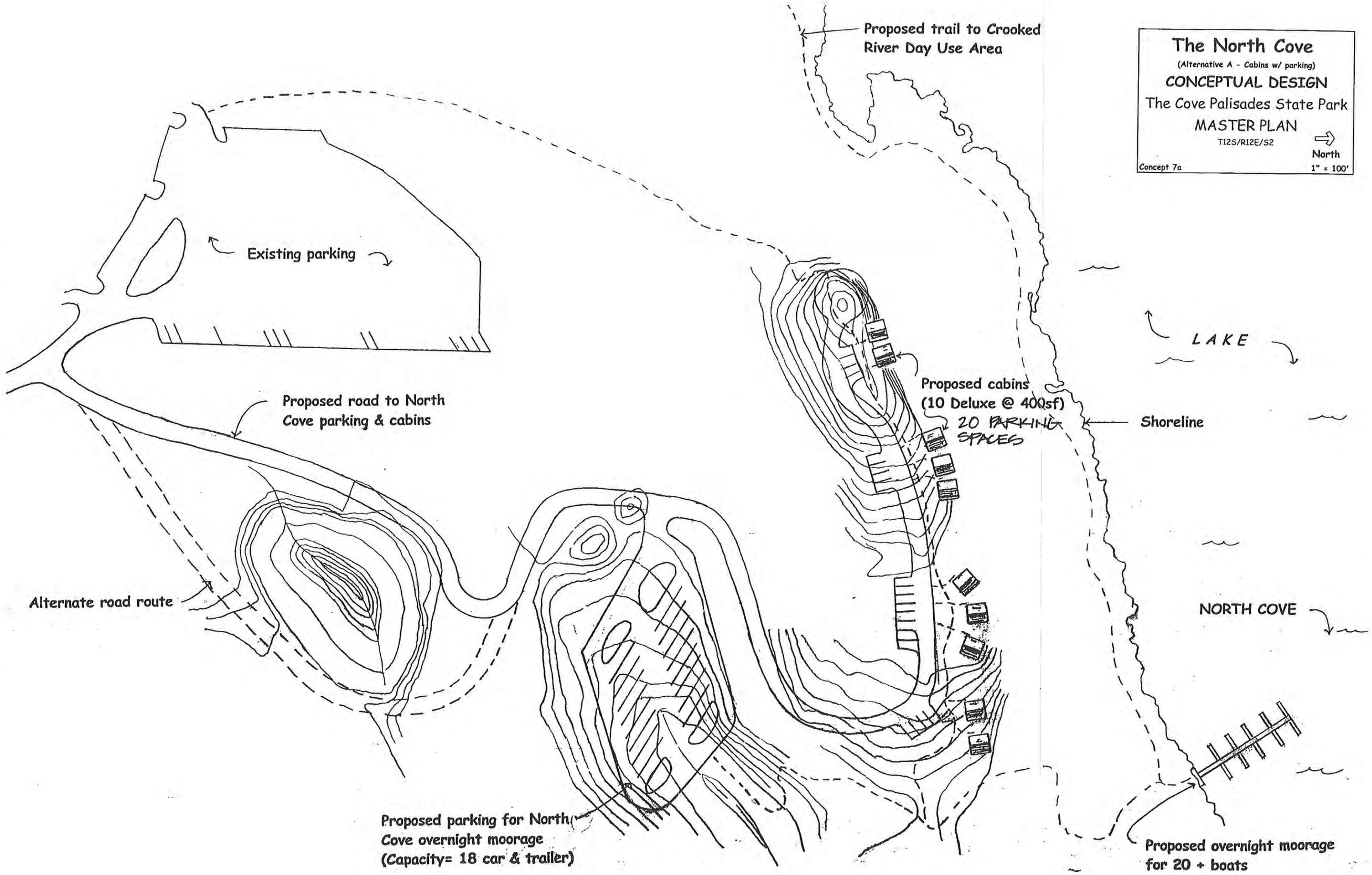
MASTER PLAN

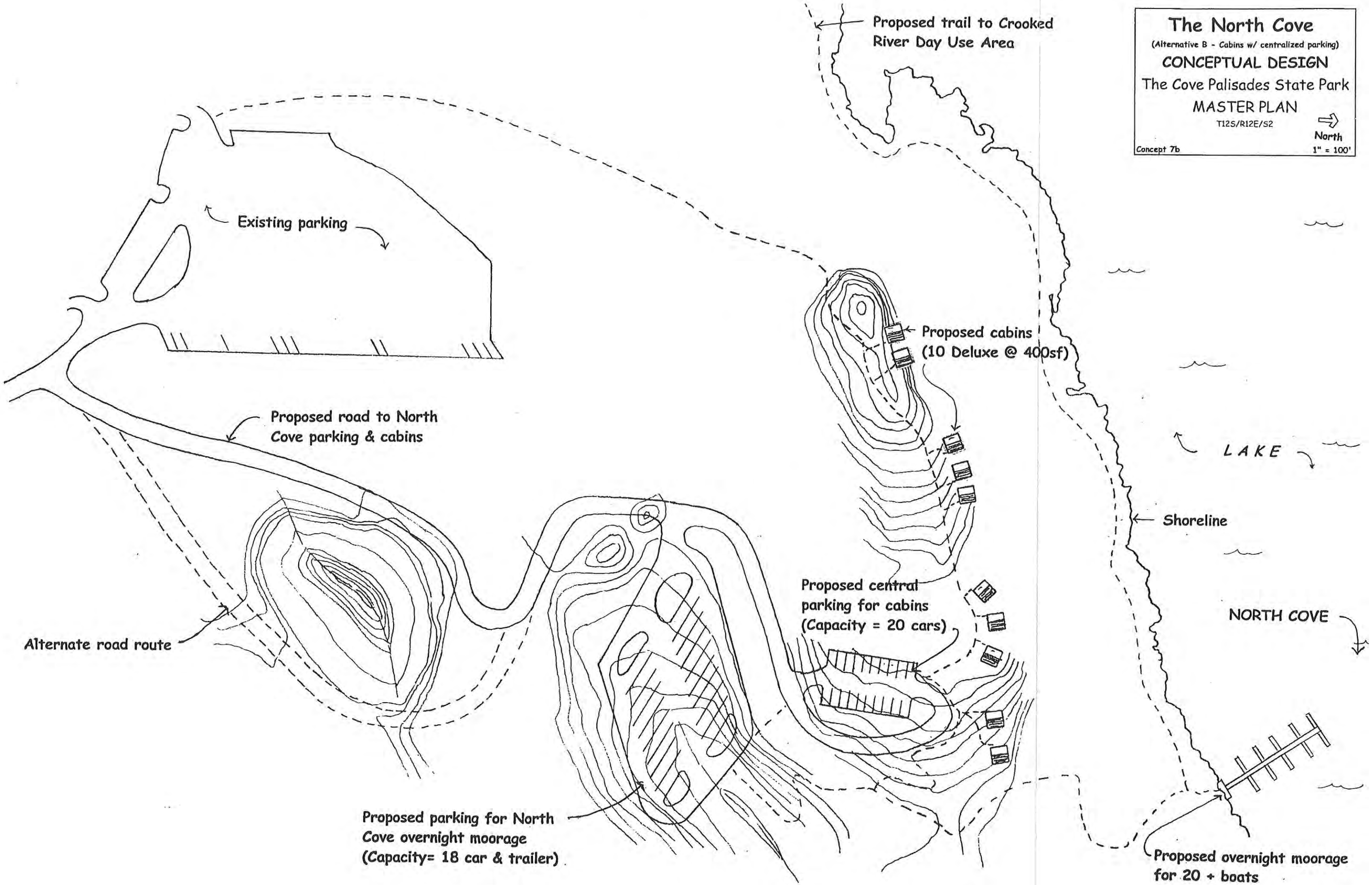
T12S/R12E/S2

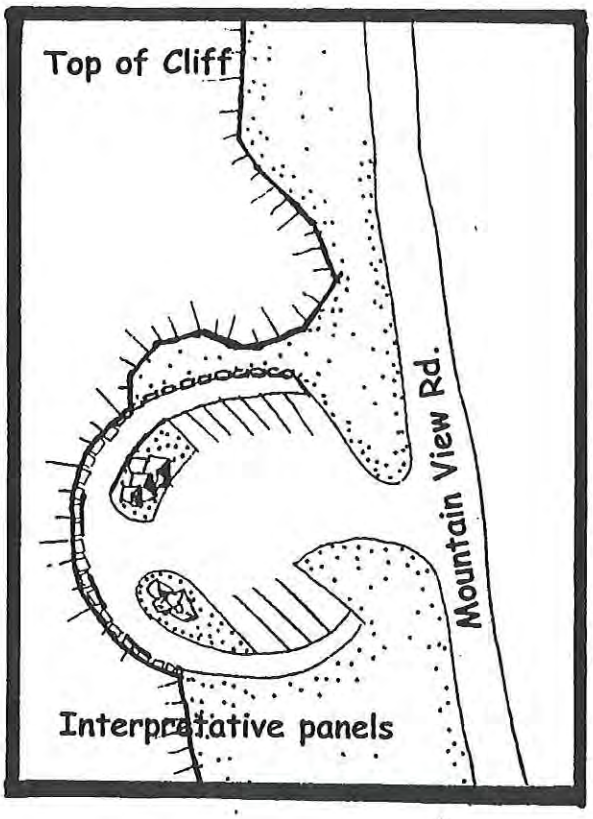
North

Concept 6b

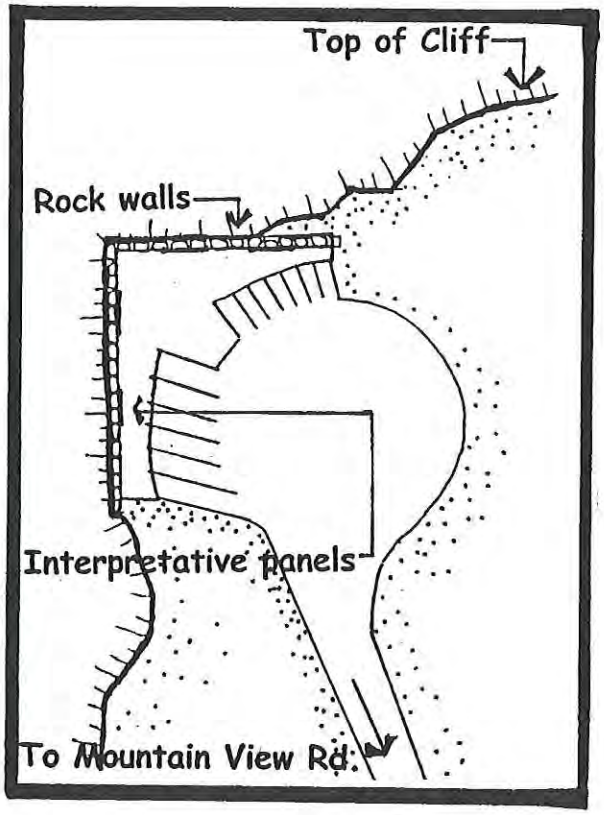
1" = 40'


The North Cove
(Alternative A - Cabins w/ parking)
CONCEPTUAL DESIGN
The Cove Palisades State Park
MASTER PLAN
T12S/R12E/S2
North
1" = 100'
Concept 7a
Proposed trail to Crooked River Day Use Area
Existing parking
LAKE
Proposed cabins (10 Deluxe @ 400sf)
20 PARKING SPACES
Shoreline
Proposed road to North Cove parking & cabins
Alternate road route
NORTH COVE
Proposed parking for North Cove overnight moorage (Capacity= 18 car & trailer)
Proposed overnight moorage for 20 + boats


The North Cove
(Alternative B - Cabins w/ centralized parking)
CONCEPTUAL DESIGN
The Cove Palisades State Park
MASTER PLAN
T12S/R12E/S2
North
1" = 100'
Concept 7b
Proposed trail to Crooked River Day Use Area
Existing parking
Proposed cabins (10 Deluxe @ 400sf)
Proposed road to North Cove parking & cabins
LAKE
Shoreline
Proposed central parking for cabins (Capacity = 20 cars)
NORTH COVE
Alternate road route
Proposed parking for North Cove overnight moorage (Capacity= 18 car & trailer)
Proposed overnight moorage for 20 + boats



VIEWPOINT # 2

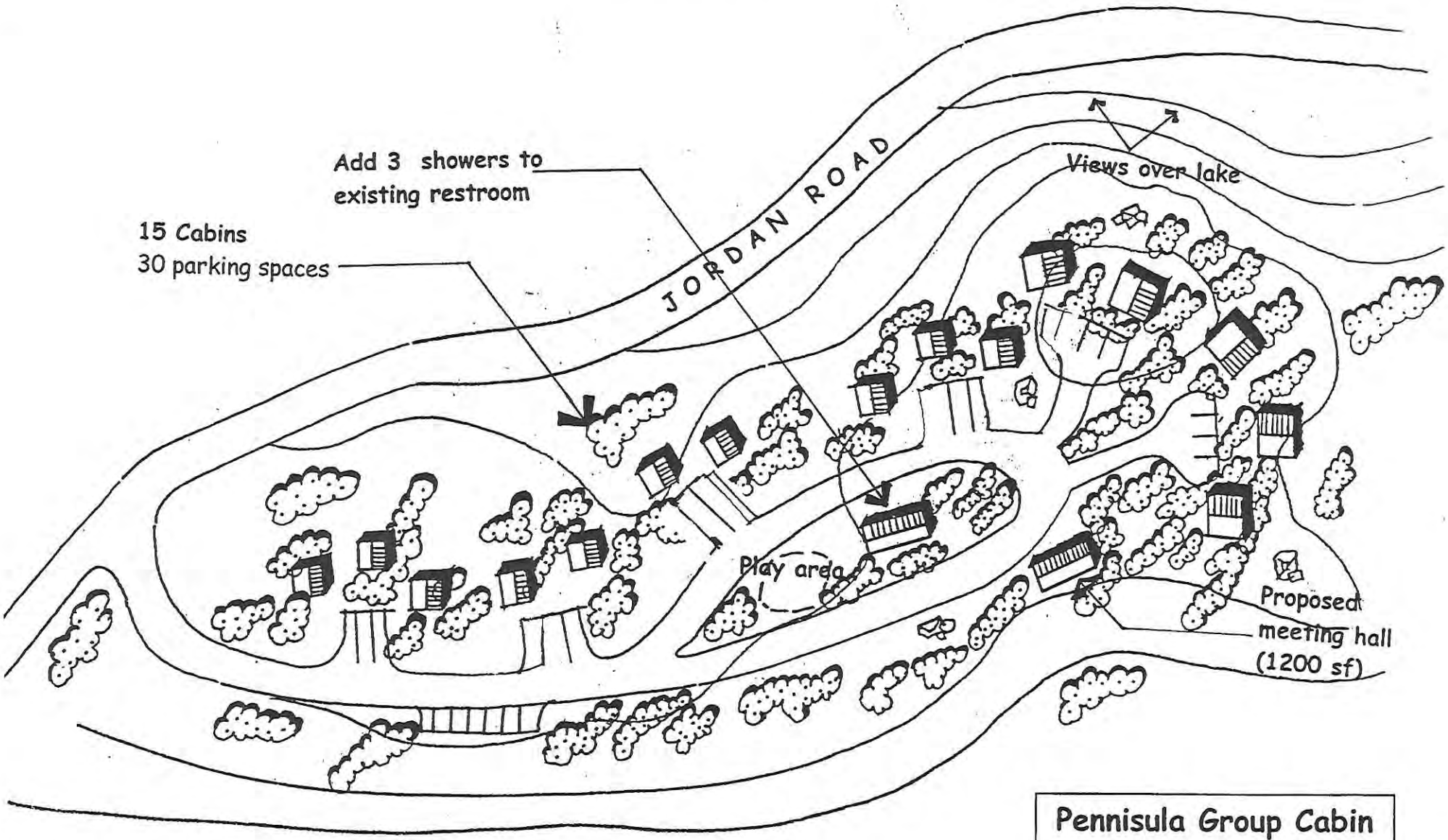


VIEWPOINT # 4

Mountain View Rd.
Viewpoints
CONCEPTUAL DESIGN
The Cove Palisades State Park
MASTER PLAN
T12S/R12E/S11 & 2

North
1" = 100'

Concept 8



Pennisula Group Cabin Area Concept

CONCEPTUAL DESIGN

The Cove Palisades State Park

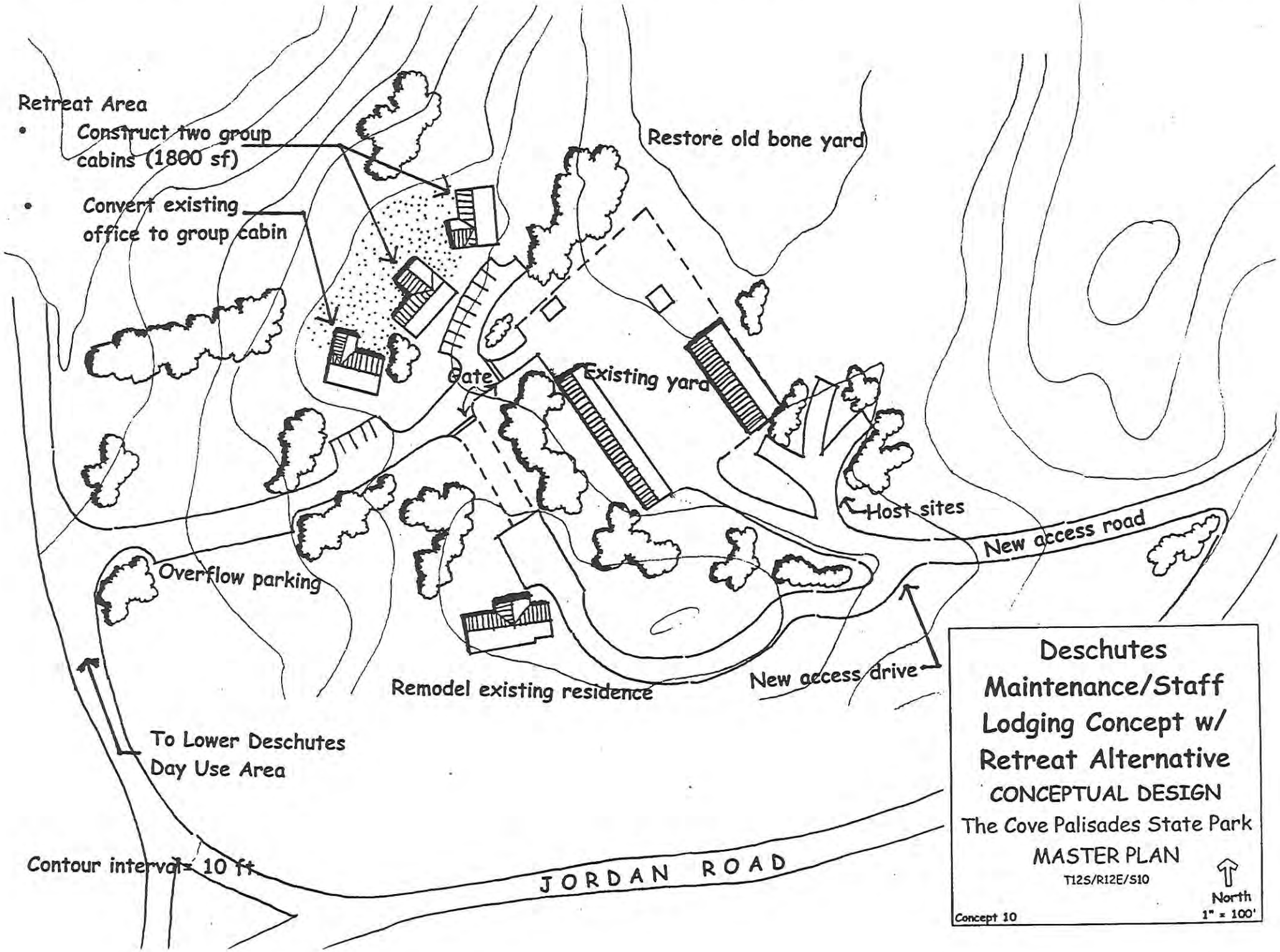
MASTER PLAN

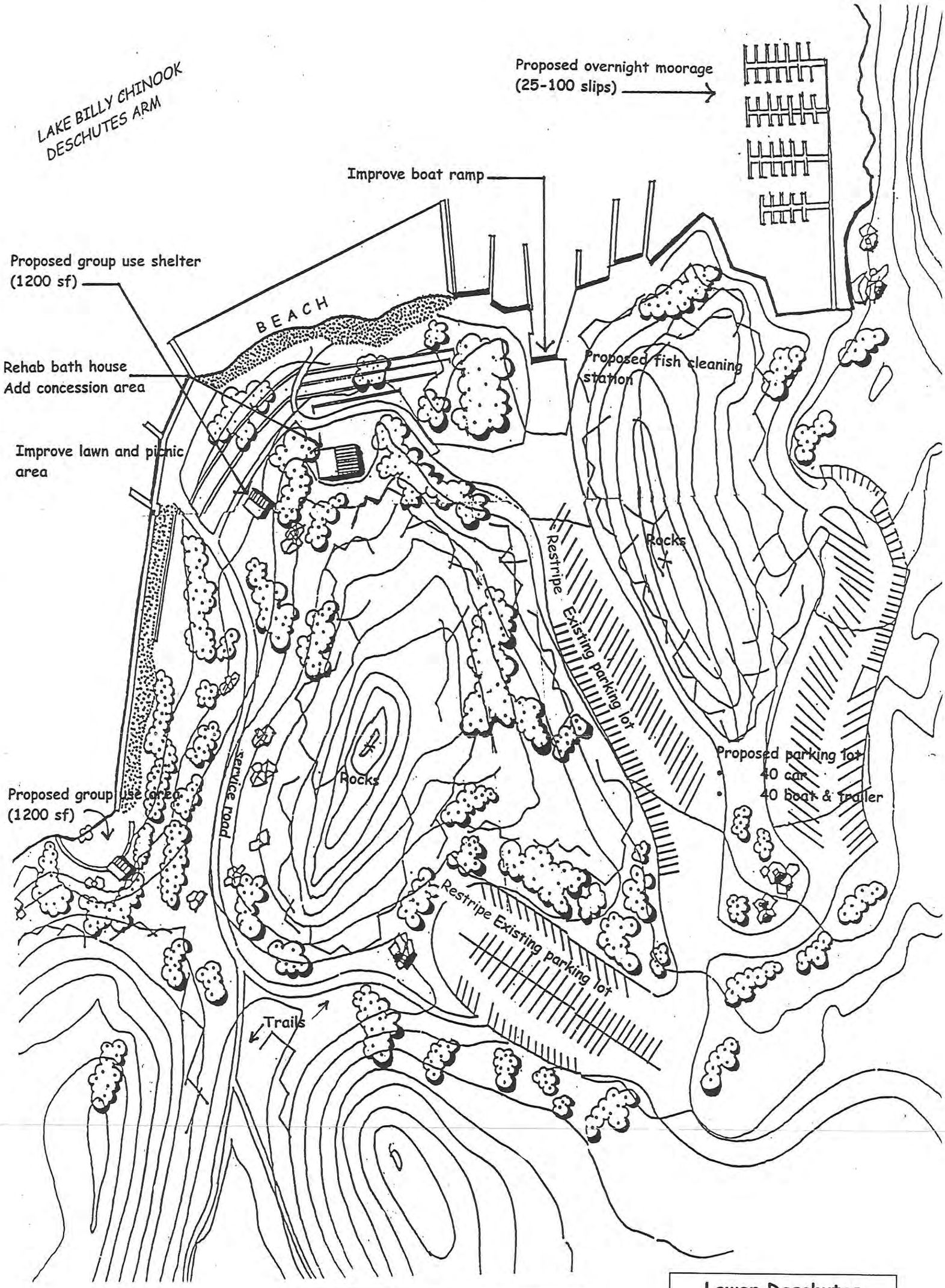
T12S/R12E/S10

North

1" = 100'

Concept 9

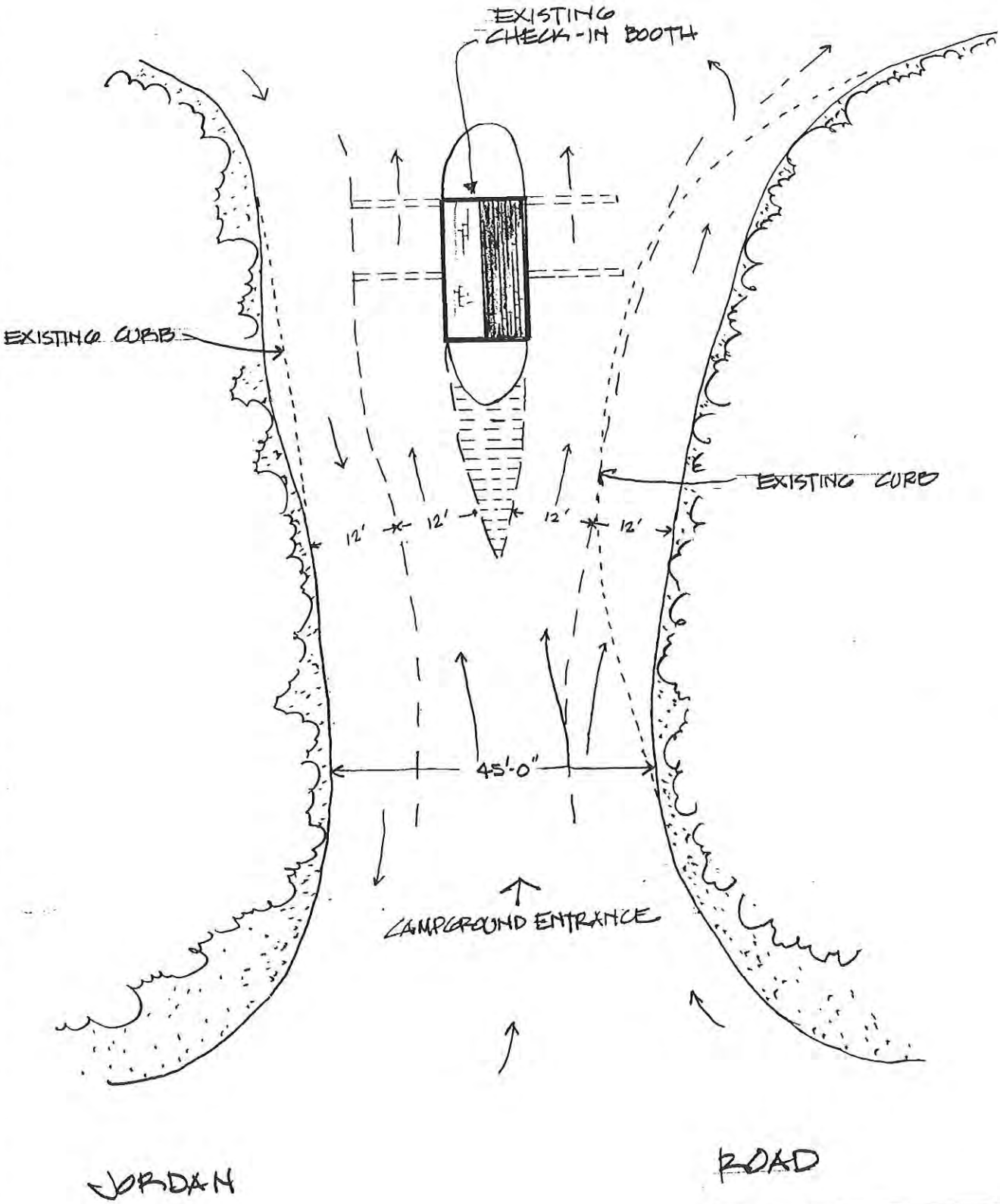

Retreat Area
• Construct two group cabins (1800 sf)
• Convert existing office to group cabin
Restore old bone yard
Gate
Existing yard
Host sites
New access road
Overflow parking
Remodel existing residence
New access drive
To Lower Deschutes Day Use Area
Contour interval = 10 ft
JORDAN ROAD
Deschutes Maintenance/Staff Lodging Concept w/ Retreat Alternative
CONCEPTUAL DESIGN
The Cove Palisades State Park
MASTER PLAN
T12S/R12E/S10
North
1" = 100'
Concept 10



Restripe existing parking lots and construct a new parking lot to accommodate up to 201 combined boat and car parking spaces.

Lower Deschutes Dayuse Area Concept
CONCEPTUAL DESIGN
The Cove Palisades State Park
MASTER PLAN
T12S/R12E/S10
North
1" = 100'
Concept 11

Contour Interval = 2 ft.



Deschutes Camp Improvements

CONCEPTUAL DESIGN

The Cove Palisades State Park

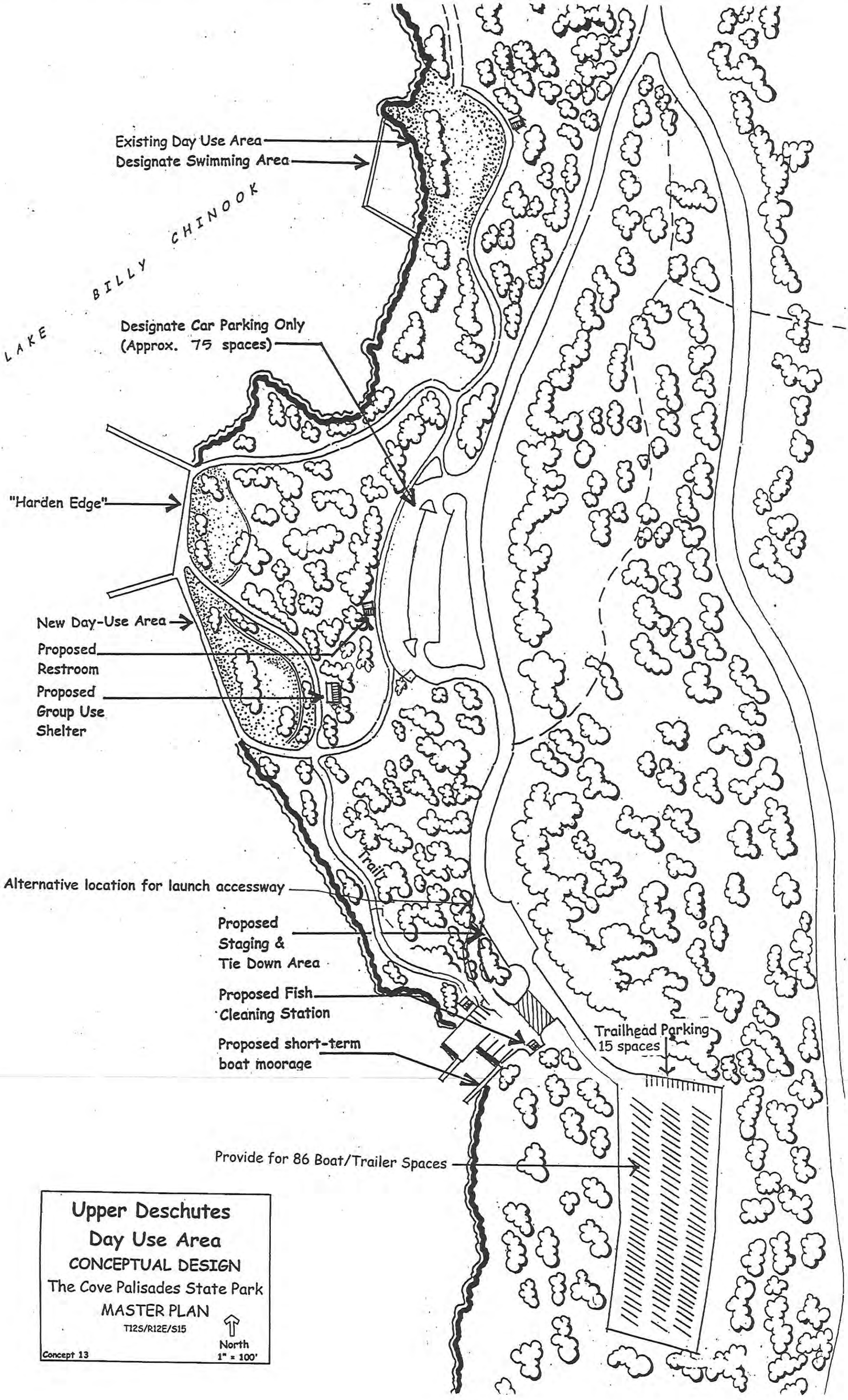
MASTER PLAN

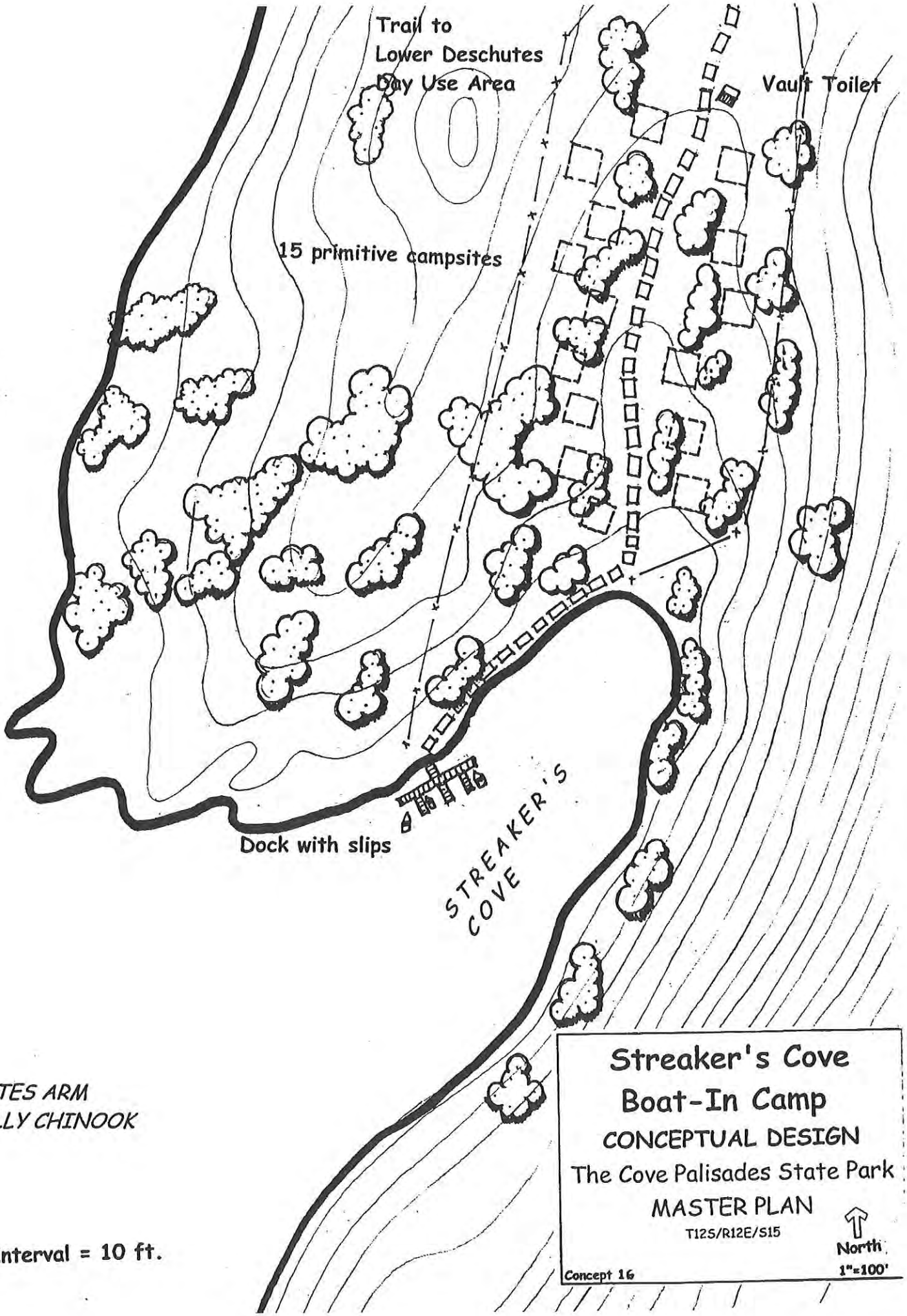
T12S/R12E/S10

North

Concept 12

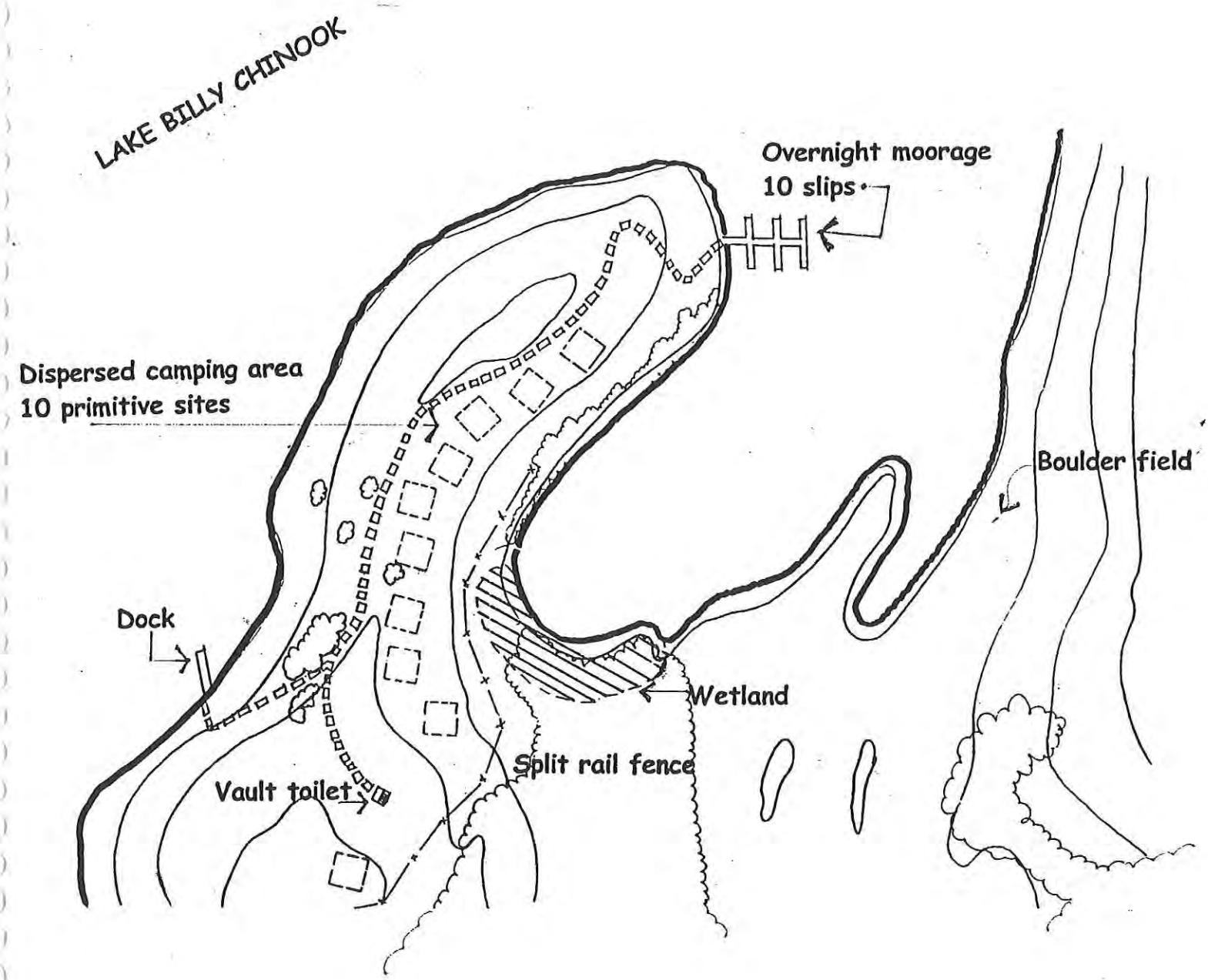
Scale 1" = 20'


Existing Day Use Area
Designate Swimming Area
LAKE BILLY CHINOOK
Designate Car Parking Only
(Approx. 75 spaces)
"Harden Edge"
New Day-Use Area
Proposed Restroom
Proposed Group Use Shelter
Trail
Alternative location for launch accessway
Proposed Staging & Tie Down Area
Proposed Fish Cleaning Station
Proposed short-term boat moorage
Trailhead Parking 15 spaces
Provide for 86 Boat/Trailer Spaces
Upper Deschutes
Day Use Area
CONCEPTUAL DESIGN
The Cove Palisades State Park
MASTER PLAN
T12S/R12E/S15
North
1" = 100'
Concept 13



DESCHUTES ARM
LAKE BILLY CHINOOK

Contour Interval = 10 ft.



Contour Interval =10 ft.

North Cove
Boat-in Camp
CONCEPTUAL DESIGN
The Cove Palisades State Park
MASTER PLAN
T11S/R12E/S35
North
Concept 17
1" = 100'

NATURAL, SCENIC AND CULTURAL RESOURCE MANAGEMENT GUIDELINES CHAPTER TEN

This chapter provides guidelines for the appropriate management of the natural, scenic and cultural resources in the park. The more remote areas of the park are important habitats and plant communities, which are representative of the regional ecosystems. The scenic values of the park are based on the natural values; i.e. the lakes, the geologic landscape. There are also large areas of archeological importance, and even some of historic importance from the Euro-American settlement period.

Natural Resource Management

Staff use the various natural resource inventories and assessments for the park, along with many interagency discussions on resource management, to determine what kinds of guidelines should be portrayed in the master plan. In addition, staff refer to the "OPRD Natural Resource Management Objectives" which were established to provide a general, agency perspective. These objectives are provided below for the reader's reference. Following the objectives the reader will find some more specific guidelines for implementation at The Cove Palisades State Park.

OPRD NATURAL RESOURCE MANAGEMENT OBJECTIVES

The following objectives have been established by OPRD to guide natural resource management decisions for the department's properties statewide.

1. Protect all existing, high quality, healthy, native Oregon ecosystems found within OPRD properties. (Based on Oregon Natural Heritage ecosystem types and OPRD definition of high quality.)

    a. Generally allow successional processes to proceed without intervention.

    b. Identify and monitor existing high quality ecosystems for the presence of threats to a desired type or condition. Determine whether there are changes desired in ecosystem type or condition, based on consultation with Oregon Department of Fish and Wildlife, the Oregon Natural Heritage Program, the Oregon Department of Agriculture Natural Resource Conservation Program and U.S. Fish and Wildlife Service on targeted ecosystems for the region of the park.

    c. Manage the resource to eliminate any unacceptable threats or to attain desired ecosystem conditions and types.

    d. Following a natural or human-caused catastrophic event, such as major fire, wind throw, landslides or flooding, etc., determine what management actions are needed, if any, to attain a desired ecosystem condition or type.

2. Generally restore/enhance existing low quality OPRD resources, to a desired ecosystem type and condition, based on consultation with ecosystem agencies as to what a desired ecosystem should be for the park, and for the region of the park. Retain some low quality areas for future recreational use and development, as identified in the park master plan.

3. Manage all OPRD properties to protect existing occurrences of state or federally listed or candidate species to the approval of jurisdictional agencies:

    a. Broaden species management plans into ecosystem management plans that include the monitoring and management of indicator species.

4. For selected lands, determined in consultation with ecosystem agencies, manage for protected species recovery and related desired ecosystem type and condition.

5. Manage all OPRD lands and uses to keep erosion, sedimentation, and other impacts on important resources low.

6. Identify and acquire additional lands, or enter into management partnerships with landowners, to provide long term viability for important natural resources found within OPRD properties, as needed.

7. In areas of high quality ecosystems or habitats, endeavor to provide opportunities for the public to experience:

    a. Sights, sounds, smells and feeling of representative ecosystems.
    b. Understanding of the ecosystem structure, composition and function.
    c. Larger views of the landscape of which the ecosystems are a part.

8. In selected areas of low quality natural resources, manage for:
    a. Popular or attractive native plants or animals, appropriate to the local ecosystems.
    b. Desired views or settings.

9. Desired cultural landscape restorations for interpretation.

10. Place, design and construct facilities for public access to high quality ecosystems or habitats to avoid significant impacts on the ecosystems.

11. For those OPRD properties or sites which are historically significant and which have been identified by the department as priority sites for emphasizing cultural resource protection, management and interpretation, manage the natural resources in the cultural resource areas to support cultural resource interpretation, unless this would result in unacceptable conflicts with protected species or areas of special natural resource concern.

12. Manage OPRD natural resources to protect visitors, staff, facilities and neighboring properties from harm.

13. Manage OPRD natural resources to protect them from threats from adjacent or nearby properties or their use.

14. Limit the use of non-native plants to developed facility areas or intensive use areas, and as is needed to withstand intensive use and to provide desired amenities such as shade, wind breaks etc. Wherever possible, use native species in landscaping developed sites.

The Cove Palisades State Park Natural Resource Management Objectives

There are some areas of the park that need special types of management, access limits and even certain enhancements to provide exemplary management of the natural resources in the park.

A. **Cooperate with other agencies to protect the ecological integrity of The Island.** OPRD will continue to assist in permitting access to only those visitors engaged in valid research or educational purposes, support the prescribed natural fire plan for The Island and assist in the control of noxious weeds through compatible management actions on adjacent OPRD property, as described in the "The Island ACEC/RNA Natural Area Management Plan Amendment", July, 1997.

B. **Keep the Canadian Bench, Upper Peninsula and other remote areas of the park relatively undeveloped and remote.** Most of the more remote areas of the park are owned by USFS and the BLM. OPRD proposes an interagency agreement that would spell out the level of public access and related development that can occur in these areas, based on the composite suitability mapping in this plan. Utility and emergency access roads would be allowed, as well as trails and small trailheads and overlooks. The agreement would also spell out the responsibilities and tasks of each agency related to fire prevention and fighting, other emergency response, habitat management, any enhancement activities, enforcing no hunting and no grazing within the state park, etc.. The agreement would formalize and clarify any guidelines, objectives or recommendations found in master plans or management plans prepared by the respective agencies for lands within the park. In addition, the agreement could finalize what, if any, land management jurisdictional measures are needed such as updating or terminating leases, pursuing recreation patents, etc..

C. **Protect riparian and wetland areas within the park.** OPRD will pursue partners and funding to install fencing and/or rock walls in heavily used areas where foot traffic is eroding the green areas. These measures are mentioned in the "Development Concepts" chapter, as well. Some areas along the lake banks will be targeted for riparian plantings.

D. **Identify and manage hazards trees in the park.** Locate any unstable hazard trees, or parts of trees, which threaten to fall within or onto any of the current developed areas, or in proposed development areas once development is completed. Carefully remove identified "hazards" as determined needed by the department forester or his designee. Periodic hazard tree surveys should be completed in developed areas. Inspections should also be completed following major storms and prior to opening the area to the public. The OPRD forester can advise on whether the amount of down and/or dead or unstable material require immediate removal or whether removal should be delayed to avoid unnecessary impacts on the site due to wet ground, etc.. Some material may be left for wildlife enhancement, as advised by the forester and wildlife coordinator. Fallen trees may be removed immediately regardless of the site constraints, during the declaration of an emergency by the director, if it is necessary to protect park visitors or staff from unsafe conditions.

   In areas outside of the developed park sites, but within the park, where public and routine staff access does not occur, unstable trees can be allowed to fall naturally. Fallen trees can be left to deteriorate in place, as long as no severe disease, fire or insect problems would result, or no park uses or maintenance activities would be impeded.

E. **Repair or harden eroding banks in recreation areas.** Some of the eroding areas have been identified in the "Development Concepts" chapter to be hardened to accommodate the heavy boating and pedestrian load there. In other areas bioengineering measures can be used to stabilize banks and re-establish vegetation.

F. **Implement educational programs regarding appropriate human behavior around cougars.** Cougars are seen in the park more commonly than they used to be. OPRD has implemented an agency policy on how to handle cougars in the parks. In general, the policy, and an explanatory brochure, states that cougars will not be interfered with unless they are exhibiting aggressive behavior toward humans. The brochure provides information on how visitors should act if they confront a cougar to try to avoid aggressive behavior. Cougar sightings will be coordinated with the OPRD wildlife coordinator and ODFW as needed.

G. **Participate in wildfire abatement program.** This work should be approved by the forester and may include agreements with State Forestry, USFS, BLM, the county and with neighbors.

H. **Manage for protected species.** No state or federally listed plant or animal species are known to occur in areas of the park where visitor or facility management-related impacts may occur. As a result, there is currently no need to complete formal management plans for any of these species. If a listed species is discovered to occur in the vicinity of a developed or used area, staff should contact the department wildlife coordinator and ask for recommendations about whether the appropriate agencies should be contacted and how to proceed. There may be a need for trail or use closures on a seasonal or temporary basis for species such as eagles.

I. **Acknowledge federal jurisdiction of those areas not owned by the state but within park boundaries. Any development within those areas require appropriate federal** permitting processes such as an environmental assessment (EA) or NEPA. Prior to any land trades with federal agencies OPRD shall cooperate with the managing agency regarding natural resource management issues. A management agreement may be necessary in certain circumstances.

J. **Close non-essential roads to general public as needed to protect resources in agreement with managing federal agency.**

K. Cooperate with the BLM in protecting significant caves from impacts that could potentially result from recreational activities in the park.

L. Work with DEQ to identify and help prevent water quality impacts from boating. DEQ has anecdotal information that suggests that illicit discharges of boat wastewater holding tanks into the reservoir may sometimes occur. OPRD will report any known incidents to marine deputies and to DEQ. OPRD will cooperate with DEQ to identify and implement needed measures, such as pursuing funding from the Oregon Marine Board for the placement of floating restroom and wastewater pump station facilities at key locations on the reservoir.

Discharges of boat fuel and oil products could potentially affect the water quality in the reservoir, although there is currently no monitoring for such pollutants and DEQ has no documented evidence suggesting that this is a significant problem on Lake Billy Chinook. Isolated discharges of fuel or oil are most likely to occur at boat moorage and fueling facilities. In addition, recent studies have shown that water craft with two-cycle engines discharge significantly higher levels of pollutants associated with gasoline additives than craft with four-cycle engines. OPRD staff will initiate the following actions:

- Prior to Memorial Day weekend of 2002, consult with DEQ regarding the need to monitor oil and fuel pollution and ways that OPRD can watch for indications that monitoring by DEQ may be warranted.

- Beginning no later than Memorial Day weekend of 2002, conduct and document routine observations of the water surface surrounding boat moorage and fueling facilities. At least one observation of the water surface at the marina fueling station and moorage and at each day use moorage area will be conducted during each weekend between and including Memorial Day and Labor Day weekends. OPRD will report to DEQ any notable evidence of excessive fuel or oil discharges. OPRD will also work with the marina concessionaire on measures to prevent spills at the marina fueling station based on guidance from DEQ and the State Marine Board.

- Beginning no later than Memorial Day weekend of 2002, document the numbers of water craft with 2-cycle and 4-cycle engines among registered campers.

- Beginning in the summer of 2002, conduct and document periodic counts of launched watercraft with 2-cycle and 4-cycle engines to sample the numbers of different types of craft on the lake. These sample counts will be taken at one or more boat launches during the peak use hours at the launch on at least one weekend day each summer for at least 5 consecutive summers.

- Beginning no later than Memorial Day weekend of 2002, work with the marina concessionaire to document the numbers of water craft with 2-cycle and 4-cycle engines rented from the concessionaire.

Scenic Resource Management

A. **Keep views from viewpoints open.** Trees and shrubs should be selectively removed or pruned to retain important views from established viewpoints. Important areas for retaining views include the two viewpoints along the east rim road, which are planned to remain open, selected views from the Peninsula Group Camp and views from the cafe at the Marina.

B. **Retain screening vegetation where needed. Overall the intent is to minimize visitor awareness of facilities and maximize visitor perception of the** natural setting, without obscuring accesses to recreation sites. Native trees and shrubs may be planted, as needed, to enhance screening in areas where vegetation has been lost. Important areas for retaining and enhancing screening include: Between camp sites, between the Deschutes campground and Jordan Road and between the Deschutes office and the proposed group camp and retreat and Jordan Road.

C. **Use harmonious colors and materials.** Any construction should be done with materials and colors that blend with the natural colors of the setting. Placement of stored materials and vehicles or equipment should be done to avoid them being seen from viewpoints and from Jordan Road entering the park from the east.

Cultural Resource Management

The Cove Palisades State Park is rich in cultural resources that are fragile and not conducive to public access. Most of the lands within the park have been inventoried resulting in the documentation of numerous prehistoric and historic sites. However, many of those sites require further study in order to assess their significance and eligibility for the National Register of Historic Places. Overall, cultural resource protection measures include restricting public vehicular access to remote areas. Other monitoring and stabilization measures may be needed and many of these measures have been outlined in federal management plans. OPRD would like to enter into an interagency agreement with BLM and USFS to clarify the roles and responsibilities of each agency in completing needed cultural resource management activities.

The most prominent cultural resource in the park is the rock petroglyph, now located on Jordan Road across from the office area. A plan has been drawn up for constructing a protective roof, interpretive panels and visitor seating area and landscaping. The rock would also be reoriented to return it to its original aspect, as it was in its original location now flooded by the lake. OPRD should continue to work with the tribes to see that this project is completed to a level of mutual satisfaction, and determine what OPRD's responsibilities are for long-term maintenance of the rock and its facility.

OPRD will take appropriate steps to protect unrecorded historic and prehistoric sites discovered during project activities. Any human remains or cultural or paleontological resources discovered as a result of project activities will immediately be reported by telephone to the authorized officer. All operations in the immediate area of the discovery shall be suspended until written notification to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer, in consultation with a qualified cultural resource specialist, to determine appropriate actions to prevent the loss of significant cultural or scientific values.

INTERPRETIVE GUIDELINES CHAPTER ELEVEN

The Cove Palisades State Park staff and volunteers have developed a variety of interpretive materials, displays and programs over the years, with emphasis on both the natural and historic resources in the park and the area.

The master plan provides an agency background for continuing that effort in the form of interpretive Goals, which are found in the "Goals" chapter and general agency wide objectives, shown below. These objectives can be used by the staff to build new materials on. Also, a statewide interpretive needs and priorities assessment will be completed in the next couple of years. The department will be looking at the results of that assessment and related recommendations to determine the appropriate themes, nodes, capture points and hub locations for a park wide interpretive program. It will also provide information for the agency to make final decisions about how large the proposed visitor contact station should be...whether it should be park-centered only or have a more regional emphasis.

OPRD Interpretive Objectives

The primary goal of a park interpretive program is to enhance a visitor's experience by communicating the significant stories about the resources associated with the park to the visitor. The key to providing an interpretive program that both enhances a visitor's recreational experience and provides information to visitors that assist the agency in management of the resources in the park, is to identify first the overall agency goals and with those in mind, develop the park interpretive program goals.

The overall OPRD Interpretive Services Program objective is to heighten and increase public understanding, appreciation and enjoyment of the natural and cultural resources of the OPRD system. However, subordinate goals listed below must also be implemented to aid in future park management and public understanding of the agency and how they can participate in supporting the agency:

1. Promote public understanding of our agency's mission and mandates.

2. Provide visitors with enjoyable and inspirational park experiences.

3. Accomplish management goals by encouraging thoughtful use of resources.

4. Enhance the agency image as competent cultural and natural resource managers.

5. Help generate broad-based agency support.

LAND USE APPROVAL REQUIREMENTS CHAPTER TWELVE

Development of park uses and facilities at The Cove Palisades State Park is governed by Jefferson County under the provisions of the County's Comprehensive Plan. The County's Comprehensive Plan is acknowledged by the Land Conservation and Development Department Commission (LCDC) pursuant to the statewide land use goals, statutes and related administrative rules.

This master plan for The Cove Palisades State Park has been formulated through the master planning process described under OAR 736 Division 18 and OAR 660 Division 34. The master planning process includes procedures for coordinating with affected local governments to obtain local approval of the master plan.

Development Permits

Except where specifically noted in the master plan, all of the projects described in the master plan are granted conceptual land use approval by Jefferson County upon the County's approval of the master plan, as provided in OAR 660-034-0030(2). However, development permits are still required for most of the projects. Prior to beginning construction, the project manager is responsible for consulting with the County and obtaining the necessary permits. The specific requirements for obtaining development permits for a project, and the kind of local permitting process required, may vary from one project to another. The time required for completing development permitting process may also vary substantially, therefore, the project manager should consult with the County early enough to assure that the permitting process is completed prior to the target date for beginning construction.

Prior to issuance of development permits for a project, Jefferson County will conduct the necessary review of the project plans and specifications to assure that the project proposed for construction is consistent with the conceptual design and description of the project in the adopted master plan and with any applicable development standards in the County's ordinances. Because the master planned projects are conceptually approved with the approval of the master plan, the development review process for a project cannot result in denial of the project, provided that the project is consistent with the master plan and any applicable development standards.

Variations from the Master Plan

Under the provisions of OAR 736-018-0040, OPRD may pursue construction of a park use that varies from an adopted master plan without first amending the master plan provided that the variation is minor, unless the master plan language specifically precludes such variation. Any specific project design elements that cannot be changed by applying the "Minor Variation" rule are indicated with the project descriptions in Chapter 9.

The OPRD Director must determine that a proposed variation from a master plan is "minor" using the criteria in OAR 736-018-0040. A minor variation for a master plan, which is approved by the Director, is considered to be consistent with the master plan, contingent upon the concurrence of Jefferson County.

Rehabilitation of Existing Park Facilities

State law allows OPRD to continue any state park use or facility that existed on July 25, 1997. (See ORS 195.125 and OAR 660-034-0030(8).) The law allows the repair and renovation of facilities, the replacement of facilities including minor location changes, and the minor expansion of uses and facilities. Such projects are allowed whether or not they are described in an adopted state park master plan. Any development permits normally required for such projects are still required.

Prior to applying for development permits for a project involving a minor location change of an existing facility or a minor expansion of an existing use or facility, the OPRD Director must determine that the location change or expansion is "minor" using the criteria in OAR 736-018-0043. The Director's determination is subject to the concurrence of the affected local government.

OPRD can limit or disallow the "location changes" or "minor expansions" otherwise allowed by OAR 736-018-0043 by stating such in the master plan. Any existing facilities that cannot be expanded or relocated through rehabilitation under the provisions of 736-018-0043 are indicated with the project descriptions in Chapter 9.