

**Campground Expansions Project
Environmental Assessment
Bend-Fort Rock Ranger District
Deschutes National Forest**

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Alternative C is the Preferred Alternative.

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CHAPTER I – INTRODUCTION

I. PLANNING AREA DESCRIPTION

The Campground Expansions Environmental Assessment (EA) (hereinafter referred to as the EA) project is designed to analyze effects of increased use at Rock Creek and Gull Point Campgrounds in the High Lakes area. It would address the effects of recreation use on the facilities, character and function at these two sites in regards to past, present and future use.

The project is located approximately 50 miles southwest of Bend, Oregon, in the southwestern portion of the Ranger District of the Deschutes National Forest. The project lies within portions of T21S, R7E, Section 12 (Rock Creek Campground) and T21S, R8E, Section 34 (Gull Point Campground) Willamette Meridian. The area is located within the Northwest Forest Plan boundary line and within the Charlton and Browns Subwatershed.

II. MANAGEMENT DIRECTION

The Deschutes National Forest Land and Resource Management Plan (LRMP) as amended by the Northwest Forest Plan, establishes broad direction for the Forest and this project. The analysis conducted for the Campground Expansions Project tiers to the LRMP and its supporting documentation.

III. PURPOSE AND NEED FOR ACTION

The primary purpose and need for this EA is to expand to increase the capacity of these campgrounds so as to better meet the LRMP standards, provide needed recreation facilities, and increase visitor satisfaction while protecting natural resources from impacts caused from over-use.

The Charlie Brown EA (2002) identified that Rock Creek and Gull Point Campgrounds were not meeting Deschutes National Forest LRMP (Forest Plan, p. 4-135) recreation use capacity standards. The Forest Plan states that "...campground capacity would be constructed to meet projected demand...40 to 45 percent (capacity) would indicate the need to assess expanding facilities." Currently, both Rock Creek and Gull Point Campgrounds exceed this threshold.

As recreational use has increased over the last five to eight years in the High Lakes area of the Bend-Fort Ranger District, and as the projected population of central Oregon continues to increase, there is a need for action to achieve long-term management goals.

Furthermore, human use is changing or impacting the characteristics and resources of the campgrounds, in terms of the following:

- The existing campgrounds' size and design, including day use parking, do not meet current use levels, visitor needs or recreational vehicle requirements. There is a need to improve facility function and design to reduce recreation capacity to meet Forest Plan standards and improve visitor satisfaction.

IV. EXISTING CONDITION

1. Recreation

Overnight Camping

Wickiup and Crane Prairie Reservoirs and the adjacent North and South Twin Lakes are high use recreation areas on the Deschutes National Forest. Use of developed recreation facilities in the Wickiup area has increased dramatically over the last two decades. Deschutes National Forest data collected from monitoring has indicated a forest-wide increase of 35% from 1982 through 1995. This equates to an increase of 35,000 Recreational Visitor Days (RVDs). Use has gone up on average in the developed campgrounds within the project area 44% in only a four-year period from 1995 through 1998. Facilities (length of camp spurs, size of parking areas, accessible toilets, etc.) and infrastructure (water lines, sewage systems, electrical, etc.) at many developed sites are inadequate to meet today's needs and/or are in need of replacement or extensive repair.

Recreation use along all points of the Cascade Lakes Byway has been on the increase since the early-1980s, as Bend and central Oregon became destination points for a variety of year-round outdoor pursuits. With abundant water, and the Cascade Mountains creating a spectacular backdrop, the greater Wickiup and Crane Prairie areas provide opportunities for camping (developed and dispersed), motorized and non-motorized boating, angling, and wildlife viewing. These are only a handful of the more popular activities that thousands of people come to experience and enjoy every year.

During the spring the reservoirs also receive heavy use for a few weeks for the opening of fishing season. Both Rock Creek and Gull Point Campgrounds are at high capacity during these times. Rock Creek is mostly in a lodgepole pine setting while Gull Point is set mostly in a ponderosa pine setting, with some mixed conifer.

The maximum PAOT (persons at one time) capacity of a campground is determined by the number of sites available multiplied by 5 (average people per site). Therefore, the maximum combined capacity at any one time for these two developed campgrounds is 565 (113 X 5; Rock Creek has 32 campsites, Gull Point 81). This can then be multiplied by the number of days in the season to determine maximum seasonal capacity. The camping season for the greater Wickiup area is approximately 165 days. Therefore, the maximum PAOT capacity for the campgrounds for the season is 93,225 (113 X 5 X 165).

Table 1 displays use figures gathered from these campgrounds by the concession operator who manages and maintains the facilities under permit from the Forest Service.

The above campgrounds display an average increase of 2.5% per year in total overnight use from 1994 to 2000. In 1998, the peak year for this 7-year timeframe, the two campgrounds combined were at 71% of the maximum seasonal PAOT. For Rock Creek, the average seasonal PAOT for the six-year period is 12,883 or approximately 49% occupancy for the season. At Gull Point, the average seasonal PAOT for the seven-year period is 42,627 or 64% occupancy for the season. This trend is expected to remain stagnant or slightly increase into the first decade of the 21st century.

Table 2 compares Rock Creek and Gull Point Campground occupancy rates during the same time period (1994-2000). Again, data was generated on information gathered from the concession operator.

The occupancy rates have an average increase of 12% in total overnight use from 1994 to 2000. In 1998, the peak year for this seven-year timeframe, the two campgrounds average occupancy was 57%. For Rock Creek, the average occupancy rate for the seven-year period is 43% for the season. At Gull Point, the average occupancy rate for the seven-year period is 47% for the season.

Boat Use

Boat ramps and associated facilities (parking area, toilets) at these two campgrounds provide the access point for day use and some overnight use of the reservoirs. Use is high at the boat ramps, with parked vehicles and trailers overflowing to access roads many summer weekends and especially holiday weekends. The following table displays type of use and changes in use patterns from 1996 to 1999 as collected by the State Marine Board from triennial survey responses from the public.

Table 1: Number of Visits at Rock Creek & Gull Point Campgrounds from 1994 -2000.

CAMPGROUND	SEASONAL PAOT	1994	1995	1996	1997	1998	1999	2000	2001	2002
Rock Creek	26,400	9,554	9,991	11,847	11,646	12,670	10,791	10,797	9,000	8,091
Gull Point	66,825	20,677	25,762	29,871	32,172	41,802	36,747	34,062	31,077	31,353
GRAND TOTALS	93,225	30,231	35,753	41,718	43,818	54,472	47,538	44,859	39,077	39,444
% CHANGE FROM YEAR TO YEAR		--	8%	9%	10%	8%	-14%	-6%	-13%	9%

* Late start due to heavy snow load/late opening.

Table 2: Occupancy Rates of Rock Creek and Gull Point Campgrounds from 1994 to 2000.

CAMPGROUND	1994	1995	1996	1997	1998	1999*	2000	2001	2002
Rock Creek	37%	39%	46%	46%	50%	42%	42%	35%	32%
Gull Point	31%	39%	45%	48%	63%	55%	51%	47%	47%
AVERAGE OCCUPANCY RATE	34%	39%	46%	47%	57%	49%	47%	41%	40%
% CHANGE YEAR TO YEAR		15%	18%	2%	21%	-14%	-4%		

* Late start due to heavy snow load/late opening.

Table 3: 1996 Use and Activity by Reservoir Launch Site Using Oregon State Marine Board Data.

WATERBODY	FISHING	SAILING*	JET SKIING	WATER SKIING	CRUISING	TOTALS
Crane Prairie						
Rock Creek Campground	23,541	--	--	--	--	23,541
Wickiup						
Gull Point Campground	47,836	--	1,011	--	403	48,124
GRAND TOTALS	71,377	N/A	1,011	N/A	403	71,780

*Because the OSMB survey only samples 3.5% of eligible boats in the State, sailing use was not captured for these water bodies. It is displayed here only to represent that the use does occur on these lakes, but there is no use data available.

Table 4: 1999 Use and Activity by Reservoir Launch Site Using Oregon State Marine Board Data.

WATERBODY	FISHING	SAILING*	JET SKIING	WATER SKIING	CRUISING	TOTALS
Crane Prairie						
Rock Creek Campground	43,261	--	--	--	--	43,261
Wickiup						
Gull Point Campground	34,106	--	--	3,075	1,668	38,849
GRAND TOTALS	71,377	N/A	--	3,075	1,668	82,110

*Because the OSMB survey only samples 3.5% of eligible boats in the State, sailing use was not captured for these water bodies. It is displayed here only to represent that the use does occur on these lakes, but there is no use data available.

Other information from the OSMB report includes:

- Crane Prairie Reservoir is the 14th and Wickiup Reservoir the 18th highest used water bodies in the State.
- Boating use has increased at Crane Prairie and Wickiup by 22% and 198% respectively from 1992 to 1995.
- Lack of boat trailer parking was identified as a problem of high to medium incidence at Wickiup.
- Lack of short-term tie-ups and other boating facilities at both Crane Prairie and Wickiup are identified as a problem.

2. Wildlife Habitat

There are Osprey and Bald Eagle management areas adjacent to both campground areas, but there is little to no habitat in the campgrounds themselves. The existing and proposed expanded campground areas receive high recreation use throughout the summer months which preclude these areas as being productive wildlife habitat. There is currently no use by eagles within the expansion areas, and no key habitat components are proposed to be removed.

The project areas do not occur within a Bald Eagle Management Area (BEMA), but both do encompass proposed Bald Eagle Consideration Areas (BECA). BECA's are an area utilized by eagles throughout the year for breeding, foraging and winter roosting. It contains all bald eagle habitat and potential future habitat including flyways, foraging areas, perching sites, nesting sites, and alternate area for breeding or roosting eagles. The designation does not automatically restrict any human activity within the BECA boundary. The expansion areas are not considered essential habitat for eagles.

There are no bald eagle nest sites within the project area. The closest known bald eagle nest site is $\frac{3}{4}$ miles north of Rock Creek Campground and 1 miles east of Gull Point Campground. There are no documented sightings of eagles perching or roosting within the campgrounds.

3. Plants

The proposed expansion area at Gull Point Campground is in a relatively undisturbed area, comprised mostly of native plants and vegetation in a ponderosa pine plant association. The proposed expansion area at Rock Creek is in a previously disturbed area caused from past logging operations in a lodgepole pine plant community.

There are no surveyed noxious weeds, Survey and Manage species, or Threatened, Endangered or Sensitive plants in either expansion area.

4. Cultural Resources

Native use of the project area was prevalent with known sites scattered along the shores of the reservoirs. There are no known sites in the Gull Point area. There are several near the Rock Creek area. Most sites are lithic scatter, with larger sites or camps likely underwater in the reservoirs themselves.

The Gull Point Campground was surveyed in 1988 and the Rock Creek Campground and parking lot project areas were previously surveyed in 1996 for cultural resources. The results were negative for the occurrence of cultural properties in the Gull Point CG.

Two sites have been recorded in the existing Rock Creek Campground and two sites are located approximately 200 meters or more from the project area and would not be affected by the proposed activities. Cultural properties were not discovered during previous surveys in the proposed campground expansion area or the new parking lot.

5. Fisheries

Crane Prairie Reservoir is 5,500 surface acres but has an average depth of only 11 feet. Wickiup Reservoir is over 10,000 surface acres and has a maximum depth of over 70 feet. The fisheries in both are very popular for anglers, with the most popular being for bass, trout and kokanee. Although there is substantial natural reproductions in both reservoirs, the populations are augmented with hatchery stockings.

V. PROPOSED ACTION

The proposed action (Alternative B) is described on page 8. It was designed to be consistent with the Forest Plan, existing laws and Forest Service Manual direction. It proposes the expansion of campground facilities at Rock Creek and Gull Point campgrounds. It would address overcrowded

conditions at this campground and in the day use areas. Improvements would include campsite access roads, new campsites and associated facilities (i.e. picnic tables, fire grills, etc.), camp spurs, water lines and faucets, and toilet buildings. A new boat ramp and parking area would be included at Rock Creek to address overcrowded ramp parking conditions at this location, but not at Gull Point. New facilities would be designed to meet ADA (Americans with Disabilities Act) standards.

1. Decision to be Made

The purpose of this document is to display the effects of the proposed action and the various alternative methods of addressing the purpose and need and issues identified for this EA. It documents an environmental analysis of the alternatives including the no-action alternative. Based on this information and public comments, the Bend-Fort Rock District Ranger would determine which alternative would be implemented in the campground expansion project area and if so, where and under what conditions. An Interdisciplinary Team (IDT) conducted a site-specific environmental analysis. The analysis is supported by reports and background material from resource professionals.

2. Incorporated by Reference

Specialists' reports and their professional references used in the preparation of this Environmental Assessment are found in the appendices and incorporated by reference.

CHAPTER II - ALTERNATIVES

I. SCOPING

The scoping process identifies public, Forest Service and other agencies' issues regarding a proposal to implement an action. Public scoping was initiated early in the process by including this project in the spring, summer and fall 2002, and the winter and spring 2003 editions of the Schedule of Projects (SOP) for the Ochoco and Deschutes National Forests and the Prineville District of the Bureau of Land Management. Letters were mailed to the Project mailing list requesting comments on the Proposed Action (April 12 2002). Public comments are used by the IDT to identify issues, further develop the proposed action and develop alternatives to the proposed action.

There were no comments received from the public on this proposal.

II. ISSUES AND MEASURES

The scoping process for the Campground Expansions Environmental Assessment, including public involvement, identified a total of 2 issues related to the proposed action. The issues, together with applicable laws, regulations, and policies, were used as alternative design criteria. The ability of how each alternative addresses each issue involves the use of "key indicators" or "measures of responsiveness" (measures). Measures were used in this analysis to clarify and compare the difference between alternatives and not as a strict quantitative measure of environmental effects. Measures must be taken in context when interpreting effects.

Issue 1 – Occupancy Rates Exceed Forest Plan Guidelines

The Deschutes LRMP states that "...campground capacity would be constructed to meet projected demand...40 to 45 percent (capacity) would indicate the need to assess expanding facilities." Currently, both Rock Creek and Gull Point Campgrounds exceed this threshold. At 1998 occupancy rate levels, Gull Point greatly exceeded the standard by more than 18-23%. Rock Creek is exceeding the standard by 3-8%. There are currently no capital investment plans to expand existing or construct new campground facilities at these sites. Due to budget cuts at the National and Regional levels, capital investment project funding opportunities are limited.

Unit of Measure – Level of annual use based on camp records collected from the site.

Issue 2 – Crowded Parking Areas

The boat ramps at both Gull Point (North Wickiup) and Rock Creek Campgrounds are very popular for fishing access from early season through the summer camping season. Current use levels often results in overcrowded boat ramp parking areas. Most summer weekends and holidays the parking areas are overflowing, leaving boaters no other option but to park their vehicles and trailers along roadways or adjacent areas where available. This is a safety concern for people walking between vehicles as they may not be visible to motorists. Overcrowding also has had some adverse effects to adjacent vegetation as well.

Unit of Measure – Amount of boat ramp parking.

III. ALTERNATIVE DESCRIPTIONS

Alternatives are designed to move towards the desired condition specified in the Forest Plan consistent with the standards and guidelines in that Plan.

A. Actions Common To All Alternatives

To better meet the intent of the Deschutes Forest Plan, the expansion of Rock Creek and Gull Point campgrounds would occur in both action alternatives. This would help to alleviate the overcrowded conditions that exist as well as improve visitor satisfaction.

B. Alternative A - No Action

The no action alternative is a baseline by which to measure relative changes that would result from implementation of the action alternatives. Under this alternative, the proposed project would not take place. There would be no campground expansion at either Rock Creek or Gull Point Campgrounds. There would be no boat ramp parking improvement or expansion at Rock Creek Campground. Occupancy rates at both campgrounds would continue to be high. Over-crowded conditions would persist at both Rock Creek and Gull Point Campgrounds, and Forest Plan guidelines would not be met. Unsafe conditions would persist at the existing boat ramp at Rock Creek Campground.

C. Alternative B – Proposed Action

Alternative B would expand the campground facilities at Rock Creek and Gull Point campgrounds by approximately 16 and 19 campsites respectively (see Appendix A) for a total increase of approximately 5 acres. It would address overcrowded conditions at the campgrounds and in the day use areas. Improvements would include campsite access roads, new campsites and associated facilities (i.e. picnic tables, fire grills, etc.), camp spurs, water lines and faucets, and toilet buildings. Also, a new boat ramp and parking area would be constructed at Rock Creek to address current overcrowded ramp parking conditions. All new facilities would be designed to meet ADA (Americans with Disabilities Act) standards.

There would be trees removed at each campground to allow for the expansion. Most trees removed would be less than 10” dbh (diameter breast height). At Gull Point Campground, other trees to be removed besides trees less than 10” dbh include 3 lodgepole pine trees (10” dbh) and 5 ponderosa pine trees (between 10-12” dbh). Within the Rock Creek Campground, all trees removed would be 10” dbh or less.

D. Alternative C

Alternative C would be the same as Alternative B except that a new boat ramp and associated parking area and facilities would not be constructed at Rock Creek Campground. Instead, only a smaller parking area, of approximately 25 spaces, would be constructed on the campground access road near the existing boat ramp area. This Alternative does not construct the boat ramp because of low use levels at the neighboring site of Quinn River Campground. A new parking area would alleviate the overcrowding concerns at Rock Creek without the construction of a new boat ramp. Until such time that the capacity of the Quinn River boat ramp nears capacity, a new boat ramp is considered not needed at Rock Creek.

IV. MITIGATION & MONITORING

The following mitigation measures would be applied to all the action alternatives whenever the applicable site-specific conditions are present.

Mitigation Measures Common to All Action Alternatives

a. Wildlife

None.

b. Noxious Weeds

1. Implement the equipment cleaning clause, C6.343. It is essential that all equipment and vehicles to be used in the project are cleaned before entering National Forest System lands and mud, dirt and plant parts are removed.
2. Use gravel from a known weed-free site.

c. Cultural Resources

1. No mitigation is needed as there are no sites within the project area.

d. Fisheries

1. BMP T-21. Servicing and Refueling of Equipment. In summary, service equipment to be used in construction of the campground facilities and parking areas are to be in areas away from water.
2. BMP W-4. Oil and Hazardous Substance Spill Contingency Plan. In summary, have a contingency plan for emergency spill of fuel or hazardous materials into water bodies.

Monitoring Common to All Action Alternatives

Excavation of the vault toilets in the Rock Creek CG should be monitored by a Rec. 7 qualified person or archaeologist because of the potential to impact unknown archaeological sites. The proximity of the proposed activity should not directly affect the known resources but has the potential to expose adjacent buried heritage materials not previously recorded.

CHAPTER III – ENVIRONMENTAL EFFECTS

I. ENVIRONMENTAL EFFECTS

This section describes the beneficial and adverse impacts to the environment that would occur if the alternatives were implemented. Estimated effects are discussed in terms of environmental changes from the current situation and include qualitative as well as quantitative assessments of direct, indirect, and cumulative effects.

1. Recreation

Alternative A (No Action)

Under this alternative, both campgrounds would continue to see high use during the summer camping season, especially on weekends and holidays. Capacity would remain above Forest Plan guidelines and some visitor’s experience may be diminished by the overcrowded conditions. In the case of Rock Creek Campground, crowded conditions in the campground could increase the dispersed camping use adjacent to the campground; an area already high in use and popularity with the public. Overflow conditions would persist at the Rock Creek Boat Ramp parking area. This could lead to the dissatisfaction of some users, as well as not address a known safety concern for pedestrians.

Alternative B (Proposed Action)

The proposed action would reduce the overcrowded conditions that exist at each campground, as well as provide more boat user parking area at Rock Creek Campground.

Gull Point Campground and Rock Creek Campground would be expanded by a total of 19 and 16 campsites respectively, and associated camping facilities (toilet, water system, etc.). This expansion would bring the use levels closer to the Forest Plan guidelines of maximum capacity not to exceed 40-45% for the season. The table below displays the new seasonal PAOT (capacity) given the proposed expansion of the campgrounds, as well as estimated seasonal PAOT. The seasonal PAOT was estimated by averaging total use from 1994-2000. The bell-shape of the total use level for these seven years gives a good representation of what use should be in 2003.

Table 5: Comparison of Seasonal PAOT.

CAMPGROUND	NEW SEASONAL PAOT	CURRENT SEASONAL PAOT	% INCREASE	ESTIMATED 2003 PAOT
Rock Creek	39,600	26,400	44	11,042
Gull Point	82,500	66,825	19	31,585

Table 6 compares occupancy rates from 2002 to the estimated use in 2003.

Table 6: Comparison of Occupancy Rates.

CAMPGROUND	2002	2003	% DECREASE
Rock Creek	42%	28%	42
Gull Point	51%	38%	25

The campground expansions would lower the seasonal capacity below current Forest Plan

guidelines, though Gull Point occupancy rate is just under the 40% threshold. With use likely to increase in the foreseeable future, it's likely that Gull Point would be beyond the threshold within 5-10 years.

The new boat ramp and parking facility would alleviate congestion and safety concerns at the existing launch site. This new facility would also address boat users concerns identified in the 1999 Oregon State Marine Board Survey (lack of boat facilities).

The campground expansion at Gull Point would not be visible from Crane Prairie because all development would be setback approximately 100 feet from the high water mark. The proposed campsites located closest to the shoreline are designated for tent camping only. There would be views throughout the site to the water from campsites located farther away from the shoreline.

Alternative C

Effects for Alternative C are the same as those described in Alternative B except as it relates to the boat ramp. In Alternative C, no boat ramp would be constructed. Instead, a new parking area would be constructed near the access road to the existing launch site. This would alleviate parking congestion and safety concerns at the existing boat ramp parking area.

2. Wildlife

There are no bald eagle nest sites within the Campground Expansions Project. The closest known bald eagle nest site to Rock Creek Campground is $\frac{3}{4}$ miles north adjacent to Crane Prairie Reservoir, and the closest known eagle nest site to Gull Point Campground is 1.0 miles east near Wickiup Reservoir. There are no documented sightings of eagles perching or roosting within the Rock Creek or Gull Point Campground.

The project areas do not occur within a Bald Eagle Management Area (BEMA) (Gull Point Campground is just outside the boundaries of a BEMA), but both do encompass proposed Bald Eagle Consideration Areas (BECA). BECA's are an area utilized by eagles throughout the year for breeding, foraging and winter roosting. It contains all bald eagle habitat and potential future habitat including flyways, foraging areas, perching sites, nesting sites, and alternate areas for breeding or roosting eagles. The designation of an area as a BECA does not automatically restrict any human activity within the BECA boundary. Management emphasis would be on the BECA as a unit. The areas where the campgrounds would be expanding would not currently be considered essential habitat for any eagles.

The habitat where the Rock Creek Campground would be expanding to is lodgepole pine, and does not provide any suitable habitat for bald eagles. The habitat where the Gull Point Campground would be expanding to provides suitable habitat for bald eagles. As discussed within the project description, there would be some trees removed to allow for the expansion, but all trees removed would be less than 12" dbh, with most trees being less than 10" dbh.

No Action/Action Alternatives: The no action and action alternatives would have "no effect" on bald eagles and their habitat. There is currently no use by eagles within the expansion areas, and no key habitat constituents are proposed to be removed. Both campground areas, within and adjacent to the campgrounds, are already heavily used by recreationists, which has already had an effect on the current use of the suitable habitat by bald eagles

3. Plants

Alternative A - No Action

There is a low risk of noxious weeds being spread under this alternative since there would be no new ground disturbance from construction activities. Ground disturbing activities provide an area for noxious weeds to become established.

Alternatives B and C:

There is a high risk rating for these alternatives because there is a known spotted knapweed population along Road 42. This is a main access route for campers and boaters to Rock Creek Campground and boat ramp. This could lead to the introduction of noxious weeds with seeds transported by motor vehicles.

4. Cultural Resources

Alternative 1 – No Action

Under this alternative the project would not be implemented and would therefore not have an effect on cultural resources.

Alternative 2 – Proposed Action

Under this alternative there would be new campground expansion at Gull Point and new campground expansion, including a new boat ramp and associated parking at Rock Creek Campground. The improvements of the campground facilities include access roads and camp spurs, new campsites, associate facilities (i.e. picnic tables, fire grill, etc.), water lines and faucets, and vault toilets. There would also be a new boat ramp and parking area constructed along with a vault toilet and fish cleaning station. There are no historic properties in the proposed project area; therefore there would be no effect.

Alternative 3

This alternative would be the same as Alternative 2 but would not have a boat ramp facility. There would be a new parking lot constructed for the existing boat ramp across from the existing boat ramp road. Cultural resources are not present in the proposed project therefore there would be no effect.

5. Fisheries

Alternative A - No Action

There are no direct effects anticipated to water resources, fish populations or fish habitat. A potential indirect effect is increased dispersed camping along the reservoirs as campgrounds fill. This could lead to reduced shade and increase overland flow of fine sediments into the reservoirs. These effects, if they do occur, would be minimal and would not be measurable.

Alternative B

There would be some fine sediment input into Crane Prairie Reservoir while the new boat ramp is constructed. The volume is expected to be less than 3 cubic yards. This relatively small volume for the 5,500 acre reservoir would not have any measurable adverse effects to water resources, fish populations or fish habitat.

Alternatives B and C

The expansion and parking area at Rock Creek are both outside of the Riparian Reserve designation (150 feet from the shore). The topography of the project area is generally flat, with no riparian vegetation present. As such, the expansion of these campgrounds would not have any measurable adverse effects to water resources, fish populations or fish habitat.

Both alternatives are consistent with Executive Orders 11988 and 11990, in that there would be no effects to wetlands and floodplains.

II. OTHER EFFECTS

All alternatives are in compliance with relevant federal, state and local laws, regulations, and requirements designed for the protection of the environment. None of the alternatives establishes a precedent for future actions, or a decision in principle about a future consideration.

1. Consumers, Civil Rights, Minority Groups, and Women

Effects on consumers, minorities and women are within the scope of effects described in the Final Environmental Impact Statement for the Deschutes Land and Resource Management Plan (LRMP 8/90).

2. Unique Landforms/Geologic Hazards

Under alternatives B and C there would be some modification to topography with the development of the campgrounds and boat ramps. There would be no effect to unique characteristics of the geological or ecological resources of the caves.

3. Effects on Noise

There would be some noise associated with this project during construction in alternatives B and C, but it would be short term, less than three months.

4. Effects on Water Quality

There would be localized, temporary increase in turbidity during boat ramp construction, but no long term effects to water quality. However, since the ramp would not be constructed at this time, there would be no effect to water quality. None of the Alternatives would retard or prevent attainment of the Aquatic Conservation Strategy objectives.

5. Public Health and Safety

No adverse effects to public health or safety have been identified. The construction zones would be thoroughly marked on the ground and posted to inform the public of any cautions.

6. Irretrievable/Irreversible Resources

There would be some irretrievable commitments of resources due to the proposed parking lot relocations included in the action alternatives.

7. Roadless

There are no inventoried roadless areas within or adjacent to the project area. There would be no change to the unroaded or undeveloped character as defined by the current proposed rule for roadless areas.

CHAPTER IV - CONSULTATION

CONSULTATION WITH OTHERS

Public scoping for this project began with the mailing of the proposed action to the public on February 2002. This letter described the Proposed Action and requested comments by the end of March 2002. This project was also included in the spring, summer, fall and winter 2002 and the spring 2003 Schedule of Projects. The effects of the issues are discussed in detail in Chapter III, Environmental Consequences. There was no response to the scoping letter from the public.

List of Interdisciplinary Team

Leslie Moscoso	IDT Leader, Writer/Editor and Recreation
Marcelle Boehme	Wildlife Biologist
Shelley Borchert	Wildlife Biologist
Lucy Hamilton	Archeologist
Patricia Joslin	Ecologist
Tom Walker	Fisheries
Robin Gyorgyfalvy	Landscape Architect

APPENDIX A

Campground and Boat Ramp Parking Area Designs

Figure 1: Location map for the Gull Point Campground Expansion.

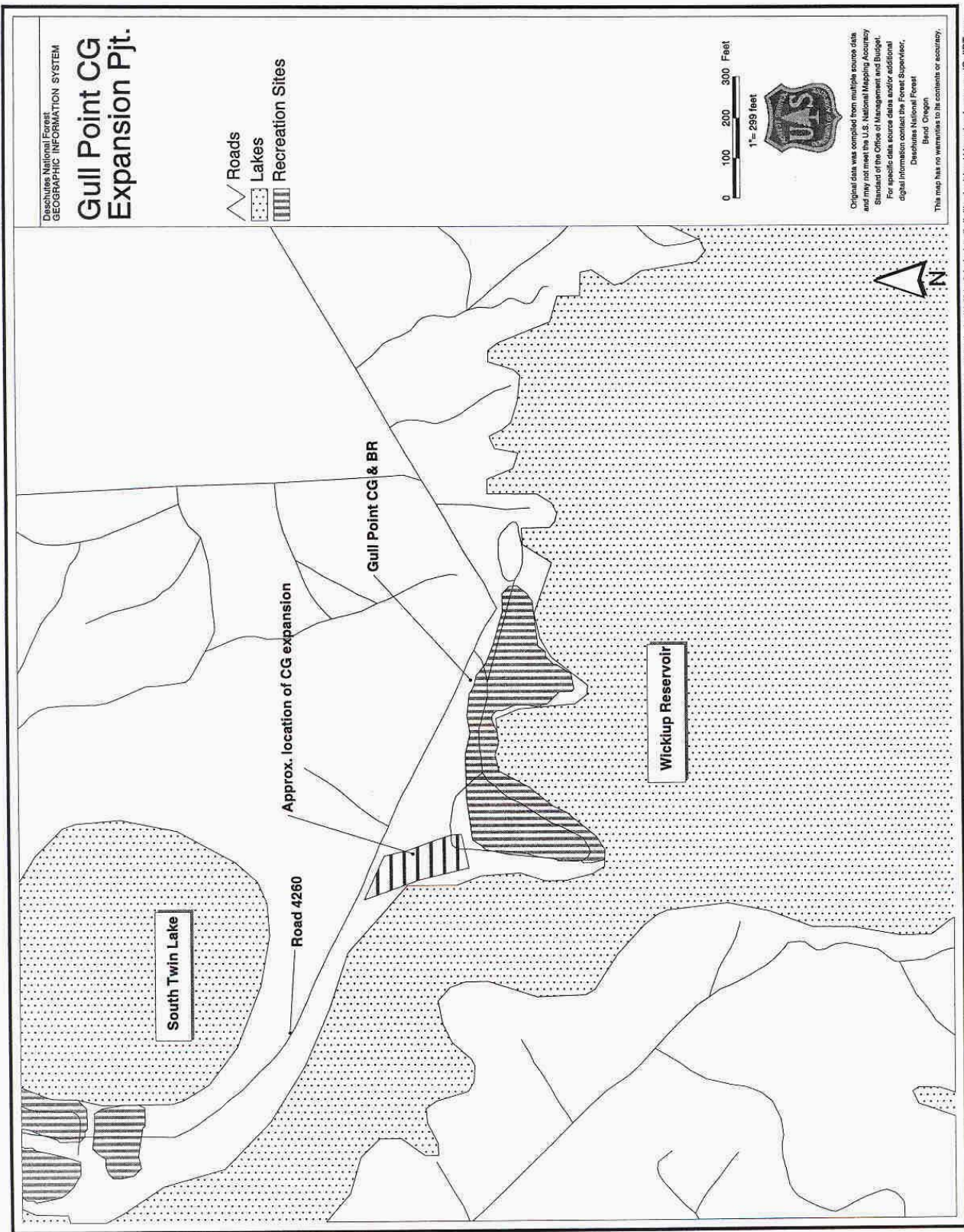


Figure 2: Location map for the Rock Creek Campground & Boat Ramp Expansion.

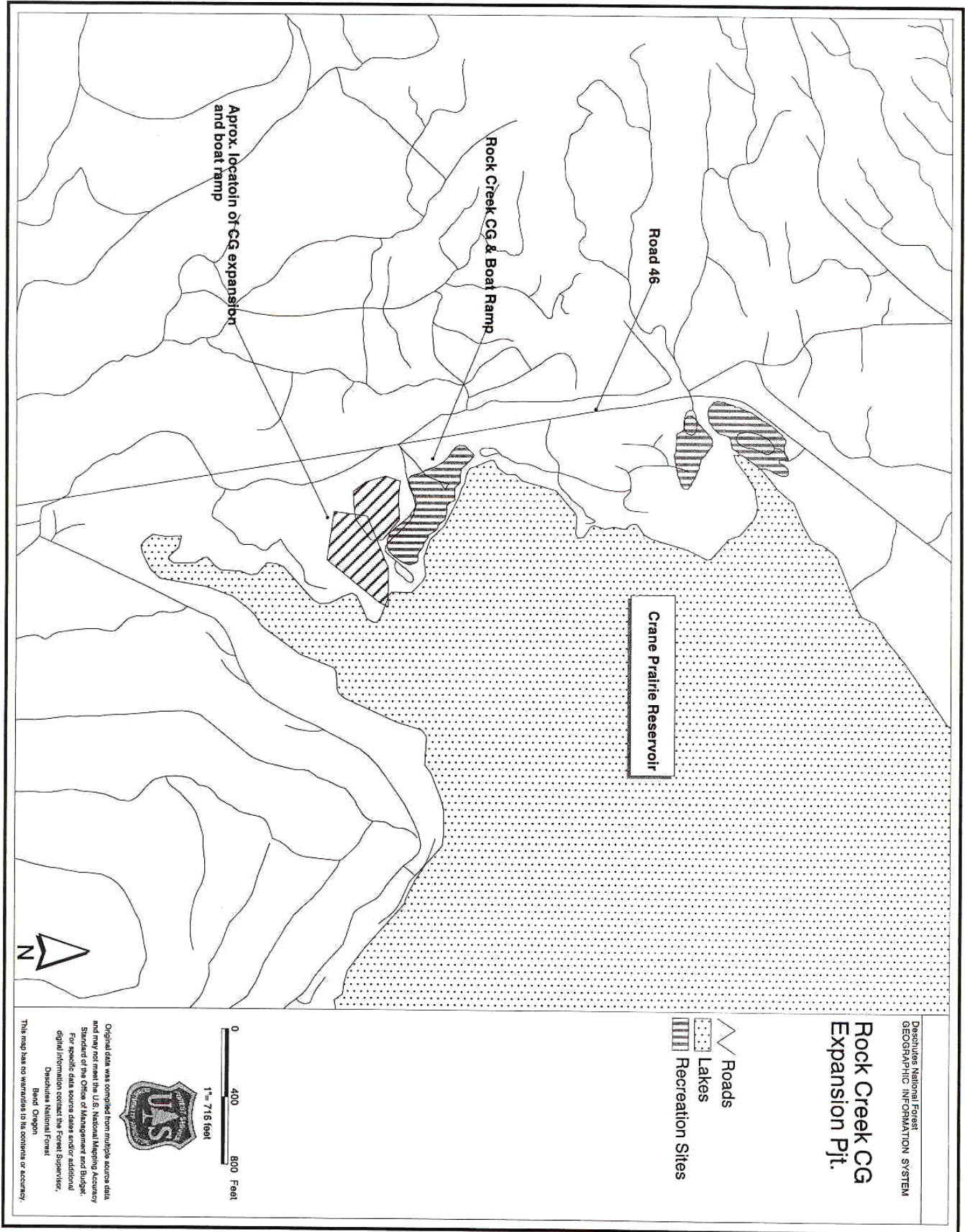


Figure 3: Conceptual Design for Rock Creek CG and BR parking for Alternative B.

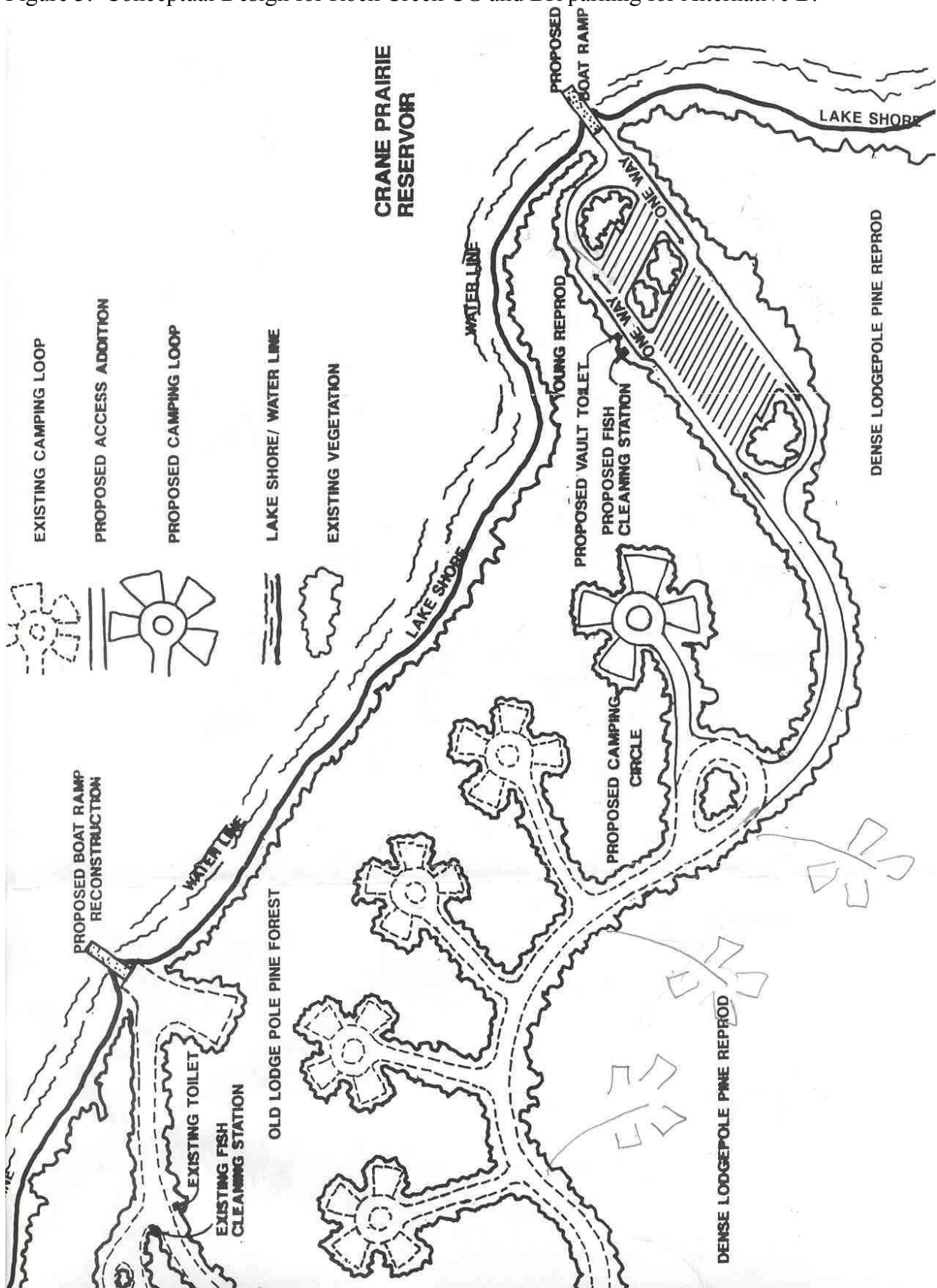
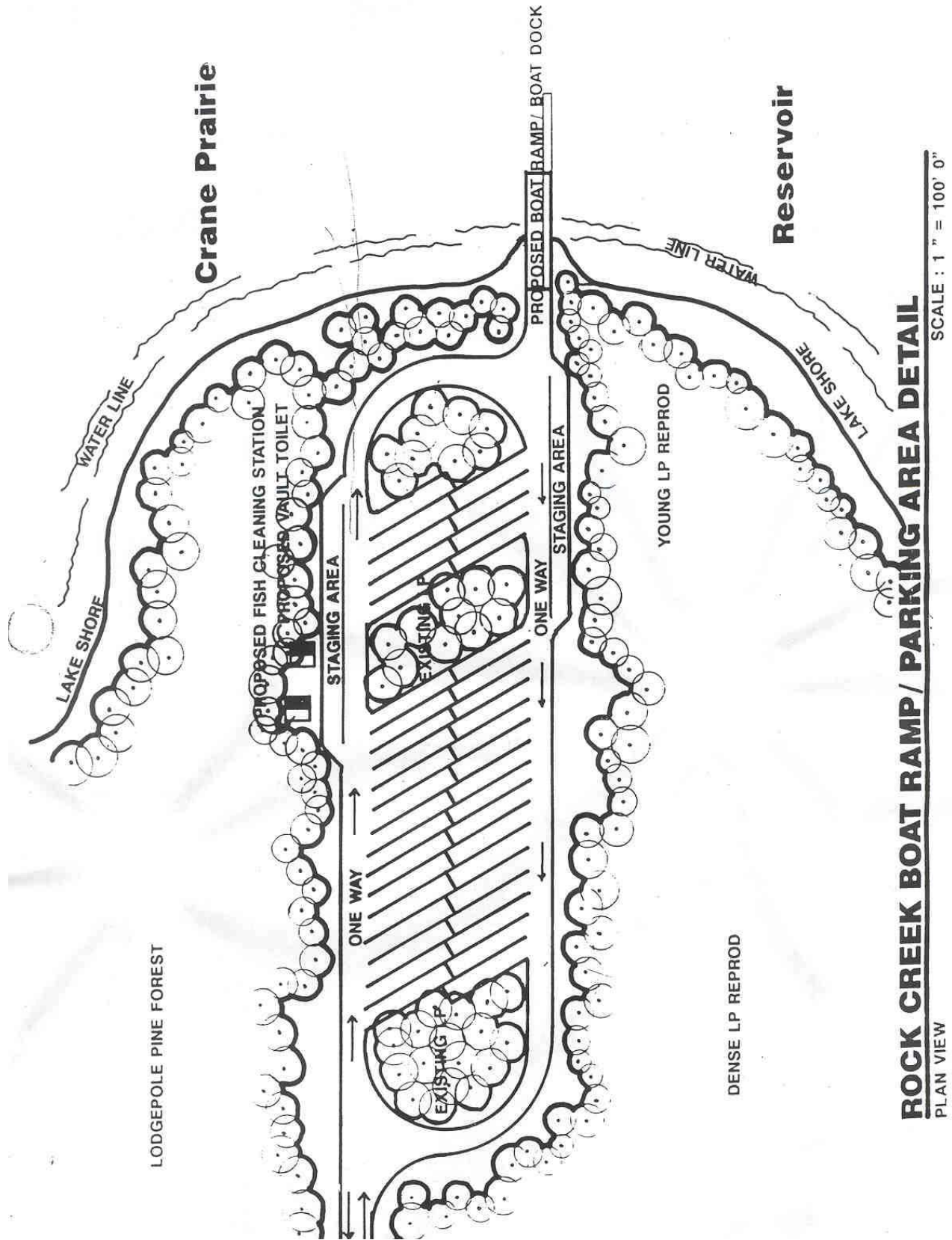


Figure 4: Conceptual Design for Rock Creek Boat Ramp for Alternative B (close up).



ROCK CREEK BOAT RAMP / PARKING AREA DETAIL

SCALE : 1" = 100' 0"

PLAN VIEW

Figure 5: Conceptual Design for Rock Creek CG and BR parking for Alternative C.

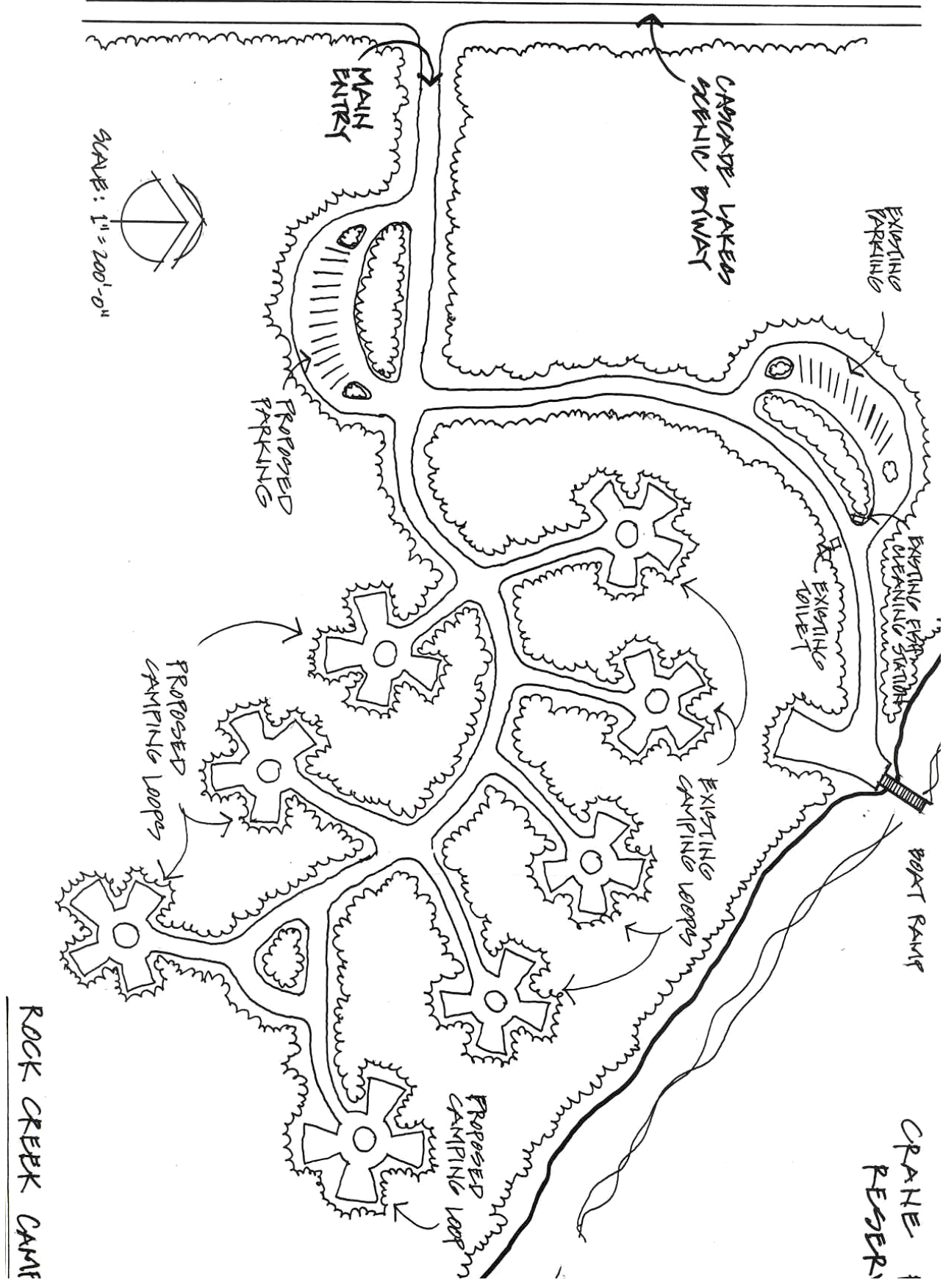


Figure 6: Site design for the Gull Point Campground Expansion; Alternatives B & C.

