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REC 1 Appendix 1 Recreation Supply Analysis

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## 7.0 RECREATION RESOURCES

### 7.1 RECREATION SUPPLY ANALYSIS (REC 1)

#### 7.1.1 Study Objectives

The objective of this analysis is to document and describe existing recreation resources in the study area and portions of the nearby Kalama River basin. This information is used to document existing resources and to determine if these resources need to be better maintained or improved based on an analysis of their current and anticipated future condition. Results will be used to: (1) satisfy FERC requirements; (2) address key watershed questions; (3) analyze the potential effects of hydropower development and operations on recreation resources; and (4) develop protection and enhancement measures, if needed.

The Recreation Supply Analysis (REC 1) is 1 of 7 interrelated studies that are part of PacifiCorp and Cowlitz PUD relicensing studies for the 4 Lewis River Hydroelectric Projects. Results from this analysis will be incorporated into the follow-on Capacity and Suitability Analysis (REC 5), the Recreation Needs Analysis (REC 6), and the Recreation Resource Management Plan (REC 7).

#### 7.1.2 Study Area

This study focuses on the Merwin, Swift No. 1, and Swift No. 2 projects. Selected sites of particular interest to agencies away from the reservoirs, such as Merrill Lake and Ape Cave, are also addressed. The Yale Lake area was previously studied with detailed results presented in the Final Technical Report for Recreation Resources, Yale Hydroelectric Project (PacifiCorp 1999).

#### 7.1.3 Methods

##### 7.1.3.1 Study Area

The Recreation Supply Analysis will focus on the primary study area in the vicinity of the Merwin and Swift Nos. 1 and 2 projects. Selected recreation sites of specific interest to the agencies outside the primary study area (potential project-related sites) will also be included. The study area consists of 3 areas ranging from general to specific: watershed, immediate river valley, and the reservoirs themselves.

The first area is the regional watershed area that includes the Lewis River watershed upstream of the city of Woodland, plus portions of the nearby Kalama River basin near Forest Road 81 from Merrill Lake to Red Rock Pass and along Forest Road 8123 to the Blue Lake Trailhead. This broader area provides the necessary context for recreation opportunities in the region and includes recreation use areas that may potentially be experiencing overflow use related to the hydroelectric projects.

The second intermediate area is the Lewis River valley corridor with a focus on the 3 reservoirs (i.e., Lake Merwin, Yale Lake, and Swift Reservoir) and Swift No. 2 power canal and recreation uses along Lewis River Road and State Route 503 and 503 Spur.

The third area consists of a 0.5-mile band surrounding each of the 3 reservoirs. Results presented in this analysis are broader for the regional portion of the study area and more detailed in the vicinity of the 3 reservoirs.

#### 7.1.3.2 Study Design

In general, the Recreation Supply Analysis will focus on 2 main elements: (1) identification and documentation of existing recreation opportunities and facilities that are or may be affected by the hydroelectric projects, and (2) management of those facilities and lands. The focus is on developed and dispersed recreation sites and use areas in the immediate vicinity of the reservoirs and power canal. It includes the identification of undeveloped dispersed sites surrounding the project reservoirs, as well as developed facilities, regardless of ownership and management responsibility. The analysis takes into consideration the condition of the sites and facilities, especially with regard to safety concerns, access for the physically disabled, and impacts on natural resources.

The facilities inventory conducted as part of this analysis will be used in conjunction with public, agency, and tribal input on potential facility improvements; the public's perception of crowding from the recreation survey and demand analyses; and a GIS-based analysis to assess recreation site development suitability to determine if land is available, if needed.

Site-specific information will be provided for limited and relevant portions of the Lewis River corridor, including: (1) developed and dispersed shoreline facilities and use areas located at Merwin, Yale, and Swift reservoirs, and Swift No. 2 power canal; (2) trails and trailheads on DNR Siouxon lands to the southeast that access the reservoirs; (3) recreation facilities and use areas at Merrill Lake to the northwest; (4) Clark County's Siouxon County Park site on Yale Lake; and (5) GPNF and Monument lands to the north and east surveyed during 1998 (PacifiCorp and Cowlitz PUD 1999). A portion of the inventory work has already been done. Analyses of facility condition have not been done (except for Yale).

The regional portion of the study area extends beyond the general operation and maintenance effects of the project. This larger area provides a broader context of recreational resources in the project vicinity and adjacent Monument, GPNF, and DNR lands. The Lewis River corridor and reservoir portions of the study area help delineate the area of potential effect of project operations on recreation resources and are the focus of field studies and data collection. Facilities along the river immediately upstream and downstream of the reservoirs will be included to provide a perspective of available recreation development.



### 7.1.3.3 Field Techniques, Analytical Methods, and Reporting

Information contained in the FTR for Recreation Resources, Yale Hydroelectric Project (PacifiCorp 1999) will be updated and expanded to include the broader study area. Methods for the Recreation Supply Analysis involve review of published information, consultation with agencies, discussions with private operators, and site-specific field investigations. Existing conditions will be identified and documented through field reconnaissance and notes. Existing facilities and access points will be identified and documented on GIS maps, summarized tabularly, and photographed.

Recreation sites and use areas will be categorized into "developed" recreation sites and "undeveloped" use areas. Developed sites are designated through signs and public information materials, and typically have 1 or more built facilities (e.g., campgrounds, day-use picnic sites, and boat launches). Undeveloped use areas are generally not designated as recreation sites by signs, and have limited facilities. In the case of the project reservoirs, undeveloped use areas are often only accessible by boat (i.e., boat-in campsites and day-use sites, trails). Existing and planned sites will be noted. Recreation opportunities available at each of these sites will be identified.

To evaluate facilities covered by this study, each site will be visited and photographed. Four qualitative criteria will be applied to characterize the overall condition of the sites: (1) needs replacement (broken or missing components, or non-functional); (2) needs repair (structural damage or otherwise in obvious disrepair); (3) needs maintenance (primarily cleaning); and (4) is in good condition (functional and well maintained). Unsafe conditions and signs of overuse will be noted.

The existence of recreation facilities designed to accommodate the physically disabled, such as many of PacifiCorp's new restroom facilities, will be identified. Existing reports on Americans with Disabilities Act (ADA) compliance will be gathered and reviewed, including the ADA Evaluation and Transition Plan for Lewis River Recreation Area – Pacific Power (Access Opportunities 1992) and any available GPNF and Monument ADA Transition Plans. Where no existing reports are available, a qualitative assessment will be made. The potential for future universal accessibility will be described.

Planned or future recreation facilities or use areas will be documented through review of published plans and through agency consultation. Facilities that will be expanded or upgraded in the near future will be noted. Phone or in-person interviews will be held with PacifiCorp and other private operators in the corridor, USFS and Monument facility managers, DNR facility managers, and private timber land managers in the corridor.

FERC-required discussion of National Recreation Trails and federal Wild and Scenic Rivers (existing and candidate) will be taken from the existing Yale Recreation FTR (PacifiCorp 1999). No additional work is anticipated.

How reservoir pool level and river water level affects public and private access to recreation facilities and the reservoirs will be assessed. Reservoir boat ramp elevations will be noted at the toe of the ramp. A standard of a minimum of 3 feet of water eleva-

tion at the toe of each ramp will be assessed. Typical periods of time when this standard is not met will be identified for each reservoir and the river. Further comparison will be made with visitation trends (peak summer and holiday use) and the availability of other public ramps to meet boater access needs (at least 1 ramp available year-round per reservoir if feasible). The effects of reservoir pool level fluctuation on private recreation facilities at Swift and Merwin reservoirs will also be assessed using the same type of criteria. Private homeowner association managers will be interviewed at Swift and Merwin reservoirs regarding pool level impacts to private in-water facilities.

Public access issues along the IP Road corridor were identified in the Yale Recreation FTR and in agency scoping. Existing easement(s) along the IP Road will be investigated to determine if recreational trail use is appropriate and or feasible along the right-of-way. It is anticipated that PacifiCorp would contact the current owner of the easement during this process and make a determination if long-term recreation use could legally occur along the IP Road parallel to Yale Lake.

The results of this analysis will be compiled into a report for use in consultation and other reports. The format will be similar to the recreation supply chapter in the Yale Recreation FTR.

#### 7.1.4 Key Questions

The Recreation Supply Analysis is designed to address the following “key” watershed questions as they relate to relicensing:

- What recreation facilities exist now and what are their conditions?

There are 5 campgrounds, 13 day use areas, 9 developed boat launches, and 93 dispersed undeveloped campsites in the project area. Many of the recreation facilities associated with these sites are in good condition; however, some facilities are in need of maintenance, while others need to be replaced. Summarized results are presented in Section 7.1.5.

- What recreation facilities are accessible and where are there barriers to providing universal accessibility?

A field assessment of recreation facility accessibility in the study area was conducted and discussed as part of Recreation Supply Analysis (PacifiCorp and Cowlitz PUD 2000). Many of the recreation facilities in the project area are at least partially accessible, though many need upgrades to meet new Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG) requirements. Specific sites that will require ADAAG upgrades are listed and discussed in the Recreation Supply Analysis (REC 1 Appendix 1 of this 2001 Technical Report). Additional ADA requirements are detailed in the Recreation Needs Analysis (REC 6 and REC 6 Appendix 1 of this 2001 Technical Report).

- Are the facilities, maintenance, management, and support systems for campgrounds and day use areas currently adequate?

Existing facilities, maintenance, management, and support systems for campgrounds and day use areas are currently adequate. However, some facilities have reached their capacity, some are in need of maintenance, and a larger management presence is needed at others. The Recreation Supply Analysis details specific adequacy issues as they relate to facilities, maintenance, and management (REC 1 Appendix 1 of this 2001 Technical Report). Additional needs to meet future demand for facilities and maintenance are discussed in the Recreation Needs Analysis (REC 6 Appendix 1 of this 2001 Technical Report).

- What recreation facilities are being planned in the near future?

Recreation facility projects under consideration are identified in the Recreation Supply Analysis, although potential new facilities are not a major component of this investigation (REC 1 Appendix 1 of this 2001 Technical Report). Such projects are discussed in detail in the Recreation Capacity and Suitability Analysis (REC 5 Appendix 1 of this 2001 Technical Report) and the Recreation Needs Analysis (REC 6 Appendix 1 of this 2001 Technical Report).

- How accessible are the reservoir shorelines and boat ramps?

Accessibility to the shoreline is generally adequate during the primary recreation season. Access is reduced during the shoulder seasons due to lowered pool level elevations. All reservoirs lack year-round boat ramp access to the water, and access to Swift Reservoir is problematic due to topographic conditions at the existing boat launch. The length of some boat ramp lanes, unusable during periods of lower pool elevations, limits the ability of visitors to access the reservoir shorelines from the water. Several proposed measures in the Recreation Needs Analysis (REC 6 Appendix 1 of this 2001 Technical Report) would greatly enhance shoreline access.

- Is it possible to acquire trail easements and/or rights-of-way across private lands to allow development of a trail system?

A discussion of trails in the study area is summarized in Section 7.5.5 and detailed in REC 5 Appendix 2 of this 2001 Technical Report. Work on the trail study is continuing into 2002.

#### 7.1.5 Results

Outdoor recreation supply or inventory is generally defined as the lands, waters, and facilities available to the public for outdoor leisure activities. The Recreation Supply Analysis focuses on 2 main elements: identification of existing recreation opportunities and facilities, and management of those facilities and lands. This information will be used, along with other studies, to determine if these resources should be managed differently, improved, or expanded based on current and anticipated future need. Although

the supply of recreation resources is examined for both the region and the project vicinity, the focus is developed and dispersed sites in the immediate vicinity of Lake Merwin, Yale Lake, Swift Reservoir, and the Swift canal (Lewis River Projects). This analysis includes undeveloped dispersed sites surrounding these areas, as well as developed facilities, regardless of ownership and management responsibility. The general condition of recreation sites and facilities is taken into consideration, particularly with regard to safety issues, access for the physically disabled, and general impacts on natural resources.

The major findings of the Recreation Supply Analysis are summarized below. Results of the analysis are documented in detail in the Recreation Supply Analysis (PacifiCorp and Cowlitz County PUD 2000), completed in December 2000 and included as an appendix (REC 1 Appendix 1) to this 2001 Technical Report.

#### 7.1.5.1 General Overview

Recreation facilities and use areas in the study area are managed by several different entities including:

- PacifiCorp and Cowlitz PUD
- Washington Department of Natural Resources
- Washington Department of Fish and Wildlife
- United States Forest Service, Gifford Pinchot National Forest
- United States Forest Service, Mount St. Helens National Volcanic Monument
- Clark County
- Private entities
- Weyerhaeuser (no facilities, but dispersed recreation use)
- Plum Creek Timber Company (no facilities, but dispersed recreation use)
- Longview Fibre (no facilities, but dispersed recreation use)

Selected private recreation providers in the study area include:

- Lewis River recreation vehicle (RV) Park (70 campsites)
- Cougar RV Park (18 campsites)
- Lone Fir Resort and Trailer Park (32 campsites)
- Various general stores
- Lewis River Golf Course

There are 7 private shoreline residential recreation facilities (homeowner associations) located in the study area:

- 3 private residential areas are located on or near Lake Merwin (1,552 homes)
- 1 private residential area is located on or near Yale Lake (8 homes)
- 3 private residential areas are located on or near Swift Reservoir (253 homes)

Three of the private residential areas have private boat launches for member use. Two of these launches cannot be used in the off-season due to low reservoir pool levels.

#### 7.1.5.2 Recreation Sites and Facilities at Lake Merwin

The Merwin Project includes the following recreation facilities:

- 2 day use areas with 180 picnic sites (67 percent of the total project area picnic sites)
- 1 campground with 58 campsites (22 percent of total campsites)
- 2 boat launches (29 percent of the total boat launch) (not including launches below the dam)

Key findings at the Merwin Project include the following:

- Most of the facilities at Lake Merwin are in good condition. Some minor maintenance is needed, primarily to picnic tables and boat launches.
- There are 24 dispersed, undeveloped recreation sites on the reservoir (26 percent of the total dispersed recreation sites), 21 of which can be accessed by boat. Most of these are used primarily for day use, although some camping does occur.
- Neither of the 2 boat launches on the reservoir can be accessed in the off-season at low reservoir pool level.
- Improvements are needed to boat launches, access paths, swimming areas, picnic tables, and fishing access to be in compliance with new or anticipated changes to the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG), which is being updated nationally.

#### 7.1.5.3 Recreation Sites and Facilities at Yale Lake

The Yale Lake Project includes the following recreation facilities:

- 4 day use areas with 75 picnic sites (28 percent of the total project area picnic sites)
- 3 campgrounds with 108 campsites (42 percent of the total campsites)
- 4 boat launches (57 percent of the total boat launches)

Key findings at the Yale Lake Project include the following:

- Most of the facilities at Yale Lake are in good condition. However, many of the facilities are scheduled for improvements within the next 3 years per the previous Yale License Application (PacifiCorp 1999).
- There are 48 dispersed, undeveloped recreation sites on the reservoir (48 percent of the total dispersed recreation sites).
- None of the boat launches can be easily accessed in the off-season at low reservoir pool level. However, the boat launch at Yale Park typically can be used in the off-season if boat trailers are extended off the end of the concrete ramp.

- Improvements are needed to boat launches, access paths, swimming areas, picnic tables, and fishing access to be in compliance with the revised ADAAG.

#### 7.1.5.4 Recreation Sites and Facilities at Swift Reservoir and Swift Canal

The following facilities are present at Swift Reservoir:

- 1 day use area with 15 picnic sites (6 percent of total picnic sites)
- 1 campground with 93 sites (36 percent of total campsites)
- 1 boat launch (14 percent of total boat launches)

Key findings for the Swift No. 1 and Swift No. 2 projects include the following:

- Most facilities at Swift Reservoir are in good condition, with only minor maintenance needed. One exception is Eagle Cliff day use area, which is still in need of renovation following flood damage sustained in 1996.
- There are 24 dispersed, undeveloped recreation sites on the reservoir (26 percent of the total dispersed recreation sites). All of these are accessible by boat, most are used for camping as well as day use.
- The boat launch at Swift Camp cannot be used during the off-season at low or near-low pool.
- Improvements are needed to boat launches, access paths, swimming areas, picnic tables, and fishing access to be in compliance with the revised ADAAG.
- Bank fishing access opportunities are provided along the Swift canal and include an area for roadside vehicle parking.

#### 7.1.5.5 Lewis River Recreation Sites Below Merwin Dam

Recreation resources and facilities on the Lewis River downstream of the Merwin Project area are summarized below.

- There are 5 Lewis River access sites below Merwin Dam. These sites provide beach fishing access opportunities and boat launches.
- Two of the river access sites have developed boat launch facilities, while the remaining 3 have undeveloped boat launches.
- Most of these river access points are in need of general maintenance, particularly to boat launch facilities and associated access roads.

#### 7.1.5.6 Recreation Sites and Facilities Surrounding the Project Area

To place the project recreation facilities in context, this study also examined recreation resources in the region, focusing on facilities directly surrounding the projects. Results of this regional analysis are summarized below.

- Merrill Lake (managed by the DNR), a popular area for anglers, is located about 6 miles (9.6 km) north of Yale Lake and has the following facilities:
  - 1 campground with 7 tent sites
  - 1 day use area with 3 picnic tables
  - 1 boat launch with 2 lanes
- The Siouxon landscape area (managed by the DNR) is a 32,000-acre (12,950 ha) area that is popular for dispersed recreation and is bordered by Swift Reservoir on the north and Yale Lake on the west. Although there are no facilities in this area, common activities include hunting, fishing, hiking, horseback riding, and mountain biking. Access to the area is primarily by boat and logging roads.
- Several USFS-managed recreation sites and facilities are present on the surrounding Gifford Pinchot National Forest, located to the north and east of the project reservoirs. These sites include:
  - Kalama Horse Camp - a base camp for equestrian users in the area that is north of the project reservoirs and is frequently utilized at or near capacity. Facilities include 1 campground with 8 campsites, each with a corral, plus 15 additional sites added in 2000; and 1 day use area with a picnic area, horseshoe pit, loading/unloading ramp, and parking.
  - Lower Falls Recreation Area – a popular recreation area located east of Swift Reservoir with facilities that include 1 campground with 46 campsites, and 1 day use area with a picnic area and short trails leading to several waterfalls.
  - Pine Creek Information Center – a roadside facility that provides basic information to visitors travelling through the area. The facility is located east of Swift Reservoir near the junction of Forest Road (FR) 25 and FR 90.
- Additional USFS-managed recreation sites and facilities are present within the Mount St. Helens National Volcanic Monument, just north of the Project reservoirs. Sites and facilities include:
  - Ape Cave – 2-mile (3.2 km) trail (round trip) through a lava tube and other unique geological phenomena. Facilities include parking, toilets, and interpretive signs.
  - Lava Canyon – 6-mile (9.6 km) trail (round trip) through the Muddy River canyon.

- Blue Lake Trailhead – parking and trailhead information for various trails in the area.
- Several other trails and snow play areas that are popular with visitors during all seasons.
- Owned by Clark County, the undeveloped Siouxon County Park site is situated on the eastern shoreline of Yale Lake. No developed facilities are currently located at this site; however, there are several old fire rings that remain from the development of 8 boat-in campsites at this site in the 1960s. This area is currently used by boaters for boat-in camping and day use, and is being considered for formal development by the county, possibly in conjunction with the DNR and/or PacifiCorp.

#### 7.1.6 Schedule

This study is complete.

#### 7.1.7 References

PacifiCorp. 1999. Application for FERC License for the Yale Hydroelectric Project. Portland, OR. 1999.

PacifiCorp and Cowlitz PUD. 1999. 1998 Lewis River Recreation Survey Results. Lewis River Hydroelectric Projects, FERC Nos. 2111, 2213, 2071, and 935. Portland, Oregon and Longview, Washington.

PacifiCorp and Cowlitz PUD. 2000. Recreation Supply Analysis. Lewis River Hydroelectric Projects. Portland, OR and Longview, WA. January 2000.

PacifiCorp and Cowlitz PUD. 2001. 2000 Technical Study Status Reports for the Lewis River Hydroelectric Projects. Portland, OR and Longview, WA. March 2001.



## **REC 1 Appendix 1**

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*Recreation Supply Analysis*

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**RECREATION SUPPLY ANALYSIS**

**Lewis River Hydroelectric Projects  
FERC Nos. 2111, 2213, 2071, and 935**

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September 29, 2002

## EXECUTIVE SUMMARY

The Recreation Supply Analysis (REC 1) is 1 of 7 interrelated studies that are part of PacifiCorp's and Cowlitz PUD's relicensing studies for the 4 Lewis River Hydroelectric Projects. Results from this analysis will be incorporated into the follow-on Capacity and Suitability Analysis (REC 5), the Recreation Needs Analysis (REC 6), and the Recreation Resource Management Plan (REC 7).

Outdoor recreation supply or inventory is generally defined as the lands, waters, and facilities available to the public for outdoor leisure activities. The recreation supply analysis focuses on 2 main elements: identification of existing recreation opportunities and facilities, and management of those facilities and lands. This information will be used, along with other studies, to determine if these resources should be managed differently, improved, or expanded based on current and anticipated future need. Although the supply of recreation resources is examined for both the region and the project vicinity, the focus is developed and dispersed sites in the immediate vicinity of Lake Merwin, Yale Lake, Swift Reservoir, and the Swift No. 2 Power Canal (Lewis River Projects). This analysis includes undeveloped dispersed sites surrounding these areas, as well as developed facilities, regardless of ownership and management responsibility. The general condition of recreation sites and facilities is taken into consideration, particularly with regard to safety issues, access for the physically disabled, and general impacts on natural resources.

Methods for the recreation supply analysis involved review of published information, consultation with agencies and landowners, and site-specific field investigations. Existing conditions were systematically identified and documented through field notes. Existing Project facilities and access points were identified and documented on maps and summarized tabularly. All sites and facilities were photographed.

The major findings of the Recreation Supply Analysis are detailed below:

### General Overview

- Recreation facilities and use areas in the study area are managed by several different entities including:
  - PacifiCorp and Cowlitz PUD
  - Washington Department of Natural Resources
  - Washington Department of Fish and Wildlife
  - United States Forest Service, Gifford Pinchot National Forest
  - United States Forest Service, Mount St. Helens National Volcanic Monument
  - Clark County
  - Private entities
  - Weyerhaeuser (no facilities, but dispersed recreation)
  - Plum Creek Timber Company (no facilities, but dispersed recreation)
  - Longview Fibre (no facilities, but dispersed recreation)

- Selected private recreation providers in the study area include:
  - Lewis River RV Park (70 campsites)
  - Cougar RV Park (18 campsites)
  - Lone Fir Resort and Trailer Park (32 campsites)
  - Various general stores
  - Lewis River Golf Course
- There are 7 private shoreline residential recreation facilities (homeowners associations) located in the study area:
  - 3 private residential areas are located on or near Lake Merwin (1552 homes)
  - 1 private residential area is located on or near Yale Lake (8 homes)
  - 3 private residential areas are located on or near Swift Reservoir (253 homes)
- Three of the private residential areas have private boat launches for member use. Two of these launches cannot be used in the off-season due to low reservoir pool levels.

#### Recreation Sites and Facilities at Lake Merwin

- The following facilities are present at Lake Merwin:
  - 2 day use areas with 180 picnic sites (67 percent of total Project area picnic sites)
  - 1 campground with 58 campsites (22 percent of total campsites)
  - 2 boat launches (29 percent of the total boat launches) (does not include launches below the dam)
- Most of the facilities at Lake Merwin are in good condition. Some minor maintenance is needed, primarily to picnic tables and boat launches.
- There are 24 dispersed undeveloped recreation sites on the reservoir (26 percent of total dispersed recreation sites), 21 of which can be accessed by boat. Most of these are used primarily for day use, although some camping does occur.
- Both of the boat launches on the reservoir cannot be accessed in the off-season at low reservoir pool level.
- Improvements are needed to boat launches, access paths, swimming areas, picnic tables, and fishing access to be in compliance with new or anticipated changes to the Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG).

### Recreation Sites and Facilities at Yale Lake

- The following facilities are present at Yale Lake:
  - 4 day use areas with 75 picnic sites (28 percent of total Project area picnic sites)
  - 3 campgrounds with 108 campsites (42 percent of total campsites)
  - 4 boat launches (57 percent of total boat launches)
- Most of the facilities at Yale Lake are in good condition. However, many of the facilities are scheduled for improvements starting within the next 3 years per the previous Yale License Application.
- There are 48 dispersed undeveloped recreation sites on the reservoir (48 percent of total dispersed recreation sites).
- None of the boat launches can be accessed in the off-season at low reservoir pool level. The boat launch at Yale Park can typically be used in the off-season if boat trailers are extended off the end of the concrete ramp.
- Improvements are needed to boat launches, access paths, swimming areas, picnic tables, and fishing access to be in compliance with the ADAAG.

### Recreation Sites and Facilities at Swift Reservoir and Swift No. 2 Power Canal

- The following facilities are present at Swift Reservoir:
  - 1 day use area with 15 picnic sites (6 percent of total picnic sites)
  - 1 campground with 93 sites (36 percent of total campsites)
  - 1 boat launch (14 percent of total boat launches)
- Most facilities at Swift Reservoir are in good condition, with only minor maintenance needed. Eagle Cliff day use area is still in need of some renovations following flood damage in 1996.
- There are 24 dispersed undeveloped recreation sites on the reservoir (26 percent of total dispersed recreation sites). All of these are accessible by boat and most are used for camping as well as day use.
- The boat launch at Swift Camp cannot be used during the off-season at low pool.
- Improvements are needed to boat launches, access paths, swimming areas, picnic tables, and fishing access to be in compliance with the ADAAG.
- Bank fishing access opportunities are provided along the Swift No. 2 power canal with roadside vehicle parking available.

### Lewis River Recreation Sites Below Merwin Dam

- There are 5 river access sites below Merwin Dam on the Lewis River. These sites provide beach fishing access opportunities and boat launches on the lower river below the Project.
- Two of the river access sites have developed boat launch facilities while the remaining 3 have undeveloped boat launches.
- Most of these river access points are in need of general maintenance, particularly to boat launch facilities and associated access roads.

### Recreation Sites and Facilities Surrounding the Project Area

- Merrill Lake (DNR), a popular area for anglers, is located about 6 miles north of Yale Lake and has the following facilities:
  - 1 campground with 7 tent sites
  - 1 day use area with 3 picnic tables
  - 1 boat launch with 2 lanes
- The Siouxon landscape area (DNR) is a 32,000 acre area that is popular for dispersed recreation and is bordered by Swift Reservoir on the north and Yale Lake on the west. Although there are no facilities in this area, common activities include hunting, fishing, hiking, horseback riding, and mountain biking. Access to the area is primarily by boat and logging roads.
- Several recreation sites and facilities are present on the Gifford Pinchot National Forest, located to the north and east of the Project reservoirs.
  - Kalama Horse Camp - a base camp for equestrian users in the area that is north of the Project reservoirs and is frequently utilized at or near capacity. Facilities include:
    - 1 campground with 8 campsites, each with a corral (15 additional sites will be added in 2000)
    - 1 day use area with a picnic area, horseshoe pit, loading/unloading ramp, and parking
  - Lower Falls Recreation Area – a popular recreation area located east of Swift Reservoir with facilities that include:
    - 1 campground with 46 sites
    - 1 day use area with a picnic area and short trails leading to several waterfalls
  - Pine Creek Information Center – a small facility that provides basic information to visitors travelling through the area. The facility is located east of Swift Reservoir near the junction of FR 25 and FR 90.

- Additional recreation sites and facilities managed by the Gifford Pinchot National Forest are located on the Mt. St. Helens National Volcanic Monument, situated just north of the Project reservoirs. Sites and facilities include:
  - Ape Cave – 2 mile trail (round trip) to lava tube and other unique geological phenomena
  - Lava Canyon – 6 mile trail (round trip) through the Muddy River canyon
  - Blue Lake Trailhead – parking and trailhead information for various trails located in the area
  - Several other trails and snow play areas that are popular with visitors during all seasons
- Owned by Clark County, the Siouxon County Park area is situated on the eastern shoreline of Yale Lake. No developed facilities are currently located at this site, however, there are several old fire rings that remain from the development of 8 boat-in campsites at this site in the 1960s. This area is currently used by boaters for camping and day use, and is being considered for formal development by the county, possibly in conjunction with DNR and/or PacifiCorp.



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## APPENDICES

Appendix A Site Maps of Lake Merwin Recreation Sites and Facilities
Appendix B Site Maps of Yale Lake Recreation Sites and Facilities
Appendix C Site Maps of Swift Reservoir Recreation Sites and Facilities
Appendix D Site Maps of Lower Lewis River Access Sites
Appendix E Reservoir Shoreline Dispersed Site Inventory and Condition Forms

## **ABBREVIATIONS AND ACRONYMS**

4WD	4-wheel-drive
ADA	Americans with Disabilities Act
ADAAG	Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities
ATVs	all terrain vehicles
CRG NSA	Columbia River Gorge National Scenic Area
CRGC	Columbia River Gorge Commission
DNR	Washington State Department of Natural Resources
GPNF	Gifford Pinchot National Forest
I-5	Interstate 5
IAC	Washington State Interagency Committee for Outdoor Recreation
ILM	Integrated Landscape Management
IP	International Paper
LRMP	Land and Resource Management Plan
msl	mean sea level
MUTCD	Manual on Uniform Traffic Control Devices
PFD	personal flotation devices
PNRRC	Pacific Northwest Regional Recreation Committee
PUD	Public Utility District
PWC	personal watercraft
ROS	Recreation Opportunity Spectrum
ROW	right-of-way
RV	recreational vehicle
RVDs	recreation visitor days
SCORP	Statewide Comprehensive Outdoor Recreation Plan
SR	State Route
State Parks	Washington State Park and Recreation Commission
US Access Board	U.S. Architectural and Transportation Barriers Compliance Board
USFS	U.S.D.A. Forest Service
USFWS	U.S. Fish and Wildlife Service
WDFW	Washington Department of Fish and Wildlife

## RECREATION SUPPLY ANALYSIS

The Recreation Supply Analysis (REC 1), is 1 of 7 interrelated studies that are part of PacifiCorp's and Cowlitz PUD's relicensing studies of the 4 Lewis River Hydroelectric Projects. Results from this analysis will be incorporated into the follow-on Capacity and Suitability Analysis (REC 5), the Recreation Needs Analysis (REC 6), and the Recreation Resource Management Plan (REC 7).

Outdoor recreation supply or inventory is generally defined as the lands, waters, and facilities available to the public for outdoor leisure activities. The recreation supply analysis focuses on 2 main elements: identification of existing recreation opportunities and facilities, and management of those facilities and lands. This information will be used, along with other studies, to determine if these resources should be better managed, improved, or expanded based on current and anticipated future need. Although the supply of recreation resources is examined for both the region and the project vicinity, the focus is developed and dispersed sites in the immediate vicinity of Lake Merwin, Yale Lake, Swift Reservoir, and the Swift No. 2 Power Canal (Lewis River Projects). This analysis includes the identification of undeveloped dispersed sites surrounding these areas, as well as developed facilities, regardless of ownership and management responsibility. The general condition of recreation sites and facilities is taken into consideration, particularly with regard to safety issues, access for the physically disabled, and impacts on natural resources.

### 1.0 STUDY AREA

The study area for the recreation supply analysis consists of 3 areas ranging from the general to the specific: (1) a regional/watershed area to provide a broad context for recreation opportunities in the region (Figure 1.0-1); (2) the Lewis River corridor, with a focus on PacifiCorp's 3 reservoirs (i.e., Lake Merwin, Yale Lake, Swift Reservoir) (Figure 1.0-1); and (3) a project-specific recreation resources study area consisting of a 0.5-mile radius surrounding the 4 projects that includes the Cowlitz PUD Swift No. 2 Power Canal (Figure 1.0-2). Results presented in this report are more general for the regional portion of the study area and more detailed for the 3 project reservoirs. Inventory information is also provided for relevant portions of the Lewis River corridor, including Washington State Department of Natural Resources (DNR) Siouxon lands to the southeast and Merrill Lake to the northwest and Gifford Pinchot National Forest (GPNF) and Mount St. Helens National Volcanic Monument (Monument) lands to the north and east managed by the U.S.D.A. Forest Service (USFS).

The regional/watershed portion of the study area generally extends beyond the operational effects of the project. This larger area provides a broader context of recreational use in the project vicinity, including the upper Kalama River watershed near Merrill Lake and the Kalama Horse Camp. The Lewis River corridor and the project area portions of the study area delineate the recreation resources in the immediate project area and is the focus of field studies and data collection. Facilities along the river upstream

and downstream of the Lewis River Projects were included to provide a perspective of available recreation development near the reservoirs.

## **2.0 METHODS**

Methods for the recreation supply analysis involved review of published information, consultation with agencies and landowners, and site-specific field investigations. Existing conditions were systematically identified and documented through field notes. Existing Project facilities and access points were identified and documented on maps and summarized tabularly. All sites and facilities were photographed.

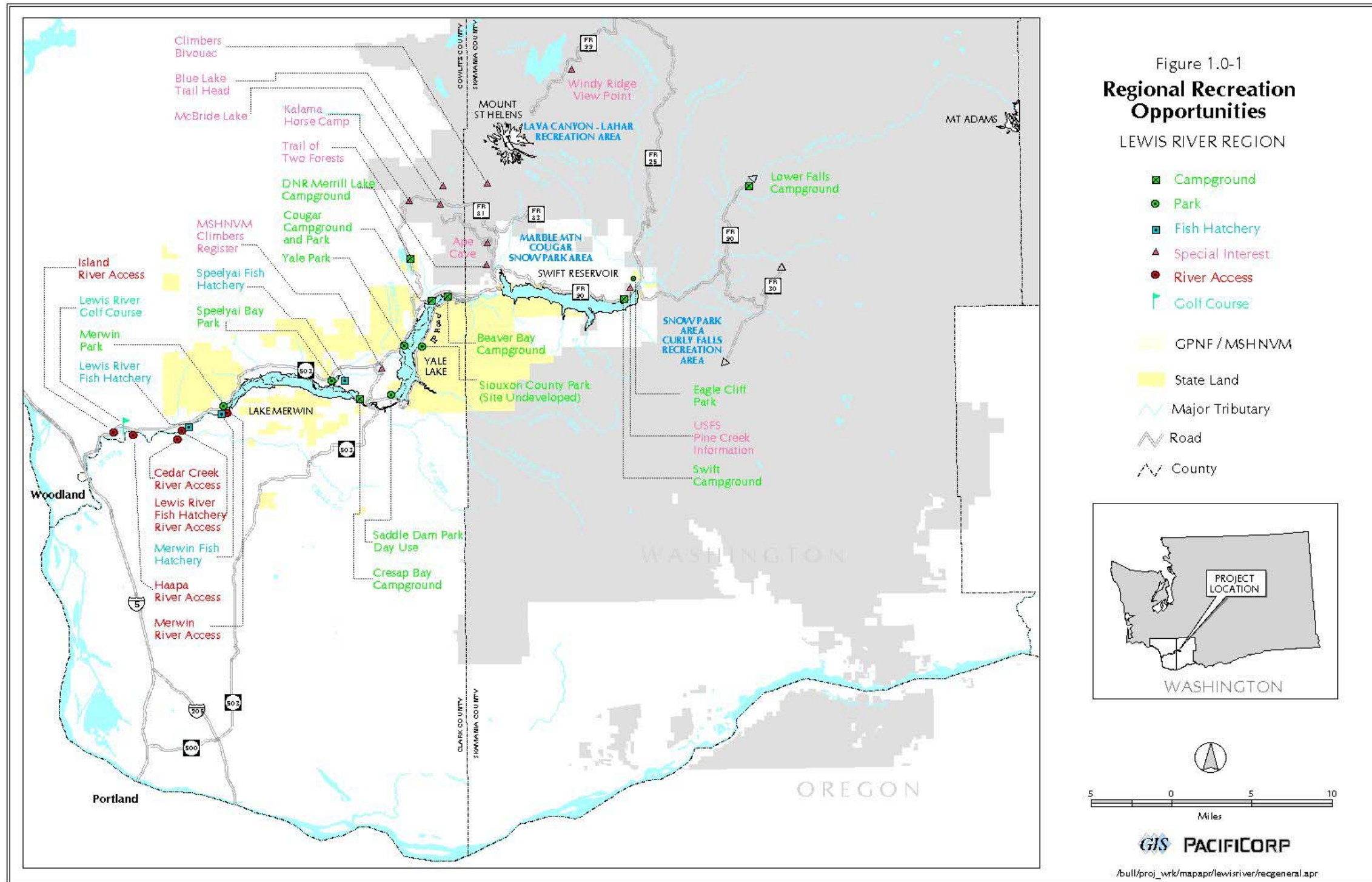
Project sites were categorized into "developed" recreation sites or "dispersed" undeveloped use areas. Developed sites are designated through signs and public information materials, and typically have extensive built facilities (e.g., campgrounds, picnic areas and marine facilities). Dispersed undeveloped use areas are generally not designated as recreation sites by signs, and have limited or no facilities; dispersed use areas are often only accessible by boat (i.e., boat-in campsites and day-use sites) or trail. Recreation facilities and support services were identified and recorded at each site or area.

To evaluate developed facilities covered by the inventory, 4 condition criteria were used: (1) needs replacement (broken or missing components, or non-functional); (2) needs repair (structural damage or otherwise in obvious disrepair); (3) needs maintenance (primarily cleaning); and (4) is in good condition (functional and well-maintained). Unsafe conditions and signs of overuse were noted. Dispersed undeveloped use areas, primarily shoreline dispersed sites, were evaluated based on qualitative criteria that involved documentation of use constructed structures (fire rings, benches), and site impacts (erosion, vegetation damage). Specific information on the shoreline dispersed sites included in this study are included in Appendix E.

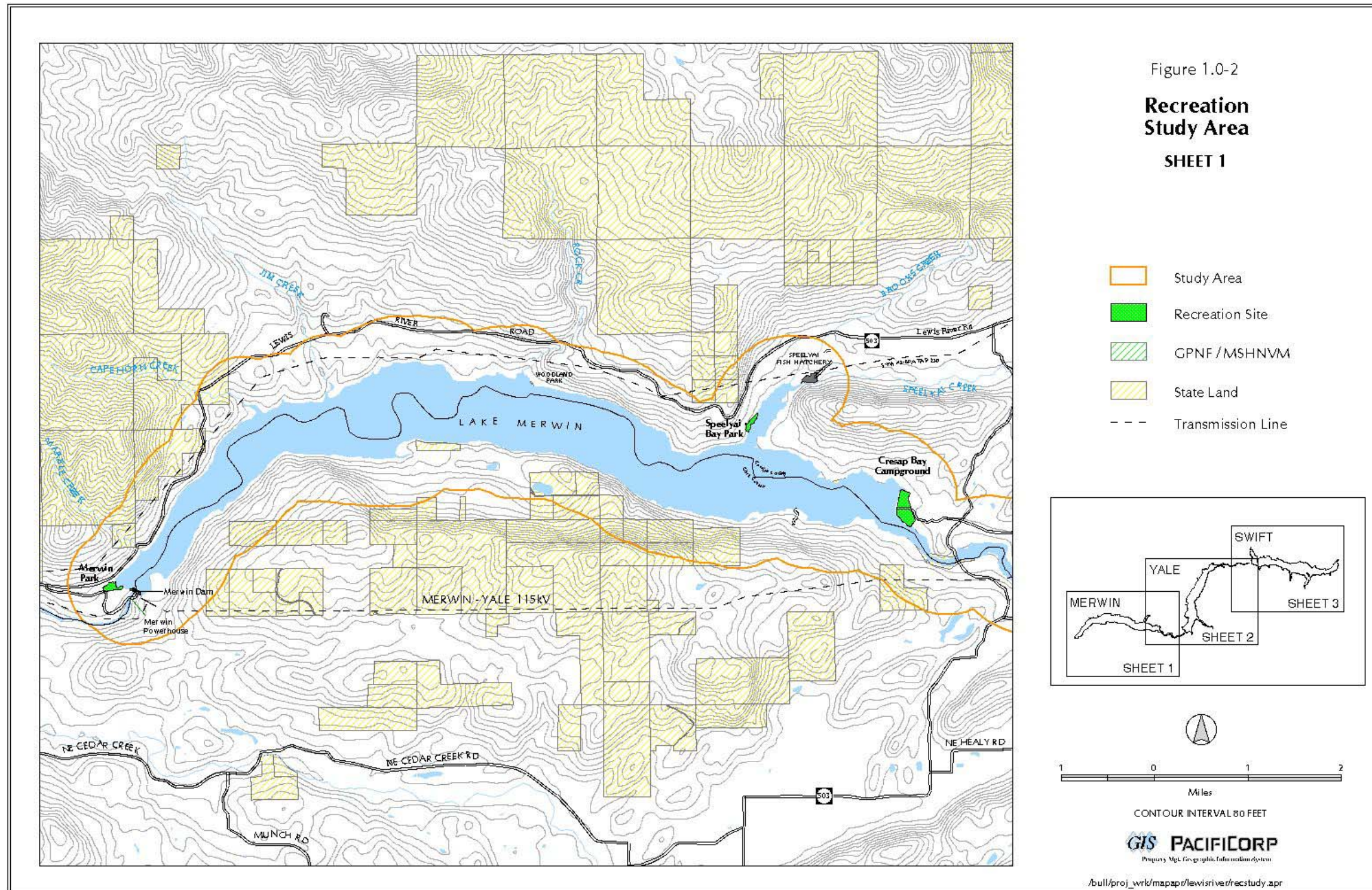
The existence of facilities designed to accommodate the physically disabled, such as PacifiCorp's new restroom facilities, were identified. Access routes to major recreation facilities are also discussed.

## **3.0 RESULTS AND DISCUSSION**

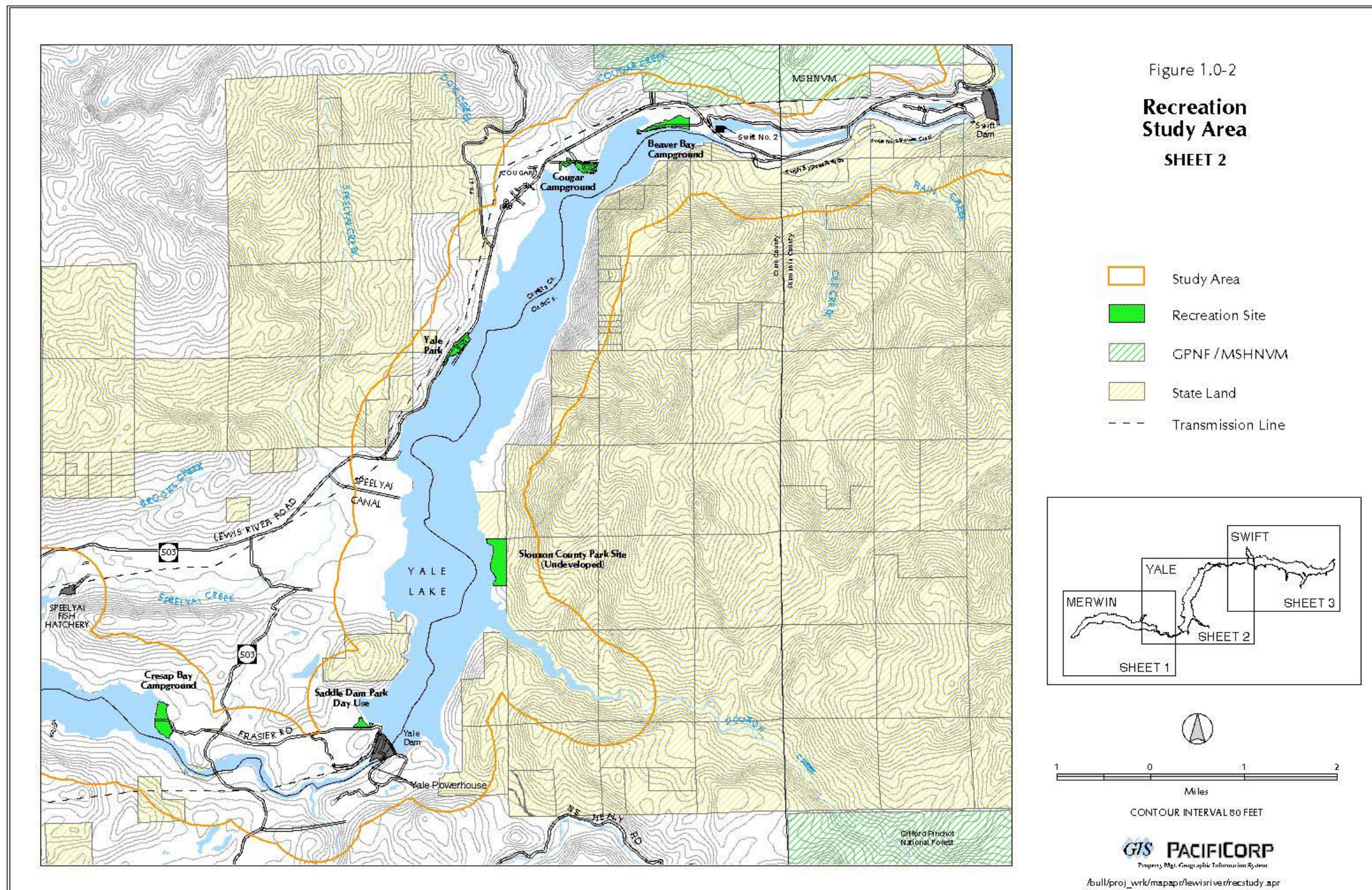
Results presented in this report provide a regional and project-specific inventory of recreation resources in the study area. These recreation resources are presented by the region, Lewis River corridor, and the reservoirs. References made to developed facilities in the study area refer to the 3 Projects owned by PacifiCorp, since there are no developed facilities at the Swift No. 2 Power Canal, owned by Cowlitz PUD.













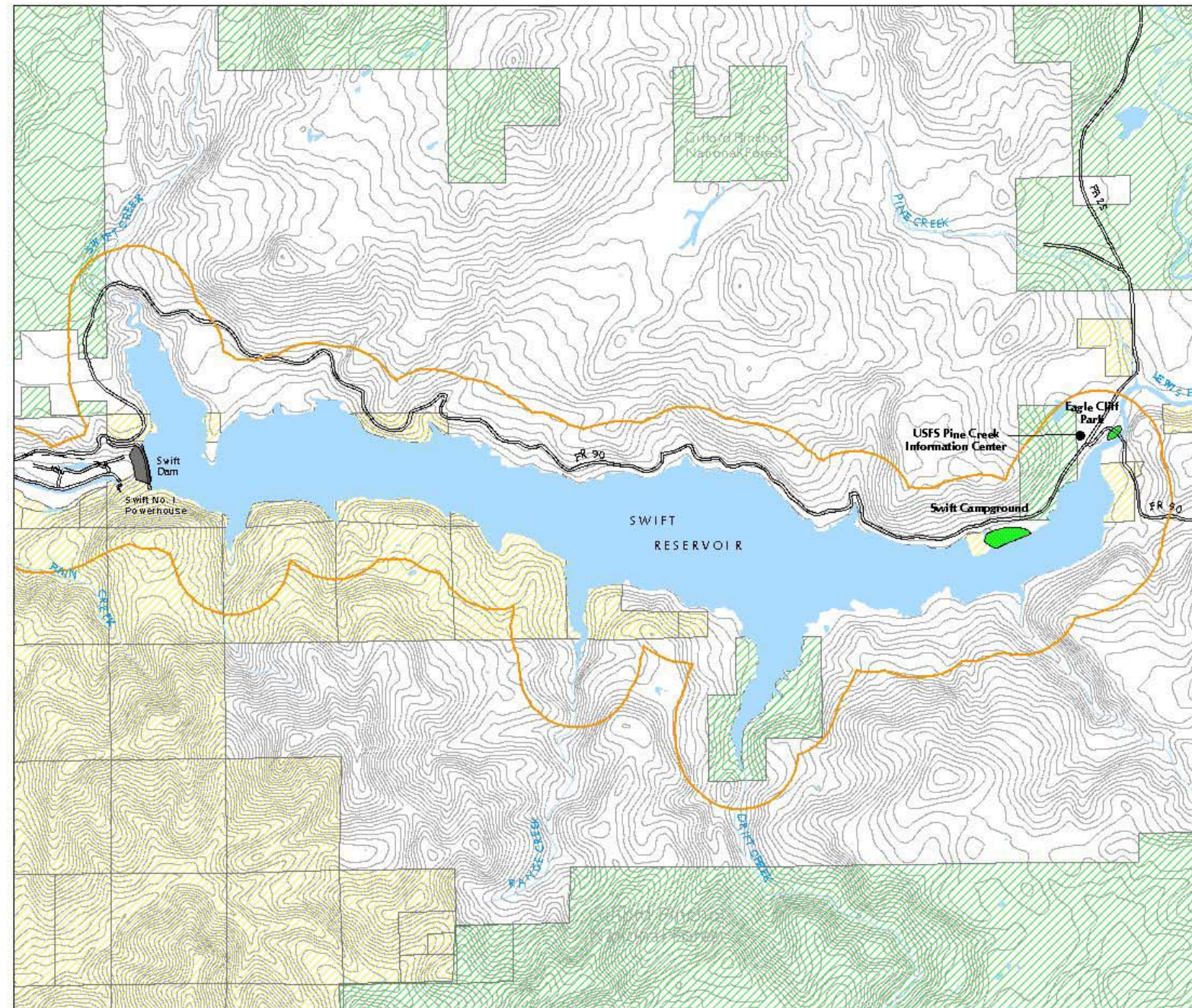





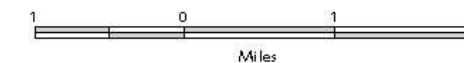
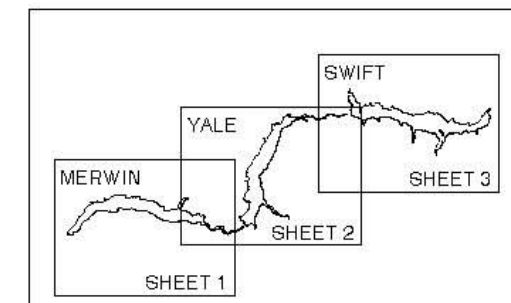


Figure 1.0-2

**Recreation Study Area**

**SHEET 3**

-  Study Area
-  Recreation Site
-  GPNF / MSHNVN
-  State Land
-  Transmission Line



CONTOUR INTERVAL 80 FEET

**GIS PACIFICORP**

Property Mgt. Geographic Information System

/bull/proj\_vrkt/mapapr/lewisriver/recrestudy.apr



### **3.1 Regional/Watershed Recreation Resources**

The Lewis River Projects are located in southwestern Washington, in the vicinity of both the Cascade Mountain range and the Columbia River (Figure 1.0-1). The area is indirectly accessed by Interstate 5 (I-5), a major north-south interstate freeway linking the metropolitan centers of Seattle and Tacoma, Washington to the north and Portland, Oregon and Vancouver, Washington to the south, and beyond. Since the projects are within a 50-mile radius of the major population center of Portland/Vancouver, the area receives a significant amount of recreation use, particularly during the peak summer months of July and August.

Recreation resources in the regional study area are managed by a variety of federal, state, and local government entities, as well as the private sector (including PacifiCorp). Recreation resource management at the various levels is summarized below, starting with the largest statewide recreation provider - the State of Washington.

#### 3.1.1 Recreation Resources Managed at the State Level

At the state level, recreation resources in Washington are managed primarily by the Washington State Parks and Recreation Commission (State Parks). Assisting State Parks and others, the Washington State Interagency Committee for Outdoor Recreation (IAC) services the public through 2 major areas of responsibility: (1) statewide planning, policy research, and recommendations, including maintaining the Statewide Comprehensive Outdoor Recreation Planning (SCORP) program and its various documents; and (2) providing grant funding and technical assistance to other public agencies for recreation development. Other state agencies that participate in recreation management include the DNR, the Washington Department of Fish and Wildlife (WDFW), Department of Ecology, and Department of Transportation. State agencies provide 75 percent of the dedicated recreation acreage statewide (IAC 1990).

#### Interagency Committee for Outdoor Recreation

The IAC is currently conducting a statewide recreation survey and will be updating its SCORP documents later in 2000. In 1990, the IAC published data concerning public participation in and growth of different outdoor activities. The data were taken from a study conducted by IAC and the Pacific Northwest Regional Recreation Committee (PNRRC). The study, with results presented in *Washington Outdoors: Assessment and Policy Plan 1990-1995* (IAC 1990), examined outdoor recreation in 4 geographic regions around the state; recreation use, supply, demand, visitor preferences, and needs were identified. Demand data are presented primarily by region (of which there are 4), whereas supply data are presented by the smaller planning districts (of which there are 13).

The Lewis River Projects are located in PNRRC Region 2 and SCORP Planning District 6. PNRRC Region 2 is a 12-county area that covers primarily non-coastal Western Washington and straddles the major portion of the Cascade Mountain range (Figure 3.1-

1). The natural resources in PNRRC Region 2 on which outdoor recreation demand is based include adjacent mountainous forest lands, as well as both Mt. Rainier National Park and the Monument, both managed by the federal government, as well as the Columbia River Gorge National Scenic Area (CRGNSA), and the GPNF also managed by the federal government.

Within PNRRC Region 2 and SCORP Planning District 6 recreation opportunities exist for the following recreation activity categories studied by the IAC:

- Fishing (bank and boat)
- Water activities (swimming, sailing, power boating, other boating)
- Nature study (wildlife observation, interpretive centers, food gathering)
- Sightseeing and picnicking
- Camping (Recreational Vehicle [RV] and tent)
- Non-motorized riding (e.g., cycling, horseback riding)
- Motorized off-road vehicle use
- Hiking, walking, and climbing (day-hiking, backpacking)
- Snow activities (skiing, snowboarding, snowmobiling)
- Hunting (big game, waterfowl)
- Sports (football, baseball, golf, etc.)

Table 3.1-1 presents an inventory of developed recreation facilities (i.e., recreation supply) in Planning District 6. Demand data, assessed by region, are presented in a separate study.

**Table 3.1-1. Recreation supply in SCORP Planning District 6 - public/private suppliers.**

Facilities	Local	State	Federal	Private	Total
<b>General</b>					
Number of Sites	309	51	91	51	502
Developed Acreage	8,814	21,824	16,782	1,175	48,595
Length of Shoreline (feet)	199,517	394,925	220,520	12,380	827,342
<b>Boating</b>					
Moorage Slips	703	61	0	328	1,092
Moorage Buoys	0	5	0	0	5
Launch Lanes	53	33	13	7	106
Trailer Parking	1,135	699	258	570	2,662
<b>Developed Camping/Day Use</b>					
Total Camping Units	481	514	606	2,917	4,518
Camp Units w/ Hookups	53	89	0	2,367	2,509
Day-Use Picnic Tables	1,724	436	420	NS	2,580
Day-Use Picnic Shelters	65	13	8	NS	86
<b>Swimming</b>					
Length of Swim Beach (feet)	2,250	605	0	590	3,445
<b>Trails</b>					
Hiking (miles)	77	52	576	NS	705
Horse (miles)	4	45	460	NS	509
Off-Road Vehicle (ORV) (miles)	0	13	332	NS	345
NS = not surveyed					
Source: IAC 1990					

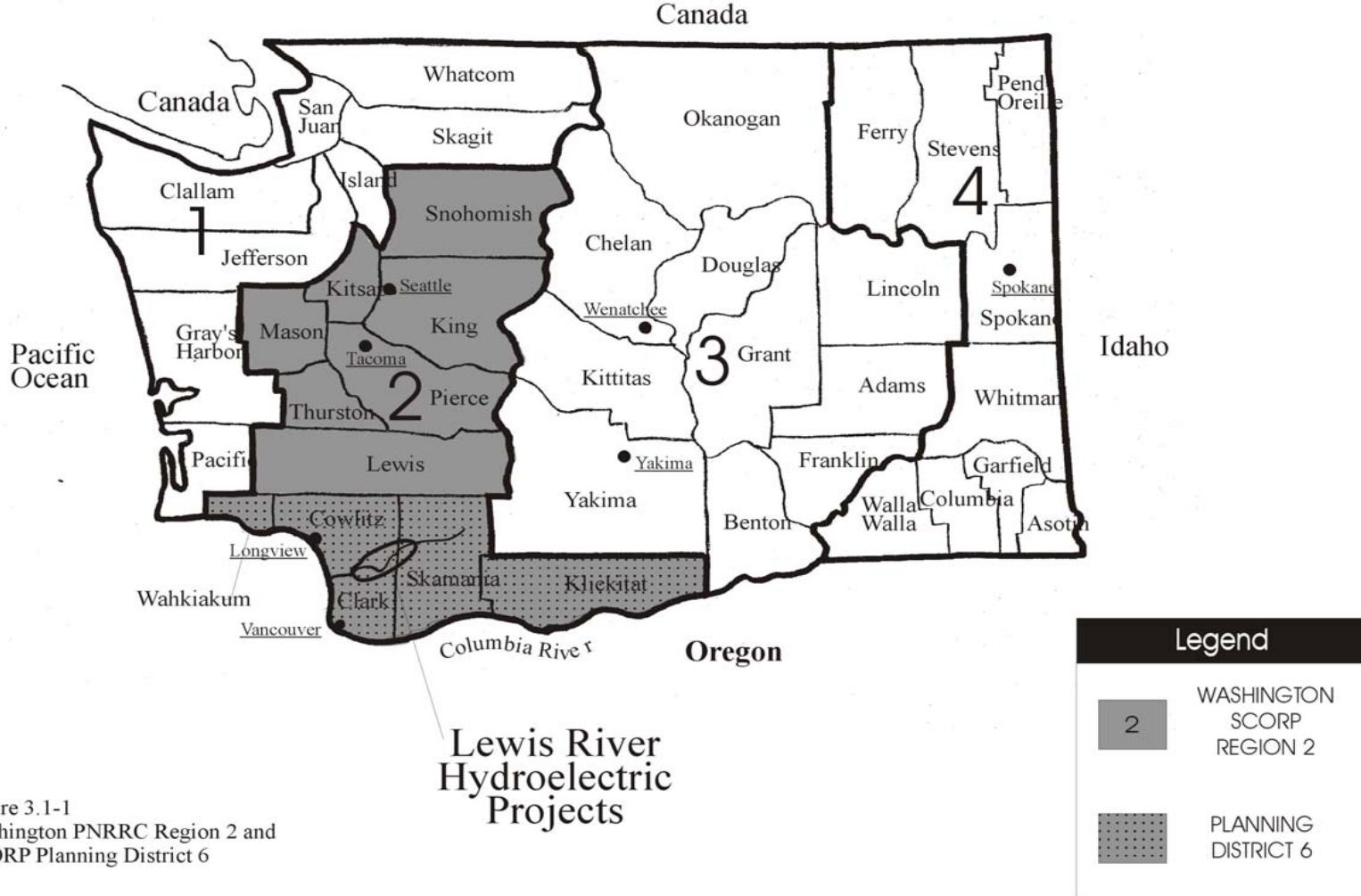


Figure 3.1-1  
 Washington PNRRC Region 2 and  
 SCORP Planning District 6

Source:  
 IAC 1990

In 1995, the IAC published an update of its 1990 SCORP studies - the *Assessment and Policy Plan 1995-2001* (IAC 1995). In this update, the IAC stated that data presented in the 1990 SCORP documents remain up to date, and that projections to the year 2000 remain accurate. Therefore, the IAC did not conduct new surveys to develop supply and demand data. This information will be updated in future SCORP revisions.

Washington State Department of Natural Resources

Primarily, the agency is the trustee of state timber and aquatic lands managed to generate revenue from timber harvest for public education. Secondly, DNR manages public use of its lands and is a recreation provider. The DNR manages approximately 5 million acres of public trust lands—3 million acres of uplands and 2 million acres of aquatic lands. DNR lands include developed recreation opportunities on 3,306 acres (IAC 1990). Hiking, equestrian use, mountain biking, off-road vehicle use (4-wheel-drive [4WD] and motorcycles), and other dispersed recreation opportunities occur on its 2.1 million acres of forest lands. The agency also manages Natural Resources Conservation Areas that may support recreation activities. DNR-managed lands offering recreation resources in the vicinity of Swift Reservoir and Lake Merwin include both Merrill Lake and the Siouxon landscape area (Figure 1.0-1).

Merrill Lake. Merrill Lake, approximately 6 miles north of Cougar, Washington off of Forest Road 81, is a 300-acre lake that supports a trout fishery (fly-fishing only), and is popular with anglers. The lake is open to motorized watercraft however, anglers must have a non-combustible engine on their boat (electric). Non-anglers are permitted to have combustible engines but must obey a 5 mph speed limit. Recreation facilities include 7 tent sites (no fee), 3 picnic-only sites, a toilet, and a boat launch. The campground and boat launch, which was heavily damaged during floods in 1996, was rebuilt by DNR, and is typically open from mid-May to the end of November. A 4-person Washington Conservation Corp crew performs routine maintenance at the site and a contractor removes garbage from the on-site trash receptacles. Located near the border of the Monument, Merrill Lake provides access to several points of interest including Kalama Falls, Kalama Horse Camp, Blue Lake Trailhead, Kalama Springs, McBride Lake, and several viewpoints of Mount St. Helens. There are no plans for any future renovations or expansion of the facilities at Merrill Lake.

Siouxon Landscape Area. The Siouxon landscape area, located 20 miles east of Woodland in Clark and Skamania counties, is a 32,000-acre area managed by the Southwest Region of the DNR. The management goal is to enhance public recreational opportunities without impacting trust obligations that include timber management and protection of aquatic systems, wildlife habitat (e.g., for elk and bald eagle), and historical resources. The Siouxon landscape area is bounded on the north by Swift Reservoir and on the west by Yale Lake. Siouxon Peak, Iron Mountain, and Mitchell Peak are the prominent topographic features. The majority of the landscape is forested with a mixture of Douglas-fir and western hemlock stands, and some true fir at higher elevations. The landscape area has many miles of streams and wetlands that provide important water quality, fish, and wildlife habitat elements. Major streams include the lower portion of

the mainstem of Siouxon Creek, the North Fork Siouxon Creek, Ole Creek, and Rain Creek.

Historically, hunting and fishing have been the primary recreation activities in the Siouxon landscape area; however, other types of trail-related recreation use has increased dramatically, including horseback riding and hiking (DNR 1996). Several hiking groups are promoting the use of this area for day hikes close to the population centers of Portland and Vancouver. Other new users of the Siouxon landscape area include mountain bikers. DNR maintains the 11-mile Mitchell Peak hiking trail, completed in 1988, which is becoming a popular day hike destination for visitors from the Portland area (DNR 1996). The trail descends to the Siouxon River and follows it several miles, crossing the river and passing Black Hole Waterfall before climbing to the peak of Mt. Mitchell, with spectacular views of Mount St. Helens. The trail begins on the S-2000 Road and ends at the old Mitchell Peak fire lookout site. The first 2 miles are built to horse-trail standards; the remaining 9 miles are built to hiking trail standards.

Access to the Siouxon landscape area is primarily by boat and logging roads. Boat access is possible from both Yale Lake and Swift Reservoir; vehicle access is possible from the south by private logging roads and State Route (SR) 503. A private road parallels the Yale shoreline through the DNR lands. This road will be evaluated for potential trail use in the Capacity and Suitability Analysis. Currently, the public uses the IP Road to gain unauthorized vehicle access to the eastern shoreline of Yale Lake. Locked gates generally block public access to the road; however, public use does occur when the gates are not operational or are left open. In addition, public access to the IP Road may be gained from ungated dirt roads on DNR timber property east of Yale Lake.

DNR recently completed a master plan for the Siouxon landscape area. Public meetings on the Siouxon Landscape Plan (DNR 1996) revealed greater recreation use of the lands than anticipated by DNR staff and an interest in increased opportunities for recreational use in the Siouxon. Equestrian groups in particular have been very active and are helping maintain trails. This is positive since DNR must rely upon volunteers to meet its goals. In response, DNR formed a Recreation Subgroup for the Siouxon. The group's goals are to work with the GPNF and others to expand trail opportunities, to develop trail maintenance agreements, and to meet future recreation needs. PacifiCorp is a member of this group.

As stated in the Siouxon Landscape Plan, DNR has the following plans for the Siouxon landscape area: (1) maintain vehicular access to the Siouxon, in cooperation with other public agencies; (2) reduce human pressures on wildlife populations; (3) provide quality hunting; (4) protect water quality; and (5) reduce road maintenance costs. Recreation opportunities, such as hunting, fishing, horseback riding, and hiking, will continue. In addition, DNR plans to develop a long-term trail maintenance plan.



### Washington Department of Fish and Wildlife

In addition to the IAC and DNR, the WDFW has addressed environmental and habitat concerns within the watershed involving existing and future recreation uses. WDFW has completed a pilot project called the Integrated Landscape Management (ILM) plan for the Lewis and Kalama River Watersheds (WDFW 1995). The key objectives for the ILM are to develop an integrated plan for managing fish and wildlife in the Lewis-Kalama River watershed on a landscape basis over the next 20 years; the plan is intended to be a cooperative management plan developed between landowners, the public, and fish and wildlife managers. As such, the ILM plan was developed by the WDFW with the input and participation of a Citizen's Advisory Group that included PacifiCorp.

Specific goals related to recreation as stated in the ILM plan include:

- Provide for significant recreational opportunities (e.g., hunting and fishing) through artificial propagation programs.
- Secure, maintain, and enhance lands and sites for public wildlife and fishing recreational access and opportunity.
- Achieve public involvement from citizens interested in Washington's wildlife.

WDFW follows the mandate of the Washington Fish and Wildlife Commission to "maximize recreational opportunities for fish and wildlife constituents with the preservation, protection and perpetuation of the fish and wildlife resources" (WDFW 1995). The ILM focuses its recreation considerations on biological resources, particularly fish and wildlife species important for recreation (e.g., elk, deer, kokanee, steelhead, and coho). A key ILM concept is to establish acceptable biological limits for recreational opportunities consistent with naturally sustainable aquatic and marine animal populations, and provide for significant recreational opportunities through artificial propagation programs. The plan notes the importance of steelhead, chinook, and coho salmon in the Lewis River in general, and kokanee for Lake Merwin and Yale Lake in particular. The plan also identifies the anticipated degradation of elk winter range due to human encroachment near the town of Cougar.

The Recreation Plan identified in the ILM focuses on the need to minimize and manage potential wildlife-recreation conflicts in the watershed, including the Lewis River Projects area. Critical habitat areas identified in the plan should be protected from all development, including recreation. Key habitats include caves, wintering areas for elk below 1,000 feet mean sea level (msl), and riparian areas. Other important habitats, such as cliffs and meadows, need to have recreational events carefully managed to avoid confrontations with wildlife during critical stages. Damaging activities such as riding all-terrain vehicles (ATVs), snowmobiles, and horses should not be allowed in these habitats (WDFW 1995).

### 3.1.2 Recreation Resources Managed at the Federal Level

The region surrounding the Lewis River Projects contains 2 of the most significant recreation resources in the state managed by the federal government – Gifford Pinchot National Forest (GPNF), and the Monument (Figure 1.0-1). In addition to these significant resources in the immediate vicinity of the Lewis River Projects, there are also several wilderness areas farther east of the project area (e.g., Mt. Adams and Indian Heaven), as well as Mt. Rainier National Park to the north. The most significant of these recreation resources are discussed below.

#### Gifford Pinchot National Forest

The GPNF, managed by the USFS, stretches along the western slopes of the Cascade Mountains from the Columbia River on the south to Mt. Rainier National Park on the north. Included among the 1.37 million-acre forest are Mount St. Helens and a portion of Mt. Adams. The Lewis River Projects occur just south and west of the national forest boundary, in the vicinity of the forest's southwest flank. The headwaters of the Lewis River flow from within the national forest.

The forest contributes recreation opportunities to over 3 million people who live within a 2-hour drive. Outdoor recreation opportunities are abundant and range from primitive backpacking to highly developed campground sites. Old-growth trees provide aesthetic and recreation values. Scenery includes snow-capped mountains, glaciers, lakes, streams, waterfalls, and rock outcrops. Hiking trails offer people an opportunity for solitude. The forest also offers subsistence recreation opportunities including firewood gathering, hunting, fishing, and berry picking (USFS 1990). Water-related opportunities abound, with over 400 lakes, 200 waterfalls, and 1,360 miles of fish-bearing streams in the GPNF (USFS 1990).

Developed facilities in the GPNF include 55 campgrounds, 7 picnic grounds, 22 interpretive sites, 15 trailheads, and numerous swimming, boating, and observation sites (USFS 1990). Most of the White Pass Ski area is within the forest but is administered by the Wenatchee National Forest. Dispersed opportunities include 1,275 miles of road that can accommodate all vehicle types; a 1,068-mile network of trails to meet the needs of different user types (e.g., hikers, equestrians), including a portion of the Pacific Crest National Scenic Trail; 270 miles of trails suitable for off-road vehicles (ORVs); and 1,360-miles of fish-bearing streams accessible to anglers. The Lewis River Trail (USFS trail #31) and the Pacific Crest National Scenic Trail are located east of Swift Reservoir. The Lewis River Trail is accessed by Curly Creek trailhead east of the reservoir. This trail follows the Lewis River and connects to numerous other trails in the GPNF, such as USFS trail #58 and USFS trail #184. South of Swift Reservoir, the USFS also manages a primitive trail to Huffman Peak (USFS trail #129)

Two popular, short trails—access to Ape Cave (USFS trail #239) and the Trail of the Two Forests (trail #233)—are also located in the Monument, a short drive north from the Swift No. 2 power canal area. Winter parking areas are also available for snowshoeing,

cross-country skiing, and other winter sports (USFS 1990). In 1984, the forest received over 2 million recreation visitor days (RVDs) of use; 36 percent of these occurred in developed sites, while the remainder (64 percent) occurred as dispersed recreation (USFS 1990).

As noted above, the headwaters of the Lewis River are within the GPNF boundary. Recently, portions of the Lewis River have been recommended by the USFS for protection under the federal Wild and Scenic River Act. Between the river source in the Mt. Adams Wilderness and the maximum pool at the mouth of Swift Reservoir, 4 miles of the river have been recommended for designation as Wild, and 29 miles have been recommended for designation as Scenic (USFS 1990). The scenic value of the Lewis River is outstanding because of 5 large waterfalls on the river, as well as many waterfalls on the side streams. Recreation values are considered outstanding due to excellent trout fishing and challenging river rafting opportunities. In addition, the East Fork Lewis River, which is the most heavily used river in the forest, is also considered eligible for inclusion in the federal Wild and Scenic River System, from the source to its confluence with the Lewis River (43 miles) (USFS 1990). The East Fork provides year-round opportunities for drift boat fishing, as well as outstanding opportunities for rafting, kayaking, fishing, and boating.

The USFS manages the national forest according to the Land and Resource Management Plan (LRMP) for the GPNF (USFS 1990, with updates). The LRMP establishes forest-wide goals and objectives; standards and guidelines applying to future activities; management direction; and monitoring and evaluation requirements for the multiple uses of the forest, including recreation. None of the management considerations relate directly to the Lewis River Projects; however, there are USFS lands within the Project boundary at Drift Creek and Pine Creek (the USFS boundary crosses the Project boundary at Pine, Drift, and Range creeks). Management of the Monument, which is within the GPNF, is addressed under a separate management plan, as discussed below.

Several GPNF facilities and trails located in the upper Lewis River basin and the upper Kalama River basin provide recreation opportunities to visitors. A brief description of these facilities and trails is provided below:

Kalama Horse Camp. Located on FR 81 north of Yale Lake, this facility provides camping opportunities for equestrian users. The camp has 8 individual campsites and 2 group sites. Six of the 8 individual sites can accommodate two truck/trailer units and have 4 10'x10' corrals. The remaining 2 individual sites can accommodate one truck/trailer unit and have 2 10'x10' corrals. The 2 group sites can accommodate 3 or more truck/trailer units and have 4 10'x10' corrals and 1 high-picket line. There is also a day use area with parking for 13 truck/trailer parking spaces and 6 single vehicle parking spaces. Facilities include a picnic area with horseshoe pit, loading/unloading ramp, staging area with stock water trough, hitch rails, and a mounting assist area. Fifteen additional campsites will be constructed this year in response to high demand for this facility, which is frequently at capacity during the peak season. This facility is open

year-round, however FR 81 is often blocked by snow or inaccessible during the winter months. While popular with equestrian users, this facility is open to all visitors.

Lower Falls Recreation Area. This popular area is located on FR 90, east of Swift Reservoir. Facilities include a campground and a day use area. The campground contains 46 paved sites, many of which are able to accommodate RVs. There are 3 types of sites in the campground including single family sites (\$12 per night), multi-family sites (\$22), and group sites (\$27). The campground is operated for the GPNF by Northwest Land Management. Day use facilities include a picnic area and short trails that lead to views of several waterfalls along the Lewis River.

Pine Creek Information Center. This facility is located near the junction of FR 25 and FR 90 at the east end of Swift Reservoir and provides recreation information for visitors travelling through the area. The facility is typically open from Memorial Day to Labor Day and is an important resource to motorists travelling the circle route around the Monument. GPNF staff are available at this facility and several informational and interpretive panels are located outside the center.

#### Mount St. Helens National Volcanic Monument

The 1980 eruption of Mount St. Helens created a recreation resource of international significance directly north of the Lewis River Projects. The eruption devastated a 235 square mile area and produced one of the most spectacular landmarks in the nation. The volcano blew to the north, sparing the Lewis River area. However, some mud flows entered the Lewis River basin. The project vicinity, however, provides access to the southeastern flank of the volcano via SR 503 Spur, Lewis River Road, and a series of USFS roads. This portion of the Monument is the main access for climbers, and includes a number of sightseeing opportunities such as Ape Cave and Lava Canyon; access to other areas of the Monument, including the Windy Ridge Viewpoint, are provided by more distant but linked routes from the Lewis River Projects vicinity (the Mount St. Helens “loop”).

In August 1982, Congress created the 110,330-acre Monument within lands previously designated part of the GPNF plus other lands. The purpose of Monument designation is to protect geologic, ecologic, and cultural resources for scientific study and research, while providing for compatible recreation and interpretation. The Congressional act designated the USFS as the federal agency responsible for managing this unique resource, and it established a special management unit to manage the Monument within the GPNF. The Monument provides a variety of recreation opportunities, including developed facilities such as interpretive centers and viewpoints, and maintained trails, as well as dispersed activities such as fishing, hunting and trapping, horseback riding, mountain climbing, cross-country skiing, snowboarding, snowmobiling, and subsistence use.

The Monument is a significant visitor attraction in the region, with approximately 3 million visitors in 1999, and interest is increasing (pers. comm., the Monument, Amboy,

WA, June 13, 2000). It has become a world famous tourist attraction in the 20 years since the volcano erupted. Three newly constructed visitor interpretive centers operated by the USFS, Cowlitz County, and the Weyerhaeuser Company have focused the majority of visitors to the northwest side's blast devastation area. These world-class visitor centers are located along SR 504 (the Spirit Lake Memorial Highway). The scenic undevastated south side of the mountain, however, still receives extensive visitor use and the southern boundary of the Monument is within a very short drive of the Lewis River Projects area. PacifiCorp owns approximately 300 acres within the Monument boundary consisting of 2 parcels north of Beaver Bay Campground and the Swift No. 2 power canal. Many visitors to the Monument use Lewis River Road to access the southern and eastern portions of the Monument's Windy Ridge observation area or to "do the loop." Sightseers, climbers, hikers, backpackers, cave explorers, snowmobilers, and cross-country skiers use the southern route to access destinations within the Monument and GPNF. Many of these visitors stop at project facilities as they travel along the roadway, especially Yale Park.

From the Cougar area, visitors may travel northward on Forest Road 81 to Kalama Horse Camp, Goat Mountain Research Natural Area, and Sheep Canyon located inside the Monument or GPNF. Just north of the Swift No. 1 dam, visitors may also travel north on Forest Road 83 to several more destinations including Ape Cave, Climbers' Bivouac, 2 snow-play areas, Lava Canyon day use area, and several trailheads. Climbers receive USFS permits to climb Mount St. Helens at a location west of Yale Park on Lewis River Road (Jack's Store). Still other visitors travel farther east on Lewis River Road stopping near Swift Reservoir at the GPNF Pine Creek Information Station. The GPNF directs many campers at this location to area campgrounds, including PacifiCorp and GPNF facilities. Other recreation facilities used by visitors to the Monument include the Kalama Horse Camp, Lava Cast Picnic Area, Windy Ridge, and Lahar Viewpoint.

### 3.1.3 Recreation Resources Managed at the Local Level

The Lewis River Projects are located within 3 Washington counties—Clark, Cowlitz, and Skamania—all of which have some form of designated plans that identify public recreation resources in the area and plans for future facilities. Existing recreation resource opportunities in each of these counties are summarized below, along with a description of each county's management plan(s) addressing parks, open space, and recreation.

#### Clark County

The south or eastern shorelines of 2 of the Lewis River Projects (Lake Merwin and Yale Lake) are located in Clark County, a 630-square mile county bordered on the south by the Columbia River and on the north by the Lewis River (Figure 1.0-1). The Merwin Project is in the northeast corner of the county. The 1999 county population was estimated at 337,000 (OFM 2000), with the largest incorporated city (Vancouver, Washington) contributing a population of approximately 135,100. The county's topography and natural resources provide numerous and varied recreation opportunities; a countywide

survey in 1992 identified hiking, picnicking, wildlife observation, camping, and swimming as the key recreation opportunities and interests.

Clark County owns and manages approximately 3,349 acres of park and open space land, including 10 regional parks (1,797 acres), 3 special facilities (162 acres), and 1,390 acres of conservation and greenway systems (Clark County 1994). The DNR is the largest public land owner in Clark County; the DNR's most extensive land holdings in Clark County include approximately 60,000 acres in the Yacolt Burn Multiple Use Area in east Clark County, as well as the Siouxon Landscape Area, both of which offer recreation opportunities such as fishing, hiking, hunting, horseback riding, off-road vehicle use, and motorcycle riding. In addition, approximately 1,180 acres of the GPNF, managed by the USFS, are located within east and north Clark County. These national forest lands provide opportunities such as camping, hiking, hunting, fishing, and horseback riding (Clark County 1994). Other public lands in the county that are more distant from the Lewis River Projects include wildlife habitat lands managed by the U.S. Fish and Wildlife Service (USFWS) and the WDFW. Numerous privately owned and operated recreation facilities exist throughout Clark County, including those associated with the Lewis River Projects; however, a comprehensive inventory of private facilities in the county has not been conducted.

Clark County owns an undeveloped park site on the eastern shoreline of Yale Lake adjacent to DNR and PacifiCorp property referred to as Siouxon County Park (Figure 1.0-2). The site has approximately 0.5 mile of shoreline and is accessed by the privately controlled IP Road or by boat. No utilities are currently available at this property. The County constructed 8 boat-in campsites at this location in the 1960s. However, because of difficulties maintaining the remote site, an economic recession, and uncertainty surrounding continued road access for park maintenance use, the County removed the facilities in the early 1980s. Clark County is considering re-establishing a boat-in campground and day-use picnic area at this location sometime in the future, possibly in conjunction with DNR and/or PacifiCorp.

The County also envisions a multi-use nonmotorized trail along the eastern shoreline of Yale Lake, with 2 day-use sites and toilet facilities. These improvements are not in the County's 6-year Capital Facilities Plan, but are included in the Clark County Trails & Bikeway System Plan (Clark County 1992). The County's concept is to convert the existing paved road (IP Road) to a trail from Yale dam north to the Cowlitz County line. The long-range objective would be to connect La Center on the west to Yale dam on the east and north to the Monument. The County also identifies the Yale transmission line right-of-way (ROW) corridor as a possible trail route extending along the south side of Lake Merwin. The County's plan identifies coordination with PacifiCorp as instrumental to this process.

Management of parkland and open space in Clark County is specified in the 1994 Clark County Parks, Recreation, and Open Space Plan (Clark County 1994). As stated in the plan, the County's mission regarding parks and open space is:

“to maximize the quality of life in Clark County by providing regional open space, trails, parks and recreational opportunities and facilities, and to plan for, acquire, restore, enhance, preserve, develop, and manage these facilities and natural resources in such a manner as to afford the maximum benefit to the community.”

The plan includes an inventory of existing conditions in the county, as well as identifying desired future conditions and goals, policies, and objectives. The plan specifies an acquisition goal of 20 acres of regional parkland per 1,000 residents for the future, which will provide natural and/or artificial qualities for outdoor recreation activities such as picnicking, boating, fishing, and camping. The current ratio is about 13 acres of parkland per 1,000 residents. Overall long-term goals of the County include providing a park, recreation, and open space system providing personal, social, economic, and environmental benefits to county residents. Funding strategies for land acquisition and preservation include county bonds, state funds, park impact fees, real estate excise taxes, sales taxes, and regular property taxes. Cooperation with PacifiCorp on parks and open space lands is not specifically mentioned in the plan, but it does mention the acquisition of regional parkland along upper Merwin, lower Merwin, and the North Fork Lewis River as County objectives to improve camping, boat launch, and water access facilities. The County’s focus now is on close-in urban parks in the Vancouver area; its future focus will be on additional regional parks countywide.

### Cowlitz County

The entire northern shoreline of Lake Merwin and the western shoreline of Yale Lake are located in Cowlitz County (Figure 1.0-1). The 1,146-square-mile county is bordered on its southeastern edge by the Lewis River, on its southwestern edge by the Columbia River, and on the eastern edge by the Cascade Mountain range (including a portion of the Monument and the GPNF). The northern boundary is near the SR 504 corridor, which runs parallel to the Toutle River and provides access to the northwestern portion of the Monument. The county topography is quite varied, with elevations ranging from approximately sea level along the Columbia River to approximately 4,000 feet on the western slopes of Mount St. Helens. The county’s natural resources support numerous and varied recreation opportunities, including hiking, camping, visiting interpretive centers, fishing, picnicking, river boating, flatwater recreation, hunting, off-road vehicle use, and bicycling. The 1999 county population was 94,100 (OFM 2000).

As documented in the 1994 Cowlitz County Comprehensive Park Plan (Cowlitz County 1994), county recreation supply and management focus on 3 separate areas in the county: (1) sites along the Columbia River; (2) along the SR 504 corridor, which extends to the northwestern flank of Mount St. Helens; and (3) along the I-5 corridor. All high and moderate priority recreation sites occur in these 3 areas, which do not include the Lewis River corridor. Key recreation sites addressed in detail in the plan include Riverside County Park (along the I-5 corridor near Lexington), Willow Grove Beach (on the Columbia River), Hoffstadt Bluffs (on the SR 504 corridor), Woodbrook Park (east of the I-5 corridor near Kelso), a viewpoint near Mount St. Helens on the Spirit Lake Highway,

and the Mount St. Helens Visitor Center at Silver Lake, on which the County participated with the USFS to construct.

The County plan references and relies on IAC data to estimate recreation participation and future demand for recreation needs in the region (these same data are summarized in the Recreation Demand Analysis). The plan, however, does not include statistics such as acreage of County-owned or managed open space, parkland, or recreation sites.

Although two-thirds of the northern shore of the Lewis River corridor is in Cowlitz County, the County does not own or manage any recreation resources (i.e., parkland or open space) along the Lewis River. The plan lists no existing or proposed County sites or priorities in the Lewis River corridor, with the exception of the Finn Hall Historical Marker—a historical site 3 miles east of Woodland commemorating the early Finnish settlers in Cowlitz County. The plan does mention private industry (such as PacifiCorp and others in the Cougar area) as providers of recreation opportunities along the Lewis River corridor.

All of PacifiCorp’s developed recreation facilities associated with the Merwin and Yale projects are located in Cowlitz County. The plan identifies Saddle Dam, Yale Park, Cougar Park, Beaver Bay Campground, Merwin Park, Speelyai Bay, and Cresap Bay Campground as “public” parks provided by private industry. According to the plan, “Merwin, Yale, and Swift reservoirs and parks operated by Pacific Power & Light Company (PP&L, now Pacific Power, a PacifiCorp division) are providing extensive and valuable recreation facilities to the Southwest Washington region. Cowlitz County should continue to work with PP&L to meet community needs” (Cowlitz County 1994).

The plan also lists the following privately owned recreation resources along the Lewis River corridor:

- Cougar RV Park (18 campsites) in Cougar (formerly Big Foot Trailer Park)
- Lewis River RV Park (70 campsites) on Lewis River Road east of Woodland
- Lone Fir Resort and Trailer Park (32 campsites) in Cougar
- Lewis River Golf Course on Lewis River Road in Woodland

In addition to providing an inventory of recreation resources in the county, the plan identifies the following long-range goals and objectives:

- Enhance and supplement Cowlitz County’s quality of life by providing a variety of lands for open space, recreation facilities, shoreline access, and to ensure a land base for future public needs.
- Continue high quality maintenance and operation of existing facilities, pursuing cost effectiveness and durability in new facility construction to ensure maintenance costs are kept as low as possible.
- Promote tourism by development of viewpoints, picnic sites, interpretive information, and other services to enhance a visitor’s experience.



- Create “land bank” sites for future generations to utilize for various programs to benefit the public health, safety and welfare; and provide for open space, shoreline access, park, and recreation sites (Cowlitz County 1994).

### Skamania County

Skamania County, which covers 1,672 square miles, is bordered on the south by the Columbia River, on the east by Klickitat and Yakima counties, on the west by Clark and Cowlitz counties, and on the north by Lewis County. The Merwin and Yale Projects are just west of Skamania County, while Swift Reservoir is located entirely within the county (Figure 1.0-1). Portions of 2 federally managed recreation resources occur within Skamania County—the Columbia River Gorge National Scenic Area (CRGNSA) and the Monument. In addition, portions of the GPNF are located in Skamania County. The county is sparsely populated with a 1999 population of 9,900 (OFM 2000).

Key recreation-related priorities identified in Skamania County’s Parks and Recreation Comprehensive Plan (Skamania County 1991) include waterfront facilities, neighborhood and community parks, sports fields, off-road vehicle use, historical resources, scenic areas, open space, specific programs, special use areas, and sailboarding. Skamania County is also diversifying its local economy by placing greater emphasis on the recreation industry as a means to replace jobs lost in the declining timber industry. As with Cowlitz County, Skamania County’s plan focuses management attention in areas outside of the Lewis River corridor, in particular the CRGNSA and the Mount St. Helens area. Recreation sites identified as significant to local populations are all located along the gorge, and no capital improvement needs identified for the county are in areas near PacifiCorp facilities.

Although the County has not published statistical data such as acreage of County-owned or managed open space, parkland, or recreation sites, the plan does list the top 10 recreation activities of local residents:

- picnicking
- fishing
- camping
- bicycling
- nature walking
- hunting
- sightseeing
- movies
- swimming (indoors)
- swimming (outdoors)

Existing recreation facilities in Skamania County in the vicinity of Swift Reservoir include Swift Campground (20 acres, owned by DNR and leased to and operated by PacifiCorp), Eagle Cliff Park (1 acre, owned and operated by PacifiCorp), and Pine Creek Information Station (Figure 1.0-1). In addition, the eastern portion of the Monument is located in Skamania County; recreation sites in the Skamania County portion of the Monument include Ape Cave, Lava Canyon, the Climbers’ Bivouac, Windy Ridge, Spirit Lake, and Ryan Lake. Other recreation facilities and resources in the county but outside the Lewis River Projects vicinity include numerous camps and sites in the GPNF, managed by the USFS (e.g., Pole Patch, Adams, Cat Creek, and Spring Creek camps);

and many shoreline and hillside sites along the Columbia River Gorge provided by federal, state, and local agencies as well as private industry. Other federally managed areas providing recreation opportunities in the county include the Trapper Creek Wilderness, Wind River Experimental Forest, Indian Heaven Wilderness, and the Mt. Adams Wilderness. Skamania Lodge, a successful new resort and conference center located within the CRGNSA, is a new recreation resource in the county.

### **3.2 Lewis River Corridor Recreation Resources**

Recreation resources along the Lewis River corridor are offered primarily by the private sector. The majority of developed facilities are associated with PacifiCorp's 4 Lewis River Projects (Section 3.3). In addition to recreation opportunities provided by PacifiCorp, several other notable facilities are located along Lewis River Road from Woodland to Cougar (Figure 1.0-1). This section focuses on private sector recreation facilities in the Lewis River corridor, providing a slightly broader focus than the 0.5-mile buffer surrounding the 4 Projects.

#### 3.2.1 Private Sector Recreation Facilities Along SR 503 and Lewis River Road

To support the increasing demand of visitors traveling to these destinations and beyond, private sector development along Lewis River Road has increased steadily over the years. In addition to PacifiCorp-owned and operated campgrounds and day-use areas on the Lewis River, there are a few private campground facilities in the vicinity, the majority catering to RV campers by providing hookups. The Lewis River RV Park offers 70 campsites directly adjacent to Lewis River Road. There are several campsites offered in the immediate vicinity of the town of Cougar as well, including the Cougar RV Park (18 campsites) and the Lone Fir Resort and Trailer Park (32 campsites). A few smaller motels and bed and breakfasts, such as the Lone Fir Resort (17 motel rooms), operate along Lewis River Road, located at Woodland, Ariel, and Cougar.

A variety of other private businesses support visitor activity in the corridor as well. Bluebird Helicopters, in Cougar, provides helicopter tours of Mount St. Helens. Several restaurants and services are sustained by recreation-related traffic in the project vicinity. Jack's Restaurant, at the intersection of SR 503 and SR 503 Spur to Amboy, is also the location of the USFS's climber registration for ascents up Mount St. Helens. General stores selling food, gas, recreation equipment, souvenirs, guidebooks and maps, and local crafts are concentrated in the town of Cougar. Farther west, developed facilities such as hotels, motels, and larger stores are concentrated in the Woodland area; the Merwin Project is approximately a 30-minute drive from Woodland, while the Swift Project is approximately 1 hour from Woodland.

Access to recreation sites is critical to their success. In February 1996, several days of heavy rain-on-snow events in the Cascade Mountains triggered severe slides in the Lewis River corridor. In addition to peak flows that flooded downstream communities such as Woodland, several key access roads to the Monument, GPNF, Merrill Lake, and locations east of Swift dam were washed out. Notable road closures included Forest Road 90, 83,

and 81. These roads were repaired and are essential for access to the Monument from the southeast. Although the economic impacts to private sector businesses have not been calculated, it is clear from talking to business operators that the closed access roads along and beyond the Lewis River corridor resulted in decreased tourism oriented to the Monument and Swift Reservoir in the summer of 1996. As roads were reopened in 1997 and 1998, business levels have increased.

### 3.2.2 Private Shoreline Homeowner Associations

There are a number of private year-round and vacation home developments along the project reservoirs. Many of these provide day use facilities such as boat launches and picnic areas that are available to members.

Description of Private Shoreline Facilities. Table 3.2-1 summarizes private residential development and associated recreation resources on the 3 reservoirs. On Swift Reservoir, 3 private shoreline developments (Northwoods, Swift Creek Estates, and Swift View) with approximately 253 home sites provide a range of private recreation facilities for the residents of these 3 developments. The Northwoods development includes approximately 206 homes, some of which are used year round. Northwoods is located on lands owned by DNR and leased to the homeowners. Several of the homes in this development have private boat docks. Facilities for homeowner association members include 78 boat slips that can be leased, and a day use facility containing a swimming beach and 5 picnic tables. Also on Swift Reservoir, 47 home sites are located at Swift Creek Estates, which is adjacent to Swift Campground. Approximately one-third of the private lots at this development are along the shoreline and include private docks. A community docking facility is available for the remainder of the lots, as is a small picnic area and a boat launch. All of the common use areas are on land owned by Swift Creek Estates, while individual lots are owned by the homeowners. A new private development on Swift Reservoir, Swift View, is being developed and will eventually have at least 12 home sites and up to 21. This new development will also include 16 boat slips, a boat launch, and a day use area that will include a swimming beach and a gazebo with nearby picnic tables. These homes will be on lands owned by Swift View Estates LLC.

At Lake Merwin, 3 private developments surrounding the reservoir (King's Lakeside, Woodland Park, and Camper's Hideaway) with approximately 1550 home/trailer sites also provide a range of recreation opportunities for Lake Merwin area residents. King's Lakeside includes approximately 20 permanent residential homes and trailers on the north shore, some with docks. All of these homes are on private land owned by the homeowners association, while PacifiCorp leases shoreline areas to the association for the use of homeowners. Also on the north shore, 40 acres of PacifiCorp-owned land is leased for residential use at a development called Woodland Park. Woodland Park contains 32 units, some with private permitted docks. There is also a small boat launch facility and a day use area with a picnic shelter and 15 tables. On the south shore and hillside of Lake Merwin, Campers' Hideaway includes approximately 1,500 permanent trailers on private property owned by the membership. The waterfront area is leased to Camper's Hideaway by PacifiCorp. This waterfront area provides a boat launch with 2

lanes, a marina with 56 boat slips, and a day use area with a sandy beach and 5 picnic tables.

**Table 3.2-1. Development and private shoreline residential recreation facilities**

<b>Development (Reservoir)</b>	<b>Total Number of Lots</b>	<b>Approx. Number of Homes</b>	<b>Boat Launches (lanes)</b>	<b>Day Use Facilities</b>	<b>Property Owner</b>
Northwoods (Swift)	210	206	0	Yes	WA Dept. of Natural Resources
Swift View (Swift)	12	0	0	No	Swift View Estates LLC
Swift Creek Estates (Swift)	48	47	1	Yes	Swift Creek Estates
King's Lakeside (Merwin)	57	20	0	Yes	King's Lakeside Association
Woodland Park (Merwin)	32	32	1	Yes	PacifiCorp
Camper's Hideaway (Merwin)	1,600	1,500	2	Yes	Members of Camper's Hideaway
Yale Estates Homeowners Association (Yale)	NA	8	0	No	Yale Estates Homeowners Association

Source: EDAW 2000

At Yale Lake, in the vicinity of Speelyai Canal on the west shore, the Yale Esates Homeowner's Association includes approximately 10 permanent residential lots. These lots are owned by the Yale Estates Homeowner's Association. Although direct waterfront access is provided for some lots, there are currently no permits for in-water dock facilities.

Effect of Reservoir Pool Levels on Private Shoreline Facilities. Private homeowner association managers were contacted to assess potential reservoir pool level impacts to private in-water facilities owned by individual members or the association. Three of the associations (Swift Creek Estates – Swift; Woodland Park – Merwin; Campers Hideaway – Merwin) provide boat launch facilities for use by their members. Two of the three boat ramps (Swift Creek Estates, Woodland Park) are not long enough to be used during reservoir pool seasonal draw-downs; however, these managers indicated that the facilities are able to be utilized during periods when there is homeowner demand (summer). One of the launches can be used nearly year round (Campers Hideaway), however use becomes more difficult as the reservoir pool level drops. All of the managers indicated that the boat docks and marina slips are often inaccessible during seasonal draw-downs, however, this was not a significant concern due to the relative lack of boating demand from homeowners during this period. On Swift Reservoir, there are concerns regarding private boat docks near the mouth of the Lewis River (east end) that are typically resting on the bed of the reservoir during the winter. One effect of pool fluctuations has been to make these ramps susceptible to high flows in the Lewis River channel that can cause extensive damage when the channel flows fluctuate in high volume runoff events before

reservoir pool levels are raised. This type of damage has only been documented once, in 1996, during an extremely rare flood event, and does not appear to be a consistent problem.

### 3.2.3 Private Strategic Action Plan Considerations

In 1995, interested residents and business leaders of the Lewis River Valley in Cowlitz County joined together to prepare a Strategic Action Plan specifically for the Lewis River corridor (Lewis River Action Committee 1995). The working vision statement for the Action Plan is stated as follows:

“The Lewis River Valley is a community which offers its diverse residents a rural lifestyle, open space, wildlife habitat, forests, recreation, public services and increased revenues from tourism through creative land use planning and respect for private property.”

The Action Plan includes an element specifically addressing recreation resources in the Lewis River corridor, with a goal statement to “improve recreational access for local residents with particular focus on youth activities and cultural events, and encourage recreation for visitors such as trails, tour routes and natural experiences that will have low impact on community and environmental resources.” In its Action Plan, the committee identified the following priority recreation projects in the Lewis River Projects study area:

- Designating SR 503 (Lewis River Road) as part of a 2- or 3-mountain scenic loop with Mount St. Helens, Mount Rainier, and (perhaps) Mount Adams. SR 503 was designated as a State Scenic and Recreation Route Highway in 1993.
- Creating hiking, nature, and fitness trails throughout the Lewis River corridor, including along lakes and within USFS lands - A potential trail linking the town of Cougar to Cougar Park was identified as a priority, as well as organized day hikes from Cougar Park to Beaver Bay.
- Creating kokanee and elk viewing/interpretive education areas – Fish viewing would be ideal along Cougar Creek, particularly if parking is provided. Interpretive signing for elk viewing could occur at several areas in the valley (WDFW and USFWS should be consulted).
- Expand campground facilities - The Action Plan calls for an evaluation of opportunities and resources to expand local area campgrounds, including potential public/private partnerships. It identifies a need for group campgrounds to serve educational users.
- Expand youth activities - The Action Plan calls for expanding summer recreation programs for youth, including hiking opportunities.

These priority projects will be examined as part of the recreation needs assessment and in potential enhancement measures to be included in the License Application.

### 3.2.4 Private Forestland Considerations

In addition to the private developed facilities, there is also a large amount of privately owned timberland in the area, some of which is open to the public for dispersed recreation use. The majority of the private timberland in the area is owned by Weyerhaeuser, Longview Fiber, and Plum Creek Timber.

Weyerhaeuser owns large tracts of land south of the Siouxon landscape area near Yacolt and north of the project in the Kalama basin. In general, many of the roads into these private lands are gated; however, non-motorized recreation use, such as hiking, is permitted behind the locked gates. Although most roads are gated most of the year, many of these are opened during the hunting season, roughly from the start of the general rifle season (mid-October) until December 15. During this period, dispersed camping is permitted, although not encouraged. Dispersed camping was permitted year-round in the upper Kalama basin (near Kalama Falls), however use was restricted in 1998 due to excessive litter and vandalism. Gated roads in this area are generally open only during hunting season. Common activities on Weyerhaeuser lands include hiking, mountain biking, horseback riding, cross-country skiing, fishing, and gathering of mushrooms, berries, and floral greens (pers. comm., Lathrop, 2000).

Plum Creek Timber Company owns a large block of land on Swift Reservoir that is a popular destination during the hunting season, in addition to smaller parcels near Lake Merwin and Yale Lake. In general the company endorses an open lands policy that allows public use. However, roads may be closed at any time, especially during periods of increased fire danger. Many of the roads into these areas are open during hunting season, as hunting is the main recreation activity on their lands. ORV use also occurs and is not an issue when confined to existing roads. Other recreation uses include cross-country skiing and snowmobiling (pers. comm., Halme, 2000).

Longview Fibre owns several parcels of land just north of Lake Merwin and in the area between Lake Merwin and Yale Lake, south of SR 503. The company endorses an open lands policy that allows for public uses such as hunting, hiking, horseback riding, and berry picking. In general, most areas are restricted by gated roads that are opened during the hunting season. ORV use in areas off of designated roads is not permitted. Camping is also not a permitted use and is occasionally a management issue during hunting season (pers. comm., Roth, 2000).

### **3.3 Lewis River Hydroelectric Projects**

The construction of Merwin, Yale, and Swift dams on the Lewis River created scenic reservoirs that offer exceptional recreational opportunities in a unique, rugged natural environment close to a large urban population in Clark County and nearby Portland. For many years, the developed recreation facilities at the Lewis River Projects have provided

public access to project lands and waters offering exceptional recreational opportunities including boating, camping, picnicking, and fishing.

Recreation and nearby shoreline residential development in the study area ranges from more intense/active recreation activities and a day-use orientation at Lake Merwin, closest to the I-5 corridor (approximately 12 miles) and the population base, to more primitive/rural recreation activities with some shoreline residential development and a camping orientation at Swift Reservoir, farthest from the I-5 corridor (approximately 32 miles). Yale Lake, in the middle of this continuum, offers a significant amount of boating, day use, and camping activity, but very little shoreline development. Yale Lake is close enough to the major highways and the population base to be a popular recreation destination for urban residents. Developed recreation facilities at the Lewis River Projects are summarized in Table 3.3-1.

**Table 3.3-1. Total developed recreation facilities at the Lewis River Projects.**

<b>Project</b>	<b>Campsites</b>	<b>Group Sites</b>	<b>Picnic Sites</b>	<b>Developed Boat Launches (Lanes)</b>
Lake Merwin	58	15 (1 site)	180	2 (4) + 2 below dam (3)
Yale Lake	108	30 (2 sites)	75	4 (8)
Swift Reservoir	93	0	15	1 (2)
<b>Total</b>	<b>259</b>	<b>45</b>	<b>270</b>	<b>9 (17)</b>

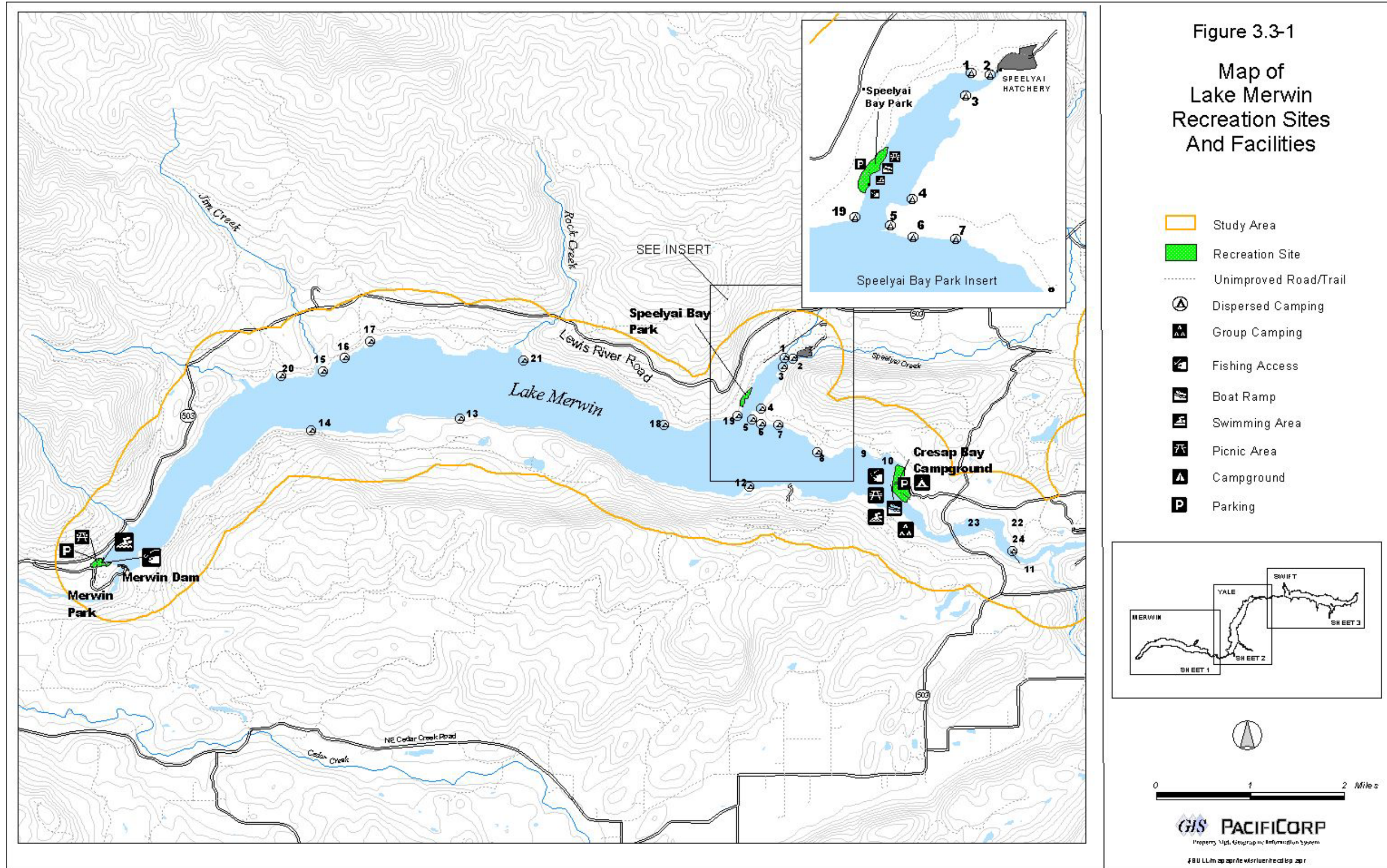
Developed and dispersed recreation facilities associated with the Lewis River Projects are presented below in Sections 3.3.1 to 3.3.3. Information on recreation at the Swift No. 2 power canal is also discussed below; however, there are no developed recreation facilities associated with this project. An inventory of recreation resources at the 4 projects is presented in Tables 3.3-2 and 3.3-3. Facility conditions are presented in Tables 3.3-4.

SR 503 and Lewis River Road connect the I-5 corridor to the west with the southern and eastern portions of Mount St. Helens, and also provide access to Mt. Adams and the Columbia River Gorge. Access to all developed recreation facilities along PacifiCorp’s 3 Lewis River Projects is provided directly via SR 503 and Lewis River Road. Due to the access provided by SR 503, several private sector recreation facilities and shoreline residential developments with homeowners associations have been established.

### 3.3.1 Lake Merwin Project Recreation Resources

The Merwin Project, located west of Yale Lake, is bisected by Clark County to the south and Cowlitz County to the north (Figure 3.3-1). Of the 4 Lewis River Projects, it is closest to the I-5 corridor and therefore is most easily accessible to the metropolitan areas







of Portland and Vancouver. Licensed in 1929 and relicensed in 1983, the Merwin Project (FERC Project No. 935) offers publicly accessible developed recreation facilities, with a focus on day-use activities such as picnicking, swimming, and boating.

Lake Merwin is 12 miles long and covers 4,404 surface acres at a full pool elevation of 239.6 feet msl. Summer pool elevations vary from 235 feet msl to 239.6 feet msl during the peak summer season. The reservoir provides approximately 32 miles of shoreline. The surrounding terrain is generally steep and heavily wooded. Recreation development on the reservoir is limited because of the steep topography. Although vehicle access to the area is relatively good from the west, east, and north, direct access to the south shoreline is limited or unavailable.

In summary, the 3 main developed recreation sites on the reservoir include Merwin Park at the west end near the dam, Speelyai Bay on the north shore, and Cresap Bay Campground on the east end (Figure 3.3-1). Merwin Park was built in 1934 (nearly 30 years before federal regulations required recreation facilities at hydroelectric projects), Merwin Park is the oldest recreation development in PacifiCorp's Lewis River system. The park is a 16-acre day-use facility. Speelyai Bay, built in 1958, is a 4-acre park used for picnicking, swimming, and boat launching. The newest facility, Cresap Bay Campground, is a combination campground and day-use site. In addition to these developed facilities, the Merwin Project also provides dispersed opportunities such as boat-in camping and day use, fishing, and bike riding. There are also two short trails at Cresap Bay Campground and Merwin Park

Developed and dispersed recreation facilities occurring in the Lake Merwin portion of the study area are summarized below. In addition to describing the recreation activities available at these developed and dispersed sites, this section of the analysis also summarizes the condition of these facilities; facility condition will be a key factor in future management decisions, and is directly linked to the recreational needs of the area.

#### Developed Facilities at Lake Merwin

As illustrated in Figure 3.3-1, PacifiCorp owns and operates 3 developed recreation facilities on Lake Merwin: Merwin Park, Speelyai Bay, and Cresap Bay Campground. Key elements of the developed facilities are discussed below, organized by facility type – campgrounds and day-use facilities. Compliance with guidelines of the Americans with Disabilities Act (ADA) is addressed in a separate subsection following the discussion of dispersed facilities. A detailed inventory of existing recreation facilities are presented in Tables 3.3-2 and 3.3-3; the condition of these same facilities are summarized in Tables 3.3-4.

Campgrounds. PacifiCorp owns and operates 1 developed campground on Lake Merwin: Cresap Bay (Figure 3.3-1). Cresap Bay Campground is open for the peak recreation season occurring from late May (Memorial Day weekend) to early September (Labor Day weekend); however, time frames may vary from year to year. Typically, this facility is closed from mid-September to mid-May due to the importance of the campground area as big game habitat. The recreation facilities at this campground are discussed below.

*Cresap Bay Campground* – This site is the newest facility in the study area and is also the only developed campground on Lake Merwin open to the general public. This 120-acre park on the east end of Lake Merwin, consists of 4 distinct areas: the main campground, a group camping facility, a day use area, and a boat launch facility. The main campground consists of 58 sites with 2 accessible restroom/shower facilities. The group camping facility is somewhat removed from these 3 areas and consists of 15 sites surrounding a large grassy area with a pavilion that has 4 tables and an indoor fire pit with chimney.

There are also boat slips at the north end of the camping area in a cove for those visitors arriving by boat, or who desire to keep their boat in the water during their visit.

The day use area is adjacent to the campground and offers a large grassy area with 20 picnic tables, a sandy swimming beach with floating boom, a pay phone, and a restroom building. There are 28 parking spaces and 4 accessible spaces at the day-use area. A grass overflow parking area is adjacent to this paved parking area.

Adjoining the day use area is the boat launch facility. It consists of 1 launch ramp with 2 lanes, floating docks, and a shared parking area with the day use area that has 22 boat trailer parking spaces (in addition to the 28 single-vehicle spaces mentioned above).

A series of trails connect this area with the day use and boat launch facilities. In addition to these is a 1.5 mile trail that heads east then north before circling back to the day use area. This trail will eventually be developed with interpretive features (signs, brochure). This trail is not ADA accessible.

Based on an evaluation of these facilities in 1999, all of the facilities at Cresap Bay are in good condition (Table 3.3-4). This facility is relatively new, was well designed, and the facilities are not in need of any significant repair or maintenance.

Day-Use Sites. PacifiCorp owns and operates 2 day-use sites on Lake Merwin: Merwin Park and Speelyai Bay (Figure 3.3-1). Both of these facilities are open year-round. The recreation facilities at these 2 areas are discussed below.

*Merwin Park* – Built in 1934, Merwin Park is the oldest developed recreation site in PacifiCorp's Lewis River system, and is situated on the northern shore directly adjacent to Merwin dam. The park covers 16 acres and has over 900 feet of shoreline. This heavily used site offers a large, grassy parking area that can accommodate approximately 250 vehicles, a paved parking area with 20 spaces, and a separate area containing 8 accessible parking spaces (Table 3.3-2). Other features located at this site include a large, shaded picnic area with 135 tables and an outdoor kitchen building with stoves, a lawn area for visitor games and activities, a sandy swimming beach with a floating boom, a floating dock, and a playground. A large, modern, universally-accessible restroom facility was recently constructed by PacifiCorp and contains two outdoor showers. Based on an evaluation of these facilities in 1999, most of the facilities at Merwin Park

**Table 3.3-2. Inventory of developed recreation facilities at or near the Lewis River Hydroelectric Projects.**

Recreation Facilities/Areas	Recreation Facilities											Service Facilities										Access Facilities																		
	Camping				Picnicking				Swim/Sunbath.			Sanitary			Water			Disposal		Services			Vehicular			Trails		Angler		Boating/PWC										
	Pay Stations	Group Reservation Sites (# spaces)	Campsites w/ Table/Fire Ring	Campsites	Playground	Picnic Tables	Picnic Fire Rings/BBQs	Shade Trees	Grass Area	Designated Swim Area w/ Boom	Swimming Beach	Sign/Safety Apparatus	Restrooms-ADA Accessible	Restrooms-non-ADA Accessible	RV Tank Disposal Station	Water/Drinking Faucets	Hot Water Available	Showers	Trash Receptacles/Dumpsters	Grey Water Sumps	Telephone	Camp Hosts	Security Guards	Firewood Distribution Site	Main Paved Access Roads	Secondary Gravel Roads	Gravel Parking Area (# veh.)	Boat Trailer Parking	Multi-use Trails	Trail Signs	Trailhead Parking	Shoreline Fishing	Dock Fishing	Unimproved Boat Launches	Improved Boat Launches (# lanes)	w/ Dock	Floating Booms	Navigation/Info. Buoys	Information Signs Onshore	
Yale -Saddle Dam	1				10	9						1		1			6	6		1						200								1	1	1		1		
Yale - Beaver Bay	2	15	63		1	6						1	2	1	20		8	21	7	1	2				40									1	1			2		
Yale - Cougar Camp	1		45									1			7		6	6	5		2		1			100								2	1	1		1		
Yale - Yale Park	1				44	2						1			4		2	3		1						280								4	2			2		
Yale - Cougar Park	1	15			1	15						1			3		2	3	1							80									1			1		
Merwin - Merwin Park	1				1	135						1	1		6		2	3								500												1		
Merwin - Speelyai Bay	1					25						1			2			2								30	56							2						
Merwin - Cresap Bay Campground	1	15	58			20						3			13		6	9	12				1			28	22							2						
Swift - Swift Overlook																																								
Swift - Swift Camp	1		93			6						2	1		14		6	9	13		2													2						
Swift - Eagle Cliff					9	12							1													40														
WDNR - Merrill Lake Campground			7			3									1			4			1					17	5							2						
USFS - Curly Creek Falls						1							1													35														
USFS - Pine Creek Information Station						2						1														19														

Note: Shaded areas denote that facilities or services exist at this location. A number denotes the inventory of that facility type, if applicable or known.

Source: EDAW, 2000

**Table 3.3-3. Inventory of undeveloped recreation sites at or near the Lewis River Hydroelectric Projects.**

Recreation Facilities/Areas	Recreation Facilities									Service Facilities											Access Facilities																									
	Camping			Picnicking			Swim/Sunbath.			Sanitary			Water			Disposal		Services			Vehicular			Trails		Angler		Boating/PWC																		
	Pay Stations	Group Reservation Sites (# spaces)	Campsites w/ Table/Fire Ring	Campsites	Playground	Picnic Tables	Picnic Fire Rings/BBOs	Shade Trees	Grass Area	Designated Swim Area w/ Boom	Swimming Beach	Sign/Safety Apparatus	Restrooms-ADA Accessible	Restrooms-not-ADA Accessible	RV Tank Disposal Station	Water/Drinking Faucets	Hot Water Available	Showers	Trash Receptacles/Dumpsters	Grey Water Sumps	Telephone	Camp Hosts	Security Guards	Firewood Distribution Site	Main Paved Access Roads	Secondary Gravel Roads	Gravel Parking Area (# veh.)	Boat Trailer Parking	Multi-use Trails	Trail Signs	Trailhead Parking	Shoreline Fishing	Dock Fishing	Unimproved Boat Launches	Improved Boat Launches (# lanes)	w/ Dock	Floating Booms	Navigation/Info. Buoys	Information Signs Onshore							
Yale - Saddle Dam Cove North Area				1																																										
Yale - Main Dam Point Area				3																																										
Yale - Siouxon Creek Area				9																																										
Yale - Siouxon County Park				7																																										
Yale - Siouxon Flats Area				20																																										
Yale - North Lewis River Bridge Area				7																							10																			
Yale - General East Shoreline				5																																										
Yale - General West Shoreline				14																																										
Swift No.2 - Power Canal/Bypass Area				1																									20																	
Merwin - General Eastern Section Shoreline				8																																										
Merwin - Speelyai Bay Area				8																																										
Merwin - General Western Section Shoreline				8																																										
Swift - General Eastern Shoreline Section				4																																										
Swift - Drift Creek Area				13																																										
Swift - General Western Shoreline Area				7																																										

Note: Shaded areas denote that facilities or services exist at this location. A number denotes the inventory of that facility type, if applicable or known.

Source: EDAW, 2000

**Table 3.3-4. Condition of developed recreation facilities at or near the Lewis River Hydroelectric Projects.**

Recreation Facilities/Areas	Recreation Facilities											Service Facilities										Access Facilities																		
	Camping				Picnicking				Swim/Sunbath.			Sanitary			Water			Disposal		Services			Vehicular			Trails		Angler		Boating/PWC										
	Pay Stations	Group Reservation Sites (# spaces)	Campsites w/ Table/Fire Ring	Campsites	Playground	Picnic Tables	Picnic Fire Rings/BBOs	Shade Trees	Grass Area	Designated Swim Area w/ Boom	Swimming Beach	Sign/Safety Apparatus	Restrooms-ADA Accessible	Restrooms-non-ADA Accessible	RV Tank Disposal Station	Water/Drinking Faucets	Hot Water Available	Showers	Trash Receptacles/Dumpsters	Grey Water Sumps	Telephone	Camp Hosts	Security Guards	Firewood Distribution Site	Main Paved Access Roads	Secondary Gravel Roads	Grass or Gravel Parking Area	Boat Trailer Parking	Multi-use Trails	Trail Signs	Trailhead Parking	Shoreline Fishing	Dock Fishing	Unimproved Boat Launches	Improved Boat Launches (# lanes)	w/ Dock	Floating Booms	Navigation/Info. Buoys	Information Signs Onshore	
Yale - Saddle Dam	G					G	G	G	M	G	G	G		G	G	G	G	G		G		G		N	G	G	G	G		G	G				N	N	G		R	
Yale - Beaver Bay	G	N	N		N	G			G	G	G	G	R	G	G	G	R	G	N	G	G	G		N	N	N	N					G			N	R			R	
Yale - Cougar Camp	G		G				G					G			G	G	G	G	G		G	G	G	N	G	G	G					G			N	R	R		R	
Yale - Yale Park	G					G	G	G	M	G	G	G			G	G	G	G		G		G		G	G	G	G					G			N	R			R	
Yale - Cougar Park	G	G			G	G		G	G	N	G	G	G		G	G	G	G	G			G		N	N	M	G	G			G	M			M				R	
Merwin - Merwin Park	G				M	M		G	G	G	G	G	M		M		G	G				G		M		M					G						G		G	
Merwin - Speelyai Bay	G					M		G	G	G	G	G			G			G		G		G		G	G	G	G					G			G	M		G	G	
Merwin - Cresap Bay Campground	G	G	G			G		G	G	G	G	G		G	G	G	G	G	G	G	G	G	G	G			G	G	G	G	G				G	G	G	G	G	G
Swift - Swift Overlook																								M																
Swift - Swift Camp	G		M		M	M		G	G	M	G	G	M	M	M		G	G	N			G	G	G	G		N	N				G			G	G	G	G	G	
Swift - Eagle Cliff						M	N	G					N											G		R						G								N
WDNR - Merrill Lake Campground			G			M		G							G							G		R		M	M					G			G					G
USFS - Curly Creek Falls						M		G					G											M	G	G		G	G	G										N
USFS - Pine Creek Information Station						G		G	G			G			G	G		G						G		G														G

Note: Shaded areas denote that facilities or services exist at this location. Condition codes are defined as : (R) Needs Replacement, (N) Needs Repair, (M) Needs Maintenance, and (G) In Good Condition.

Developed facilities were evaluated in detail only.

Source: EDAW, 2000

are in good condition (Table 3.3-4). Facilities in need of some maintenance include the playground, picnic tables, and the drinking fountains. The access road is also in need of some maintenance as is the grass parking area, which is lacking some wheelstops.

*Speelyai Bay* – The Speelyai Bay day-use park contains a public boat launch, and is located on the north shore of the reservoir 10 miles east of Merwin dam. Built in 1958, the park is 4 acres in size and has over 1,000 feet of shoreline. The primary facility at this site is the boat launch, which has 2 ramp lanes. Other facilities at the site include a large, paved parking area (56 boat trailer spaces, 30 single vehicle spaces, and 4 accessible-designated spaces), a picnic area with 25 tables (1 covered), a sandy swimming beach with a floating boom, and a restroom facility.

Based on an evaluation of these facilities in 1999, nearly all of the facilities at Speelyai Bay are in good condition, with a few exceptions. Several of the picnic tables are worn and in need of maintenance. The dock associated with the boat ramp is also in need of maintenance (Table 3.3-4).

#### Dispersed Recreation Use Areas at Lake Merwin

In addition to the developed recreation facilities provided by PacifiCorp at Lake Merwin, the reservoir, adjacent shoreline areas, and the Lewis River downstream of Merwin dam, provide numerous dispersed recreation use opportunities, both for land-based and water-based use. Dispersed recreation sites at Lake Merwin are described below.

Land-Based Dispersed Use. Many visitors use the reservoir shorelines at Lake Merwin for dispersed use such as hiking, fishing, boat-in camping, and day use. Shoreline sites lack any development such as restroom facilities or picnic tables. Fires are not permitted except in designated signed locations or in developed campsites. A no-fire policy is enforced by the Clark County Sheriff's Department Marine Patrol, and several sites have signs informing users of this policy.

*Dispersed Shoreline Picnicking and Camping* – PacifiCorp has identified and mapped approximately 24 separate dispersed shoreline sites used primarily for dispersed day-use picnicking. There is some overnight camping at some of these sites (Table 3.3-5). Specifically, about 10 of the sites could be used for camping since they are larger and flatter than the other sites. The remainder of the sites show signs of day-use only. The majority of these sites are on the northern shoreline, particularly in the vicinity of Cresap Bay Park and Speelyai Bay (Figure 3.3-1). These dispersed sites typically have a fire ring of rocks and an area to beach or anchor a small boat. No water or toilet facilities are available at these sites.

**Table 3.3-5. Description of dispersed undeveloped shoreline sites at Lake Merwin.**

Site #	General Site Description
1.	Fire ring on shore.
2.	Near Speelyai Fish Hatchery, some tables constructed.
3.	Trails to water. North side of point. Not much evidence of use
4.	Signed site. Not much evidence of use. Difficult to see from the water.
5.	Medium-sized site. Steps to water.
6.	Large site w/ considerable soil compaction. Large beach access.
7.	Medium-sized site. Some shore impact. Big rock nearby.
8.	Site on point. Some shore impact. Rope swing.
9.	Signed day use site. Shaded, grassy area.
10.	Signed day use site. Long, narrow beach. Large grassy area.
11.	Large, marshy sand bar.
12.	Small site. Wood shelter. User-trail access to Campers Hideaway.
13.	Large sand bar day use area. Signed day use site.
14.	Drive-in site. Large barren soil area w/ shore erosion.
15.	Signed day use site. Access from road above. Grassy area
16.	Signed day use site above cliff. Access from road above. Grassy area.
17.	Medium-sized site, but not much shore impact. Logs on shore.
18.	Signed site. Not much evidence of use.
19.	Day use site. Not much evidence of use.
20.	Small site in an inlet.
21.	Day use beach near private home on point at Woodland Park.
22.	Medium-sized site. Road access to shore. Rope swing
23.	Small beach area with grassy meadow.
24.	Point w/ trees. Day use area. Trails.

Source: EDAW 2000

Most (21 of 24) of the documented dispersed sites are only accessible by boat. The majority of the sites are located in the eastern end of the reservoir with sites clustered near the developed facilities of Cresap Bay and Speelyai Bay (Figure 3.3-1). These are also the most heavily used sites, particularly those on the shoreline between Cresap Bay Park and the point across from Speelyai Bay.

In addition to dispersed sites directly adjacent to the reservoir, there are also several river access points located downstream of Merwin dam that provide dispersed recreation opportunities. Five river access points are located on either shore of the Lewis River between Woodland and Merwin dam (Figure 1.0-1). Two of the access points (Island and Cedar Creek) have developed, concrete ramps, while the remaining 3 (Haapa, Merwin Hatchery, and Lewis River Hatchery) have undeveloped, gravel ramps. All of the access points has a small gravel parking area, and access to the river. These sites are used primarily by boaters or by area anglers.

*Non-Motorized Trails* – There are few developed hiking opportunities directly adjacent to Lake Merwin, however recent improvements at Cresap Bay have created a 1.5 mile trail that begins in the park. There are also numerous short trails at the PacifiCorp campgrounds and day use sites on the reservoir that provide access to the shoreline or other portions of the facilities. There are also undeveloped trails used by anglers to access portions of the Yale Lake. Mewin Park has a short trail along the north shore that goes to a waterfall at Marble Creek.

Water-Based Dispersed Use. One of the primary recreational opportunities offered by the Merwin Project involves water-based recreation. Visitors use PacifiCorp's 2 boat launches to gain access to the entire reservoir. All boat launches may be accessed at or near full pool (239.6 feet msl). The minimum launch elevations at the toe of the ramps at the 2 Lake Merwin boat launches are:

- Cresap Bay Boat Launch           210.0 feet msl
- Speelyai Bay Boat Launch       230.0 feet msl

With a peak season full pool level of 239.6 feet msl, and a peak season minimum of 235 feet msl, these boat launches can be accessed fully during the summer recreation season. Depending on water levels, the boat launch at Speelyai Bay may not provide boating access during the winter. The Cresap Bay facility is closed in the winter to minimize impacts on the winter elk range.

#### Universal Accessibility

The Americans with Disabilities Act (ADA), signed into law in 1990, protects individuals with disabilities by specifying that adequate access to facilities be provided to the physically disabled, including recreation facilities. In 1991, *Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities* (ADAAG) was published. ADAAG specified guidelines, not standards, to consider when designing facilities, including recreation facilities. Since then, design guidelines specifically for recreation facilities have been documented in *Universal Access to Outdoor Recreation - A Design Guide* (PLAE 1993), which is considered state-of-the art in the field of universal design for outdoor recreation facilities.

These guidelines were developed in cooperation with the USFS, the agency which has taken the lead in addressing the needs of universal access in recreation settings. As noted in PLAE (1993), however, universal design is a discipline still in its infancy. These outdoor recreation facility guidelines have not been adopted as regulations by law, but are used as guidelines for compliance with the ADA. Building facilities such as restrooms, however, are specifically identified under ADAAG and must be in compliance. PacifiCorp has renovated its restroom facilities (at least 1) at each of its 3 recreation facilities at Lake Merwin and is therefore in compliance with the ADAAG.

Using the USFS's Recreation Opportunity Spectrum (ROS) perspective as noted in the PLAE (1993), a recreation site should be developed in a manner that achieves harmony between recreation expectations and the environment. ADA-accessible facilities should be tailored to complement the setting. The Merwin Project study area would be categorized as a "Roaded Natural" experience; therefore, accessibility expectations are "moderate." ADA-related elements to be assessed include restroom facilities, outdoor access routes to primary elements, recreation trails to non-primary elements, parking, picnic areas, campsites, water sources, trash receptacles, fishing facilities, and boating and swimming areas.



In 1992, PacifiCorp conducted a comprehensive review of all of its recreation facilities at the Lewis River Projects for ADA compliance (prior to publication of PLAE [1993]). This review focused on developed facilities. Due to the nature of dispersed facilities (i.e., they are undeveloped), they are generally not required to comply with ADA guidelines for universal access. As a result of this review, all of the developed facilities at the Merwin Project have been upgraded in the past 3 years, including a major overhaul and/or replacement of campground and day-use area restrooms and paths/parking areas near these restrooms.

Design guidelines relevant to the developed recreation facilities at the Merwin Project are summarized below, as well as suggestions made to improve those facilities as documented in PacifiCorp (1992). These include access to primary elements, elements and space in the recreation environment, parking areas, boat launches and boarding docks, and access to recreation trails.

In 1997, the federal Outdoor Developed Areas Regulatory Negotiating Committee was established and charged with developing proposed accessibility guidelines for trails, picnic and camping areas, and beaches. The committee has been working on new guidelines and has been presenting its report in phases to the U.S. Architectural and Transportation Barriers Compliance Board (U.S. Access Board) starting in 1998 and likely continuing until 2001. This phased report will be the basis for a proposed rule that is being published for public comment during this timeframe. Proposed guidelines specifically for play areas were published by the U.S. Access Board in July 1998. Based on its review of comments received, the U.S. Access Board will revise the play area access guidelines as necessary and will publish them in final form in 2000. The U.S. Access Board has also completed work on proposed guidelines for certain other recreation facilities (sports facilities, places of amusement, golf, and boating and fishing facilities). These other guidelines have been published for public comment in 2000 by the U.S. Access Board. Proposed guidelines for trails, campsites, and picnic areas have not been published yet (as of May 2000). When adopted, all of these new additional rules will provide clarification and design standards regarding the mandate to provide ADA accessible recreation facilities and opportunities in the United States. Once adopted, the new U.S. Access Board rules will dictate future improvements needed at Lake Merwin recreation facilities to improve accessibility. In the interim, the following elements may be considered.

Access to Primary Elements. To the maximum extent feasible, accessibility guidelines require at least 1 outdoor recreation access route between the parking lot and a primary activity area. When practicable, such a route should coincide with the route for the general public. This access route should be at least 36 inches wide and be stable, firm, and slip-resistant (PLAE 1993). Not all developed recreation facilities at the Merwin Project provide such access to the physically disabled. However, at Merwin Park, a paved trail is provided from the parking area to the beach/swim area. At Cresap Bay, access is good throughout the facility.

Elements and Space in the Recreation Environment. Primary design elements to consider at recreation sites include restrooms, telephones, trash receptacles, drinking fountains, benches, picnic tables, swimming areas, and fishing facilities. Each of these is described below, as well as an evaluation of current conditions at Merwin Project recreation facilities. In general, the new restrooms at the 3 facilities satisfy many of these accessibility guidelines.

*Restrooms* - To the maximum extent feasible, restrooms at developed sites must be accessible and located on an accessible route (PLAE 1993). Almost all current restrooms at the Merwin Project facilities do accommodate the physically disabled because they have accessible and maneuverable interior designs and are accessed by a firm, slip-resistant surface that can be easily used by a person in a wheelchair. As mentioned above, PacifiCorp has recently upgraded toilet facilities at its recreation facilities to make them accessible in accord with ADA requirements, including upgrading them to flush-type toilets. Merwin Park, Cresap Bay, and Speelyai Bay have at least 1 restroom that meets ADA requirements. However, the one exception is that signage at these restroom facilities does not comply with ADA requirements.

*Telephones* - Telephones should be able to be easily reached by a person in a wheelchair, and should include a volume control for people with hearing difficulties. Telephone service in the Merwin Project study area is provided by TDS Telecom, which is responsible for installation and repair of phone systems at the campgrounds and day-use facilities. In the past, PacifiCorp has routinely coordinated with the company to ensure the installation of appropriate systems at its facilities. Phones currently provided at the developed recreation facilities are accessible to people in wheelchairs

*Trash Receptacles* - Elements such as location, height, and operating mechanisms are important to consider when designing trash receptacles. For example, dumpsters are generally difficult for the physically disabled to access and use. Trash receptacles at new restrooms are accessible to the disabled; however, others located elsewhere are not, including many dumpsters.

*Drinking Fountains* - Elements to consider when designing drinking fountains include spout height and location, controls and operating mechanisms, and ground clearance. Drinking fountains at new restrooms are accessible to the disabled; however, others elsewhere are not.

*Picnic Tables* - Picnic tables provide a basic recreation opportunity for many people, allowing them to enjoy the outdoors, as well as friends and family. To the maximum extent possible, picnic table design should allow people of all ages and abilities to sit together at the same table. Important design elements to consider include number, location, seating for people using wheelchairs, and table height. Picnic tables are provided at all of PacifiCorp's Merwin Project developed recreation facilities, both at individual campsites and in common spaces at day-use areas and group campsites. Some of the tables currently in use at Merwin Park and Speelyai Bay are in need of maintenance. None of the picnic tables at the 3 developed facilities are specifically

designed for wheelchair access. New guidelines will likely require that 20 percent of picnic sites be accessible in the future.

*Swimming Areas* - Design elements to consider for ADA acceptable swimming areas include ramps into the water, gentle slope, clear width, landings, handrails, and stairs into the water. Designated swimming areas are available at Merwin Park, Speelyai Bay and Cresap Bay. These designated swim areas meet basic swimming needs; that is, they are generally segregated from boating areas by floating booms but do not include stairs, constructed ramps, or handrails. The slope of these swimming facilities is gentle, and all are accessed via a sandy beach. Merwin Park and Cresap Bay have paved pathways extending to the beach and swimming areas.

*Fishing Facilities* - Design elements to consider for fishing facilities include designated fishing stations, location, safety rails, curbs, seating, shade, and fishing rod holders. Most of the fishing at the Merwin Project, however, occurs as boat angling. Bank angling generally occurs at unimproved beaches or impromptu shoreline access points. There are no designated fishing stations, piers, or docks at developed recreation sites that are accessible to the disabled.

Access to Parking Areas. Most people travel to recreation sites in cars, vans, and buses. Therefore, it is important that parking areas and loading zones be designed and constructed in accordance with the appropriate design guidelines. Accessible parking spaces should be located on the shortest accessible route to restrooms and to the recreation site or activity. Handicapped accessible parking is provided at all 3 of the developed facilities on Lake Merwin.

Access to Boat Launches and Boarding Docks. Boat launches serve 2 purposes; the primary purpose is to facilitate the launch and retrieval of boats. The second purpose is to serve as an access route to the boarding dock. Design elements to consider include boarding docks and gangways, and skid piers. The boat launch and marina slips at Cresap Bay are accessible to the disabled, however, the boat launch at Speelyai Bay is not.

Access to Campsites. Accessibility rules by the U.S. Access Board are being developed that will likely require 20 percent of all campsites to be accessible in the future. In the future, campsites will need to be converted at Cresap Bay to meet this requirement. This requires that primary access routes, RV parking areas, tent pads, picnic tables, fire rings and grills, water, trash receptacles, and restrooms be accessible. These elements should be consistent with Roaded Natural ROS design guidelines (expected new rule by 2000-2001).

Access to Group Reservation Site. A group reservation site is provided at Cresap Bay. Accessibility improvements needed at this site include paved access routes to the picnic shelters, and likely future conversion of 20 percent of the campsites/picnic sites to be accessible based on future U.S. Access Board rules. This requires that primary access routes, RV parking areas, tent pads, picnic tables, fire rings and grills, water, trash

receptacles, and restrooms be accessible. These elements should be consistent with Roaded Natural ROS design guidelines (expected new rule by 2000-2001).

Access to Recreational Trails. Whenever developed recreation trails are provided in a Roaded Natural setting for use by the general public, at least 1 recreation trail connecting each of the site's developed recreation elements and spaces must be accessible (PLAE 1993). As detailed earlier, however, there are few recreation trails associated with PacifiCorp's Merwin Project recreation facilities, except at Cresap Bay (1.5 mile trail), and a short trail at Merwin Park. No trails are fully accessible. Future U.S. Access Board rules will likely require trail improvements in the future.

Summary. In summary, recent restroom facility upgrades at PacifiCorp's campgrounds and day-use facilities have significantly improved universal access, particularly for parking, pathways to restrooms, toilets, showers, drinking fountains, telephones, and trash receptacles. For other elements, such as picnic tables, campsites, and fishing access, improvements are needed at 1 or more of the 3 developed facilities on Lake Merwin to meet ADA guidelines. These issues will be addressed in the future Recreation Needs Analysis (REC 6).

#### Operations and Maintenance of Recreation Facilities

PacifiCorp's operations and maintenance practices for both its developed and dispersed facilities are described below. Topics covered include campgrounds, facility maintenance/opening/closing, lake operations, security/fire services, signage, and utilities.

Campgrounds and Day-Use Sites. Campground operations and maintenance include scheduling, the campground host program, reservation system, and fees. As described earlier, Cresap Bay Campground is open from late May until the middle of September to accommodate peak season use. There is no Merwin Project campground open year-round. The Merwin Park and Speelyai Bay day use areas are open year-round. Nearby private RV campgrounds along Lewis River Road, however, are open year-round.

In 1996, user fees for the campgrounds were \$12/night per site. Other fees are also charged for additional vehicles and campsite occupants. In 1997, PacifiCorp increased the fee to its current rate of \$15/night to be in line with State Park fees for comparable facilities. These fees cover approximately one-half of campground operation expenses. PacifiCorp charges market rate for campgrounds to avoid under-pricing other private providers in the vicinity, principally private sector businesses along Lewis River Road/SR 503. Campsites at Cresap Bay and the Cresap Bay Group Camp require a reservation. In 2000, the start date for reservations by phone or in person was March 1.

In 2000, PacifiCorp charged \$2 per car (up to 5 passengers) for use of all day use areas and a \$3 daily launch fee for all types of motorized watercraft and sailboats. These fees discourage cruising activity and help PacifiCorp recoup a portion of operating costs. Yearly passes were also made available in 1999 and 2000 to provide a discount for select

groups. Unlimited day use passes cost \$60; \$30 for local residents, and elderly visitors. A non-peak day use pass good only on weekdays and after 4 pm on weekends cost \$30, and \$15 for local residents and elderly visitors.

The Cresap Bay Campground is supervised by at least 1 campground host who answers visitor questions; distributes firewood; informs visitors of policies and quiet hours; oversees registration, cleanup, and general minor maintenance; and may act as “peace keeper” in the event of minor disturbances or user conflicts. Periodic maintenance (such as lawn mowing, painting, etc.) is conducted by PacifiCorp maintenance crews or contractors hired on an as-needed basis.

Facility Maintenance/Opening and Closures. PacifiCorp crews are responsible for all major facility maintenance, including mowing lawn areas and upkeep of day-use areas, restrooms, campground sites, parking (e.g., gravel), and miscellaneous grounds keeping. They are also responsible for opening and closing the day-use facilities and campgrounds via gating and signs. Periodic maintenance includes removing hazard trees, cleaning littered areas and restrooms/showers, thinning the overstory canopy at the campgrounds to increase sunlight, and major maintenance items such as dock and boat launch repair. Major facilities, such as docks, roads, and parking lots, are inspected annually (including hazard tree inspections), and repaired on an as-needed basis. Crews also repair vandalism damage on an ongoing basis.

Security/Fire Protection. PacifiCorp employs security personnel for the Lewis River Projects, hired as contractors, who lock gates and assist all facility caretakers with any security issues. Security is primarily land-based; there are no permanent security or law enforcement measures on Lake Merwin itself. PacifiCorp also contracts with Cowlitz County, who provide 1 to 2 officers on weekends and holidays for patrol on all Cowlitz County lands bordering Lake Merwin. PacifiCorp owns a power boat, stored at the Merwin Headquarters, which is periodically used to inspect dispersed facilities and use areas on the reservoirs. PacifiCorp has an agreement with Clark County for marine law enforcement and safety patrol on Merwin Lake 2 days per week including 1 weekday and 1 weekend day each week (from May through September). PacifiCorp provides financial support to the County for this service. In 1999, the Clark County Sheriff’s Department Marine Patrol issued 61 citations to Merwin Lake visitors. These citations were issued for violations related to boat speed, personal flotation device (PFD) usage, illegal fires, fishing regulations, water skiing/personal watercraft (PWC) use, and intoxication. PacifiCorp currently has no special agreements regarding fire protection services; however, local fire protection services are available in the area.

Signage. Signs along SR 503 provide notice of PacifiCorp facilities. These signs are more abundant and visible to visitors approaching the facilities from the west. Signage is inadequate for visitors approaching from the east, particularly those that indicate that a facility is ½ or ¼ mile away. Some of the existing roadside signs are missing federal recreation symbols needed to communicate the types of recreation opportunities available at a facility. Also, there are no signs at the junction of SR 503 and SR 503 Spur indicating the location of the facilities at Cresap Bay.

Signage within the facilities at Lake Merwin is present, however the text and presentation of this information is often inconsistent. Vehicle direction, warning, and regulatory signs do not conform with the Manual on Uniform Traffic Control Devices (MUTCD). Visitor orientation, rules and regulations, and registration signage is complex, confusing, and out-of-date at several facilities. Some marine conduct and safety signage is in place, however these signs are also complex and out-of-date. In addition to these issues, signage both within sites and along major access roads is inconsistent with respect to the proper name for PacifiCorp. Variations include “PP&L”, “Pacific Power”, and “PacifiCorp.”

Lake Level Operations. PacifiCorp maintains Lake Merwin at a pool level of 239.6 feet msl during the peak use recreation season (generally Memorial Day to Labor Day). This level is voluntarily maintained; that is, there are no formal requirements to maintain the pool at this level for recreation use. During the non-peak season, the pool level typically drops to 235 feet msl (4.6 ft. less). However, the pool level may be occasionally drawn down to 200 feet msl (39.6 ft. less) for maintenance and flood control purposes. To facilitate additional boater safety on the reservoir, PacifiCorp maintenance staff set buoys to warn boaters of some shallow areas, and patrol the reservoir periodically for floating debris, particularly early in the season.

Utilities. Utility service at PacifiCorp facilities includes water (provided by local wells), telephone (provided by TDS Telecom), electric (provided by Cowlitz County Public Utility District [PUD]), trash removal (provided by Vancouver Sanitary), and septic pumping at the campgrounds (provided by Skeeks Honey Wagon of Brush Prairie, Washington). For the most part, utility condition and service are adequate.

### 3.3.2 Yale Lake and Adjacent Swift No. 2 Project Recreation Resources

Yale Lake offers a variety of water and land-based recreation opportunities for both day-use and overnight visitors. Ten miles long, the lake covers 3,800 surface acres and has 27 miles of shoreline at a full pool elevation of 490 feet msl (Figure 3.3-2). Popular recreation activities include picnicking, boat and bank fishing, power boating, small boat sailing, windsurfing/sailboarding, canoeing/kayaking, swimming, water skiing, PWC use, hiking and walking, horseback riding, bicycling, group camping, and RV and tent camping. Trail use by hikers and mountain bikers is generally limited to existing roads, such as the IP Road and Lewis River Road, and a trail south of Speelyai Canal that goes to the Saddle Dam recreation site. Horseback riding occurs primarily along this trail. Dispersed camping occurs primarily along the eastern lake shoreline and Siouxon Creek; some dispersed camping does occur along the bypass reach of Lewis River upstream of the Yale Project. Sightseeing, nature observation, and outdoor photography are also popular activities. Cave exploration and rock climbing are also popular because of lava flows and caves in the eastern part of the area and nearby Ape Cave.

The Swift No. 2 power canal is part of the Swift No. 2 Project owned by Cowlitz County PUD, and is located between Swift Reservoir and Yale Lake. The power canal begins at the tailrace of Swift dam and runs for 3.2 miles until reaching the Swift No. 2 powerhouse. The canal has a surface area of approximately 100 acres and holds about

2,400 acre-feet of water. Although there are no developed recreation facilities associated with this project, the power canal does receive consistent use by bank anglers. In addition, an annual fishing derby for disabled recreational users is held at the power canal, which is stocked with fish for the event. Public access to the canal is primarily restricted to two small pullouts located where the Lewis River Road crosses the canal. Visitors frequently park their vehicles in these areas and then proceed on foot past the gates to a gravel road that runs alongside the canal, providing pedestrian access to the area.

The focus of recreation at the Yale Project is on water-based activities on the reservoir. Yale Lake is open for water-based recreation use year round. Pool level varies from approximately 470 feet msl during the non-peak season at drawdown to a maximum of 490 feet msl; PacifiCorp maintains a recreation pool level of between 480 and 490 feet msl during the peak recreation season (generally Memorial Day to Labor Day weekends) to accommodate boaters. Most vessels on Yale Lake are power boats that are trailered by vehicles to the water. These boaters are primarily fishing for kokanee, picnicking on the shoreline, and water skiing. Other vessel types used on the lake include inflatable rafts, canoes, PWC, small sailboats, kayaks, sailboards, and pontoon boats. Annual sailboat regattas are held during 2 or more summer weekends. Regatta participants launch from Cougar Camp and total between 25 and 75 boats (small trailered sailboats, such as Hobie Cats). Boating markers are placed in the water to mark hazards.

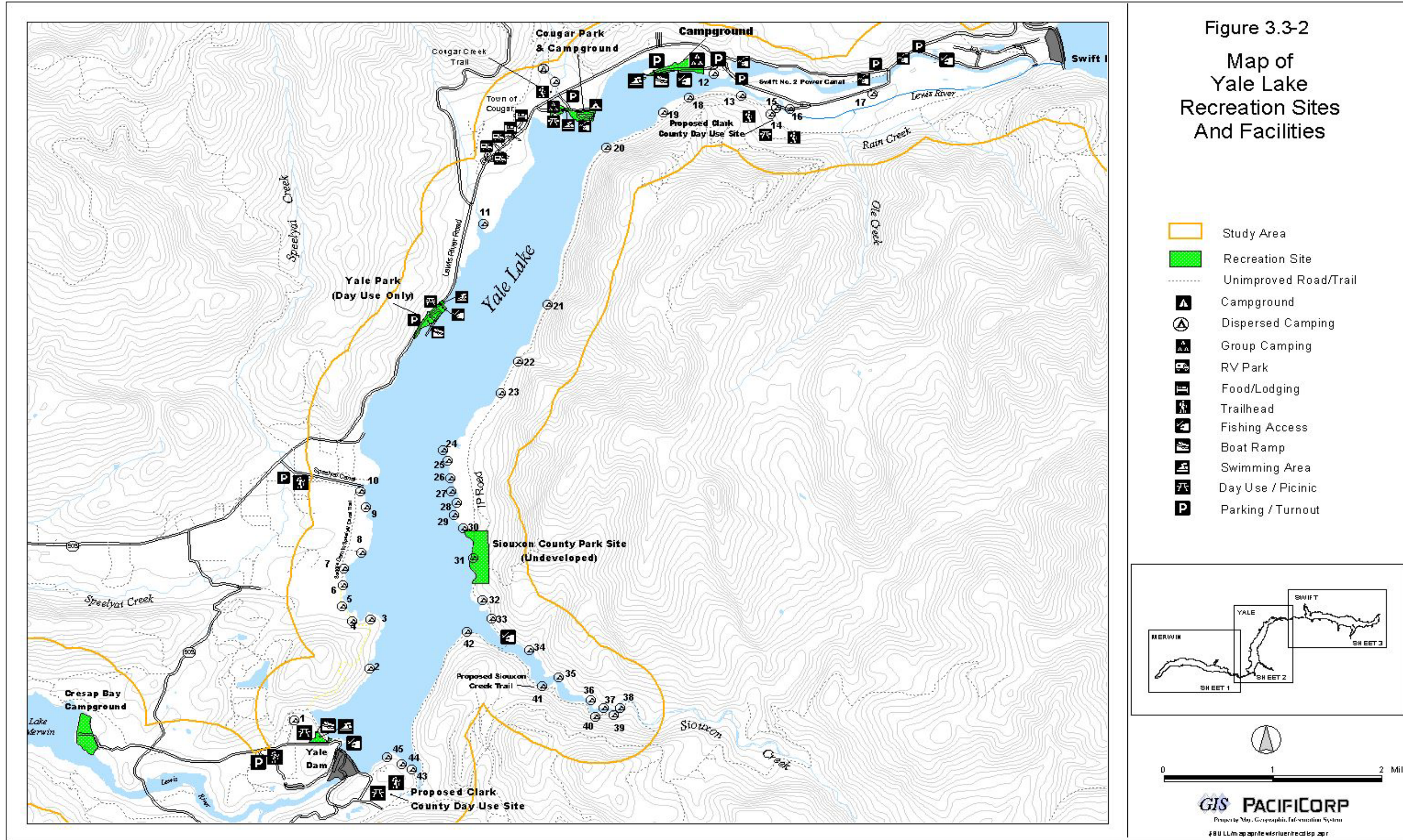
Both developed and dispersed recreation facilities occurring in the Yale Lake portion of the study area are summarized below. In addition to describing the recreation activities available at these developed and dispersed sites, this section also summarizes the condition of these facilities; facility condition will be a key factor in future management decisions, and is directly linked to the recreation needs assessment portion of the recreation analyses.

#### Developed Facilities at Yale Lake

As illustrated in Figure 3.3-2, PacifiCorp owns and operates 5 developed recreation facilities on Yale Lake: Saddle Dam, Yale Park, Cougar Park, Cougar Camp, and Beaver Bay. Key elements of the developed facilities are discussed below, organized by facility type—campgrounds and day-use facilities. Compliance with ADA guidelines is addressed in a separate subsection following the discussion of dispersed facilities. A detailed inventory of existing recreation facilities and use areas are presented in Table 3.3-2 and 3.3-3; the condition of these same facilities and use areas are summarized in Table 3.3-4.

**Campgrounds.** PacifiCorp owns and operates 3 developed campgrounds on Yale Lake: Saddle Dam (scheduled to close permanently when renovations to the day use area begin), Cougar Camp, and Beaver Bay (Figure 3.3-2). Cougar Camp is typically open for the peak recreation season occurring from late May (Memorial Day weekend) to early September (Labor Day weekend). Beaver Bay is typically open longer, from late April to







late September, to accommodate early spring fishing season and early fall visitors. Recreation facilities at each of the campgrounds are discussed below.

*Cougar Camp* – Cougar Camp offers 45 tent-only campsites with no hookups (Table 3.3-2). Cougar Camp is typically open between Memorial Day and Labor Day weekends. Most of the sites are screened with vegetation (primarily tall conifer trees), giving the site a more rustic and natural feel; this sense is augmented by the lack of RVs. Although the campground is accessed from Cougar Park directly off of Lewis River Road, a forested buffer separates the campground from the road. The 30-acre site is laid out in a horse shoe shape with a winding one-way access road. Some individual campsites include private beaches along the reservoir. Direct access to the reservoir is also provided by the adjacent Cougar Camp Boat Launch. Cougar Camp is the only site that offers firewood for sale; therefore, visitors to other campgrounds must drive here if they need firewood. Cougar Camp was originally constructed in 1958, with improvements made in 1994 that included the installation of a modern accessible restroom facility (flush toilets, showers, and potable water). The 15-space Cougar Camp Group Campsite is located approximately 0.25 mile from the main campground next to Cougar Park and is accessed by the main loop roadway linking Cougar Park and Cougar Camp.

Based on an inventory and evaluation of facilities conducted during 1998, all the developed facilities at Cougar Camp are in good condition, including the pay station, group campsites, individual campsites, and restrooms. Portions of the access road are currently in need of minor repair. Some shoreline erosion may require a couple of campsites to be abandoned or have shoreline protection added (Table 3.3-4). Cougar Camp is scheduled for improvements beginning at the end of the 2001 recreation season and lasting for 2 years. Planned improvements include upgrades to access roads, increased interpretation, and improvements to the road into the group camp.

*Beaver Bay* – Beaver Bay, PacifiCorp's largest Yale Lake campground, is laid out in a primarily linear fashion along an inlet at the north end of Yale Lake. The 40-acre campground, built in 1959, includes 63 individual campsites with no hookups and is accessed directly off of Lewis River Road, approximately 2 miles east of the town of Cougar (Table 3.3-2). Beaver Bay is typically open between late April and late September. The campground is screened from the road by trees and is flanked on one side by the reservoir, and on the other side by an extensive wetland complex. Beaver Bay includes 3,300 feet of shoreline. Campsites are laid out in 3 distinct loop areas, but there is little or no screening vegetation between individual sites. In 1995 and 1996, timber in the campground was thinned to promote growth of understory vegetation and enhance screening. None of the sites offer direct reservoir access; campers must either cross the main access road to reach relatively private beaches along the lake, or use the adjacent day-use site at the southwest end of Beaver Bay. Shoreline campsites were eliminated several years ago due to erosion problems.

The campground includes a separate 15-space group campsite along its northern edge, adjacent to the wetland complex. The most recent improvements to the campground included installation of a modern central restroom facility in 1995 (RV tank disposal,

flush toilets, showers, and potable water). A total of 3 RV tank disposal points are available.

Based on an inventory and evaluation of facilities conducted during 1998, many of the developed facilities at Beaver Bay are in good condition. Two of the campground's restrooms are older facilities built in the 1950s using a State Parks design and are in need of eventual replacement. Other facilities in need of maintenance and/or repair include some of the individual and group campsites (e.g., the picnic tables), the playground, and the main access road (Table 3.3-4). PacifiCorp repaired problematic septic drainfield problems in 1998. Beaver Bay is scheduled for several phases of improvements beginning in 2000 and reaching completion in 2006. These include the construction of the Wetland Interpretive Trail (2001-2002), road repair work (2001), repair/replacement of site furnishings (2001), the installation of boarding floats (2004), and renovation of existing restroom facilities (2005-2006).

Day-Use Sites. Each of the 3 campgrounds associated with Yale Lake includes an adjacent day-use site, offering both campers and day users direct access to the reservoir. In addition, PacifiCorp owns and operates Yale Park, a large day-use site on the west side of the reservoir (Figure 3.3-2).

*Saddle Dam Day-Use Site* – The day-use site at Saddle Dam includes a separate gravel parking lot and road shoulder that accommodates approximately 200 vehicles, a boat launch with 2 lanes, a designated swimming area with floating boom, 10 picnic tables and 9 barbecues (BBQs), drinking water, 1 RV tank disposal facility, and a modern restroom facility. The site is open to the public between Memorial Day and Labor Day weekends. Access across the dam itself is restricted. No overnight parking is permitted in the parking lot. There is an unsigned dirt trail in the vicinity of the day-use site that is often used by equestrians riding to the Speelyai Canal area and back; the trailhead is approximately 0.4 mile from the dam and campground. Equestrians with horse trailers are requested to park at the “Y” along Frasier Road, approximately 0.5 mile from Saddle Dam. The Saddle Dam day-use area is particularly popular with jetski/PWC users and power boaters.

The site is accessed via Frasier Road, a paved road connecting the site with SR 503 that runs between the Lewis River Road and Amboy to the south. The entrance to Frasier Road is across SR 503 from the entrance to Cresap Bay. The recreation site at Saddle Dam is located immediately southwest of Saddle dam, and is surrounded by a day-use parking facility and picnic/swimming area, Saddle Dam farm (part of the Merwin Wildlife Habitat Management Area), and a forested area.

Direct reservoir access is provided by the Saddle Dam day-use area, but there are no views of the water from the parking area, which is located behind the earthen dam. Improvements to the site were made in 1995 and included a new accessible restroom facility with modernized flush toilets, showers, and potable water.

Based on an inventory and evaluation of facilities conducted during 1998, the majority of the developed facilities at the Saddle Dam day-use area are in good condition, including the picnic tables, swimming area and boom, beach, signs, and trash receptacles. The boat launch, however, is currently in need of modifications. The launch has a drop off at the end and is not long enough to adequately accommodate boat and jet ski/PWC trailers during the full range of the recreation pool (480 to 490 feet msl) (Table 3.3-4).

Originally built in 1960, re-construction of the new boat launch with 2 concrete lanes will occur in 2000 or 2001, enabling launching at water levels 8 feet lower than currently possible at this site (478 ft msl). Site improvements will also include new interpretive materials and site furnishings.

*Cougar Camp Boat Launch and Day-Use Sites* – The Cougar boat launch area is located south of the Cougar Campground and offers parking for approximately 100 vehicles and has 1 boat launch with 2 lanes. Cougar Park is just south of the boat launch, accessed by a foot bridge over Cougar Creek and a separate road. These areas are open to the public between Memorial Day and Labor Day weekends. The 40-acre park includes a designated swimming beach with floating boom, a picnic area with 6 tables, a grassy area used for sun-bathing and relaxing, a short trail through a forested peninsula, a boat dock accessed via this trail, a gravel parking lot that can accommodate approximately 80 vehicles, and a large relatively modern restroom facility with showers (Table 3.3-2). No overnight parking is allowed in the day use areas, except vehicles used by campers at the adjacent campground. The day-use areas are used by campers, as well as day-use visitors. Most sailboat launches into Yale Lake occur from the Cougar boat launch due to its location in a protected cove. Two or more annual regatta events (hosted by the Hobie and Willamette Sailing Clubs) launch from the Cougar area, each with an annual attendance of approximately 200 people. Across from Lewis River Road, there is a short 0.4-mile trail along Cougar Creek that leads to several dispersed campsites, an old cabin or home foundation, and a fishing area. Built in 1958, Cougar Park was last renovated in 1994, including the restroom facility. New signs were installed in 1997 which help visitors identify the location that they desire. The 2 Cougar day-use areas are accessed by a new one-way loop roadway from Lewis River Road, reconstructed in 1999.

Based on an inventory and evaluation of facilities conducted during 1998, the majority of the developed facilities at Cougar Park are in good condition, including the picnic tables, restroom, boat launch, and parking area. The septic drainfield was repaired in 1998 and roadway and bridge improvements completed in 1999. Renovation of this site is scheduled to begin in 2001 and last until 2002. Planned improvements include a feasibility study for upgrades to the boat launch, and upgrades to its associated parking area, and new interpretive facilities.

*Beaver Bay* – The Beaver Bay day-use site contains a parking area for approximately 40 vehicles, a boat launch with 1 lane, a designated swimming area with a beach and floating boom, a picnic area with 6 tables, and drinking water (Table 3.3-2). The site is open to the public from late April to mid-September. A restroom is located nearby in the southwestern portion of the campground. Due to its location away from Lewis River

Road and at the extreme northern end of the reservoir, this day-use site is mostly used by campers at the adjacent campground. No overnight parking is allowed, except for extra vehicles from campers. Both the day-use site and the campground provide wildlife observation opportunities, as Beaver Bay is adjacent to a large wetland complex that provides habitat for a variety of species.

Based on an inventory and evaluation of facilities conducted during 1998, some of the developed facilities at the Beaver Bay day-use site are in good condition, including the picnic tables and swimming beach. Facilities in need of maintenance and/or repair include the access road, parking area which receives wetland runoff (a temporary berm was placed here in 1998), slope stabilization at the boat launch, and an informational sign (Table 3.3-4). Renovation of this site is scheduled to begin in 2001. Planned improvements include upgrades to the playground and picnic tables, a new restroom facility, upgrades to the boat launch, and the development of a wetland interpretive trail.

*Yale Park* – Yale Park is PacifiCorp’s only day-use facility at Yale Lake that is open year round. The park covers 10 acres and was originally built in 1958. The heavily used site offers a large (4.5-acre) grass and gravel parking area (for approximately 280 cars and trailers), 2 lawn areas for picnicking and volleyball, swimming area with beach and floating boom, 1,500 feet of shoreline offering relatively private areas for relaxing, 1 boat launch with 4 lanes, and a modern restroom facility that was built in 1994 (Table 3.3-2). The launches at Yale Park provide the primary boat access to the lake; they have long paved ramps to accommodate lower lake levels (470 feet msl), are open year round, are easy to access, have available parking, and are near Lewis River Road. Apart from a small forested parcel in the northern picnic area, the site is flat and contains little vegetative screening. Overnight parking is not allowed. When the parking area is full during some summer weekends, some users have occasionally parked along Lewis River Road. Such use is discouraged because it causes potential safety hazards along the road.

Based on an inventory and evaluation of facilities conducted during 1998, the majority of the developed facilities at Yale Park are in good condition, including the picnic tables, BBQs, swim area, beach, and restroom facility. Facilities in need of maintenance and/or repair include the main picnic grass area, boat launch and docks, and signs. In addition, the parking area could be redesigned or reconfigured for greater parking efficiency (Table 3.3-4). The adjacent RV dump station was deactivated by PacifiCorp in 1997. Renovations to this facility are scheduled to begin in 2003. Planned improvements include upgrades to the boat launch to extend one lane, new boarding floats, and upgrades to the parking area.

#### Dispersed Recreation Use Areas at Yale Lake

In addition to the developed recreation facilities provided by PacifiCorp in the Yale Lake study area, the reservoir and adjacent shoreline provides numerous dispersed recreation use opportunities, both for land-based and water-based use. Significant supplies of dispersed recreation activities in the study area are described below.

Land-Based Dispersed Use. Numerous people use the reservoir shorelines and areas along Lewis River Road for dispersed picnicking and camping, horseback riding, hiking, hunting, and fishing. By their nature, dispersed use sites are not designated for use by signs or other means, with the exception of trailheads. Developed facilities, such as restrooms, are not available at dispersed use areas. A no-fire policy is enforced by the Clark County Sheriff's Department Marine Patrol, and several sites have signs informing users of this policy.

*Dispersed Shoreline Picnicking and Camping* – In 2000, PacifiCorp identified and mapped approximately 45 separate shoreline sites used for dispersed day-use picnicking and overnight camping; most sites are on the southern/eastern shoreline, particularly in the vicinity of Siouxon Creek and Siouxon Flats (Figure 3.3-2) (Table 3.3-6). Dispersed use occurs on both sides of the reservoir. These sites typically have a fire ring of rocks and an area to beach or anchor a small boat. No water or toilet facilities are available at these sites.

Most shoreline dispersed sites are primarily accessed by boat, although the privately owned IP Road provides some access along the southern/eastern shore of the reservoir. The IP Road, however, does not provide authorized access to the study area; the road is generally gated near Yale Dam and at the reservoir's extreme northeast end. The gates, however, are frequently vandalized or left open and provide unauthorized access. The road can also be accessed at points via various DNR logging roads in the vicinity.

**Table 3.3-6. Description of dispersed undeveloped shoreline sites at Yale Lake.**

Site #	Site Description
1.	Small site. Possible use from Saddle Dam. Access from trail.
2.	Small site on an inlet. Rope swing. Possible use from Saddle Dam.
3.	Medium site in protected cove. Rope swing. Old tire on shore for moorage.
4.	Medium-sized site. Access from trail.
5.	Small site. Access from trail. Not much evidence of use.
6.	Large site where ATV road enters water. User-built log boom. Large areas of soil compaction.
7.	Medium-sized site. Access from trail.
8.	Marshy day use area. Lightly used.
9.	Medium site on point with fire ring. Limited space for camping.
10.	Small grassy area where Speelyai Canal enters reservoir. Small fire ring. Trail from site along canal to road.
11.	Gravel bar at end of narrow inlet. Overgrown fire ring. Lightly used.
12.	Small gravel day use beach near Swift No. 2 powerhouse.
13.	Very large site hidden from water. Short trail leads to water. Vehicle access from IP road. Large areas of barren soil. Three fire rings.
14.	Small site near IP road gate. Access from road.
15.	Large site under bridge on gravel beach. Access from road.
16.	Small site. Access from road.
17.	Medium-sized site. Hidden from road. Access from road.
18.	Very large site hidden from water. Vehicle access from IP road. Large areas of barren soil. Significant damage to trees and vegetation.
19.	Large grassy site on shelf above water. Wooden ladder provides access from water. Large area of barren soil. Rope swing. Hidden from water.

Site #	Site Description
20.	Small grassy site on shelf above water. Directly adjacent to IP road. Difficult to access from water. Lightly used.
21.	Small, hidden site near culvert pipe. Directly below IP road. Marginal site at high water.
22.	Large grass area in inlet. Good beach camp at lower water.
23.	Large grass clearing accessed by road.
24.	Large gravel/sand beach on point. Road access.
25.	Medium-sized grass area hidden from water. Gravel day use beach on point.
26.	Medium-sized grass area. Well shaded. Gravel day use beach on shoreline.
27.	Small grass area. Gravel day use beach on shoreline.
28.	Large site, close to shoreline. Gravel day use beach on shoreline.
29.	Medium-sized site. Not much evidence of use. Gravel beach on shoreline.
30.	Large site with road access. Gravel beach on shoreline.
31.	Siouxon County Park site. Multiple sites in the area. 14 fire rings. Large areas of barren soil. Good road access.
32.	Small site on an inlet where dirt road enters water. Used as informal boat launch.
33.	Very small site behind a downed tree. Lightly used.
34.	Medium-sized site just north of small cove. Some soil compaction. Trees are heavily damaged. Small beach.
35.	Medium site with nice beach and old DNR sign.
36.	Small day use site. Lightly used.
37.	Medium-sized grassy area in clearing well up from water. Rope swing. Small cove near site for boat moorage.
38.	Small site near beach at head of creek. Marginal at high water.
39.	Small site near beach at head of creek. Marginal at high water.
40.	Two small benches above water. Trees are heavily damaged.
41.	Large site on small point above water. Large area of soil compaction and shoreline erosion. User-built pit toilet and wood shelves. Heavy damage to trees. Trail behind site.
42.	Large site with road access. Difficult to access from water.
43.	Medium-sized site with small beach at end of dirt road. Adjacent to Site #68. Used as informal boat launch until recent blockage of access road.
44.	Large site with small beach at end of dirt road. Adjacent to Site #67. Used as informal boat launch until recent blockage of access road.
45.	Very large site on point at end of dirt road. Large beach with mooring post. Used as informal boat launch.

Source: EDAW 2000

A landslide on top of the roadbed at the south end and a landslide that removed the roadbed near the north end currently block continuous vehicle access along the IP Road, except for pedestrians, bicycles and some 4WD vehicles or ATVs accessing the road from the south. Concentrations of dispersed sites are found in the vicinity of a point east of Yale Dam, up Siouxon Creek on the east side of the reservoir, along the IP Road and at Siouxon Flats and Siouxon County Park (also on the east side of the reservoir), and at a few locations on the west side of the reservoir, primarily south of Speelyai Canal and at Cooney Point. Though campfires are no longer permitted, most of the documented sites have user-constructed fire rings, room for 1 or 2 tents, and provide an area for short-term

boat moorage; a few sites have rope swings, ladders, and other makeshift amenities. Other sites, particularly along the east side of the lake at Siouxon Flats (Siouxon County Park and the shoreline to the north), offer stretches of beach that can accommodate larger parties (several dozen people), with room for several tents and boats.

In addition to the reservoir shoreline sites, there are a few dispersed campsites along Lewis River Road, just inland from the reservoir, and near the Swift No. 2 power canal. Southwest of the Swift No. 2 power canal off of Lewis River Road, dispersed camping and day use occurs in the vicinity of a bridge along the IP Road that crosses the Lewis River. The bridge spans a stretch of the bypass reach at the northern end of the reservoir, and campsites are accessed down a short but steep trail segment to the river's shoreline. As many as 5 tents were observed in the vicinity at one time during the 1996 recreation surveys. Day-use fishing, swimming, and tubing also occur in this stretch of the river. The bridge is relatively high (approximately 100 feet above the river), with a partial guardrail on 1 side and no guardrail on the other. The condition of the guardrails is a potential safety hazard. Immediately southwest of the canal along Lewis River Road, there is another road pullout overlooking the project bypass reach, a mostly dewatered riparian area. Dispersed camping occurs at this site as there is room for several tent sites. Several dispersed sites are also located along Cougar Creek via a trail.

*Trails* - Although Yale Lake lacks a designated trail, like Lake Merwin, there are some trails in the immediate vicinity and in the surrounding area. These trails are owned and maintained by a variety of entities, including PacifiCorp and other private owners, the DNR, and the USFS (Figure 3.3-2). Although not officially designated as hiking or biking trails, Lewis River Road and the IP Road are often used by bikers and hikers. During the 1996 recreation surveys, large groups of bicyclists were observed cycling around the lake using Lewis River Road and the IP Road.

PacifiCorp maintains shoreline trail segments at some of its campgrounds and day-use areas, including Beaver Bay and Cougar Park. In many cases these trails provide access to the reservoir and other portions of the campground. In addition, there is a short trail (0.4 mile) along Cougar Creek, accessed from Cougar Park on the opposite side of Lewis River Road.

The longest trail in the study area is located on the western shore, connecting an area on Frasier Road near Saddle Dam with Speelyai Canal (Figure 3.3-2). This trail, approximately 4 miles long, is popular with equestrians and, to a lesser extent, hikers. As the trail meanders through primarily forested areas and is steep in some locations, it is seldom used by anglers. Several small spur trails, however, provide access to the water. Anglers do use informal trails on PacifiCorp land in the vicinity of the Swift No. 2 power canal to access fishing areas.

Additional trails have been proposed in the reservoir study area. Clark County has proposed to develop 3 trails on County and other adjacent lands: (1) a non-motorized, multi-use trail along the existing IP Road at Yale Lake that would ultimately connect to the Monument in the vicinity of Swift Reservoir, with day-use sites and restrooms at

either end of Yale Lake; (2) a proposed hiking trail up Siouxon Creek extending into the Siouxon Landscape Area from the IP Road; and (3) a trail along the Yale transmission line ROW to the Merwin dam area. In addition, the Lewis River Action Committee has expressed a desire for a trail along Lewis River Road that would connect the town of Cougar and Cougar Camp (Lewis River Action Committee 1995). None of these proposed trail routes have been funded, designed, or analyzed in detail, but offer good trail opportunities. A trail feasibility study will be conducted in 2000, and will be included in the Recreation Capacity and Suitability Analysis (REC 5).

Other Land-Based Dispersed Use. Other land-based dispersed use in the study area includes ATV and 4WD use, as well as hunting and fishing. People use the area at the northeast end of the project study area, along the Swift No. 2 power canal, for fishing; parking in this area occurs at 2 road pullouts. In addition, an annual fishing derby for disabled anglers is held here, and the canal is stocked with fish for the event. The event is sponsored by the USFS during National Fishing Week. WDFW stocks the power canal with fish and PacifiCorp provides portable toilets for the event.

Although not authorized for public use, the IP Road provides the main access for ATV and 4WD use in the project study area, as well as access to dispersed fishing locations. In general, PacifiCorp and other land owners discourage 4WD and ATV use in the project vicinity due to the deteriorating road condition, occasional log truck traffic, concern for fire hazard, minimal available law enforcement, and the extremely steep topography of hillsides rising from the lake shore. PacifiCorp has an easement from the private party that owns the IP Road. This easement, however, does not include public recreational access. Access roads are generally gated and locked; however, some motorists do get into the shoreline area at times through unlocked or vandalized gates, or through ungated DNR timber roads.

Portions of the project study area and the broader study area are used for hunting big game, primarily deer and elk, as well as waterfowl. Hunting occurs in the DNR Siouxon lands, GPNF, and on private land in the study area, primarily in the fall months.

Water-Based Dispersed Use. The primary recreational opportunities offered by the Yale Project involve water-based recreation, including several boating activities, and shoreline access by boat. Visitors use PacifiCorp's 4 boat launches with 8 lanes to gain access to the entire reservoir shoreline, as well as to the open water. All boat launches may be accessed at or near full pool (490 feet msl). The minimum launch elevations of the 4 Yale Lake boat launches are:

- Saddle Dam boat launch 478.0 feet msl
- Yale Park boat launch 472.0 feet msl
- Cougar Camp boat launch 486.0 feet msl
- Beaver Bay boat launch 476.0 feet msl

With a peak season recreation pool level of between 480 and 490 feet msl, use of Saddle Dam and Cougar Camp boat launches becomes problematic when the reservoir level



approaches or drops below the current minimum ramp elevation. At minimum pool elevation (470 feet msl), none of the boat launches are able to be used. The Yale Park boat launch at 472 feet msl (468.7 feet msl at toe of ramp) could be used at minimum pool if entire boat trailer is extended off of ramp. Because of its longer length, this launch is open to the public year round.

### Universal Accessibility

In 1992, PacifiCorp conducted a comprehensive review of all of its recreation facilities at the Lewis River Projects for ADA compliance (prior to publication of PLAE [1993]). This review focused on developed facilities. Due to the nature of dispersed facilities (i.e., they are undeveloped), they are generally not required to comply with ADA guidelines for universal access. As a result of this review, all of the developed facilities at the Yale Project have been upgraded in the past 3 years, including a major overhaul and/or replacement of campground and day-use area restrooms and paths/parking areas near these restrooms. One of the 3 restrooms at Beaver Bay was completely renovated.

Design guidelines relevant to the developed recreation facilities at the Yale Project are summarized below, as well as suggestions made to improve those facilities as documented in PacifiCorp (1992) and as part of the Yale Project relicensing process. These include access to primary elements, elements and space in the recreation environment, parking areas, boat launches and boarding docks, access to recreation trails, campsites, and group sites.

Access to Primary Elements. To the maximum extent feasible, accessibility guidelines require at least 1 outdoor recreation access route between the parking lot and a primary activity area. When practical, such a route should coincide with the route for the general public. This access route should be at least 36 inches wide and be stable, firm, and slip-resistant (PLAE 1993). Not all developed recreation facilities at the Yale Project provide such access to the physically disabled. No slip-resistant access route currently exists at any of the 5 developed recreation sites; however, such an access route could be added in the future at any 1 of the facilities.

Elements and Space in the Recreation Environment. Primary design elements to consider at recreation sites include restrooms, telephones, trash receptacles, drinking fountains, benches, picnic tables, swimming areas, and fishing facilities. Each of these is described below, as well as an evaluation of current conditions at Yale Project recreation facilities. In general, the new restrooms at the 5 facilities satisfy many of these ADA guidelines.

*Restrooms* - To the maximum extent feasible, restrooms at developed sites must be accessible and located on an accessible route (PLAE 1993). Almost all current restrooms at the Yale Project facilities do accommodate the physically disabled because they are accessed by a firm, slip-resistant surface that can be easily used by a person in a wheelchair. As mentioned above, PacifiCorp has recently upgraded toilet facilities at its recreation facilities to make them accessible in accord with ADA requirements, including upgrading them to flush-type toilets. Every PacifiCorp recreation facility has at least 1

restroom that meets ADA requirements. The only remaining restroom facilities that do not meet ADA requirements are 2 of the 3 facilities at Beaver Bay.

*Telephones* - Telephones should be able to be easily reached by a person in a wheelchair, and should include a volume control for people with hearing difficulties. Telephone service in the Yale Project study area is provided by TDS Telecom, which is responsible for installation and repair of phone systems at the campgrounds and day-use facilities. In the past, PacifiCorp has routinely coordinated with the company to ensure the installation of appropriate systems at its facilities. All but 1 of the phones currently in use at the developed recreation facilities are accessible to people in wheelchairs (i.e., they are of the appropriate height and the cord is of adequate length), and are equipped with volume controls. The phone at the entrance to Beaver Bay Campground does not meet ADA guidelines; however, another phone at the campground does.

*Trash Receptacles* - Elements such as location, height, and operating mechanisms are important to consider when designing trash receptacles. For example, dumpsters are generally difficult for the physically disabled to access and use. Trash receptacles at new restrooms are accessible to the disabled; however, others located elsewhere are not, including many dumpsters.

*Drinking Fountains* - Elements to consider when designing drinking fountains include spout height and location, controls and operating mechanisms, and ground clearance. Drinking fountains at new restrooms are accessible to the disabled; however, others elsewhere are not.

*Picnic Tables* - Picnic tables provide a basic recreation opportunity for many people, allowing them to enjoy the outdoors, as well as friends and family. To the maximum extent possible, picnic table design should allow people of all ages and abilities to sit together at the same table. Important design elements to consider include number, location, seating for people using wheelchairs, and table height. Picnic tables are provided at all of PacifiCorp's Yale Project developed recreation facilities, both at individual campsites and in common spaces at day-use areas and group campsites. Some of the tables currently in use at Beaver Bay are in need of replacement. None of the picnic tables at the 5 developed facilities are specifically designed for wheelchair access. New U.S. Access Board guidelines will likely require that 20 percent of picnic sites be accessible in the future.

*Swimming Areas* - Design elements to consider for ADA acceptable swimming areas include ramps into the water, gentle slope, clear width, landings, handrails, and stairs into the water. Designated swimming areas occur at Beaver Bay, Cougar Park, Yale Park, and Saddle Dam. These designated swim areas meet basic swimming needs; that is, they are generally segregated from boating areas by floating booms but do not include stairs, constructed ramps, or handrails. The slope of these swimming facilities is gentle, and all are accessed via a sandy beach. None of the swimming areas are accessible by a pathway or provide wheelchair access to the water.

*Fishing Facilities* - Design elements to consider for fishing facilities include designated fishing stations, location, safety rails, curbs, seating, shade, and fishing rod holders. Most of the fishing at the Yale Project, however, occurs as boat angling. Bank angling generally occurs at unimproved beaches or impromptu shoreline access points. There are no designated fishing stations at developed recreation sites that are accessible to the disabled. PacifiCorp does, however, host an annual fishing derby in the vicinity of the Swift No. 2 power canal with a focus on providing access to the disabled. This dispersed site is open year-round for fishing and does provide convenient access. No fishing piers or docks are provided for the disabled.

Access to Parking Areas. Most people travel to recreation sites in cars, vans, and buses. Therefore, it is important that parking areas and loading zones be designed and constructed in accordance with the appropriate design guidelines. Accessible parking spaces should be located on the shortest accessible route to restrooms and to the recreation site or activity. Accessible parking is provided at all but 1 of the restrooms at Beaver Bay, and at some of the boat launches, including Beaver Bay and Cougar Camp.

Access to Boat Launches and Boarding Docks. Boat launches serve 2 purposes; the primary purpose is to facilitate the launch and retrieval of boats. The second purpose is to serve as an access route to the boarding dock. Design elements to consider include boarding docks and gangways, and skid piers. None of the 4 boat launches or their associated docks are accessible, except for parking at 2 of the launches.

Access to Recreational Trails. Whenever developed recreation trails are provided in a Roaded Natural setting for use by the general public, at least 1 recreation trail connecting each of the site's developed recreation elements and spaces must be accessible (PLAE 1993). As detailed earlier, however, there are few recreation trails associated with PacifiCorp's Yale Project recreation facilities. None of the existing trails at the 5 developed facilities are ADA accessible. None of the trails associated with the Yale Project developed facilities are ADA accessible.

Access to Campsites. Accessibility rules by the U.S. Access Board are being developed that will likely require 20 percent of all campsites to be accessible in the future. In the future, campsites will need to be converted at Beaver Bay and Cougar Camp to meet this requirement. This requires that primary access routes, RV parking areas, tent pads, picnic tables, fire rings and grills, water, trash receptacles, and restrooms be accessible. These elements should be consistent with Roaded Natural ROS design guidelines (expected new rule by 2000-2001).

Access to Group Reservation Site. A group reservation site is provided at Beaver Bay and Cougar Camp. Accessibility improvements needed at this site include paved access routes to the picnic shelters, and likely future conversion of 20 percent of the campsites/picnic sites to be accessible based on future U.S. Access Board rules. This requires that primary access routes, RV parking areas, tent pads, picnic tables, fire rings and grills, water, trash receptacles, and restrooms be accessible. These elements should

be consistent with Roaded Natural ROS design guidelines (expected new rule by 2000-2001).

Summary. In summary, recent restroom facility upgrades at PacifiCorp's campgrounds and day-use facilities have significantly improved universal access, particularly for parking, pathways to restrooms, toilets, showers, drinking fountains, telephones, and trash receptacles. For other elements, such as primary access routes, swimming areas, picnic tables, fishing access, and boat launch access, improvements are needed at 1 or more of the 5 developed facilities on Yale Lake to meet ADA guidelines. These issues will be addressed in the future Recreation Needs Analysis (REC 6).

### Operations and Maintenance of Recreation Facilities

PacifiCorp's operations and maintenance practices for both its developed and dispersed facilities are described below. Topics covered include campgrounds, facility maintenance/opening/closing, lake operations, security/fire services, signage, and utilities.

Campgrounds and Day-Use Sites. Campground operations and maintenance include scheduling, the campground host program, reservation system, and fees. As described earlier, campgrounds are open during the peak summer recreation season; some campgrounds are open earlier (i.e., late April) and later (i.e., through September) to accommodate off-peak season hunting and fishing use. No Yale Project campgrounds are open year-round due to weather. Nearby private RV campgrounds along Lewis River Road, however, are open year-round.

In 1996, user fees for the campgrounds were \$12/night per site. Other fees are also charged for additional vehicles and campsite occupants. In 1997, PacifiCorp increased the fee to its current rate of \$15/night to be in line with State Park fees for comparable facilities. These fees cover approximately one-half of operation and maintenance costs. Also, PacifiCorp charges market rate for campground use to avoid under-pricing other private providers in the vicinity, principally private sector businesses along Lewis River Road/SR 503. Individual campsites at Beaver Bay are not on a reservation system; they are available on a first-come, first-served basis. Reservations are required for Cougar Camp and the group sites at Cougar Camp and Beaver Bay. In 2000, the start date for reservations by phone or in person was March 1.

In 2000, PacifiCorp will charge \$2 per car (up to 5 passengers) for use of all day use areas and a \$3 daily launch fee for all types of motorized watercraft and sailboats. These fees cover a portion of the operating costs. Yearly passes were also made available in 1999 to provide a discount for select groups. Unlimited day use passes cost \$60; \$30 for local residents, and elderly visitors. A non-peak day use pass good only on weekdays and after 4 pm on weekends cost \$30, and \$15 for local residents and elderly visitors.

Beaver Bay and Cougar Camp are supervised by at least 1 campground host who answers visitor questions; distributes firewood; advises visitors of policies and quiet hours;

oversees registration, cleanup, and general minor maintenance; and acts as “peace keeper” in the event of minor disturbances or user conflicts. Periodic maintenance (such as lawn mowing, painting, etc.) is conducted by PacifiCorp maintenance crews or contractors hired on an as-needed basis.

Facility Maintenance/Opening and Closures. PacifiCorp crews are responsible for all major facility maintenance, including mowing lawn areas and upkeep of day-use areas, restrooms, campground sites, parking (e.g., gravel), and miscellaneous grounds keeping. They are also responsible for opening and closing the day-use facilities and campgrounds via gating and signs. Periodic maintenance includes removing hazard trees, cleaning littered areas and the restrooms/showers, thinning the overstory canopy at the campgrounds to increase sunlight, and major maintenance items such as dock and boat launch repair. Major facilities, such as docks, roads, and parking lots, are inspected annually (including hazard tree inspections), and repaired on an as-needed basis. Crews also repair vandalism damage on an ongoing basis.

Security/Fire Protection. PacifiCorp employs security personnel for the Lewis River Projects, hired as contractors, who lock gates and assist all facility caretakers with any security issues. Security is primarily land-based; there are no permanent security or law enforcement measures on Yale Lake itself. PacifiCorp also contracts with Cowlitz County, who provide 1 to 2 officers on weekends and holidays for patrol on all Cowlitz County lands bordering Yale Lake. PacifiCorp owns a power boat, stored at the Merwin Headquarters, which is periodically used to inspect dispersed facilities and use areas on the reservoirs. PacifiCorp has an agreement with Clark County for marine law enforcement and safety patrol on Yale Lake 2 days per week including 1 weekday and 1 weekend day each week (from May through September). PacifiCorp provides financial support to the County for this service. In 1999, the Clark County Sheriff’s Department Marine Patrol issued 105 citations to Yale Lake visitors. These citations were issued for violations related to boat speed, PFD usage, illegal fires, fishing regulations, water skiing/PWC use, and intoxication. PacifiCorp currently has no special agreements regarding fire protection services; however, local fire protection services are available in the area.

Signage. Signs along SR 503 and SR 503 Spur provide notice of PacifiCorp facilities. These signs are more abundant and visible to visitors approaching the facilities from the west. Signage is inadequate for visitors approaching from the east, particularly those that indicate that a facility is ½ or ¼ mile away. Some of the existing roadside signs are missing federal recreation symbols needed to communicate the types of recreation opportunities available at a facility. Also, there are no signs at the junction of SR 503 and SR 503 Spur indicating the location of the facilities at Saddle Dam.

Signage within the facilities at Yale Lake is present, however the text and presentation of this information is often inconsistent. Vehicle direction, warning, and regulatory signs do not conform with the MUTCD. Visitor orientation, rules and regulations, and registration signage is complex, confusing, and out-of-date at several facilities. Some marine conduct and safety signage is in place, however these signs are also complex and out-of-date. In

addition to these issues, signage both within sites and along major access roads is inconsistent with respect to the proper name for PacifiCorp. Variations include “PP&L”, “Pacific Power”, and “PacifiCorp.”

Lake Level Operations. PacifiCorp maintains Yale Lake at a pool level of 480 to 490 feet msl during the peak use recreation season (generally Memorial Day to Labor Day). This level is voluntarily maintained; that is, there are no formal requirements to maintain the pool at this level for recreation use. During the non-peak season, the pool level typically drops to 470 feet msl (10 to 20 ft. less). However, the pool level may occasionally be drawn down to 460 feet msl (20 to 30 ft. less) for maintenance and flood control purposes. To facilitate additional boater safety on the reservoir, PacifiCorp maintenance staff set buoys to warn boaters of shallow areas, and patrol the reservoir periodically for floating debris, particularly early in the season. Regulatory markers are placed by the appropriate county (Clark and Cowlitz counties).

Utilities. Utility service at PacifiCorp facilities includes water (provided by local wells), telephone (provided by TDS Telecom), electric (provided by Cowlitz County Public Utility District [PUD]), trash removal (provided by Vancouver Sanitary), and septic pumping at the campgrounds (provided by Skeeks Honey Wagon of Brush Prairie, Washington). For the most part, utility condition and service are adequate. Some drain fields are in need of repair (e.g., at Cougar Park and Beaver Bay), and water wells could be expanded in some areas.

### 3.3.3 Swift Reservoir Project Recreation Resources

Set in steep, wooded terrain east of Yale Lake, Swift Reservoir is 12 miles long with a water surface area of 4,620 acres at full pool elevation (1,000 feet msl). Shoreline length at full pool is approximately 35 miles. Like the Merwin Project, steep terrain limits access to much of Swift Reservoir. The Swift Project (FERC Project No. 2111) was licensed in 1956 and is located entirely in Skamania County.

PacifiCorp operates 2 developed recreation sites on Swift Reservoir—Swift Camp and Eagle Cliff, both at the east end of the reservoir (Figure 3.3-3). Swift Camp, built in 1959, is a 40-acre site with 3,500 feet of shoreline. Most of the site is committed to existing recreation development with 93 campsites in the wooded areas, boat launch, parking lot, day-use area, and swimming beach at the west end of the site. Eagle Cliff, also built in 1959, is a day-use only facility located at the extreme eastern end of the reservoir (directly where USFS Road 90 crosses the Lewis River). The site was partially destroyed by flooding associated with the Mount St. Helens eruption and was later reopened by PacifiCorp. However, additional damage to the site occurred during the floods in 1996. The site is approximately 1 acre in size and offers approximately 10 picnic sites, a restroom, and a parking area. Nearby is Eagle Cliff Store, a private business. Above the west end of the reservoir is a USFS viewpoint with views of Mount St. Helens and Swift Reservoir.

In addition to these developed facilities, Swift Reservoir offers numerous dispersed recreation opportunities, mostly related to fishing. Popular dispersed sites in the general area are the Swift No. 2 power canal, Marble Creek, Drift Creek, Diamond Creek, and Camp Creek. The Swift Reservoir area also offers hiking opportunities, including the nearby USFS Lewis River Trail (#31), which runs parallel to the Lewis River and connects to numerous other trails in the GPNF. The Curly Creek trailhead is located a few miles east of the reservoir.

Both developed and dispersed recreation facilities occurring in the Swift Reservoir portion of the study area are summarized below. In addition to describing the recreation activities available at these developed and dispersed sites, this section of the analysis also summarizes the condition of these facilities; facility condition will be a key factor in future management decisions, and is directly linked to the recreation needs of the area.

### Developed Facilities at Swift Reservoir

As illustrated in Figure 3.3-3, PacifiCorp owns and operates 2 developed recreation facilities on Swift Reservoir: Swift Camp and Eagle Cliff. Key elements of the developed facilities are discussed below, organized by facility type – campgrounds and day-use facilities. Compliance with ADA guidelines is addressed in a separate subsection following the discussion of dispersed facilities. A detailed inventory of existing recreation facilities and use areas are presented in Tables 3.3-2 and 3.3-3; the condition of these same facilities and use areas are summarized in Tables 3.3-4.

Campgrounds. PacifiCorp owns and operates 1 developed campground on Swift Reservoir: Swift Camp (Figure 3.3-3). Typically, Swift Camp opens in late April to accommodate the peak recreation season occurring from late May (Memorial Day weekend) to early September (Labor Day weekend). A portion of the sites remain open until the close of the hunting season; however, the permanent restrooms are closed and portable toilet facilities are temporarily installed after mid-September until mid-November. The recreation facilities at this campground are discussed below.

*Swift Camp* – This campground, built in 1959, is a 40-acre site with 3,500 feet of shoreline, located at the eastern end of Swift Reservoir. The site contains a campground, day use area, and boat launch facilities. The 93 sites in the campground are laid out in a forested area on either side of the entrance road in a series of loops. Some of these sites are situated directly on the reservoir. There are 3 restroom buildings within the campground. The combined boat launch/day use area is situated at the end of the access road into the site and separated from the campground. The day use area is located on a small inlet in the reservoir, separated from the boat launch area. It consists of 6 picnic tables, a small playground, and a sandy swimming beach with a floating boom. The boat launch facility consists of 1 boat launch with 2 lanes. A large gravel and grassy area located between the day use area and the boat launch serves as an undefined parking area for these 2 sites. Based on an evaluation of these facilities in 1999, most of the facilities at Swift Camp are in need of some maintenance (Table 3.3-4). Specifically, most of the campsites and other facilities in the campground such as the dump station, water faucets, and restroom facilities are in need of maintenance. In addition, most of the grey water



sumps in the campground are deteriorating (some are cracked) and are in need of repair. The parking area near the boat launch/day use area is also poorly defined and in need of more active management.

Day-Use Sites. PacifiCorp owns and operates 1 day-use site on Swift Reservoir: Eagle Cliff. This facility is open from late April until the close of the fishing season. The recreation facilities at this area are discussed below.

*Eagle Cliff* – Built at the same time as Swift Campground (1959), this small 1-acre park is located on the Lewis River just upstream of where the river enters Swift Reservoir. This site was partially destroyed during the 1996 flood event, and is still awaiting redesign and renovation. The site consists of 2 separate areas, one on the west side of USFS Road 90 and one on the east. The eastern portion consists of a gravel parking area with 40 spaces. This area is primarily used as an access point for anglers who frequent the stretch of river that runs past the park. The western section is accessed by an undeveloped trail that goes under the USFS Road 90 bridge. This area contains 9 picnic tables and 12 fire rings, many of which were heavily damaged in the flood. There is also a fully accessible restroom facility. The area is currently in disrepair and is being overgrown by native vegetation, as a result of the flood. As mentioned previously, much of the site remains in disrepair following the flood. The parking area is rough and is in need of replacement.

The informational signs, restroom, and fire rings are in need of repair, while the picnic tables need some general maintenance. Site managers need to repair and replace portions of this park or close them entirely to public use.

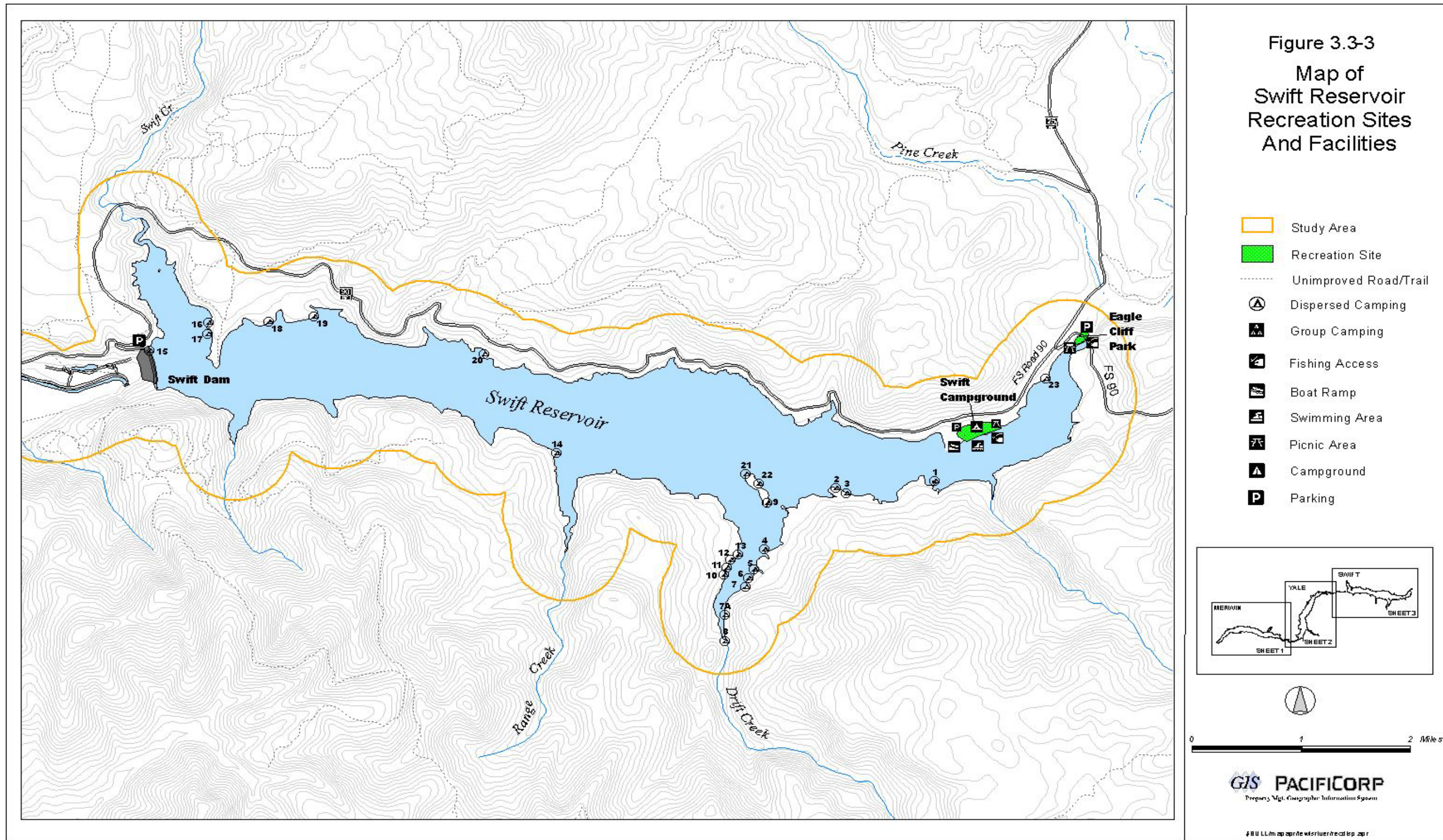
#### Dispersed Recreation Use Areas at Swift Reservoir

In addition to the developed recreation facilities provided by PacifiCorp in the Swift Reservoir study area, the reservoir and adjacent shoreline provides numerous dispersed recreation use opportunities, both for land-based and water-based use. Significant supplies of dispersed recreation activities in the study area are described below.

Land-Based Dispersed Use. Many visitors use the reservoir shorelines and other areas near Swift Reservoir for dispersed uses such as hiking, biking, fishing, boat-in camping, and day use. These sites are not designated and lack any developments such as restroom facilities. Fires are not permitted except at designated sites, and the no-fire policy is enforced by the Marine Patrol. In addition, there are signs at many dispersed sites indicating to visitors that fires are not allowed.

*Dispersed Shoreline Picnicking and Camping* – PacifiCorp has identified and mapped approximately 24 separate dispersed shoreline sites used for camping and day use (Figure 3.3-3) (Table 3.3-7). Just under half of the sites could be characterized as large sites, with camping possible at nearly all of the 24 sites. All of the sites are primarily accessed by boat, with a few of the sites on the north side of the reservoir that are accessible by







vehicle via logging roads. Most of the dispersed sites have a fire ring of rocks and an area to beach or anchor a small boat. No water or toilet facilities are available at these sites.

The majority of these sites are located in the eastern end of the reservoir with sites clustered near the Drift Creek area on the south shore. Although these sites can only be accessed by boat, they are the largest and most heavily used sites on the reservoir because they are the most sheltered from the wind.

*Trails* – There are no developed hiking opportunities directly adjacent to Swift Reservoir. However, there are several trails located nearby in the GPNF and Monument (Section 3.1.2)

Additional trails have been proposed in the project study area. Clark County has proposed to develop trails including a non-motorized, multi-use trail along the existing IP Road that would ultimately connect to the Monument in the vicinity of Swift Reservoir. None of these proposed trail routes have been funded, designed, or analyzed in detail, but offer good trail opportunities. A trail feasibility study will be conducted in 2000, and will be included in the Recreation Capacity and Suitability Analysis (REC 5).

Water-Based Dispersed Use. The primary recreation opportunities at Swift Reservoir are water-based, including several boating activities, and shoreline access by boat. Visitors use PacifiCorp’s boat launch at Swift Camp to gain access to the entire reservoir shoreline, as well as to the open water. This boat launch is not accessible at the median winter low reservoir pool level of 970 feet msl. The lowest launch elevation of the boat ramp at Swift Camp is 975.0 feet msl.

**Table 3.3-7. Description of dispersed undeveloped shoreline sites at Swift Reservoir.**

Site #	General Site Description
1.	Island site. Large areas of barren soil and shore erosion.
2.	Potential site. Appears to have easy access.
3.	Easy access. Not much shore erosion.
4.	Large site on point. Wood-post sauna.*
5.	Large site. Visible tree damage. Stairs dug in shore to water. Wood table.*
6.	Medium-sized site w/ picnic table and trail . Large areas of barren soil. Heavily impacted.*
7.	Small site. Soil compaction. May be used in conjunction with site # 6.*
7A.	Very small site—looks to have had beach access. *
8.	Large site at mouth of creek. User-constructed concrete steps from water.*
9.	Medium-sized island site w/ some areas of soil compaction.*
10.	Large site. Approx. 25 feet of shoreline impacted.*
11.	Large site. Floating dock. Heavy damage to trees.*
12.	Medium-sized site near creek.*
13.	Medium-sized site. Wood tables, benches.*
14.	Small campsite on point. Rope swing.
15.	Large site near north end of dam. Road access.
16.	Small site w/ picnic table. Some soil compaction.
17.	Medium-sized site on island. Moderate shoreline erosion.
18.	Medium site. Large area of barren soil.

Site #	General Site Description
19.	Bluff campsite above water on point. Drive in site w/ access from logging roads. Large beach along shoreline.
20.	Large site on sandy beach.
21.	Point camp on island. Steps cut into soil for access.*
22.	Well hidden site with dense understory.*
23.	Day use beach area at mouth of river.
*Drift Creek area campsites	

Source: EDAW 2000

### Universal Accessibility

In 1992, PacifiCorp conducted a comprehensive review of all of its recreation facilities at the Lewis River Projects for ADA compliance (prior to publication of PLAE [1993]). This review focused on developed facilities. Due to the nature of dispersed facilities (i.e., they are undeveloped), they are generally not required to comply with ADA guidelines for universal access. As a result of this assessment, some facilities were updated, such as restrooms.

Design guidelines relevant to the developed recreation facilities at the Swift Project are summarized below, as well as suggestions made to improve those facilities as documented in PacifiCorp (1992). These include access to primary elements, elements and space in the recreation environment, parking areas, boat launches and boarding docks, access to recreation trails, and campsites.

Access to Primary Elements. To the maximum extent feasible, accessibility guidelines require at least 1 outdoor recreation access route between the parking lot and a primary activity area. When practical, such a route should coincide with the route for the general public. This access route should be at least 36 inches wide and be stable, firm, and slip-resistant (PLAE 1993). Neither of the developed recreation facilities at the Swift Project provide such access to the physically disabled. No slip-resistant access route currently exists at either of developed recreation sites; however, such an access route could be added in the future at any of the facilities.

Elements and Space in the Recreation Environment. Primary design elements to consider at recreation sites include restrooms, telephones, trash receptacles, drinking fountains, benches, picnic tables, swimming areas, and fishing facilities. Each of these is described below, as well as an evaluation of current conditions at Swift Project recreation facilities. Half of the restrooms at the 2 developed recreation sites do not satisfy many of these ADA guidelines; the 2 new restrooms at Swift Camp do not meet accessibility requirements.

*Restrooms* - To the maximum extent feasible, restrooms at developed sites must be accessible and located on an accessible route (PLAE 1993). Restrooms at the Swift Project facilities, except for 2, do not accommodate the physically disabled because they are not accessed by a firm, slip-resistant surface that can be easily used by a person in a

wheelchair. Every PacifiCorp recreation facility has at least 1 restroom that meets ADA requirements, except for Eagle Cliff.

*Telephones* - Telephones should be able to be easily reached by a person in a wheelchair, and should include a volume control for people with hearing difficulties. Telephone service in the study area is provided by TDS Telecom, which is responsible for installation and repair of phone systems at the campgrounds and day-use facilities. The nearest phone is located nearby at the USFS Pine Creek Information Center.

*Trash Receptacles* - Elements such as location, height, and operating mechanisms are important to consider when designing trash receptacles. For example, dumpsters are generally difficult for the physically disabled to access and use. Trash receptacles at new restrooms are accessible; however, others located elsewhere are not, including many dumpsters.

*Drinking Fountains* - Elements to consider when designing drinking fountains include spout height and location, controls and operating mechanisms, and ground clearance. Drinking fountains at new restrooms are accessible; however, others elsewhere are not.

*Picnic Tables* - Picnic tables provide a basic recreation opportunity for many people, allowing them to enjoy the outdoors, as well as friends and family. To the maximum extent possible, picnic table design should allow people of all ages and abilities to sit together at the same table. Important design elements to consider include number, location, seating for people using wheelchairs, and table height. Picnic tables are provided at both of PacifiCorp's Swift Project developed recreation facilities, both at individual campsites and in common spaces at day-use areas and group campsites. The tables currently in use at Swift Camp and Eagle Cliff are in need of some maintenance. None of the picnic tables at the 2 developed facilities are specifically designed for wheelchair access. New U.S. Access Board guidelines will likely require that 20 percent of the picnic sites be accessible in the future.

*Swimming Areas* - Design elements to consider for ADA accessible swimming areas include ramps into the water, gentle slope, clear width, landings, handrails, and stairs into the water. Currently there is a designated swimming area at Swift Camp. This designated swim area meets basic swimming needs; that is, it is generally segregated from boating areas by floating booms, but it does not include stairs, constructed ramps, or handrails. The slope of this swimming facility is gentle, and it is accessed via a sandy beach. However, this swimming area is not accessible by a pathway and does not provide wheelchair access to the water.

*Fishing Facilities* - Design elements to consider for fishing facilities include designated fishing stations, location, safety rails, curbs, seating, shade, and fishing rod holders. Most of the fishing at the Swift Project, however, occurs as boat angling. Bank angling is also popular and generally occurs at unimproved beaches or impromptu shoreline access points. There are no designated fishing stations at developed recreation sites that are accessible to the disabled. No fishing piers or docks are provided for the disabled.

Access to Parking Areas. Most people travel to recreation sites in cars, vans, and buses. Therefore, it is important that parking areas and loading zones be designed and constructed in accordance with the appropriate design guidelines. Accessible parking spaces should be located on the shortest accessible route to restrooms and to the recreation site or activity. Handicapped accessible parking is provided at Swift Camp but not at Eagle Cliff.

Access to Boat Launches and Boarding Docks. Boat launches serve 2 purposes; the primary purpose is to facilitate the launch and retrieval of boats. The second purpose is to serve as an access route to the boarding dock. Design elements to consider include boarding docks and gangways, and skid piers. The boat launch facility at Swift Camp is not accessible to the disabled.

Access to Recreational Trails. Whenever developed recreation trails are provided in a Roaded Natural setting for use by the general public, at least 1 recreation trail connecting each of the site's developed recreation elements and spaces must be accessible (PLAE 1993). As detailed earlier, however, there are no developed recreation trails associated with PacifiCorp's Swift Project recreation facilities. None of the existing trails at the 2 developed facilities are ADA accessible.

Access to Campsites. Accessibility rules by the U.S. Access Board are being developed that will likely require 20 percent of all campsites to be accessible in the future. In the future, campsites will need to be converted at Swift Camp to meet this requirement. This requires that primary access routes, RV parking areas, tent pads, picnic tables, fire rings and grills, water, trash receptacles, and restrooms be accessible. These elements should be consistent with Roaded Natural ROS design guidelines (expected new rule by 2000-2001).

Access to Group Reservation Sites. There are no group reservation sites located near Swift Reservoir.

Summary. In summary, limited facilities are fully accessible at PacifiCorp's Swift Reservoir recreation use areas. For most accessibility elements, improvements are needed at Swift Camp and Eagle Cliff to meet ADA guidelines. These issues will be addressed in the future Recreation Needs Analysis (REC 6).

### Operations and Maintenance of Recreation Facilities

PacifiCorp's operations and maintenance practices for both its developed and dispersed facilities are described below. Topics covered include campgrounds, facility maintenance/opening/closing, lake operations, security/fire services, signage, and utilities.

Campgrounds and Day-Use Sites. Campground operations and maintenance include scheduling, the campground host program, reservation system, and fees. As described earlier, Swift Camp is open during the peak summer recreation season and remains open through mid-November to accommodate off-peak season. Nearby private RV

campgrounds in the town of Cougar, however, are open year-round.

In 1996, user fees for the campgrounds were \$12/night per site. Other fees are also charged for additional vehicles and campsite occupants. In 1997, PacifiCorp increased the fee to the current rate of \$15/night to be in line with State Park fees for comparable facilities. These fees cover approximately one-half of maintenance costs and the salaries of the campground hosts. PacifiCorp attempts to charge near market rate for campground use to avoid under-pricing other private providers in the vicinity, principally private sector businesses along Lewis River Road/SR 503. Individual campsites at Swift Camp are not on a reservation system; they are available on a first-come, first-served basis.

In 2000, PacifiCorp will charge \$2 per car (up to 5 passengers) for use of all day use areas and a \$3 daily launch fee for all types of motorized watercraft and sailboats. These fees cover some of the operating costs. Yearly passes were also made available in 1999 to provide a discount for select groups. Unlimited day use passes cost \$60, and \$30 for local residents, and elderly visitors. A non-peak day use pass good only on weekdays and after 4 pm on weekends cost \$30, and \$15 for local residents and elderly visitors.

Swift Camp is supervised by at least 1 campground host who answers visitor questions; distributes firewood; advise visitors of policies and quiet hours; oversees registration, cleanup, and general minor maintenance; and acts as “peace keeper” in the event of minor disturbances or user conflicts. Periodic maintenance (such as floating debris removal, painting, etc.) is conducted by PacifiCorp maintenance crews or contractors hired on an as-needed basis.

Facility Maintenance/Opening and Closures. PacifiCorp crews are responsible for all major facility maintenance, including mowing lawn areas and upkeep of day-use areas, restrooms, campground sites, parking (e.g., gravel), and miscellaneous grounds keeping. They are also responsible for opening and closing the day-use facilities and campgrounds via gating and signs. Periodic maintenance includes removing hazard trees, cleaning littered areas and the restrooms, thinning the overstory canopy at the campgrounds to increase sunlight, and major maintenance items such as dock and boat launch repair. Major facilities, such as docks, roads, and parking lots, are inspected annually (including hazard tree inspections), and repaired on an as-needed basis. Crews also repair vandalism damage on an ongoing basis.

Security/Fire Protection. PacifiCorp employs security personnel for the Lewis River Projects, hired as contractors, who work evenings to lock gates, and assist all facility caretakers with any security issues. Security is primarily land-based; there are no permanent security or law enforcement measures on Swift Reservoir itself. Areas on and near Swift Reservoir do not have any additional land-based or marine law enforcement provisions. PacifiCorp currently has no special agreements regarding fire protection services; however, local fire protection services are available in the area.

Signage. Signs along FR 90 provide notice of PacifiCorp facilities. These signs are more abundant and visible to visitors approaching the facilities from the west. Signage is



inadequate for visitors approaching from the east, particularly those that indicate that a facility is ½ or ¼ mile away. Some of the existing roadside signs are missing federal recreation symbols needed to communicate the types of recreation opportunities available at a facility. Also, there are no signs at the junction of FR 90 and FR 25 indicating the location of facilities.

Signage within the facilities at Swift Reservoir is present, however the text and presentation of this information is often inconsistent. Vehicle direction, warning, and regulatory signs do not conform with the MUTCD. Visitor orientation, rules and regulations, and registration signage is complex, confusing, and out-of-date at several facilities. Some marine conduct and safety signage is in place, however these signs are also complex and out-of-date. In addition to these issues, signage both within sites and along major access roads is inconsistent with respect to the proper name for PacifiCorp. Variations include “PP&L”, “Pacific Power”, and “PacifiCorp.”

Lake Level Operations. PacifiCorp maintains the Swift Reservoir pool level between 990 feet msl and 1,000 feet msl during the peak use recreation season (generally Memorial Day to Labor Day). This level is voluntarily maintained; that is, there are no formal requirements to maintain the pool at this level for recreation use. During the non-peak season, the pool level typically drops to 970 feet msl (30 ft. less). However, the pool level may occasionally be drawn down to 930 feet msl (70 ft. less) for maintenance and flood control purposes.

Utilities. Utility service at PacifiCorp facilities includes water (provided by local wells), telephone (provided by TDS Telecom), electric (provided by Cowlitz County Public Utility District [PUD]), trash removal (provided by Vancouver Sanitary), and septic pumping at the campground (provided by Skeeks Honey Wagon of Brush Prairie, Washington). For the most part, utility condition and service are adequate.

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## **Comments and Responses on Draft Report**

This section presents stakeholder comments provided on the draft report, followed by the Licensees' responses. The final column presents any follow-up comment offered by the stakeholder and in some cases, in italics, a response from the Licensees.

<b>Commenter</b>	<b>Volume</b>	<b>Page/ Paragraph</b>	<b>Statement</b>	<b>Comment</b>	<b>Response</b>	<b>Response to Responses</b>
USDA Forest Service John Roland	6a	REC 01 App 1 p 14	... project lands are entirely outside of the national forest boundary, with the exception of the Drift Creek area.	There are NFS lands within the project boundary at Pine Creek and other ownerships within the project and Forest boundary at the mouth or Range Creek.	This statement should be revised in the Technical Report to indicate that USFS lands are within the Project boundary at Drift Creek and Pine Creek. The USFS boundary crosses the Project boundary at Pine, Drift and Range creeks.	

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