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REC 6 Appendix 1 Recreation Needs Analysis

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7.6 RECREATION NEEDS ANALYSIS (REC 6)

7.6.1 Study Objectives

The primary objective of this analysis is to identify existing and projected recreation needs for increments of time over the term of the new license. Needs are assessed for both existing and potential future developed recreation facilities and undeveloped dispersed sites in the study area.

The Recreation Needs Analysis is a synthesis of the results of several previous recreation studies conducted as part of the PacifiCorp and Cowlitz PUD relicensing process. Previous study results that are synthesized and referenced in this analysis include the Recreation Supply Analysis (EDAW 2000a), Recreation Demand Analysis (EDAW 2000b), and Recreation Capacity and Suitability Analysis (EDAW 2002).

7.6.2 Study Area

The study area for this analysis includes the recreation facilities, use areas, and water bodies at Lake Merwin, Yale Lake, and Swift Reservoir, as well as the 6 river access sites below Merwin Dam, the Swift No.2 canal, and the Swift bypass reach. This study area also considers a 0.5-mile (0.8 km) buffer zone surrounding each reservoir.

7.6.3 Methods

7.6.3.1 Study Design

In general, the Recreation Needs Analysis pulls together all of the previous study results into a single document that will analyze, identify, and project existing and future recreation needs in the study area. An example of this study is provided in the Yale Recreation FTR (PacifiCorp 1999). Specific tasks to be conducted as part of this analysis are described below.

- An overall analysis of recreation needs in the study area over time (i.e., estimate of the number of total campsites needed in the future based on current demand).
- Identification of developed and dispersed recreation needs on a site-by-site basis, both existing and future (in 10-year increments).
- Identification of project-related recreation needs.
- Compilation of needs information into a Recreation Needs Analysis summary report.

7.6.3.2 Study Area

The study area for the Recreation Needs Analysis is the area comprising the Lewis River hydroelectric projects, the 3 reservoirs including a 1/2-mile buffer zone surrounding each reservoir, downstream fishing access sites associated with the Merwin Project, and the 3 Kalama River basin sites (as appropriate).

7.6.3.3 Analytical Methods and Reporting

Details of each of the 4 tasks are described below.

Identify Overall Recreation Needs

Overall recreation needs in the study area will be assessed using an analysis that compares and contrasts demand, supply, capacity, and suitability factors to arrive at conclusions regarding recreation needs. This process will essentially follow a formula: demand - supply = needs. Existing data for the study area from the demand and supply analyses and the capacity and suitability analysis will be used in this exercise. This first task focuses on the overall need for camping in the study area, for example, without specifying where that need may be specifically met.

A number of inter-related factors will be considered in this overall needs analysis. These include factors such as recreation facility occupancy criteria and management and impact parameters. Sources of data for these factors may include:

- Recreation visitor survey responses;
- Visitor perceptions of crowding and crowding criteria;
- Projected increases in demand for various activities;
- Seasonal and weekday/weekend occupancy rates;
- Facility and use area capacity utilization;
- Physical and spatial arrangement of existing facilities and use areas;
- Existing facility conditions and accessibility guidelines and report recommendations;
- Suitability analysis depicting potential sites or areas;
- Opportunities for infill, redesign, or expansion of existing facilities;
- Management goals and objectives of published plans;
- Visual observations and observed impacts from existing use; and
- Professional judgment and agency input.

Overall recreation needs will be identified and projected for the recreation activities in the study area listed in the study plan.

Identify Recreation Needs on a Site-by-Site Basis

The previous task looked at the broader context of needs within the study area, generally by activity type. This task takes those identified needs and attempts to identify where

they may be accommodated on a site-by-site basis. Site-specific needs will be identified through review and analysis of several data sources, including:

- Recreation survey responses about specific sites;
- Seasonal and weekday/weekend occupancy rates at specific sites;
- Spatial arrangement of sites and design problems observed;
- Facility conditions;
- Accessibility compliance and guideline recommendations at sites;
- Potential sites as identified in the GIS-based suitability analysis;
- Opportunities for infill, redesign, or expansion at each site;
- Observed impacts of use at each site; and
- Professional judgment and agency input.

The identification of future needs will build off of the list of identified existing needs. This analysis will project overall recreation needs into the future in 10-year increments. Where new facilities might be considered in a given area to satisfy demand, their anticipated implementation date will be projected. Primary indicators used in defining future needs for developed facilities are projected increases in demand over 30 to 50 years and anticipated capacity utilization. Projected future needs will be estimated for each developed facility, use area, and activity. This need is based on an understanding of existing need plus a projection of future utilization based on the demand analysis study and potential suitable sites based on the capacity and suitability analysis study.

Assessing Project-Related Recreation Needs

Not all needs identified in the preceding 2 analyses can automatically be assumed to be project-related impacts. Associating recreation needs with the project, or project-related recreation needs, will entail consultation and consideration of various contributing factors. Two of the likely factors to consider include proximity to the project and direct project cause. Further discussion with the agencies is needed to define other appropriate factors to consider. In addition, visitor survey results and dispersed use survey data collected in 1998 will be used to assess the area of potential effect of the projects. In addition, since the USFS does not accommodate its overnight visitors within the Monument, the impact of a lack of USFS-managed campgrounds in the project vicinity and the influx of Monument visitors to the study area will also be discussed.

Recreation Needs Analysis Summary Report

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

Recreation FTR (PacifiCorp 1999), but more consolidated due to the number of projects in the study area.

7.6.4 Key Questions

The Recreation Needs Analysis is designed to answer, in whole or in part, the following “key” questions identified during the Lewis River Cooperative Watershed Studies meetings:

- What are the current and future needs for recreation in the basin, and how do they differ among types of recreation activities?

The current and future needs for recreation in the basin are detailed on an activity-by-activity basis in the Recreation Needs Analysis (see REC 6 Appendix 1 of this report). Specific needs related to the primary activities in the project area, including camping, day use/picnicking, boating, fishing, and others, are summarized below.

- Are new sanitary facilities needed (e.g., restrooms, RV dump sites, waste management in dispersed camping areas, etc.) and what levels of facilities are appropriate (e.g., vault toilets vs. restrooms with electricity)?

The need for new sanitary facilities is discussed on a site-by-site basis in the Recreation Needs Analysis (see REC 6 Appendix 1 of this report). Several developed campgrounds and day use areas, including the river access sites below Merwin Dam, have sanitary facilities that are in need of repair or replacement. Specific sanitary facility needs, including the level of facilities, are discussed for each recreation site in the project area. Additionally, the potential need for floating toilets to service dispersed undeveloped sites is identified.

- Do opportunities for commercial recreational development exist on the reservoirs?

Opportunities for commercial recreation development exist on the project reservoirs. While not analyzed in detail, existing and/or new private commercial recreation providers are expected to help meet future demand for recreation opportunities in the project area by providing services and developed camping sites. The number of new campsites over the next 30 years to be provided by private RV resort owners has been estimated at approximately 133 campsites.

- How are user fees being charged for use of recreational facilities or activities and could they be increased for specific purposes?

Existing user fees were examined at campground and day use facilities in the Recreation Supply Analysis (REC 1). All campgrounds and day use facilities have fees associated with their use. In general, many day use facility visitors were not supportive of the fees when they were implemented in 1999. As a result, day use facility utilization decreased in 1999 and 2000 but started to rebound in 2001. PacifiCorp lowered the day use fees and has implemented a new resident day use site pass program, which has increased use levels somewhat. Willingness-to-pay questions

were asked as part of the Recreation Surveys (REC 3), and the survey results were documented in the Recreation Demand Analysis (REC 2). In general, visitors had mixed responses when asked if they would pay additional fees for various services. The survey was conducted in 1998 prior to the implementation of the day use fee program.

- How can recreational facilities complement existing Monument-related facilities in the basin and vice versa?

The Monument, Gifford Pinchot National Forest (GPNF), and the 3 PacifiCorp project reservoirs are significant visitor destinations. Approximately 22 percent of existing and future camping demand at Yale Lake and 23 percent at Merwin and Swift can be attributed to the attraction of the Monument and GPNF. To account for the ongoing and future impacts of Monument and GPNF visitors on PacifiCorp developed facility capacity, future campground needs should be coordinated with the Monument and GPNF. The impact of Monument and GPNF visitors on PacifiCorp developed facilities should be considered in future discussions and negotiations during the relicensing and settlement agreement process.

- Are more trails needed within the regional context (e.g., Clark, Cowlitz, and Skamania counties)? What types of trails are needed (e.g., motorized, non-motorized, hiking, equestrian, mountain bike, etc.)? Where should new trails be located?

The Recreation Demand Analysis included a regional demand analysis using the Washington State Comprehensive Outdoor Recreation Plan (SCORP). Several of the activities included in the SCORP analysis typically associated with trail facilities are projected to expand. These activities (and their projected percent increase in demand through 2035) include: day hiking (157 percent), backpacking (114 percent), off-road bicycling (146 percent), and sightseeing and exploring (140 percent). In addition, hiking was one of the most common activities indicated by all visitors in the study area. Given the high level of both existing demand and projected future demand, the creation of new trails in the study area should be considered. This demand could be partially met by considering the construction of new trails in many locations of the study area, as well as potential trail connections to destinations outside of the study area.

The 1994 Clark County Regional Comprehensive Parks, Recreation and Open Space Plan specifically identifies both a definite need for a trail and bikeway system, as well as a number of future trail facilities to be located in the study area. Consideration should be given to developing a formal non-motorized trail in the project area to accommodate pedestrians, bicyclists, and equestrians, along the IP Road at Yale Lake and along in; however, a continuous trail from one end of the lake to the other does not appear feasible at this time. ADA-accessible trails should also be considered in the study area. A coordinated management effort that addresses ORV and ATV use in the study area, principally along the IP Road, should also be considered.

- What is the need for more campgrounds in the basin, and where?

There is a need for more campsites in the project area over the next 30 years. Facility expansion/infill at PacifiCorp's Cougar Camp and Swift Camp, plus additional new campsites at private RV resorts in the broader Lewis River corridor, would appear to accommodate future demand for camping in the project area for the next 30 years. It should be noted that this timeframe is very long, and changes will likely be needed over time to address changing visitor needs and values.

- Are there opportunities for extending the season of use for campgrounds?

Currently, PacifiCorp keeps several day use sites (Merwin Park, Yale Park, and Speelyai Bay) open all year long. Additionally, Swift Camp (one camping loop) is kept open free of charge through mid-November (time may vary) to accommodate hunters and anglers. Many shoulder season visitors, especially big game hunters, prefer dispersed undeveloped camping experiences compared to developed campgrounds. The RRG is discussing potentially expanding the season of use at Cougar Camp and/or Beaver Bay Campground to accommodate hunters and anglers in the lower elevation area. Potential conflict with elk movement during the shoulder season is a topic of discussion. Lengthening the season of use at Cresap Bay Campground would conflict with Merwin Wildlife Habitat Management Program guidelines.

- How can recreation pool level and flow needs be integrated with other resource needs?

Most boaters surveyed during the summer months did not report any significant problems with the current voluntary operations of the reservoirs related to pool levels. However, many area residents did report problems with the reservoir pool levels, likely because they go boating more during the shoulder seasons when the reservoirs are drawn down compared to general visitors. Problems reported include exposed stumps, rocks, and shallow areas, as well as difficulty launching a boat when the reservoirs are drawn down.

In general, one boat launch lane per reservoir can be extended to lower pool levels to provide year-round access at each reservoir. However, construction of a new boat launch at Swift Reservoir is being studied by PacifiCorp because the existing boat launch cannot be lengthened. Recreation needs would suggest a high or near full reservoir pool level during the primary recreation season, with boating access provided at one boat launch per reservoir during the remainder of the year (3 feet [0.9 m] of water at the toe of the launch lane). If pool levels are drawn way down, boat launch access may not be feasible at each reservoir due to engineering constraints.

Lower pool levels are being evaluated in other resource areas to meet other needs, such as flood control. The need to integrate recreation pool level and flow needs with other resource values is identified in the Recreation Needs Analysis. Issues and interactions between potential recreation actions and other resource actions are detailed and compared in the Resource Enhancement Alternatives Document (READ) (PacifiCorp and Cowlitz PUD 2001).

- What are the needs for shoreline recreational developments, such as campgrounds, picnic areas, and put-in and take-out points?

There is a need, especially during peak weekends (July and August), for expanded or new campsites, day use areas, and boating facilities. Increased demand for camping, day use activities (picnicking, day hiking, etc.), and boating activities will require additional recreation facilities to accommodate existing and future demand. Specific needs for shoreline recreational developments are detailed in the Recreation Needs Analysis by activity and by site (see REC 6 Appendix 1 of this report).

7.6.5 Results and Discussion

The major findings of the Recreation Needs Analysis are summarized below. Results of the analysis are documented in REC 6 Appendix 1 to this 2001 Technical Report.

7.6.5.1 Existing and Future Recreation Needs in the Study Area

Camping-Related Needs

Overall use of campgrounds in the study area during the full recreation season from the years 1996 to 2000 averaged 48 percent. Average weekend use during this period was 60 percent, while average peak-season (July and August) weekend use was much higher at 94 percent. In the next 30 years or so (to 2035), the demand for tent and RV camping is projected to increase by 130 percent. Use of several campgrounds in the study area is projected to reach peak season weekend capacity during this time. Thus, recreation managers at the reservoirs should consider increasing the supply of camping facilities to meet current and future demand. Based on these projections, an estimated total of 128 new campsites would be needed at the reservoirs by 2035 to accommodate expected future demand. This need could be met through expansion of existing campgrounds and/or construction of facilities at new sites. Potential locations include additional campsites at one or more of these sites:

- Cougar Camp at Yale Lake.
- Swift Camp at Swift Reservoir.
- An undeveloped area south of Speelyai Canal on Yale Lake (a lower priority compared to the other sites).

In addition, private-sector campgrounds in the Lewis River corridor study area should be expanded in the future to help meet demand. Up to 133 new private RV campsites are needed to meet the projected increase in RV camping by 2035 in the study area. Implementation of actions to address new ADAAG recreation accessibility guidelines should also be considered at all existing and new facilities.

Other important needs related to camping facilities include:

- Consideration of ongoing maintenance and repair of camping facilities.
- Implementation of an expanded reservation system over time.

- Increased publicity/information concerning visitor options at facilities.
- Increased management of shoreline dispersed boat-in or walk-in campsites.
- Construction of additional group reservation campsites.

Day Use/Picnicking-Related Needs

Nearly half of all visitors indicated that they were picnicking during their visit to the study area. Demand for picnicking is projected to increase by 179 percent by 2035. Projected demand at individual picnic areas in the study area indicates that a total of 94 additional picnic sites and parking spaces would be needed (based on a capacity of 75 percent on seasonal weekends) by 2035 to accommodate future demand, if current use of picnicking facilities were at capacity. Consideration should be given to increasing the supply by constructing boat-in day-use picnicking sites. Other needs related to picnicking facilities should include implementation of actions to address new ADAAG guidelines for recreation access and continued maintenance of day use/picnicking facilities in the study area.

Boating-Related Needs

PacifiCorp operates 10 boat launches (19 ramp lanes) in the study area, including 5 of 6 river access sites below Merwin Dam. Use of 2 boat launch facilities is expected to exceed capacity within the next 30 years, while use at other facilities will likely approach or be at capacity during this period. Demand for boating and water-based recreation activities is currently high and will increase by 100 percent over the next 30 years. Thus, site managers should consider increasing the supply of boating-related facilities to help meet current and future demand. This could be accommodated through expansion of existing facilities and construction of new facilities. Potential actions to meet boating-related needs in the study area include:

- Merwin Lake – add 1 additional boat ramp lane at Speelyai Bay (and consider a new boat launch at Merwin Park).
- Yale Lake – recent improvements at Saddle Dam Park, along with other existing boat launches, are probably adequate. If a new campground is developed at an undeveloped site, a new boat launch should also be considered at this location.
- Swift Reservoir – develop a new boat launch along the northern shoreline west of the existing boat launch.
- Below Merwin Dam – improve existing boat launches only.

Other boating-related facilities should also be considered in the study area. These include expansion of existing parking areas to accommodate additional vehicle and trailer parking, construction of at least 1 fully ADA-accessible boat launch on each reservoir, and lengthening at least 1 boat ramp on each reservoir to provide low-pool (year-round) access during reservoir drawdowns (3 feet [0.9 m] of water depth at the toe of the launch lane).

Additionally, increased marine patrols and management presence should be considered, as the number of boats and personal watercraft (jetskis) is projected to double in the future (2035). Enforcement of boating regulations and other actions should be taken as needed to address boating activities. Finally, additional boat moorage may be considered at key locations.

Swimming and Sunbathing-Related Needs

Swimming is currently one of the most popular activities in the study area, and participation is expected to increase 114 percent by 2035. To meet this projected demand, existing designated swimming areas may be considered for expansion and/or a new swim area constructed at a new site. This should be considered in conjunction with other improvements and maintenance of existing swimming areas including providing delineators/floating booms, safety signs, and other apparatus to improve visitor swimming experiences and safety at all designated swim areas. One additional consideration should be the creation of a fully ADA-accessible swimming area at either an existing facility or any new facilities that are constructed.

Interpretation and Education-Related Needs

Currently, there are no significant interpretive facilities in the study area. However, demand for interpretive displays is very high in the region and is projected to increase by more than 193 percent by 2035. Many new opportunities for interpretive and educational facilities exist in the study area. Consideration should be given to new interpretive facilities, such as small amphitheaters, signs and kiosks, and educational services such as campfire talks and nature walks. New ADAAG guidelines for recreation should be addressed at all facilities. An interpretive and education (I & E) plan and program should be considered for the study area, as well as the creation of self-guided nature trails at selected locations, such as at the Beaver Bay wetlands.

Non-motorized Trail-Related Needs

There are currently a limited number of non-motorized trails in the study area that receive variable amounts of use. As the demand for non-motorized hiking is projected to increase 157 percent by 2035, the creation of new trails in the study area should be considered. This projected demand could be partially met by considering the construction of new trails in many locations of the study area, as well as potential trail connections to destinations outside of the study area. Consideration should be given to developing a formal non-motorized trail along the IP Road at Yale Lake, plus the formalization of a trail from the Saddle Dam area to the Speelyai canal. ADA-accessible trails should also be considered in the study area. A trail signage program should be developed. A coordinated management effort that addresses ORV and ATV use in the study area, principally along the IP Road, should be considered. Trail opportunities are being further identified in an ongoing trail feasibility study that focus on key linkages for trail development from Merwin Park to Eagle Cliff Park along all 3 reservoirs, or portions thereof (see REC 5 Appendix 2).

Fishing-Related Needs

Although most fishing is boating-related and is addressed in the boating-related needs discussed previously, there are no designated angler access piers or docks, no ADA-accessible fishing opportunities, and no fish cleaning facilities in the study area. The demand for fishing from a boat is projected to increase by 90 percent through 2035. Consideration should be given to providing at least 1 ADA-accessible fishing pier on each reservoir. Increased visitor information regarding the location of existing public shoreline access points should be considered. Finally, additional maintenance and some improvements at the 6 river access sites below Merwin Dam and at the Swift No. 2 canal and Swift bypass reach should also be considered.

General Open Space-Related Needs

An adequate supply of land for open space-related recreation activities, such as wildlife observation and photography, appears to exist in the study area and the surrounding region. Visitor participation in hunting and wildlife observation is expected to increase more than 50 percent by 2035. Consideration should be given to setting aside adequate open space lands to meet future physical and visual recreation open space needs. These lands should be coordinated with or serve a dual purpose with lands acquired for wildlife habitat purposes. Consideration should also be given to providing designated wildlife viewing areas and trails, such as Watchable Wildlife sites, in compatible areas such as the Swift bypass reach along FR 90 and at the Beaver Bay wetlands.

7.6.5.2 Project-Related Recreation Needs Criteria

Not all recreation needs identified in the study area should be assumed to be project-related or the responsibility of PacifiCorp or Cowlitz PUD. Associating recreation needs in the study area with the project, or project-related recreation needs, will require consideration of criteria by the RRG and other stakeholders. Two criteria for potential consideration include:

- The identified recreation need should be directly caused by the project.
- The identified recreation need should be in proximity to the project boundary; a need must be within or adjacent to the FERC project boundary to be considered.

Other criteria may also be developed by the RRG or other stakeholders during Settlement Agreement discussions.

7.6.6 Schedule

Results of this analysis are fully documented in REC 6 Appendix 1 to this 2001 Technical Report. This study is complete.

7.6.7 References

- Clark County. 1994. Comprehensive Parks, Recreation and Open Space Plan. Vancouver, Washington. June 1994.
- EDAW. 2000a. Recreation Supply Analysis for the Lewis River Hydroelectric Projects. Seattle, WA.
- EDAW. 2000b. Recreation Demand Analysis for the Lewis River Hydroelectric Projects. Seattle, WA.
- EDAW. 2002. Recreation Capacity & Suitability Analysis for the Lewis River Hydroelectric Projects. Seattle, WA.
- PacifiCorp. 1999. License Application for the Yale Hydroelectric Project, FERC Project No. 2071. Includes Final Technical Reports as Technical Appendices. Portland, Oregon.
- PacifiCorp and Cowlitz PUD. 2001. Resource Enhancement Alternatives Document (READ). Portland, OR and Longview, WA.

7.6.8 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.

| Commenter | Volume | Page/ Paragraph | Statement | Comment | Response | Response to Responses |
|------------------------------------|---------------|----------------------------|--|---|---|------------------------------|
| USDA Forest Service John Roland | 3 | REC 06-3 | Approximately 22 percent of existing and future camping demand at Yale Lake and 23 percent at Merwin and Swift can be attributed to the attraction of the Monument and GPNF. | I have not seen this statement in earlier versions of the study reports. Which survey collected this information? | Information on visitor's primary destination habits was collected in the Yale Lake Recreation Visitor Survey and the Lake Merwin and Swift Reservoir Recreation Visitor Surveys. The results from each of these surveys are summarized in Volume 6a—REC2 Appendix 1—Recreation Demand Analysis. Specific visitor destination results from the Lake Merwin and Swift Reservoir Survey are detailed in Appendix A of the Recreation Demand Analysis on page A-26, while results from the Yale Lake Survey are detailed in Appendix B of the Recreation Demand Analysis on page B-35. Approximately 22 to 23 percent of visitors surveyed at Project recreation facilities indicated that their primary destination was either the Monument or the GPNF. | |