

Appendix G
River-Related Recreation Survey Results

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

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RIVER-RELATED RECREATION SURVEY (REC 4)

The River-Related Recreation Survey, 1 of 2 surveys being conducted in REC 4, addresses river-oriented (non-flatwater) recreation resources that may be affected by the projects. This river-related recreation survey was conducted to expand upon surveys previously conducted for the Yale Project and reported in the Final Technical Report for Recreation Resources (PacifiCorp 1999). This survey, once finalized, will be compiled into the Recreation Demand Analysis report (REC 2).

Study Objectives

The objectives of this River-Related Recreation Survey are to help identify: (1) river-oriented recreation values in the study area and relationships to the projects, if any; (2) user relationships to lower river flow volumes, if any; and (3) visitor impressions of project recreation facilities in the lower river area. Results will be used to analyze the potential effects of hydropower development and operations on recreation resources and to develop protection and enhancement measures, if needed.

Study Area

The study area consists of 2 areas: (1) the Lewis River corridor just above Swift Reservoir to Curly Falls; and (2) a 5-mile reach of the lower river containing 5 boat launch/fishing access sites below Merwin Dam (Merwin Hatchery, Lewis River Hatchery, Cedar Creek, Island, and Haapa).

Methods

Methods for this study are described on pages REC 4-2 to REC 4-4 of the Study Plan Document (PacifiCorp and Cowlitz PUD 1999).

Study Results

This task updates the river-related recreation survey results presented in the 1998 Recreation Survey Results (PacifiCorp and Cowlitz PUD 1999a). This update incorporates additional survey responses as a result of additional survey work conducted by WDFW and EDAW in 1999 on the lower river reach only. Twenty observation dates were included in the survey, 10 each during 1998 and 1999 (Table 1). Eight observation dates were during May, June, and September, while twelve survey dates were during the high use months of July and August. Since the vast majority of responses (96 percent) were from the lower river area below Merwin Dam, these study results best reflect this portion of the study area.

Table 1. Distribution of survey dates.

Season	Calendar	Number of days
Non-peak Season	May, June & September	8
Peak Season	July & August	12
Total		20

Ninety-six groups were asked to participate in the survey, and 94 accepted for a 98 percent response rate. Forty-four (47 percent) of the groups interviewed indicated that they reside in the Vancouver, WA area (Table 2).

Table 2. Participants' place of residence.

City/Area	Number of groups (% of total)
Vancouver, WA	44 (46.9)
Non-Seattle, WA	16 (17.0)
Woodland, WA	12 (12.7)
Battle Ground, WA	8 (8.5)
Portland, OR metropolitan area	6 (6.4)
Seattle, WA metropolitan area	6 (6.4)
Outside of WA and OR	2 (2.1)

Most of the groups interviewed (94 percent) were visiting the Lewis River as part of a day trip (Table 3).

Table 3. Participants' duration of stay in the area.

Number of days*	Number of groups	Percent
1	88	93.6
2	4	4.2
3	1	1.1
4	1	1.1

* The average duration of participants' visits to the area in this survey was 1.1 days.

Half of the visitors contacted for the survey were met at the Lewis River Fish Hatchery boat launch (Table 4). Over a third (36 percent) were contacted at Cedar Creek boat launch.

Table 4. Distribution of sites where survey group participants were observed and contacted.

Area	Number of groups	Percent
Lower Lewis River Below Merwin Dam		
Lewis River Fish Hatchery boat launch	47	50.0
Cedar Creek boat launch	34	36.2
Haapa river access site	4	4.3
Island boat launch	3	3.2
Merwin Fish Hatchery boat launch	2	2.1
Upper Lewis River Above Swift Reservoir		
Curly Falls	2	2.1
Eagle Cliffs	2	2.1
Total	94	100

As presented in Table 4, the vast majority (96 percent) of visitors surveyed were located in the lower river below Merwin Dam. This is because the second year of study was conducted by WDFW only in this area and few visitors were contacted in the upper river area during the 1998 survey season. As a result, survey results generally reflect the visitors to the lower river area only. With only 4 survey conducted in the upper river area, few conclusions can accurately be made about visitor perceptions in this area.

Summary of Visitation Patterns

Recreationists participating in the survey had a long history of visiting the Lewis River. Visitors were asked how many years they had been coming to that particular section of the river to fish. Fourteen (15 percent) of the groups had been coming to the area 30 or more years (Table 5). Over a third (38 percent) of the groups indicated that they had been coming to this section of the river for 10 to 29 years. Less than a third (29 percent) of the groups had come to the area between 1 and 9 years.

Table 5. Years participants have been coming to the Lewis River below Merwin Dam to fish.

Response	Number of groups	Percent
No response given	16	17.0
0 years	1	1.1
1-4 years	21	22.3
5-9 years	6	6.4
10-19 years	18	19.2
20-29 years	18	19.2
30-39 years	10	10.6
40+ years	4	4.2

Visitors in the survey indicated that their trips were generally focused on getting to the Lewis River, with few stops en route, except at local convenience stores (Table 6; Table 7).

Table 6. Locations visited by participants during their trip (other than the contact site).

Sites visited	Number of groups
No other areas	39
Local convenience stores	34
Other fishing locations	4
No response given	17

Table 7. Participants' plans to visit other locations on their way home.

Sites visited	Number of groups
No other locations	87
Local convenience stores	4
Other miscellaneous	3

Four out of five (81 percent) respondents stated that their primary destination on their current trip was the site where they were contacted (Table 8). Other destinations included sites on the Columbia or Cowlitz rivers, and the city of Portland, Oregon.

Table 8. Participants' main destination on this trip.

Main destination	Number of groups	Percent
Location where contacted	76	80.9
No response given	12	12.8
Other	6	6.3

The main reason that participants visited the site where they were contacted was primarily based on the fishing success at that site or some other fishing related reason (Table 9).

Table 9. Main reason participants visited the site where they were contacted.

Reason	Number of groups	Percent
Fishing related	60	63.8
Near home	5	5.3
Relaxation/escape	3	3.2
Setting, site features	3	3.2
No response given	23	24.5

A small number (7 groups) of participants indicated that they were camping in the area; however, most participants in the survey said that their visit to the Lewis River was entirely focused on fishing (Table 10; Table 11). Visitors to the section of the Lewis River above Swift Reservoir indicated that they were in the area looking at old-growth forest and waterfalls, or were exploring areas within the Monument or GPNF.

Table 10. Distribution of day and overnight trips by participants.

Type of trip	Number of groups	Percent
Day use	87	96.0
Overnight use	7	4.0

Table 11. Main recreation experience sought by participants.

Experience	Number of groups (%)
Fishing	81 (86.2)
Other miscellaneous	6 (6.4)
No response given	5 (5.3)
Rafting	2 (2.1)

For those participants who indicated that they were camping while on their trip, several different camping areas were mentioned as the location of their camp (Table 12).

Table 12. Where participants said they were camping.

Location of campsite	Number of groups
Cedar Creek boat launch	1
Rush Creek	1
Lewis River RV Park/Echo Park	1
Paradise	1
Swift Campground	1
No response given	2

Participants who were camping in the area were asked why they chose to stay at those particular areas. Sixty percent of the participants agreed that proximity to Lewis River fishing areas was the primary reason (Table 13).

Table 13. Reasons why participants choose camping areas.

Reason	Number of groups	Percent (of those camping)
No response given	4	40.0
Setting attributes (“it was close by”)	3	60.0

Only 1 of the participant groups indicated that they had considered camping at Merwin, Yale, or Swift reservoirs. Overnight groups were also asked why they were not camped at sites adjacent to the reservoirs. Three groups provided responses: one group wanted to avoid crowding, another group indicated that the location was not close enough to the river, while a third group wanted to avoid fees charged at campgrounds (Table 14). None of the camping groups indicated that they had difficulty finding a place to camp on their trip.

Table 14. Reasons participants gave for camping or not camping at the project reservoirs.

Reason	Number of groups
No response given	4
Social reasons (perception of crowding)	1
Setting attributes (location, it was close by)	1
Managerial reasons (avoid paying fees)	1

Survey participants were asked if they had previously been to Merwin, Yale, or Swift reservoirs. Four out of five participants (78 percent) responded that they had been to the reservoirs (Table 15).

Table 15. Previous visits to the project reservoirs by participants.

Response	Number of groups	Percent
Yes	73	77.7
No	19	20.2
No response given	2	2.1

Of the participants who had visited the reservoirs before, nearly half (48 percent) had been to the reservoirs 2 times or less (Table 16). Only 13.7 percent had been to the reservoirs more than 10 times.

Table 16. Number of previous visits to the project reservoirs.

Number of previous visits	Number of groups (73)	Percent
1	20	27.4
2	15	20.6
3	6	8.2
4	8	11.0
5 to 9	12	16.4
10 or more	10	13.7
No response given	2	2.7

About 40 percent of the groups interviewed said that, when compared to past visits, they used the Merwin, Yale, or Swift reservoir areas about the same (Table 17). A comparatively small number (12 percent) of groups said that they visited the reservoirs more than in the past, while almost half (48 percent) of the groups indicated that they visited less.

Table 17. Frequency that participants currently use the project reservoirs compared to past use.

Frequency of use	Number of groups (73)	Percent
More	9	12.3
Less	35	47.9
About the same	29	39.8

Visitors in the survey were asked if the amount of use or behavior of other people at Merwin, Yale, or Swift reservoirs changed the way they used those areas. Over a third (37 percent) of the groups indicated that the recreation use levels or behavior of others had affected their visits, while about three out of five (63 percent) groups interviewed said that recreation use at the reservoirs had not affected their visitation frequency (Table 18).

Table 18. Visitor use pattern changes at the project reservoirs due to the use or behavior of others at the reservoirs.

Response	Number of groups (73)	Percent
Yes	27	37.0
No	46	63.0

The groups who had changed their use of the reservoirs due to the behavior of other people, provided several different reasons for this change. The biggest reason was the presence of too many other people, crowding in general, or encountering rude people (Table 19).

Table 19. Reasons cited for changing the way participants use the project reservoirs.

Reason	Number of groups (27)	Percent
Too many people, crowding, rude people	12	44.5
Personal watercraft (jet skis) and powerboat use and impacts, wakes and noise	8	29.6
Trash and garbage left behind by visitors	2	7.4
Fees charged	1	3.7
Theft of personal belongings	1	3.7
No response given	3	11.1

Summary of River Flow Influences Below Merwin Dam

Survey participants below Merwin Dam were asked how river flows influenced their decision to fish at the site where they were contacted. Almost half (48 percent) of the groups who responded (67) indicated that the river flows did not influence their decision (Table 20). Almost a quarter (24 percent) of the participants indicated that they preferred lower river volumes for fishing because fishing was better at lower flows compared to higher flows. Nine survey participants suggested specific flow levels as being optimum for fishing the lower river. These responses generally fell into 2 ranges: up to 2500-3500 cfs, and up to 6000-6500cfs. Several visitors also indicated that they would not consider fishing when the water levels were too high.

Table 20. Participants' response of how river volume influenced their decisions to fish at the site contacted below Merwin Dam.

Reason*	Number of groups	Percent
River volume had no affect	32	47.7
Prefer lower river volumes	16	23.8
Prefer up to 2500 to 3500 cfs volume	7	10.5
Prefer river volumes between extremes	4	6.0
Prefer up to 6000 to 6500 cfs volume	2	3.0
Affects the type of boating I do	2	3.0
Affects where I go	2	3.0
Other	2	3.0

* 67 out of 94 groups commented.

Summary of Facility/Boat Launch Concerns Below Merwin Dam

People fishing on the lower section of the Lewis River were asked for their opinion on the current boat launches and other recreation facilities in the area below Merwin Dam. Three out of four respondents who answered this question indicated that the boat launches and other recreation facilities were acceptable (Table 21). The remaining groups (21 percent) indicated that these facilities needed to be better maintained or that repairs were needed. Specific comments focused on needed repairs at some of the boat ramps and the need for increased maintenance and clean up. Only two respondents indicated the need for new facilities (a dock and additional trash cans).

Table 21. Participants' opinions about existing boat ramps and facilities below Merwin Dam.

Reason*	Number of groups	Percent
Facilities are adequate	40	75.5
Facilities are inadequate	3	5.7
Facilities need better maintenance/clean up, principally at the hatcheries	3	5.7
Relocate the Cedar Creek ramp back to where it was before	2	3.7
Repair the Island ramp	2	3.7
Repair the Merwin Fish Hatchery ramp	1	1.9
Need a dock at the mouth of the Lewis River	1	1.9
Need trash cans	1	1.9

* 53 out of 94 participants provided a response.

Summary of General Concerns Related to the Management of the River Corridor

Participants were asked if they had any other comments related to how the river corridor could be better managed. Twenty-five groups provided a response to this question and indicated a variety of concerns. One-fifth of the participants who provided an opinion felt that personal watercraft (jet skis, wave runners) should be controlled (Table 22). Other frequently cited concerns dealt with facility maintenance, fishing opportunities, and fishing regulations.

Table 22. Participants' opinions on how the river corridor could be better managed for recreation.

Reason*	Number of groups	Percent
Personal watercraft (jet skis) should be controlled	5	20.0
Increase recreation facility maintenance	4	16.0
Improve the fishery and increase fishing opportunities	4	16.0
Improve communications and consistency regarding fishing regulations, public information, and river flows	4	16.0
Improve public shoreline access	3	12.0
Stabilize river flows	1	4.0
Designate boat and bank fishing only areas	1	4.0
Increase law enforcement presence	1	4.0
Provide boat rentals	1	4.0
Do not charge fees	1	4.0

* 25 out of 94 participants provided a response.