

**2009 White Salmon Wild and Scenic River Recreation Use Study:
An Evaluation of River Use Patterns**

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Executive Summary

Overview

During the 2009 recreation season, researchers from West Virginia University, Penn State University, USFS Pacific Southwest Research Station, BOKU and University of Hannover conducted a River use study at the White Salmon Wild and Scenic River in the Columbia River Gorge National Scenic Area. The principle focus of this study was to better manage Special Use Permits in order to limit conflicts among visitors during high use seasons. Specifically, researchers wanted to identify any perceptions of crowding, acceptable number of times to see others, acceptable time to wait before starting their activity, reasons for recreating, quality of facilities and services, and how others impact their experience.

Methodology

Visitors (16 years or older) were asked to participate in a 5 page, face to face interview at 9 different sites that enter the White Salmon River. These on-site interviews were conducted with a total of 1065 visitors during the 2009 recreation season (June through September), across 77 sampling days. The survey days were stratified across weekday and weekend periods, as well as morning, mid-day and evening timeframes.

Visitor Demographic Profile

The sample comprised of over half (55%) males and 44% females. There are relatively few older people in the visiting population (<1%). The majority (57%) of visitors were between the ages of 21 and 40. Just over one-third (35%) of river users were in their forties or fifties and only 5% were between 16 and 20 years of age. The vast majority of visitors to the White Salmon River are U.S. residents; the few visitors that were from another country came from neighboring Canada as well as Germany and the UK.

Trip and Group Characteristics

The vast majority of visitors were with a commercial group during their trip to the river. On average, visitors spent 4 days on their overnight trip to the river and an average of 5 hours on their day trip. Virtually everyone (98%) reported that they did not have any conflicts with other groups during their trip. Almost all visitors reported this was their first visit to the White Salmon River and the majority of visitors are on day trips. The visitors tend to travel in medium size groups while visiting the river. On average there are 7 adults per group, and those groups traveling with children had an average of 3 children with them.

Reason for Visiting

Results of the study showed visitors seek to get away from the regular routine and get into the outdoors while experiencing the natural surroundings. Visitors indicated that they come to this area because it is a good place to enjoy the outdoor activities they like to participate in and to spend more time with their companions. The White Salmon River being close to home does not seem to be a factor as to why they visit. Less than 5% come to the river because they are close to home.

Crowding

The majority of visitors to the White Salmon River did not feel crowded on their trip. Results also showed that visitors indicated the number of people they saw was about what they expected or less. Most visitors indicated that it does matter if they see other groups while on the river and it also matters if they have to wait before starting their activity.

Comparisons

Comparisons were conducted to identify any differences between visitors that were in commercial groups or private groups as well as differences in high use days and low use days on the White Salmon River. Areas that showed differences between commercial and private groups pertained to demographics, trip characteristics, group characteristics, trip visitation patterns, health and cleanliness, safety and security, condition of facilities, responsiveness of staff, recreation setting, a number of the quality attributes, overall satisfaction, importance of visitor experience, most important reason to visit, experience preference on the White Salmon River, and perception of crowding. Differences were also found with some of the expectation versus performance variables including, how long is it OK to wait, how long did you have to wait, percentage of time in sight of others, preferred group size to run the river with, total number in group and how long is it OK to wait at crowded points along the river.

Differences were also reported for high use days and low use days on the White Salmon River. Those differences included, demographics, trip characteristics, group characteristics, health and cleanliness, safety and security, condition of facilities, responsiveness of staff, recreation setting, quality attributes, overall satisfaction, importance of visitor experiences, experience preference on the White Salmon River, and perception of crowding. Expectation versus performance variables also showed some differences, such as, how long did you have to wait, percentage of time OK to see other groups, percentage of time in sight of others, how many times is it OK to see others, how many times did you see others, preferred group size, total number in group and how did the number of people you saw compare to what you expected to see on the river. These findings will allow managers to better understand the different user groups, as well as differences in expectations across use levels on the river. Managers will be able to utilize this information in the management of Special Use Permits as well as the everyday management of the Wild and Scenic White Salmon River.

Introduction

The White Salmon River, in the Columbia River Gorge National Scenic Area, Region 6 of the US Forest Service provides primarily water-based recreation opportunities for a variety of activities and user groups, such as commercial use. Proactive management is needed to sustain high quality recreation opportunities and respond to the increasing and dynamic demand for water-based recreation resources in this region. Proactive management requires a systematic and comprehensive system of measurements that will gather information on visitors' opinions about existing recreation services and an understanding of the effects of use levels and patterns on the quality of the recreation experience. In addition, an analysis system is needed that will help to resolve high intensity recreation use issues on these forests. Of particular concern to managers is the need to view Special Use Permit processes through a new paradigm and to resolve conflicts among visitors engaged in recreation during peak use periods. As a result, existing and potential new permittees may have to adjust their selection of sites and the activities they participate in to achieve their experience goals and reduce conflicts with other visitors. Also, managers need better data to help resolve site selection and permitting issues for infrastructure (e.g., developed day use areas, dispersed recreation areas, general forest areas, and wilderness areas) and to establish a firmer basis for policy and regulatory decisions.

An ideal approach to obtaining this sort of information and analyses is subsumed under the umbrella of recreational carrying capacity research. Therefore, the purpose of this project was to conduct research on the recreational carrying capacity of the White Salmon River in the Columbia River Gorge National Scenic Area, managed by the USDA Forest Service within Region 6.

Processes for estimating the carrying capacity of recreation settings have been used for several decades as a framework for balancing the need for visitor access to natural resources with the need for sustaining high quality recreation opportunities. A substantial amount of research has been conducted to refine carrying capacity assessment techniques, and a few studies have focused exclusively on forest-based recreation. The proposed study will build on this literature base and address the specific circumstances of the White Salmon River.

Study Objectives

The specific objectives of the study were as follows:

- How does social carrying capacity relate to the outfitter/guide decision making process?
- What social science variables should be considered when making decisions about outfitter/guide use, indicators and standards?
- What community variables (socio-economic, political, degree of need, other) should be considered when making decisions about outfitter/guide use?
- What is the appropriate unit of analysis in outfitter/guide decisions?
- Should recreation use be adjusted based on new policy?
- How should service days be allocated?

Methodology

Study Area

The White Salmon River, in south central Washington, originates from the slopes of a picturesque Mount Adams and flows south to the Columbia River. Once named canoe creek by Lewis and Clark, the White Salmon River was later named for the return of the symbolic, spawning salmon. The surrounding topography includes sublime cliffs, rugged mountains, and rolling hills and valleys.

The popular White Salmon River provides for a variety of activities, such as hiking, rafting, canoeing and kayaking. The river offers some of the best class III-IV rapids while taking visitors on a journey through a breathtaking gorge. A number of commercial guides run the White Salmon River due to its rapids, clear water and scenery making it one of the most popular rivers in the region.

Sampling

On-site interviews were conducted with a total of 1065 visitors during the 2009 recreation season, across 77 sampling days. The survey days were stratified across weekday and weekend periods, as well as morning, mid-day and evening timeframes. The survey days were later categorized as high use (300 or more visitors) and low use (less than 300 visitors) in order to identify and differentiate across use level. The majority of high use days fell on Saturdays and Sundays in the months of July and August (Figure 1). The majority of the surveys were conducted at North Western Lake and Husum. The majority of the visitors reported that they started their trip from the BZ Corner area and Husum (Figure 2).

Use Level	Frequency	Valid Percent
High Use Days	550	51.6
Low Use Days	515	48.8
Dates of High Use Days		
Saturday, June 27 th , 2009		
Friday, July 3 rd , 2009		
Saturday, July 4 th , 2009		
Saturday, July 11 th , 2009		
Saturday, July 18 th , 2009		
Saturday, July 25 th , 2009		
Sunday, July 26 th , 2009		
Saturday, August 1 st , 2009		
Sunday, August 2 nd , 2009		
Saturday, August 8 th , 2009		
Sunday, August 9 th , 2009		
Saturday, August 15 th , 2009		
Sunday, August 16 th , 2009		
Saturday, August 22 nd , 2009		
Sunday, August 23 rd , 2009		
Saturday, August 29 th , 2009		

Figure 1. Summary of use level and dates of high use days

Survey Location	Frequency
North Western Lake Park	768
Husum	275
White Salmon River	14
BZ Corner	3
Zoller's	3
Wet Planet	2
Pull Out	1
River Drifters	1
Trip Starting Location	
BZ Corner	504
Zoller's	197
Above BZ Corner	103
Husum	100
Wet Planet Whitewater	45
All Adventure Rafting, BZ Corner	22
Orletta Creek	13
Northwestern Lake	9
River Drifters	7
Rattle Snake Husum	6
Green Truss Bridge	4
Below Husum Falls	3
Lower White Salmon	3
BC Park	1
Below BZ Falls	1
Beaverton, OR	1
Keppenurst	1
Middle Husum	1
Puyallup, WA	1
The start	1
Top not at let-in	1
Triple Falls- Above BZ	1
Wild River/ Upper White Salmon	1
Start of trip location (start of trip on river)	
Portland, OR (BZ Corner)	4
Trout Lake, WA (BZ Corner)	3
Olympia, WA (BZ Corner)	2
The Dalles, OR (BZ Corner)	2
White Salmon, WA (BZ Corner)	1
Tualatin, OR (Wet Planet Whitewater)	1

Figure 2. Survey location and trip starting location

Start of trip location (start of trip on river)	Frequency
Tualatin, OR (Above BZ Corner)	1
Beaverton, OR	1
Home Valley, WA (Above BZ Corner)	1
Hood river, OR (Wet Planet Whitewater)	1
Husum, WA (BZ Corner)	1
Pasco, WA (BZ Corner)	1
Puyallup, WA	1
Seattle, WA (BZ Corner)	1
Skamania Lodge, WA (BZ Corner)	1
The Resort at the Mountain (BZ Corner)	1

Figure 2. Survey location and trip starting location continued

The White Salmon River study was part of a larger study conducted on selected USFS sites in Region 6 (Oregon-Washington) and one site in Region 2 (Grand Mesa, Uncompahgre and Gunnison National Forests, or GMUG NF), in western Colorado(Figure 3).

Wilderness Use	Surveys Completed
Strawberry Mountain Wilderness (Malheur NF)	134
Pasayten and Lake Chelan-Sawtooth Wilderness (Okanogan-Wenatchee NF)	311
Forest Level Use	
Mount Baker-Snoqualmie NF (water based and land based use)	1290
River Use	
White Salmon River (CRGNSA)	1065
Grand Ronde River (Umatilla NF)	166
Area-specific Use(non-wilderness)	
Hells Canyon NRA(Wallowa Whitman NF)	747
Taylor Park (GMUG NF)	1057
Activity-Specific Use	
Hunting Study (Malheur, Umatilla and Wallowa-Whitman NF)	Ongoing
OHV Study (Malheur, Umatilla and Wallowa-Whitman NF)	2075

Figure 3. 2009 field studies

Organization of This Report

This report summarizes the results of the visitor surveys conducted within the White Salmon River during the recreation season in 2009. The results are organized by topic area, with each section following a consistent format, beginning with the overall results for the entire sample. Results are then broken down by group type (commercial versus private) and use level (high versus low). These two comparisons were selected based on study objectives and managers' inquiries of the overall results. Finally, report appendices provide additional breakdowns of open-ended comments offered by respondents and a copy of the survey instrument used in the study.

**Demographics, Trip Characteristics, Group Characteristics and
Trip Visitation Patterns**

Demographics

Visitors were asked to provide basic demographic information to help us better understand the people who visited the White Salmon River (Table 1).

- There are relatively few older people in the visiting population. Less than 4% of the visitors were over 61 years old.
- The majority (57%) of visitors to the White Salmon River were between the ages of 21-40 years old and only 5% were between 16 and 20 years of age.
- Just over half (55%) of the visitors were male and 45% were female.
- The vast majority (96%) of visitors live in the United States.

Table 1. Summary of Demographics

	Frequency	Valid Percent
Age		
16 to 20	51	5.0
21 to 30	300	29.7
31 to 40	271	26.8
41 to 50	219	21.7
51 to 60	133	13.2
61 to 70	35	3.5
Over 70	1	0.1
Gender		
Male	553	55.2
Female	448	44.8
Visitor if from another country:		
Yes	37	3.7
No	966	96.3

Differences in Demographics by Group Type

A crosstab analysis was conducted to see if there were any relationships between age, gender and if the visitor was from another country by group type (Table 2). Significant differences were identified for gender.

- Almost two-thirds (63%) of visitors from private groups were between 21 and 40 years of age, whereas visitors from commercial groups were a bit more dispersed.
- Half (50%) the visitors from commercial groups were male and 50% female. Similarly, males comprised of over half (55%) of overall visitors with 45% being female.
- Two-thirds (67%) of visitors from private groups were male and one-third (33%) were females.
- Just over 4% of the visitors from commercial groups were from another country and only 2% of visitors from private groups were from another country.

Table 2. Differences in Demographics by Group Type

	Commercial	Private	Overall
Age	---Percent---		
16 to 20	5.1	4.9	5.0
21 to 30	29.4	30.8	29.7
31 to 40	24.8	31.5	26.8
41 to 50	22.1	20.3	21.7
51 to 60	14.8	9.2	13.2
61 to 70	3.7	3.0	3.5
Over 70	0.0	0.3	0.1
Gender***			
Male	50.0	66.8	55.2
Female	50.0	33.2	44.8
Visitor if from another country:			
Yes	4.4	2.0	3.7
No	95.6	98.0	96.3

Percentages may not equal 100 because of rounding

*** Differences between group type statistically significant at the $p < .001$ level

Differences in Demographics by Use Level

A crosstab analysis was also conducted to see if there were any relationships between age, gender and if the visitor was from another country by use level (high use days and low use days) (Table 3). Significant differences were identified for age.

- Visitors on high use days tended to be a little younger than visitors on low days.
- Almost 60% of the visitors were males on high use days and 42% were females. Similarly, 52% were males on low use days and 48% were females.
- The majority of visitors on high use and low use days were residents of the United States.

Table 3. Differences in Demographics by Use Level

	High	Low	Overall
Age*	---Percent---		
16 to 20	5.1	4.9	5.0
21 to 30	33.1	26.0	29.7
31 to 40	27.8	25.8	26.8
41 to 50	20.2	23.3	21.7
51 to 60	10.5	16.1	13.2
61 to 70	3.2	3.7	3.5
Over 70	0.0	0.2	0.1
Gender			
Male	58.1	52.2	55.2
Female	41.9	47.8	44.8
Visitor if from another country:			
Yes	3.1	4.3	3.7
No	96.9	95.7	96.3

Percentages may not equal 100 because of rounding

* Differences between use level statistically significant at the $p < .05$ level

Trip Characteristics

Several questions were asked pertaining to the visitors' trip characteristics to the White Salmon River (Table 4).

- Almost three-fourths (70%) of visitors were on a commercial trip to the White Salmon River.
- On average, respondents spent 4 days on their overnight trip to the White Salmon River and an average of 5 hours on their day trip to the river.
- The vast majority (98%) of respondents did not have any conflicts with other groups while on their trip to the White Salmon River.

Table 4. Summary of Trip Characteristics

	Frequency	Valid Percent
Group type		
Commercial trip (outfitter)	746	70.4
Private group	314	29.6
In total, how many days (or hours) long will this trip be?		
Days		
1 or 2 days	197	56.6
3 days	64	18.4
4 to 7 days	71	20.4
8 or more days	16	4.6
Mean (# days)	3.61	
Hours		
1 or 2 hours	62	13.7
3 or 4 hours	192	42.3
5 or 6 hours	114	25.1
7 or more hours	86	18.9
Mean (# hours)	4.72	
During your trip, did you have any conflicts with other parties?		
Yes	19	1.8
No	1015	98.2

Differences in Trip Characteristics by Group Type

A comparison was conducted to see if there were any significant differences in the mean scores of trip length and if a visitor had any conflicts during their trip by group type (Table 5). A significant difference was found in the number of hours long their trip was at the White Salmon River.

- Over half of the visitors in commercial groups and private groups reported their trip was 1 to 2 days long. Visitors in private groups tended to have longer trips (4 to 7 days) compared to commercial groups and overall visitors.
- When asked how many hours long will your trip be today, visitors in private groups (mean = 4.06) tended to have shorter trips than visitors in commercial groups (mean = 5.14).
- The majority of visitors from commercial or private groups reported that they did not have any conflicts with other groups during their trip to the White Salmon River.

Table 5. Differences in Trip Characteristics by Group Type

	Commercial	Private	Overall
In total, how many days (or hours) long will this trip be?			
Days	---Percent---		
1 or 2 days	58.0	53.0	56.6
3 days	19.3	15.7	18.4
4 to 7 days	17.4	28.9	20.4
8 or more days	5.3	2.4	4.6
Mean (# days)	3.61	3.61	3.61
Hours			
1 or 2 hours	7.1	24.3	13.7
3 or 4 hours	41.1	43.9	42.3
5 or 6 hours	29.3	18.5	25.1
7 or more hours	22.5	13.3	18.9
Mean (# hours)	5.14	4.06	4.72***
During your trip, did you have any conflicts with other parties?			
Yes	1.5	2.6	1.8
No	98.5	97.4	98.2

*** Differences between group type statistically significant at the $p < .001$ level

Differences in Trip characteristics by Use Level

Comparisons were also conducted to see if there were any significant differences in the mean scores of trip length and if a visitor had any conflicts during their trip by use level (high use days and low use days) (Table 6). A significant difference was found in the mean scores of number of days long their trip was at the White Salmon River and a relationship was identified in whether there were any social conflicts on high use days vs. low use days.

- Visitors at the White Salmon River during low use days reported having slightly longer trips than those visiting during high use days.
- Visitors reported spending more hours at the White Salmon River during high use days than they did during low use days.
- The majority of visitors reported they did not have any conflicts during their trip; however, there were more conflicts reported during high use days than low use days.

Table 6. Differences in Trip Characteristics by Use Level

	High	Low	Overall
In total, how many days (or hours) long will this trip be?			
Days	---Percent---		
1 or 2 days	67.4	45.7	56.6
3 days	14.9	22.0	18.4
4 to 7 days	13.7	27.2	20.4
8 or more days	4.0	5.2	4.6
Mean (# days)	1.54	1.92	3.61***
Hours			
1 or 2 hours	12.9	14.6	13.7
3 or 4 hours	40.2	44.9	42.3
5 or 6 hours	44.6	25.8	25.1
7 or more hours	22.3	14.6	18.9
Mean (# hours)	2.56	2.40	4.72
During your trip, did you have any conflicts with other parties?*			
Yes	2.8	0.8	1.8
No	97.2	99.2	98.2

Percentages may not equal 100 because of rounding

* Differences between use level statistically significant at the $p < .05$ level

*** Differences between use level statistically significant at the $p < .001$ level

Group Characteristics

Several questions were asked pertaining to the visitors' group characteristics to the White Salmon River (Table 7).

- Just over 40% of respondents were repeat users, while over half (59%) were first-time visitors.
- Almost half (49%) of the repeat visitors made their first visit in 2005 or later. One-third (34%) made their first visit between 1996 and 2004.
- Just over one-third (35%) of visitors reported that they stayed overnight on their trip to this area, while two-thirds (66%) stated that they were on a day trip to the area.
- Almost 40% of respondents reported having 3 to 5 adults in their group and over half of those visitors traveling with children (58%) reported having 2 to 5 children in their group. On average, visitors had 6.78 adults and 2.85 children in their group during their trip to the White Salmon River.
- Almost half (49%) of visitors reported that there was one vehicle with their group. The majority (88%) of visitors who brought trailers reported that they only had one trailer within their group. On average, there were 2.12 vehicles per group and 1.56 trailers per group.

Table 7. Summary of Group Characteristics

	Frequency	Valid Percent
First visit:		
First time visitor	616	59.3
Repeat visitor	422	40.7
If no, year of first visit		
Prior to 1985	16	5.0
1986 to 1990	17	5.3
1991 to 1995	24	7.5
1996 to 2000	52	16.2
2001 to 2004	56	17.4
2005 or later	156	48.6
Mean (year)	2002	
Type of visit:		
Overnight	346	34.5
Day trip	657	65.5
Number of adults in group		
1 or 2 adults	262	25.9
3 to 5 adults	382	37.8
6 to 9 adults	190	18.8
10 or more adults	176	17.4
Mean (# of adults)	6.78	
Number of children (17 and under) in group		
1 child	86	32.3
2 children	79	29.7
3 to 5 children	75	28.2
6 or more children	26	9.8
Mean (# of children)	2.85	
Number of cars, trucks, etc. with group		
1 vehicle	478	48.8
2 or 3 vehicles	376	38.4
4 or 5 vehicles	86	8.8
6 or more vehicles	40	4.1
Mean (# of cars, trucks, etc.)	2.12	
Number of trailers with group		
1 trailer	22	88.0
2 or more trailers	3	12.0
Mean (# trailers)	1.56	

Percentages may not equal 100 because of rounding

Differences in Group Characteristics by Group Type

Comparisons were done in order to identify any significant differences in first time users, year of first visit, type of visit, number of adults, children, cars and trailers are in their group by group type (Table 8). Significant differences were reported for first time users, year of first visit and type of visit.

- Commercial groups (74%) were more likely to be on their first visit to the White Salmon River compared to visitors in private groups (26%).
- For those visitors that reported they have been to the White Salmon River before, there was a significant difference in the year they made their first visit. Visitors from private groups (mean = 2000) have been coming to the White Salmon River longer than commercial visitors (mean = 2003).
- Visitors in commercial groups tend to be on day trips (62%) more than overnight trips (38%). However, visitors in commercial groups (38%) are also more likely to be on an overnight trip than visitors from private groups (26%).
- Similarly, visitors in private groups tend to be on day trips (74%) more than overnight trips (26%).
- There tends to be more adults in commercial groups than in private groups. Conversely, there tends to be more children in private groups than commercial groups.
- Private groups visiting the White Salmon River tend to have more vehicles while visitors in commercial groups have more trailers.

Table 8. Differences in Group Characteristics by Group Type

	Commercial	Private	Overall
	---Percent---		
First visit:***			
First time visitor	73.8	25.8	59.3
Repeat visitor	26.2	74.2	40.7
If no, year of first visit			
Prior to 1985	3.4	5.8	5.0
1986 to 1990	5.4	5.2	5.3
1991 to 1995	3.4	10.5	7.5
1996 to 2000	15.0	17.4	16.2
2001 to 2004	15.0	19.8	17.4
2005 or later	57.8	41.3	48.6
Mean (year)	2003	2000	2002***
Type of visit:***			
Overnight	38.1	26.2	34.5
Day trip	61.9	73.8	65.5
Number of adults in group			
1 or 2 adults	25.8	26.2	25.9
3 to 5 adults	34.8	44.3	37.8
6 to 9 adults	21.1	13.8	18.8
10 or more adults	18.3	15.7	17.4
Mean (# of adults)	7.13	6.00	6.78
Number of children (17 and under) in group			
1 child	33.0	28.9	32.3
2 children	29.5	28.9	29.7
3 to 5 children	28.2	28.9	28.2
6 or more children	9.3	13.2	9.8
Mean (# of children)	2.81	3.13	2.85
Number of cars, trucks, etc. with group			
1 vehicle	58.1	27.0	48.8
2 or 3 vehicles	29.1	59.8	38.4
4 or 5 vehicles	9.0	8.4	8.8
6 or more vehicles	3.8	4.7	4.1
Mean (# of cars, trucks, etc.)	2.00	2.39	2.12
Number of trailers with group			
1 trailer	86.7	88.9	88.0
2 or more trailers	13.3	11.1	12.0
Mean (# trailers)	1.67	1.44	1.56

Percentages may not equal 100 because of rounding

*** Differences between group type statistically significant at the $p < .001$ level

Differences in Group Characteristics by Use Level

Comparisons were done in order to identify any significant differences in first time users, year of first visit, type of visit, number of adults, children, cars and trailers are in their group by use level (Table 9). Significant differences were reported for first time users, number of adults in the group, number of vehicles in the group and number of trailers in the group.

- First time visitors are more likely to visit during low use days and repeat visitors tend to visit during the high use days.
- On average, repeat visitors reported making their first visit during 2002 regardless of whether it was a high use day or low use day.
- Regardless of the use level, the majority of visitors reported they were on day trips to the White Salmon River.
- There are more adults and children per group reported during high use days than low use days.
- Similarly, more vehicles and trailers per group are reported during high use days than low use days.

Table 9. Differences in Group Characteristics by Use Level

	High	Low	Overall
First visit:*	---Percent---		
First time visitor	56.1	62.8	59.3
Repeat visitor	43.9	37.2	40.7
If no, year of first visit			
Prior to 1985	5.0	5.0	5.0
1986 to 1990	5.0	5.7	5.3
1991 to 1995	6.1	9.2	7.5
1996 to 2000	18.9	12.8	16.2
2001 to 2004	16.1	19.1	17.4
2005 or later	48.9	48.2	48.6
Mean (year)	2002	2002	2002
Type of visit:			
Overnight	33.7	35.4	34.5
Day trip	66.3	64.6	65.5
Number of adults in group			
1 or 2 adults	20.0	32.3	25.9
3 to 5 adults	34.9	40.9	37.8
6 to 9 adults	21.9	15.4	18.8
10 or more adults	23.1	11.3	17.4
Mean (# of adults)	8.38	5.05	6.78***
Number of children (17 and under) in group			
1 child	32.8	31.9	32.3
2 children	25.6	33.3	29.7
3 to 5 children	28.8	27.7	28.2
6 or more children	12.8	7.1	9.8
Mean (# of children)	3.02	2.71	2.85
Number of cars, trucks, etc. with group			
1 vehicle	38.4	60.0	48.8
2 or 3 vehicles	43.9	32.3	38.4
4 or 5 vehicles	11.4	6.0	8.8
6 or more vehicles	6.3	1.7	4.1
Mean (# of cars, trucks, etc.)	2.50	1.70	2.12***
Number of trailers with group			
1 trailer	70.0	100.0	88.0
2 or more trailers	30.0	0.0	12.0
Mean (# trailers)	2.40	1.00	1.56*

Percentages may not equal 100 because of rounding

* Differences between use level statistically significant at the $p < .05$ level

*** Differences between use level statistically significant at the $p < .001$ level

Trip Visitation Patterns

Several questions were asked pertaining to recreationists' current trip and visitation history to the White Salmon River (Table 10).

- In a typical year, the respondents reported spending an average of 10 days recreating on the White Salmon River, and an average 23 days at other rivers.
- The majority (55%) of respondents reported that they recreate at the White Salmon River 2 days or less a year, while 17% spend 15 or more days recreating at the White Salmon River in a year.
- Over 43% of respondents stated that they spend 15 or more days in a year recreating on other rivers. Almost one-quarter (23%) spend 2 days or less recreating elsewhere.
- One-third (33%) of visitors reported that they planned their trip just days before starting and another 30% reported they planned weeks before their trip. Of those visitors that planned days before their trip, on average, they spent 2 days planning. Visitors that planned weeks in advance spent 2 weeks on average planning their trip to the White Salmon River.
- Just over one-quarter (27%) of respondents said they planned months in advance and only 10% said they planned hours before their White Salmon River trip. Of those visitors that planned months in advance, on average, they spent 2 months planning. Visitors that planned just hours before their trip, on average, spent 3 hours planning their trip.

Table 10. Summary of Trip Visitation Patterns

	Frequency	Valid Percent
In a typical year, how many days do you spend recreating at the White Salmon River?		
2 days or less	309	55.4
3 to 6 days	97	17.4
7 to 14 days	57	10.2
15 or more days	95	17.0
Mean (# days)	10.10	
In a typical year, how many days do you spend recreating at other rivers besides White Salmon River?		
2 days or less	123	22.5
3 to 6 days	94	17.2
7 to 14 days	92	16.8
15 or more days	237	43.4
Mean (# days)	23.22	
How far in advance did you plan your trip to the White Salmon River?		
Months	245	27.0
Mean (# months)	1.83	
Weeks	272	30.0
Mean (# weeks)	1.75	
Days	299	32.9
Mean (# weeks)	1.75	
Hours	92	10.1
Mean (# hours)	3.23	

Percentages may not equal 100 because of rounding

Differences in Trip Visitation Patterns by Group Type

Comparisons were done in order to identify any significant differences in the mean scores of trip visitation patterns by group type (Table 11). Significant differences were reported for the numbers of days they recreate at the White Salmon River in a year, how many days they recreate elsewhere and how many days in advance they plan their trip to the White Salmon River.

- Visitors in private groups tend to recreate at the White Salmon River at a much higher rate (mean=19 days) in a typical year than visitors from commercial groups (mean=3.35 days).
- Similarly, White Salmon recreationists who were visiting in a private group reported they recreated at other locations at a much higher rate (mean=38.83 days) than those in commercial groups (mean=13.19 days).
- Results show that commercial visitors spent more time planning for their trip to the White Salmon River than private visitors. Further, significance was also found in the mean number of days that commercial visitors (mean = 1.81 days) spent planning than private visitors (mean = 1.38 days).

Table 11. Differences in Trip Visitation Patterns by Group Type

	Commercial	Private	Overall
In a typical year, how many days do you spend recreating at the White Salmon River?			
	---Percent---		
2 days or less	80.3	22.4	55.4
3 to 6 days	11.8	24.9	17.4
7 to 14 days	4.5	17.8	10.2
15 or more days	3.5	34.9	17.0
Mean (# days)	3.35	19.00	10.10***
In a typical year, how many days do you spend recreating at other rivers besides White Salmon River?			
2 days or less	31.9	8.0	22.5
3 to 6 days	22.0	9.9	17.2
7 to 14 days	19.6	12.7	16.8
15 or more days	26.5	69.5	43.4
Mean (# days)	13.19	38.83	23.22***
How far in advance did you plan your trip to the White Salmon River?***			
Months	32.4	12.2	27.0
Mean (# months)	1.74	2.00	1.83
Weeks	35.1	16.7	30.0
Mean (# weeks)	1.67	1.33	1.75
Days	26.7	49.6	32.9
Mean (# days)	1.81	1.38	1.72**
Hours	5.8	21.5	10.1
Mean (# hours)	3.45	2.43	3.23

Percentages may not equal 100 because of rounding

** Differences between group type statistically significant at the $p < .01$ level

*** Differences between group type statistically significant at the $p < .001$ level

Differences in Trip Visitation Patterns by Use Level

Comparisons were done in order to identify any significant differences in the mean scores of trip visitation patterns by use level (Table 12). There were no significant differences found in trip visitation patterns variables.

- When comparing the number of days visitors reported they spent at the White Salmon River and elsewhere, visitors on high use days (mean = 10.85) reported spending more days per year at the White Salmon River than visitors from low use days (mean = 9.19).
- Visitors during low use days (mean = 24.50) reported a higher number of days they recreate at other rivers than those visiting on high use days (mean = 22.16).

Table 12. Differences in Trip Visitation Patterns by Use Level

	High	Low	Overall
In a typical year, how many days do you spend recreating at the White Salmon River?			
	---Percent---		
2 days or less	52.9	58.3	55.4
3 to 6 days	19.0	15.5	17.4
7 to 14 days	11.1	9.1	10.2
15 or more days	17.0	17.1	17.0
Mean (# days)	10.85	9.19	10.10
In a typical year, how many days do you spend recreating at other rivers besides White Salmon River?			
2 days or less	18.7	27.2	22.5
3 to 6 days	18.7	15.4	17.2
7 to 14 days	17.0	16.7	16.8
15 or more days	45.7	40.7	43.4
Mean (# days)	22.16	24.50	23.22
How far in advance did you plan your trip to the White Salmon River?			
Months	27.7	26.2	27.0
Mean (# months)	1.99	1.57	1.83
Weeks	32.0	27.8	30.0
Mean (# weeks)	1.58	1.66	1.75
Days	31.8	34.2	32.9
Mean (# days)	1.70	1.57	1.72
Hours	8.6	11.8	10.1
Mean (# hours)	2.88	2.91	3.23

Percentages may not equal 100 because of rounding

Quality Domains, Customer Satisfaction Scores and Overall Satisfaction

Quality Domains

Respondents were asked about their satisfaction levels on several key quality domains regarding the White Salmon River. The respondents were shown a scale ranging from 1 (awful) to 5 (excellent), or they could indicate that the question did not apply (Table 13).

- The majority of visitors rated *recreation setting* (75%) at the White Salmon River as excellent. Similarly, *responsiveness to staff* (68%) and *health and cleanliness* (67%) was also rated as excellent.
- Over one-quarter of visitors stated that *conditions of facilities* (29%) were very good and another 54% rated it as excellent.
- Similarly, *safety and security* was rated very good by 28% of visitors and 61% felt it was excellent.
- The quality domain with the highest mean score was *responsiveness to staff* (mean = 4.74) followed by:
 - *recreation setting* (mean = 4.72),
 - *health and cleanliness* (mean = 4.57),
 - *safety and security* (mean = 4.54) and
 - *condition of facilities* (mean = 4.38).

Table 13. Summary of Quality Domains

	Awful	Fair	Good	Very Good	Excellent	N/A	Mean
	-----Percent-----						
Health and cleanliness	0.2	1.8	6.2	24.0	66.8	1.0	4.57
Safety and security	0.0	1.0	7.0	27.8	61.4	2.9	4.54
Condition of facilities	0.7	2.6	10.7	28.6	54.2	3.3	4.38
Responsiveness of staff	0.1	0.6	3.2	14.4	68.0	13.8	4.74
Recreation setting	0.0	0.3	3.6	19.4	75.4	1.2	4.72

Percentages may not equal 100 because of rounding.

Response Code: 1= “Awful” and 5 = “Excellent”

Not applicable responses coded as missing and deleted from computation of mean.

Differences in Quality Domains by Group Type

A comparison was done to identify if there were any significant differences in the quality domains based upon respondents' group type (commercial or private) (Table 14). Visitors were asked to rate the quality of *health and cleanliness*, *safety and security*, *conditions of facilities*, *responsiveness of staff* and *recreation setting* on a 5-point scale where 1 is awful and 5 is excellent. All five domains had significant differences in the mean scores of visitors in commercial groups and visitors in private groups.

- Visitors from commercial groups rated all five of the quality domains higher than those in private groups as well as overall visitors. Private groups rated all five of the quality domains lower than overall visitors and commercial groups.

Table 14. Differences in Quality Domains by Group Type

	Commercial	Private	Overall
	---Mean---		
Health and cleanliness***	4.62	4.45	4.57
Safety and security***	4.64	4.30	4.54
Condition of facilities***	4.49	4.10	4.38
Responsiveness of staff***	4.82	4.43	4.74
Recreation setting***	4.77	4.60	4.72

*** Differences between group type statistically significant at the $p < .001$ level

Response Code: 1= "Awful" and 5 = "Excellent"

Not applicable responses coded as missing and deleted from computation of mean.

Differences in Quality Domains by Use Level

A comparison was also done to identify if there were any significant differences in the quality domains based upon the use level for the day (Table 15). All five domains had significant differences in the mean scores of visitors in commercial groups and visitors in private groups.

- Visitors from low use days reported a higher mean score for all five of the quality domains than visitors from high use days.

Table 15. Differences in Quality Domains by Use Level

	High	Low	Overall
	---Mean---		
Health and cleanliness	4.52	4.63	4.57*
Safety and security	4.49	4.59	4.54*
Condition of facilities	4.32	4.43	4.38*
Responsiveness of staff	4.69	4.78	4.74*
Recreation setting	4.68	4.76	4.72*

* Differences between use level statistically significant at the $p < .05$ level

Response Code: 1= "Awful" and 5 = "Excellent"

Not applicable responses coded as missing and deleted from computation of mean.

Customer Satisfaction Scores for Quality Attributes

Visitors were provided a list of specific services, facilities, and experiences within the White Salmon River, and were asked to rate them on a scale of 1 (strongly disagree) to 5 (strongly agree). These are areas that have been targeted by area resources managers as topics of concern. Most of the questions were considered positively worded, in which a higher score was a better score. The others were negatively worded, in which the better score was a low score (Table 16).

- The majority (84%) of visitors to the White Salmon River *thoroughly enjoyed their visit to the river* and just over three-quarters (76%) of visitors felt *their trip to the river was well worth the money they spent*.
- Almost two-thirds (61%) of visitors were *able to recreate without conflicts with others* and 60% had *the opportunity to recreate without feeling crowded*. Over half (55%) of the visitors to the river indicated *the river and its surroundings are in good condition*.
- Just over one-fifth (21%) of visitors to the river neither agreed nor disagreed *there is a good balance between social and biological values in the management of the White Salmon River*. Almost 40% agreed with the statement and over one-third (36%) strongly agreed.
- Almost two-thirds (65%) of visitors strongly disagreed *they were disappointed with some aspects of their visit to the river* and similarly, 61% strongly disagreed *they had to avoid some places at the river because there were too many people there*. Another 61% strongly disagreed *the behavior of other people at the river interfered with the quality of my experience*.
- The positive statements with the highest mean score included,
 - *I thoroughly enjoyed my visit to the White Salmon River* (mean = 4.83),
 - *my trip to the river was well worth the money I spent to take it* (mean = 4.72),
 - *I could find places to recreate without conflict from other visitors* (mean = 4.48),
 - *I had the opportunity to recreate without feeling crowded* (Mean = 4.47) and
 - *the river and its surroundings are in good condition* (mean = 4.47).
- Those positive statements with the lowest mean score included,
 - *there is a good balance between social and biological values in the management of the river* (mean = 4.05) and
 - *the other people at the river increased my enjoyment* (mean = 3.54).
- The negative statements with the highest mean score included,
 - *I was disappointed with some aspects of my visit to the river* (mean = 1.57),
 - *the behavior of other people at the river interfered with the quality of my experience* (mean = 1.63) and
 - *I avoided some places at the river because there were too many people there* (mean = 1.65).
- Those negative statements with the lowest mean score included,
 - *recreation activities at the river were NOT compatible* (mean = 1.79) and
 - *the number of people at the river reduced my enjoyment* (mean = 1.83).

Table 16. Summary of Customer Satisfaction Scores for Quality Attributes

Quality Attribute	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
	---Percent---					
Positively worded statements (higher mean score is better)						
I thoroughly enjoyed my visit to WSR	0.1	0.0	0.3	15.8	83.8	4.83
I had the opportunity to recreate without feeling crowded	0.6	2.4	6.0	31.1	59.9	4.47
I could find places to recreate without conflict from other visitors	0.7	1.6	7.8	29.3	60.6	4.48
My trip to the WSR was well worth the money I spent to take it	0.2	0.0	2.9	21.3	75.6	4.72
There is a good balance between social and biological values in the management of WSR	2.5	1.3	20.8	39.7	35.7	4.05
The other people at WSR increased my enjoyment	3.5	8.3	39.0	28.5	20.6	3.54
The river and its surroundings are in good condition	0.4	0.3	5.9	38.5	54.9	4.47
Negatively worded statements (lower mean score is better)						
Recreation activities at the river were NOT compatible	56.4	21.8	13.8	2.5	5.4	1.79
I was disappointed with some aspects of my visit to the river	64.9	23.3	5.5	2.9	3.4	1.57
I avoided some places at the river because there were too many people there	61.4	22.9	8.2	4.0	3.5	1.65
The number of people at the river reduced my enjoyment	49.1	30.3	13.2	3.5	4.0	1.83
The behavior of other people at the river interfered with the quality of my experience	60.8	24.6	8.1	3.6	2.9	1.63

Percentages may not equal 100 because of rounding.

Response Code: 1 = “Strongly Disagree” and 5 = “Strongly Agree”

Differences in Customer Satisfaction Scores for Quality Attributes by Group Type

A comparison between specific services, facilities, and experiences within the White Salmon River and respondents' group type (commercial or private) was done to identify any differences (Table 17). Visitors were asked to rate quality attributes on a 5-point scale where 1 is strongly disagree and 5 is strongly agree. Differences were found in six of the seven positively worded statements and one of five negatively worded statements.

- Visitors in commercial groups (mean = 4.87) thoroughly enjoyed their visit more so than private groups (mean = 4.74).
- Commercial group visitors (mean = 4.53) were less likely to feel crowded than private groups (mean = 4.34).
- Visitors from commercial groups (mean = 4.77) were more likely to agree that their trip was well worth the money than those in private groups (mean = 4.61).
- Visitors in commercial groups (mean = 4.12) agreed more so that there is a good balance between social and biological values in the management of the White Salmon River than private groups (mean = 3.87).
- Other visitors at the river increased the enjoyment of commercial visitors (mean = 3.65) more so than visitors in private groups (mean = 3.32).
- Commercial visitors (mean = 4.54) also felt the surroundings were in good condition more so than private visitors (mean = 4.31).
- Visitors from commercial groups (mean = 1.59) were in disagreement more than private groups (mean = 1.79) when asked if they had to avoid some places due to too many people.

Table 17. Differences in Customer Satisfaction Scores for Quality Attributes by Group Type

Quality Attribute	Commercial	Private	Overall
	---Mean---		
Positively worded statements (higher mean score is better)			
I thoroughly enjoyed my visit to WSR	4.87	4.74	4.83***
I had the opportunity to recreate without feeling crowded	4.53	4.34	4.47***
I could find places to recreate without conflict from other visitors	4.50	4.41	4.48
My trip to the WSR was well worth the money I spent to take it	4.77	4.61	4.72***
There is a good balance between social and biological values in the management of WSR	4.12	3.87	4.05***
The other people at WSR increased my enjoyment	3.65	3.32	3.54***
The river and its surroundings are in good condition	4.54	4.31	4.47***
Negatively worded statements (lower mean score is better)			
Recreation activities at the river were NOT compatible	1.79	1.77	1.79
I was disappointed with some aspects of my visit to the river	1.53	1.65	1.57
I avoided some places at the river because there were too many people there	1.59	1.79	1.65**
The number of people at the river reduced my enjoyment	1.81	1.87	1.83
The behavior of other people at the river interfered with the quality of my experience	1.60	1.69	1.63

Response Code: 1 = “Strongly Disagree” and 5 = “Strongly Agree”

** Differences between group type statistically significant at the $p < .01$ level

*** Differences between group type statistically significant at the $p < .001$ level

Differences in Customer Satisfaction Scores for Quality Attributes by Use Level

A comparison was also done between specific services, facilities, and experiences within the White Salmon River and the use level for the day (high or low) to see if there were any differences (Table 18). Differences were found in six of the seven positively worded statements and four of five negatively worded statements.

- Overall, mean scores were higher on low use days than high use days.
- Visitors on low use days (mean = 4.89) reported that they *thoroughly enjoyed their visit* more so than visitors on high use days (mean = 4.79).
- Similarly, visitors on low use days (mean = 4.71) rated they *had the opportunity to recreate without feeling crowded* higher than those on high use days (mean = 4.25). In addition, visitors rated *I could find places to recreate without conflict from others* higher during low use days (mean = 4.64) than high use days (mean = 4.32).
- Visitors also felt their *trip was worth the money they spent* more so on low use days (mean = 4.76) than high use days (mean = 4.68).
- Visitors on low use days (mean = 4.11) agreed more *that there is a good balance between social and biological values in the management of the White Salmon River* than those visitors on high use days (mean = 3.98).
- There was more agreement within the visitors of low use days (mean = 4.56) that *the river and its surroundings are in good condition* than those visitors on high use days (mean = 4.39).
- During low use days (mean = 1.45), visitors were in a higher disagreement rate that *they were disappointed in some aspects of their trip* than visitors during high use days (mean = 1.68).
- Visitors from high use days (mean = 1.80) agreed more so that *they had to avoid some places due to too many people*, whereas visitors from low use days (mean = 1.49) had a higher rate of disagreement.
- Visitors during high use days (mean = 2.01) agreed more that *the number of others reduced their enjoyment* than visitors from low use days (mean = 1.64).
- Visitors from low use days (mean = 1.52) had a higher rate of disagreement that *the behavior of other people at the river interfered with the quality of my experience* than those visiting during high use days (mean = 1.74).

Table 18. Differences in Customer Satisfaction Scores for Quality Attributes by Use Level

Quality Attribute	High	Low	Overall
	---Mean---		
Positively worded statements (higher mean score is better)			
I thoroughly enjoyed my visit to WSR	4.79	4.89	4.83***
I had the opportunity to recreate without feeling crowded	4.25	4.71	4.47***
I could find places to recreate without conflict from other visitors	4.32	4.64	4.48***
My trip to the WSR was well worth the money I spent to take it	4.68	4.76	4.72*
There is a good balance between social and biological values in the management of WSR	3.98	4.11	4.05*
The other people at WSR increased my enjoyment	3.49	3.60	3.54
The river and its surroundings are in good condition	4.39	4.56	4.47***
Negatively worded statements (lower mean score is better)			
Recreation activities at the river were NOT compatible	1.85	1.71	1.79
I was disappointed with some aspects of my visit to the river	1.68	1.45	1.57***
I avoided some places at the river because there were too many people there	1.80	1.49	1.65***
The number of people at the river reduced my enjoyment	2.01	1.64	1.83***
The behavior of other people at the river interfered with the quality of my experience	1.74	1.52	1.63***

Response Code: 1 = “Strongly Disagree” and 5 = “Strongly Agree”

* Differences between use level statistically significant at the $p < .05$ level

** Differences between use level statistically significant at the $p < .01$ level

*** Differences between use level statistically significant at the $p < .001$ level

Overall Satisfaction

Respondents were asked to rate their level of overall satisfaction on their trip to the White Salmon River, using a 6-pt. scale, with 1 being poor and 6 being perfect (Table 19).

- Almost two-thirds (65.6%) of the respondents rated their overall satisfaction of their trip to the White Salmon River as excellent and 28% rated their trip as perfect.

Table 19. Summary of Overall Satisfaction

Overall Satisfaction (%)	Poor (1)	Fair (2)	Good (3)	Very Good (4)	Excellent (5)	Perfect (6)	Mean
	0.0	0.0	0.8	5.2	28.3	65.6	5.59

Percentages may not equal 100 because of rounding.
Response Code: 1 = "Poor" and 6 = "Perfect"

Differences in Overall Satisfaction by Group Type

A comparison was done to see if there are any significant differences in the overall satisfaction rating and the visitors' group type (Table 20). Visitors to the White Salmon River were asked to rate the overall quality of their trip, using a scale of 1 (poor) to 6 (perfect). There was a significant difference in the visitors' group type and their overall rating of their trip to the White Salmon River.

- Visitors in a commercial group reported a slightly higher overall satisfaction rating (mean=5.65) than those visitors in private groups (mean=5.44).

Table 20. Differences in Overall Satisfaction by Group Type

Overall Satisfaction (%)	Poor (1)	Fair (2)	Good (3)	Very Good (4)	Excellent (5)	Perfect (6)	Mean
Commercial	0.0	0.0	0.7	4.2	24.5	70.6	5.65
Private	0.0	0.0	1.3	7.3	37.4	54.0	5.44
Overall	0.0	0.0	0.8	5.2	28.3	65.6	5.59***

Percentages may not equal 100 because of rounding.

Response Code: 1 = "Poor" and 6 = "Perfect"

*** Differences between group type statistically significant at the $p < .001$ level

Differences in Overall Satisfaction by Use Level

A comparison was also conducted to see if there are any significant differences in the overall satisfaction rating and the use level for the day (Table 21). There was a significant difference in the use level and the visitors' overall rating of their trip to the White Salmon River.

- Visitors on low use days (mean = 5.65) were more satisfied with their overall trip to the White Salmon River than those visitors from low use days (mean = 5.53).

Table 21. Differences in Overall Satisfaction by Use Level

Overall Satisfaction (%)	Poor (1)	Fair (2)	Good (3)	Very Good (4)	Excellent (5)	Perfect (6)	Mean
High	0.0	0.0	1.3	7.0	29.5	62.3	5.53
Low	0.0	0.0	0.4	3.3	27.1	69.2	5.65
Overall	0.0	0.0	0.8	5.2	28.3	65.6	5.59***

Percentages may not equal 100 because of rounding.

Response Code: 1 = "Poor" and 6 = "Perfect"

*** Differences between use level statistically significant at the $p < .001$ level

Importance of Visitor Experiences, Most Important Reason to Visit and Experience Preferences

Importance of Visitor Experiences

Respondents were provided a list of possible reasons to visit the White Salmon River on their trip. They were given nine different options ranging from *relaxation and stress relief* to *challenge* and *physical exercise*, and were asked to rank them on a scale of 1 (not at all important) to 5 (extremely important)(Table 22).

- The most important reasons why visitors recreate on the White Salmon River, includes, *to be outdoors* (mean = 4.60), *to experience natural surroundings* (mean = 4.56), *to get away from the regular routine* (mean = 4.46) and *to be with my friends* (mean = 4.35).
- Although recreating for exercise or challenge and with family and friends is an important reason why visitors go to the White Salmon River for recreation, it is mainly about being in natural surroundings and getting away.

Table 22. Summary of Importance of Visitor Experiences

Importance Item	Not at all Important	Somewhat Important	Moderately Important	Very Important	Extremely Important	Mean
To be outdoors	0.4	2.4	6.0	31.1	59.9	4.60
For relaxation	1.9	4.8	14.4	33.7	45.2	4.16
To get away from the regular routine	1.6	1.6	6.8	29.5	60.5	4.46
For the challenge or sport	1.4	3.4	14.5	28.1	52.6	4.27
For family recreation	11.7	7.5	17.5	25.1	38.2	3.71
For physical exercise	2.8	8.9	25.9	27.5	34.9	3.83
To be with my friends	1.4	2.6	9.2	33.4	53.4	4.35
To experience natural surroundings	0.4	1.5	5.9	26.7	65.5	4.56
To develop my skills	12.1	12.8	23.1	19.1	32.9	3.48

Percentages may not equal 100 because of rounding.

Response Code: 1= "Not at all Important" and 5 = "Extremely Important"

Differences in Importance of Visitor Experiences by Group Type

A comparison was done to see if there were any differences in the mean scores of the importance of visitor experiences based upon respondents' group type (commercial or private) (Table 23). Visitors were asked to rate them on a 5-point scale where 1 is not at all important and 5 is extremely important. Six of the nine reasons for recreating resulted in significant difference between commercial groups and private groups.

- *To get away from the regular routine* is more important to visitors in commercial groups (mean = 4.51) than visitors in private groups (mean = 4.35).
- Similarly, visiting the White Salmon River *for family recreation* is more important to visitors in commercial groups (mean = 3.91) than visitors in private groups (mean = 3.23).
- Conversely, *to be with my friends* is more important to visitors in private groups (mean = 4.44) than those in commercial groups (mean = 4.32).
- Visitors that recreate in private groups (mean = 4.50) feel *the challenge of the sport* is more important than commercial visitors (mean = 4.17).
- Recreating *for physical exercise* is more important to visitors in private groups (mean = 4.09) than visitors in commercial groups (mean = 3.72).
- Visitors in private groups (mean = 4.18) feel *to develop my skills* is more important than visitors in commercial groups (mean = 3.17).

Table 23. Differences in Importance of Visitor Experiences by Group Type

Importance Item	Commercial	Private	Overall
	---Mean---		
To be outdoors	4.58	4.63	4.60
For relaxation	4.12	4.24	4.16
To get away from the regular routine	4.51	4.35	4.46**
For the challenge or sport	4.17	4.50	4.27***
For family recreation	3.91	3.23	3.71***
For physical exercise	3.72	4.09	3.83***
To be with my friends	4.32	4.44	4.35*
To experience natural surroundings	4.56	4.54	4.56
To develop my skills	3.17	4.18	3.48***

Response Code: 1= "Not at all Important" and 5 = "Extremely Important"

* Differences between group type statistically significant at the $p < .05$ level

** Differences between group type statistically significant at the $p < .01$ level

*** Differences between group type statistically significant at the $p < .001$ level

Differences in Importance of Visitor Experiences by Use Level

A comparison was done to see if there were any differences in the mean scores of the importance of visitor experiences based upon the use level for the day (Table 24). Three of the nine reasons for recreating resulted in significant difference between high use days and low use days.

- Visitors from low use days (mean = 4.65) placed more importance on *to be outdoors* than visitors from high use days (mean = 4.55).
- The importance was rated higher for *family recreation* among those visiting on low use days (3.81) than those visiting on high use days (mean = 3.61).
- *To experience natural surroundings* was more important to visitors on low use days (mean = 4.62) than visitors on high use days (mean = 4.50).
- Although not significant, *to be with my friends* and *to develop my skills* was rated higher by visitors on high use days than visitors on low use days.

Table 24. Differences in Importance of Visitor Experiences by Use Level

Importance Item	High	Low	Overall
	---Mean---		
To be outdoors	4.55	4.65	4.60*
For relaxation	4.10	4.21	4.16
To get away from the regular routine	4.43	4.49	4.46
For the challenge or sport	4.23	4.31	4.27
For family recreation	3.61	3.81	3.71*
For physical exercise	3.77	3.90	3.83
To be with my friends	4.40	4.30	4.35
To experience natural surroundings	4.50	4.62	4.56**
To develop my skills	3.49	3.46	3.48

Response Code: 1= "Not at all Important" and 5 = "Extremely Important"

* Differences between use level statistically significant at the $p < .05$ level

** Differences between use level statistically significant at the $p < .01$ level

Most Important Reason to Visit

Visitors were asked which reason was the most important reason as to why they visited the White Salmon River (see Table 25).

- Over half (56%) of visitors reported the most important reason to visit the White Salmon River is *it's a good place to do the outdoor activities they enjoy*. One quarter (25%) *went there to spend more time with their companions*.
- *Close proximity to home* does not tend to be an important reason why visitors are coming to the White Salmon River.

Table 25. Summary of Most Important Reason to Visit

Most Important Reason to Visit	Frequency	Valid Percent
Went there to enjoy the place itself	140	14.3
Went there because it's a good place to do the outdoor activities they enjoy	551	56.3
Went there to spend more time with companions	246	25.2
Went there because it's close to home	41	4.2

Differences in Most Important Reason to Visit by Group Type

A comparison of the most important reason for visit based on group type was done to identify any relationships (Table 26). Visitors were asked what the most important reason was for their visit to the White Salmon River. Results show there is a relationship between group type and their most important reason for visiting the White Salmon River.

- Visitors in private groups (63%) were more likely to visit the White Salmon River because *it is a good place to do the activities they enjoy* than visitors in commercial groups (54%)
- *Spending more time with my companions* is more important to commercial visitors (29%) than private visitors (16%).
- *Being close to home* did not seem to be a factor as to why respondents visited the White Salmon River.

Table 26. Differences in Most Important Reason to Visit by Group Type

Most Important Reason to Visit***	Commercial	Private	Overall
	---Percent Within---		
Went there to enjoy the place itself	13.7	15.6	14.3
Went there because it's a good place to do the outdoor activities they enjoy	53.6	62.6	56.3
Went there to spend more time with companions	29.2	16.0	25.2
Went there because it's close to home	3.5	5.8	4.2

*** Differences between group type statistically significant at the $p < .001$ level

Differences in Most Important Reason to Visit by Use Level

Another comparison of the most important reason for visit was done based on use level to identify any relationships (Table 27). Results show there is not a relationship between use level and their most important reason for visiting the White Salmon River.

- Visitors from high use days and low use days both feel the most important reason to visit the White Salmon River was *because it is a good place to do the activities they enjoy*.
- Visitors from low use days (15%) reported it was more important to *enjoy the place itself* than visitors on high use days (13%).
- Visitors from high use days (26%) felt it was more important to *spend time with their companions* than visitors from low use days (24%).
- Being close to home did not seem to be an important reason as to their visit.

Table 27. Differences in Most Important Reason to Visit by Use Level

Most Important Reason to Visit	High	Low	Overall
	---Percent Within---		
Went there to enjoy the place itself	13.3	15.4	14.3
Went there because it's a good place to do the outdoor activities they enjoy	56.1	56.6	56.3
Went there to spend more time with companions	26.4	23.8	25.2
Went there because it's close to home	4.2	4.2	4.2

Experience Preferences

Visitors were asked what type of experience they feel should be provided on the White Salmon River (Table 28).

- When visitors were asked what type of experience they think should be provided on the White Salmon River, over one-third (38%) reported undeveloped recreation. Another 30% felt semi-wilderness opportunities should be provided.
- Less than 5% of visitors felt there should be social type opportunities provided.

Table 28. Summary of Experience Preferences

	Frequency	Valid Percent
Which category best describes the experience you think should be provided on the White Salmon River?		
Wilderness: where solitude is part of the experience	146	14.7
Semi-wilderness: where complete solitude is not expected	299	30.1
Undeveloped recreation: where you expect to see other people some of the time	374	37.7
Scenic recreation: where you expect to see other people much of the time	133	13.4
Social recreation: where seeing many people is part of the experience	41	4.1

Differences in Experience Preferences by Group Type

Visitors were asked what type of experience they felt should be provided on the White Salmon River. A comparison procedure was conducted to identify any relationship between commercial groups and private groups regarding their preference as to what type of experience should be provided (Table 29). Results show there is a relationship between group type and the type of experience that should be provided on the White Salmon River.

- Both commercial groups (37%) and private groups (40%) prefer most to have undeveloped recreation opportunities be provided along the White Salmon River.
- Commercial visitors (33%) prefer semi-wilderness more so than private users (24%)

Table 29. Differences in Experience Preferences by Group Type

Experience Preference**	Commercial	Private	Overall
Which category best describes the experience you think should be provided on the White Salmon River?			
	---Percent Within---		
Wilderness: where solitude is part of the experience	15.6	12.6	14.7
Semi-wilderness: where complete solitude is not expected	32.5	24.1	30.1
Undeveloped recreation: where you expect to see other people some of the time	36.7	40.1	37.7
Scenic recreation: where you expect to see other people much of the time	11.5	17.7	13.4
Social recreation: where seeing many people is part of the experience	3.7	5.4	4.1

Percentages may not equal 100 because of rounding.

** Differences between group type statistically significant at the $p < .01$ level

Differences in Experience Preferences by Use Level

A comparison was done to see if there was any relationship between a visitors' experience preference and the use level (Table 30). Results showed a significant relationship between experience preference and use level.

- Visitors from low use days (40%) preferred undeveloped recreation more so than visitors from high use days (35%).
- Visitors on low use days (32%) also preferred semi-Wilderness experiences more than visitors on high use days (28%).
- Visitors on high use days (15%) preferred Wilderness experiences more so than visitors from low use days (14%).
- Neither visitors from high use days nor low use days preferred social recreation at the White Salmon River.

Table 30. Differences in Experience Preferences by Use Level

Experience Preference*	High	Low	Overall
Which category best describes the experience you think should be provided on the White Salmon River?			
	---Percent Within---		
Wilderness: where solitude is part of the experience	15.2	14.1	14.7
Semi-wilderness: where complete solitude is not expected	28.3	32.0	30.1
Undeveloped recreation: where you expect to see other people some of the time	35.4	40.2	37.7
Scenic recreation: where you expect to see other people much of the time	16.5	9.9	13.4
Social recreation: where seeing many people is part of the experience	4.6	3.8	4.1

Percentages may not equal 100 because of rounding.

* Differences between use level statistically significant at the $p < .05$ level

Perception of Crowding, Crowding and Visibility of Others and Waiting Time Preferences

Perception of Crowding

Respondents were asked to rate their perception of crowding on their trip to the White Salmon River, using a 9-pt. scale, with 1 being not at all crowded and 9 being extremely crowded (Table 31).

- Almost two-thirds (59%) of visitors felt it was not crowded at all on their visit.
- One-quarter (25%) felt it was slightly crowded and another 15% felt it was moderately crowded.
- On average, visitors rated their perception of crowding as 3.00.

Table 31. Summary of Perception of Crowding

Perception of Crowding (%)	1	2	3	4	5	6	7	8	9	Mean
	Not at all Crowded		Slightly Crowded		Moderately Crowded			Extremely Crowded		
	33.2	25.6	15.1	10.1	6.2	6.8	2.3	0.4	0.4	3.00

Percentages may not equal 100 because of rounding.

Response Code: 1 = "Not Crowded at all" and 9 = "Extremely Crowded"

Differences in Perception of Crowding by Group Type

A comparison was done in order to see if there were any differences in the mean scores of crowding based upon respondents' group type (commercial or private) (Table 32). Visitors were asked how crowded they felt during their trip on a 9-point scale where 1 is not at all crowded and 9 is extremely crowded.

- Visitors in private groups (mean = 2.84) reported they felt more crowded than visitors in commercial groups (mean = 2.56).

Table 32. Differences in Perception of Crowding by Group Type

Perception of Crowding (%)	1	2	3	4	5	6	7	8	9	Mean
	Not at all Crowded		Slightly Crowded		Moderately Crowded			Extremely Crowded		
Commercial	33.9	26.5	14.6	10.2	6.6	6.2	1.5	0.3	0.3	2.56
Private	31.2	23.2	16.6	9.6	5.4	8.3	4.5	0.6	0.6	2.84
Overall	33.2	25.6	15.1	10.1	6.2	6.8	2.3	0.4	0.4	3.00*

Percentages may not equal 100 because of rounding.

Response Code: 1 = "Not Crowded at all" and 9 = "Extremely Crowded"

* Differences between group type statistically significant at the $p < .05$ level

Differences in Perception of Crowding by Use Level

Another comparison was done with perception of crowding to see if there was a relationship with use level (Table 33).

- Visitors from high use days (mean = 3.29) felt more crowded than visitors from low use days (mean = 1.95).

Table 33. Differences in Perception of Crowding by Use Level

Perception of Crowding (%)	1	2	3	4	5	6	7	8	9	Mean
	Not at all Crowded		Slightly Crowded		Moderately Crowded			Extremely Crowded		
High	18.8	22.0	19.7	15.1	7.5	11.3	4.2	0.7	0.7	3.29
Low	48.5	29.3	10.3	4.7	4.9	1.9	0.4	0.0	0.0	1.95
Overall	33.2	25.6	15.1	10.1	6.2	6.8	2.3	<1	<1	3.00***

Percentages may not equal 100 because of rounding.

Response Code: 1 = "Not Crowded at all" and 9 = "Extremely Crowded"

*** Differences between use level statistically significant at the $p < .001$ level

Crowding and Visibility of Others

Visitors were asked to respond to questions asking the number of times they saw other groups, the percent of the time they saw other groups and how long they had to wait before they could start their trip. Visitors were also asked how the actual number of people they saw related to the number of people they expected to see while on their trip (Table 34).

- Almost half (47%) of visitors reported they did not have to wait before starting their trip. Another 42% indicated that they waited up to 10 minutes and just over 11% reported they had to wait over 11 minutes for other parties to leave before starting their trip. .
- Almost one-third (31%) of visitors reported that they were in sight of others over 51% of the time while on their trip. Just over one-quarter (25%) of visitors reported that 1 to 10% of the time they were in sight of other groups and another 19% stated there were in sight of other groups 21 to 50 percent of the time. On average, visitors were in sight of other groups 37.49% of the time.
- Just 20% of the visitors reported that they did not see others while on their trip. The majority (57%) of visitors saw others 1 to 5 times and only 9% reported seeing others more than 11 times during their trip. On average, visitors saw others during their trip 4.70 times.

Table 34. Summary of Crowding and Visibility of Others

	Frequency	Valid Percent
How long did you have to wait for other parties to leave before you could start your trip?		
No wait	482	46.9
1 to 10 minutes	431	41.9
11 to 30 minutes	101	9.8
More than 30 minutes	14	1.4
Mean (# minutes)	4.96	
While you were on the White Salmon River today, about what percent of the time were you in sight of other groups?		
Never	165	15.6
1 to 10 percent	266	25.1
11 to 20 percent	109	10.3
21 to 50 percent	196	18.5
More than 51 percent	324	30.6
Mean (percentage)	37.49	
How many times did you see other groups while you were on the White Salmon River?		
Never	185	19.6
1 or 2 times	268	28.4
3 to 5 times	269	28.5
6 to 10 times	141	14.9
More than 11 times	81	8.6
Mean (# times)	4.70	

Percentages may not equal 100 because of rounding.

Waiting Time Preferences

Visitors were asked to respond to what they thought would be an appropriate wait time (if any) and the number of times they felt it would be ok to see others. Visitors were also asked what percentage of time would be acceptable to see other groups and how long of a wait would be appropriate at choke points and crowded areas (Table 35).

- Almost two-thirds (65%) of visitors felt it mattered if they had to wait for others before starting their trip. Almost half (48%) reported they would wait up to 10 minutes and another 47% reported they would wait 11 to 30 minutes before starting their trip.
- Fewer than 3% reported that there should not be a wait time and another 2% said they would wait more than 31 minutes before starting their trip. On average, visitors are willing to wait 14.25 minutes.
- Over two-thirds (69%) of respondents reported that it does not matter if they see other groups while on the river. Close to half (44%) of visitors reported it was ok to see others 3 to 5 times during their trip. Over one-quarter (27%) indicated that it was ok to see others 1 or 2 times and less than 5% reported seeing no one was ok during their trip.
- Only 6% stated it was ok to see others more than 11 times. On average, respondents reported it was ok to see others 5.27 times during their trip on the river.
- Over half (51%) of respondents reported that it is acceptable to see others 21 to 50% of the time during their trip. Another 25% felt it is ok to see others more than 51% of the time. On average, visitors reported that it is acceptable to see others 45.64% of the time during their trip on the river.

Table 35. Summary of Waiting Time Preferences

	Frequency	Valid Percent
If you have to wait for other parties before you can start your trip, it would be OK to wait as long as:		
It doesn't matter	354	34.7
It does matter	667	65.3
If yes...		
No wait	16	2.4
1 to 10 minutes	324	48.4
11 to 30 minutes	314	46.9
More than 31 minutes	16	2.4
Mean (# minutes)	14.25	
While on the river, it would be OK to see groups:		
It doesn't matter	702	69.3
It does matter	311	30.7
If yes...		
Never	13	4.2
1 or 2 times	85	27.2
3 to 5 times	138	44.1
6 to 10 times	57	18.2
11 or more times	20	6.4
Mean (# times)	5.27	
What would be an acceptable percentage of time to see other groups while you are visiting the White Salmon River?		
0 percent	9	.9
1 to 10 percent	73	7.4
11 to 20 percent	147	14.8
21 to 50 percent	507	51.2
More than 51 percent	254	25.7
Mean (percentage)	45.64	

Percentages may not equal 100 because of rounding.

Comparisons of Expectation versus Performance of Wait Times and Visibility of Others

Managers of the White Salmon River feel a better understanding of visitors' expectations and actual experiences is needed. This information will allow managers to maintain high quality recreation opportunities and respond to the demand for water-based recreation opportunities.

Visitors were asked what their expectation is regarding how long to wait before starting their trip, how many groups is OK to see during their trip and what is an acceptable percentage of time they are in sight of other groups. Visitors were then asked how long did they have to wait before starting their trip, how many groups did they see on their trip and what percentage of their trip were they in sight of other groups (Table 36).

- On average, visitors felt that 14 minutes is reasonable to wait before starting their trip. However, visitors reported they actually waited less than 14 minutes (mean = 4.96 minutes).
- Visitors to the White Salmon River feel it is OK to see other groups 46% of the time, on average, whereas other groups were actually seen 37% of the time on average.
- Visitors' expectation as to how many other groups are acceptable to see during their trip was 5 times on average. Similarly, visitors reported (mean = 4.70) that they saw approximately what they expected.
- The majority (77%) of visitors reported 15 people or less when asked what their preferred group size is to run the river. Correspondingly, when asked how many people are in their group, the vast majority (90%) stated 15 people or less.
- Most visitors (42%) reported seeing about what they expected to see during their trip. Just over one-quarter (27%) reported seeing fewer people than they expected.
- Almost two-thirds (63%) of visitors reported that it does matter if they have to wait at choke points or crowded areas before they can participate in their recreation activity. Almost two-thirds (61%) felt that fewer than 10 minutes is an appropriate wait time. On average, respondents reported that it was ok to wait at choke points and other crowded areas 11.91 minutes before they start their trip.

Table 36. Comparisons of Expected and Performance of Wait Times and Visibility of Others

	Expectation		Performance	
	How long is it OK to wait before you can start your trip?		How long did you have to wait before starting your trip?	
	Frequency	Valid Percent	Frequency	Valid Percent
It doesn't matter	354	34.7	---	---
It does matter	667	65.3	---	---
No wait	16	2.4	482	46.9
1 to 10 minutes	324	48.4	431	41.9
11 to 30 minutes	314	46.9	101	9.8
More than 30 minutes	16	2.4	14	1.4
Mean (# minutes)	14.25		4.96	
	What percent of time would it be OK to see other groups?		What percent of time were you in sight of other groups?	
Never	9	.9	165	15.6
1 to 10 percent	73	7.4	266	25.1
11 to 20 percent	147	14.8	109	10.3
21 to 50 percent	507	51.2	196	18.5
More than 51 percent	254	25.7	324	30.6
Mean (percentage)	45.64		37.49	
	While on the river, how many times would it be OK to see other groups?		How many times did you see other groups on your trip today?	
It doesn't matter	702	69.3	---	---
It does matter	311	30.7	---	---
Never	13	4.2	185	19.6
1 or 2 times	85	27.2	268	28.4
3 to 5 times	138	44.1	269	28.5
6 to 10 times	57	18.2	141	14.9
11 or more times	20	6.4	81	8.6
Mean (# times)	5.27		4.70	
	With which size group would you prefer to run the river?		How many people are in your group today?	
Small (5 or fewer)	406	39.7	640	60.1
Medium (6-15)	379	37.1	319	30.0
Large (16-25)	50	4.9	106	10.0
Makes no difference	187	18.3	---	---
			Mean = 8	
How did the number of people you saw during your visit on the White Salmon River compare with what you expected to see?				
A lot less than you expected			146	13.8
A little less than you expected			134	12.7
About what you expected			442	41.8
A little more than you expected			160	15.1
A lot more than you expected			67	6.3
You didn't have any expectations			108	10.2
If you have to wait for other parties at choke points or crowded areas before starting, it would be OK to wait as long as:				
It doesn't matter			373	36.6
It does matter			643	63.2
If yes...				
No wait			12	1.8
1 to 10 minutes			393	60.6
11 to 20 minutes			199	30.7
21 to 30 minutes			40	6.2
More than 31 minutes			5	.8
Mean (# minutes)	11.91			

Percentages may not equal 100 because of rounding.

Differences in Expectation versus Performance of Wait Times and Visibility of Others by Group Type

A comparison was done to identify any differences in the mean scores of visibility of others and wait time preference questions based upon respondents' group type (commercial or private) (Table 37). Expectation variables that showed significant differences in group type included, how long is it ok to wait at the start of your trip, how long is it ok to wait at crowded points and preferred group size. Performance variables also showed significant differences in three variables; how long did you have to wait before starting, what percent of time were you in sight of others and total number in your group.

Expectation:

- When visitors were asked how long is it ok to wait at the start of a trip, commercial groups (mean = 14.25 minutes) were willing to wait longer than private groups (mean = 12.94 minutes)
- Similarly, visitors were also asked how long is it ok to wait at crowded points during their trip; again commercial groups (mean = 12.39 minutes) were willing to wait longer than private groups (mean = 10.74 minutes).
- Visitors in private groups (87%) are more likely to prefer small to medium size groups to run the river than commercial groups (72%). However, group size makes no difference to visitors from commercial groups (22%) than visitors from private groups (10%).

Performance:

- Visitors were asked how long they had to wait before they could begin their trip. Commercial visitors (mean = 5.77 minutes) had to wait longer to start their trip on the White Salmon River than private groups (mean = 3.11 minutes).
- Visitors were asked what percentage of time they were in sight of other groups while on their trip. Those recreating in commercial groups (mean = 41.15 percent) were in sight of others a higher percentage of the time than visitors in private groups (mean = 29.02 percent).
- On average, there were fewer people in private groups (mean = 6.39) than commercial groups (mean = 8.02).

Table 37. Differences in Expectation versus Performance of Wait Times and Visibility of Others by Group Type

	Expectation			Performance		
	How long is it OK to wait before you can start your trip?			How long did you have to wait before starting your trip?		
	Commercial	Private	Overall	Commercial	Private	Overall
It doesn't matter	34.9	34.0	34.7	---	---	---
It does matter	65.1	66.0	65.3	---	---	---
No wait	1.3	4.5	2.4	37.8	67.9	46.9
1 to 10 minutes	45.7	55.0	48.4	49.0	25.3	41.9
11 to 30 minutes	50.9	37.5	46.9	11.7	5.5	9.8
More than 30 minutes	2.1	3.0	2.4	1.4	1.3	1.4
Mean (# minutes)	14.84	12.94	14.25*	5.77	3.11	4.96***
	What percent of time would it be OK to see other groups?			What percent of time were you in sight of other groups?		
Never	1.0	0.7	.9	16.2	14.1	15.6
1 to 10 percent	7.7	6.7	7.4	22.6	30.7	25.1
11 to 20 percent	15.5	13.1	14.8	8.5	14.7	10.3
21 to 50 percent	51.7	50.3	51.2	17.0	22.4	18.5
More than 51 percent	24.1	29.2	25.7	35.8	18.2	30.6
Mean (percentage)	45.06	47.00	45.64	41.15	29.02	37.49***
	While on the river, how many times would it be OK to see other groups?			How many times did you see other groups on your trip today?		
It doesn't matter	70.1	67.5	69.3	---	---	---
It does matter	29.9	32.5	30.7	---	---	---
Never	5.6	1.0	4.2	21.5	15.3	19.6
1 or 2 times	31.3	18.4	27.2	28.2	28.6	28.4
3 to 5 times	42.1	49.0	44.1	28.5	28.6	28.5
6 to 10 times	15.0	24.5	18.2	13.3	18.7	14.9
11 or more times	6.1	7.1	6.4	8.5	8.8	8.6
Mean (# times)	4.95	5.92	5.27	4.73	4.67	4.70
	With which size group would you prefer to run the river?***			How many people are in your group today?		
Small (5 or fewer)	30.4	61.3	39.7	56.6	68.2	60.1
Medium (6-15)	41.8	25.9	37.1	32.0	25.2	30.0
Large (16-25)	5.8	3.0	4.9	11.4	6.7	10.0
Makes no difference	22.0	9.8	18.3	---	---	---
Mean(3 in group)	---	---	---	8.02	6.39	8.00**
How did the number of people you saw during your visit on the White Salmon River compare with what you expected to see?						
	Commercial	Private	Overall			
A lot less than you expected	14.3	12.8	13.8			
A little less than you expected	12.1	13.8	12.7			
About what you expected	38.9	48.7	41.8			
A little more than you expected	16.6	11.9	15.1			
A lot more than you expected	6.6	5.8	6.3			
You didn't have any expectations	11.5	7.1	10.2			

Percentages may not equal 100 because of rounding

* Differences between group type statistically significant at the $p < .05$ level

** Differences between group type statistically significant at the $p < .01$ level

*** Differences between group type statistically significant at the $p < .001$ level

Table 37. Differences in Expectation versus Performance of Wait Times and Visibility of Others by Group Type continued

If you have to wait for other parties at choke points or crowded areas before starting, it would be OK to wait as long as:			
	Commercial	Private	Overall
It doesn't matter	36.0	38.1	36.6
It does matter	64.0	61.9	63.2
If yes...			
No wait	0.9	4.3	1.8
1 to 10 minutes	59.2	64.0	60.6
11 to 20 minutes	32.3	26.3	30.7
21 to 30 minutes	6.7	4.8	6.2
More than 31 minutes	0.9	0.5	.8
Mean (# minutes)	12.39	10.74	11.91*

Percentages may not equal 100 because of rounding

* Differences between group type statistically significant at the $p < .05$ level

** Differences between group type statistically significant at the $p < .01$ level

*** Differences between group type statistically significant at the $p < .001$ level

Differences in Expectation versus Performance of Wait Times and Visibility of Others by Use Level

A comparison was done to identify any differences in the mean scores of visibility of others and wait time preference questions based upon the use level for the day (high or low) (Table 38). Expectation variables that showed significant differences in use level included acceptable percentage of time to be in sight of others, how many times would it be ok to see other groups, preferred group size, and how did the number of people you saw compare with what you expected to see. Performance variables also showed significant differences; how long did you have to wait before starting, percentage of time you were in sight of others, how many times did you see other groups and total number in your group.

Expectation:

- Results show that visitors expected to wait a lot longer than what they had to actually wait before starting their trip on the White Salmon River.
- On high use days (mean = 49.54), visitors expect to see other groups at a higher percentage of time than on low use days (mean = 41.45).
- Visitors expect to see other groups more times during high use days (mean = 6.03) than on low use days (mean = 4.64).
- Visitors from high and low use days prefer a small to medium group size to run the river. Visitors from high use days are more likely to prefer a large group (6%) compared to visitors from low use days (4%).
- Visitors during high (43%) and low (40%) use days both reported the number of people they saw was about what they expected during their visit to the White Salmon River. People from low use days (36%) reported they saw less than what they expected and 31% from high use days reported seeing more than they expected during their trip.
- The majority of visitors during high and low use days reported that it mattered to them how long they would have to wait at crowded points before starting their trip. On average, visitors from low use days (mean = 12.01) were willing to wait longer than visitors from high use days (mean = 11.81).

Performance:

- Visitors reported that they had to wait longer on high use days (mean = 6.17) than low days (mean = 3.65).
- Visitors reported that they saw other groups almost half (mean = 47.89) the time they were on the river during high use days and just over one-quarter (mean = 26.35) of the time on low use days.
- On high use days, visitors indicated they saw other groups more (mean = 6.33) during their trip than on low use days (mean = 3.03). For high use days this was a little more than what they expected and they saw other groups less times during low use days than what they expected.
- Visitors during high use days reported a higher number of people in their group (mean = 9.08) than visitors on low use days (mean = 5.82).

Table 38. Differences in Expectation versus Performance of Wait Times and Visibility of Others by Use Level

	Expectation			Performance		
	How long is it OK to wait before you can start your trip?			How long did you have to wait before starting your trip?		
	High	Low	Overall	High	Low	Overall
It doesn't matter	35.5	33.7	34.7	---	---	---
It does matter	64.5	66.3	65.3	---	---	---
No wait	2.0	2.8	2.4	37.6	56.9	46.9
1 to 10 minutes	46.4	50.5	48.4	48.7	34.7	41.9
11 to 30 minutes	49.3	44.3	46.9	12.0	7.5	9.8
More than 30 minutes	2.3	2.4	2.4	1.7	1.0	1.4
Mean (# minutes)	14.63	13.85	14.25	6.17	3.65	4.96***
	What percent of time would it be OK to see other groups?			What percent of time were you in sight of other groups?		
Never	0.6	1.3	.9	6.8	25.0	15.6
1 to 10 percent	5.7	9.2	7.4	18.8	31.8	25.1
11 to 20 percent	10.0	20.1	14.8	9.5	11.1	10.3
21 to 50 percent	53.5	48.7	51.2	23.9	12.7	18.5
More than 51 percent	30.3	20.7	25.7	41.1	19.3	30.6
Mean (percentage)	49.54	41.45	45.64***	47.89	26.35	37.49***
	While on the river, how many times would it be OK to see other groups?			How many times did you see other groups on your trip today?		
It doesn't matter	72.8	65.6	69.3	---	---	---
It does matter	27.2	34.4	30.7	---	---	---
Never	3.5	4.7	4.2	10.1	29.3	19.6
1 or 2 times	24.5	29.4	27.2	21.0	36.0	28.4
3 to 5 times	39.2	48.2	44.1	35.6	21.2	28.5
6 to 10 times	24.5	12.9	18.2	20.8	9.0	14.9
11 or more times	8.4	4.7	6.4	12.6	4.5	8.6
Mean (# times)	6.03	4.64	5.27*	6.33	3.03	4.70***
	With which size group would you prefer to run the river?*			How many people are in your group today?		
Small (5 or fewer)	35.6	44.2	39.7	52.4	68.3	60.1
Medium (6-15)	39.9	34.1	37.1	33.5	26.2	30.0
Large (16-25)	6.1	3.6	4.9	14.2	5.4	10.0
Makes no difference	18.4	18.1	18.3	---	---	---
Mean(# in group)	---	---	---	9.08	5.82	8.00***
How did the number of people you saw during your visit on the White Salmon River compare with what you expected to see?***						
	High	Low	Overall			
A lot less than you expected	9.0	18.9	13.8			
A little less than you expected	9.0	16.6	12.7			
About what you expected	43.1	40.4	41.8			
A little more than you expected	21.5	8.4	15.1			
A lot more than you expected	9.2	3.3	6.3			
You didn't have any expectations	8.3	12.3	10.2			

Percentages may not equal 100 because of rounding

* Differences between use level statistically significant at the $p < .05$ level

** Differences between use level statistically significant at the $p < .01$ level

*** Differences between use level statistically significant at the $p < .001$ level

Table 38. Differences in Expectation versus Performance of Wait Times and Visibility of Others by Use Level continued

If you have to wait for other parties at choke points or crowded areas before starting, it would be OK to wait as long as:			
	High	Low	Overall
It doesn't matter	38.0	35.2	36.6
It does matter	62.0	64.8	63.2
If yes...			
No wait	2.1	1.6	1.8
1 to 10 minutes	61.4	59.7	60.6
11 to 20 minutes	30.4	30.9	30.7
21 to 30 minutes	5.5	6.9	6.2
More than 31 minutes	0.6	0.9	.8
Mean (# minutes)	11.81	12.01	11.91

Percentages may not equal 100 because of rounding

* Differences between use level statistically significant at the $p < .05$ level

** Differences between use level statistically significant at the $p < .01$ level

*** Differences between use level statistically significant at the $p < .001$ level

Conclusions

This report provides a wealth of information about the characteristics, behaviors, and attitudes of visitors to the White Salmon River. The focus of this investigation was an evaluation of visitor perceptions of current conditions at river areas due to growing visitation and congestion at certain sites on the White Salmon River. The results published in this report are a compilation of the data collected and analyzed at sites along the White Salmon River during the recreation season (June through September) of 2009. These data were analyzed across a couple segments, examining group type comparisons and use level differences.

The results indicate that visitors to the White Salmon River are generally quite satisfied with their visits and the majority did not have any conflicts with other groups. However, visitors from private groups and high use days had more conflicts than commercial groups or visitors on low use days. There were more first time visitors in commercial groups than private groups, yet the majority of visitors were first time visitors during high and low use days. Commercial visitors tend to spend less time recreating on the White Salmon River during a year than visitors from private groups. Similarly, visitors from commercial groups spend less time recreating at other rivers in a year than visitors from private groups.

Satisfaction

Regarding overall satisfaction levels, most respondents were clearly satisfied with their recreation experience and with the quality domains and attributes listed on the survey instrument.

Differences were noted across the quality domains and group type and use levels. Visitors from commercial groups and low use days rated all five quality domains (health and cleanliness, safety and security, condition of facilities, responsiveness of staff and recreation setting) higher than visitors from private groups or high use days. A number of quality attributes were found to be significantly different by group type. Visitors from commercial groups thoroughly enjoyed their trip and felt they could recreate without feeling crowded more so than visitors in private groups. Commercial visitors also agreed that their trip was well worth the money, there is a good balance in social and biological values in the management, others increased my enjoyment and the river and its surroundings are in good condition more so than visitors in private groups. Commercial visitors also disagreed more so that they had to avoid areas due to too many people. Almost all of the quality attributes resulted in significant differences across high use days and low use days. As expected, visitors from low use days rated those attributes higher than visitors from high use days.

Visitor Experiences and Reason to Visit

This section of the study provides information about the importance of visitor experiences, most important reason to visit the White Salmon River and the type of experience they feel should be provided along the river. The data clearly shows that visitors to the White Salmon River are interested in experiencing the outdoor natural surroundings along this wild and scenic river. Being outdoors in natural surroundings, getting away from the regular routine and being with friends are very important to these recreationists.

Differences in group type shows that commercial visitors are there to experience the place itself while spending time with family and friends, whereas users from private groups are more interested in pursuing recreation for the challenge or sport, physical exercise and to develop their skills more so than commercial visitors. Differences between high use days and low use days show that visitors from low use days feel that it is more important to be outdoors experiencing the natural surroundings with family than visitors from high use days.

Overall, respondents' most important reason to visit the White Salmon River is because it is a good place to do the outdoor activities they enjoy. Results found differences between group type where those users in private groups are there because it is a good place to do their activities they enjoy and users from commercial groups are there not only because it is a good place to do their activities, but also to spend time with their companions. The White Salmon River being close to home does not seem to be a factor in why visitors come to the river to recreate.

Most visitors would prefer to have undeveloped recreation, where you expect to see other people some of the time, provided along the river. Differences were found in both group type and use level for this variable. Visitors in private groups are prefer undeveloped recreation more so than commercial visitors who also prefer semi-wilderness opportunities. Visitors during low use days prefer undeveloped recreation and semi-wilderness opportunities more so than visitors during high use days.

Perception of Crowding

Overall, visitors did not feel crowded during their visit to the White Salmon River. Differences were found across group type and use level variables. Visitors in commercial groups felt less crowded than visitors in private groups. As expected, those users visiting during low use days reported being less crowded than users on high use days. Visitors also reported that they prefer to come in small to medium size groups when visiting the White Salmon River. Those in commercial groups preferred medium size groups while users in private groups preferred small groups to run the river. Visitors on low use days reported that they prefer smaller groups compared to users during high use days.

Expectation versus Performance

Overall, visitors to the White Salmon River indicated that they saw about what they expected to see when it came to other visitors along the river. Visitors indicated that it does matter if they have to wait before starting their trip, however results show that the amount of time visitors had to wait was within the acceptable time visitors indicated. White Salmon visitors reported that it doesn't matter as much if they see others during their trip. On average, visitors said it is ok to see other 5 times during their trip and visitors reported that they saw others 5 times, on average, during their trip down the river. Visitors also reported that they saw others 37% of the time, on average, which falls within the acceptable percentage of time (mean = 45%) to see others as indicated by the visitors. Visitors to the river reported that it does matter if they have to wait at crowded points along the river. On average, visitors felt 12 minutes would be appropriate to wait if needed at crowded areas.

Significant differences were found across group type and use level for expectation versus performance variables regarding wait times and visibility of others. Visitors from commercial groups reported that they had to wait an average of 5 minutes before starting their trip, yet reported that it would be acceptable to wait up to 14 minutes. Respondents in private groups reported they did not have to wait as long as visitors in commercial groups and indicated that it would be ok to wait up to 13 minutes before starting their trip. Commercial groups reported that they were in sight of other groups a higher percentage of time (41%) than those in private groups (29%); however, both commercial and private groups feel it would be ok to see others, on average, 45 to 47 percent of the time. Visitors from commercial groups and private groups both reported that it did matter if they had to wait at crowded points on the river. Those users in commercial groups were willing to wait longer than those in private groups.

Users on high use days reported that they had to wait longer than those visiting on low use days. The visitors during high use days reported seeing others a higher percent of the time than those visiting on low use days. Similarly, visitors on high use days felt it would be ok to see other a higher percent of the time than those visiting on low use days. As you would expect, visitors on low use days reported seeing others a lot less than those on high use days and those visitors on high use days are more likely to accept seeing others more often than visitors on low use days. Visitors on high and low use days reported the number of people they saw was about what they expected, but visitors on high days also saw more than expected than those on low use days.

This report is intended to be a representative snapshot of the White Salmon River visitors and is useful for managers to determine carrying capacity issues and satisfaction levels. Although survey results indicate that visitors are quite satisfied with their visits and are not feeling overly crowded, visitor use levels and perceptions should continue to be monitored in the future.

Appendix A
Open-Ended Responses

Visitors were asked to rate and provide any comments on their trip to the White Salmon River today.

Table A1. Trip Comments

	Frequency
Great Guides	44
Amazing/Awesome/Great (etc) Experience	39
Knowledgeable guides	10
Beautiful day/weather	9
The falls (Husum) were the best part	8
Guides were professional	5
Too crowded/too many rafts	5
Wish there were more/stronger rapids	5
Water was perfect	4
Wish the weather was better	4
Guides were safety oriented	3
Water level was low	3
Beautiful scenery	2
Good experience to share with friends/family	2
Need better launch sites	2
A Washington Classic	1
Best fun I have ever had	1
Best summer whitewater run in Portland area	1
Could have been better if different people were in the boat	1
Exceeded Expectations	1
Lots of wildlife	1
Great outfit	1
Very accommodating Environment	1
Great start at launch	1
Husum falls pics	1
I can't wait to come back!	1
I even tumbled in the falls but I loved it	1
I felt lethargic and my wife's feet hurt because of her boat	1
I think the rocks are dangerous in the area when the boat tips over	1
It's hot today!	1
Love the river in summer	1
More prep work on our end	1
No problems	1
Not outfitter's issue – large group late, other group drinking at start	1
Only minor problem was when a guide from a commercial trip bumped our raft, causing us to get stuck	1
Please do not try to lead me to say the river is crowded. It's fine!	1

Table A1. Trip Comments continued

	Frequency
Saw rafting accident and new house on river (eye pollution). Other than that...great trip	1
Swam!	1
Take the dam down	1
This is a class act – we keep coming back	1
Two people went over but ok	1
Water's too cold	1
We always have experienced people in our group	1
We flipped over	1
We live here and run it several days a week	1
We love this river!	1
We saved someone's life	1
We'll put together	1

Visitors were asked if they had any conflicts with other parties during their trip. If yes, they were asked to describe the conflict.

Table A2. Describe Conflict

A group passed us forcing us to wait
A kayaker sitting in a hole and not giving the right of way
Commercial pinned on rocks in channel
Commercial tour bumped out boat into a dangerous place
I did shout some a**hole comments to the timber commercial filmers
Idiots (rafters)
Other parties using illegal drugs
People jumping off bridge while we were going under bridge
People on shore threw water balloons at us
People on the side not with the group
River company's fine. Too many kayakers
River drifters van parked sideways at Husum's public parking when yard is near
Smart ass guide
Strap on boat broke
Who goes first

Visitors were asked what they liked the most about the White Salmon River.

Table A3. Like Most

	Frequency
Beautiful Scenery	303
Quality rapids and whitewater	176
Waterfalls ie: Husum Falls	79
Clean water and terrain	57
Fun and exciting	53
Good guides	53
Everything	45
Wilderness aspects	33
Rafting	25
Being in nature	22
The water	21
Feelings of serenity and solitude	19
The river	18
Close to home	16
Whitewater	16
Easy access	14
People	13
Number of rapids	12
Pristine and preserved	12
Wildlife	11
Flowers and other flora	10
Good, constant water flow	9
Quiet	9
Runs all seasons	9
Weather	9
Adventure/exploration	7
Fast water	7
Great views	7
Not crowded	7
Not crowded	7
Cold water	6
Diversity of water and rapids on the river	6
Challenging	5
Feeling at peace	5
Husum	5
Lack of development	5

Table A3. Like Most continued

	Frequency
Time spent with friends and family	5
Color of the water	4
Easy, beginner rapids	4
Expert rapids	4
History	4
Jumping off bridges and rocks	4
Geography	3
Run	3
Secluded	3
Something new	3
Basalt	2
Good day trip	2
Length	2
Location	2
Quality busses and shuttles	2
Safety	2
Bombing the rapids	1
Bullriding (kids)	1
BZ Corner was awesome	1
Canyon	1
Companies	1
Cool community	1
Double drop	1
Enjoyable ride/friendly	1
Experience	1
Falling out three times!	1
Family recreation opportunities	1
Flip	1
Going over the falls	1
Gorge	1
How continuous it is	1
Indiana Jones style scenery	1
Intimate, small river	1
It's a great river	1
It's always here	1
Kindness of the visitors towards the land	1
Love kayaking the tross	1
No permits	1

Table A3. Like Most continued

	Frequency
Not overwhelming whitewater-slow, fast, slow, fast	1
Our cabin on the weekends and multiple day trips	1
Party atmosphere	1
Pool and drops	1
Quality put-ins and take-outs	1
Rattle Snake Rapid	1
Refreshing experience	1
River experience	1
River ride	1
Rocks	1
Social	1
Severe drop	1
Short	1
No permits	1
Smells	1
Soft jump	1
Springs	1
Staff	1
Swimming	1
The canyon	1
The cliffs and number of people	1
The different eco systems	1
The lake	1
The water is wet	1
The weather was supposed to be 90 today	1
The White Salmon is the most exciting river in WA for 2009 compared to Skykomish and Wenatchee	1
Transition from lava tables to river banks	1
Trip	1
Trip on river	1
Well balanced trip	1
Wet	1
Who hoo!	1
Wonderful!	1
World class river	1
Zollers!	1
Zoo rafting	1

Visitors were asked what they liked the least about the White Salmon River.

Table A4. Like Least

	Frequency
No complaints	164
Dealing with cold water and temperatures	111
Crowding- on and off the river	49
Flat or boring water	35
Commercial group conflicts- ie: too many, rude guides	15
Lack of clean, functioning, and flushable toilets	13
Conflicts with other visitors	12
Difficult take-ins and take-outs	12
Development/private homes along the river	10
Not enough large, difficult rapids	9
The run on the river is too short	9
Irrigation/farmland run-off	8
Long distance to travel	8
Lack of fish and other wildlife	7
Rocks and other obstructions in the water	7
Having to leave	5
Insects	5
Low water	5
Parking- difficult and not enough	5
Having to go over the falls	4
Noise	4
Surveys	4
The dam	4
Waiting to start	4
Weather	4
Alcohol restrictions	3
Bus rides	3
Lack of restaurants/ concession stands	3
Litter	3
Smelly wetsuits and life jackets	3
Chance of danger and death	2
Conflicts with Forest Service employees	2
Lack of campgrounds	2
More take-outs, take-ins needed	2
Not enough trash cans	2
People jumping off bridge	2

Table A4. Like Least continued

	Frequency
Put cable launches back in	2
Water balloons	2
Age limits	1
All	1
Assembly line float trip	1
BZ Corner put in disregarded by Forest Service	1
Can't do it everyday	1
Can't do it twice	1
Carrying boats	1
Didn't give info	1
Dog poop at lower take-out	1
Double Drop	1
Drifting backwards	1
Drunk people and smokers	1
Facilities	1
Fast drivers at Husum car park	1
Getting sucked in a semi-keeper at Husum	1
Green Truss rotting	1
Hard to find	1
I don't own it	1
Increased popularity leading to increased impacts	1
Joe Garcia	1
Keep grass green at lake	1
Lack of coral beaches	1
Level 3 rapids	1
More shade to park in	1
Muscle soreness, but that was my choice	1
My kids' inane commentary	1
No access to hang out or place to river picnic, etc.	1
No floating bar	1
No intermediate level rapids	1
No rise	1
Not big enough	1
Not enough padding	1
Not enough time to sit and relax	1
Overall trip was too short	1

Table A4. Like Least continued

Park not patrolled	1
Peeing in my wetsuit	1
Private infrastructure	1
Runs all year	1
Safety (traffic) at BZ	1
Staying in seated position for two hours	1
Steps to start of trip (not handicapped accessible at all)	1
Swimming it	1
Take more pictures	1
The amount of space at put-in before falls	1
The horses	1
The hot parking lot	1
The proposed removal of the dam	1
The restrictions for put-ins by privately owned land in Husum	1
There are better rivers in the winter	1
Timber commercials	1
Wetness	1
Wish there was a shuttle service for private parties	1
Wood in Husum	1

Visitors were asked what they would have managers improve regarding how people experience the White Salmon River.

Table A5. Ask Managers to Improve

	Frequency
No suggestions/ Great job	190
More clean, flushable bathrooms	24
More parking	24
Take out the dam	17
Keep it as is	15
Limit or regulate the number of commercial groups on the river at one time	15
Control crowds	13
Improve trash collecting ie: more trashcans/dumpsters	13
Keep it wild and pristine	11
Accessible put-ins and take-outs	8
Traffic and speed controls on the roads	8
Clear rocks, logs, and other obstructions from the river	7
Food and beverages offered with trips	7
Keep it clean	7
Put in campgrounds	7
Stop development along the river	7
Conservation education	5
Limit commercial group sizes	5
Schedule launch times for companies	5
Shorter surveys	5
Limit overall number of boats on the river	4
More interpretive material	4
More put-ins and take-outs	4
No fees for private groups	4
Dog area with poop bags	3
Larger put-ins and take-outs	3
Limit development	3
More signage	3
Put in cable launches and take-outs	3
Allow alcohol	2
Better hiking trails	2
Irrigation pumps and pipes should not be visible	2
Keep the dam	2

Table A5. Ask Managers to Improve continued

	Frequency
Let people jump off of rocks and bridges	2
Make the run longer and bigger	2
More fish and wildlife	2
More information on the local area	2
Provide fishing trips	2
Public shuttle service	2
Smile	2
Warmer water	2
Access at the bridge	1
Accessible for physically challenged people at some entry and exit points	1
Allow unleashed dogs and nudity	1
Assure that river users have as little impact as possible and be peaceful and respectful	1
Be cool	1
Be polite to disgruntled customers	1
Bigger waterfall	1
Build staff housing	1
Butt out	1
Changing rooms at Husum	1
Check PFD's	1
Coffee Morning	1
Constant supervision is not required, is too costly and was a deterrent to the experience	1
Continue doing a great job of monitoring the amount of people using the river	1
Continue to be vigilant about building new homes and structures on the river and keep up litter patrol	1
Conveyer back to the top of the falls	1
Do not allow Hollywood Hipsters to crowd the area around Rattlesnake	1
Do something about the beer/wasps at the lake	1
Don't get "agro" about water sports	1
Downtown Husum is out of control on hot July weekends	1
Emphasize cleanliness	1
Expand put-in and area to park boats before the falls	1
Faster	1
Fix Husum Falls to run safely	1
Floating bar	1
Get rid of the ranger. He is unnecessary	1
Get the folks above the flume rapid to mellow out and let kids cheer	1
Gloves	1

Table A5. Ask Managers to Improve continued

	Frequency
Have homers not build so close to the river	1
Hot tubs!	1
I would have liked to intensify the paddling and maintain the river quality	1
Improve trails- ie: add railings	1
Keep eye on river volume	1
Keep park after dam taken	1
Less noise	1
Limit the amount of time companies can park at the put-in	1
Lower price	1
Make commercial pods stay close together so you don't take ½ hour to pass	1
Make sure no one hesitates	1
Maybe put first timers together in one boat	1
More care at NW lake	1
More cuties	1
More padding	1
More rain dances	1
More river access, not less every year	1
More room at the OHV	1
More scent blocks in the latrines	1
More water	1
Music at take-out	1
No influence from government agencies-they usually screw things up	1
No more commercial permit	1
No more rules for private boaters	1
No stinky life vest. I still smell now	1
No waiting	1
Not stop too much during run	1
Not try and shut it down	1
Observe the pipes, resource managers should ask river workers what to do	1
Open upper stretch of the river	1
Path-safer	1
Permanent rescuers at Husum Falls	1
Plant grass not gravel at BZ	1
Please tell the host at BZ to be friendly	1
Prior info on climbs and walks on rocks	1
Prohibit bridge/cliff jumping	1

Table A5. Ask Managers to Improve continued

	Frequency
Put in rapid map	1
Railings on hikes	1
Raise awareness about the dam down stream	1
Relax and maybe revise the survey	1
Remove poorly constructed launch ramps	1
Respect other river users	1
Shorten line at start	1
Ski boats	1
Specify that walking/portaging is involved	1
Spend less tax dollars trying to regulate my time, reserve forest free passes	1
Splash even more!!	1
Start recycling	1
Stay out of the way	1
Stop commercial company from running Husum Falls	1
Stop invasive weeds	1
Streamline time getting into the river	1
Sunday trip free- don't know Salmon area	1
Tall truck at put-in	1
The new parking lot is great!	1
The river bank after the bridge at Husum could be perfected with a designated trail	1
Three waterfalls or more	1
Water fountain	1

Visitors were asked to look over a list of statements regarding their trip to the White Salmon River and indicate their level of agreement. One statement asked if the behavior of other people at the White Salmon River interfered with the quality of my experience. If they agreed, they were asked to describe the behavior.

Table A6. Specify Behavior

	Frequency
Companies parking	1
Drinking there	1
Idiot rafters near death experience	1
Impatience in portaging the falls	1
Jumpers	1
Lateness and drinking	1
No willingness of commercials to work with private boats	1
Private boaters smoking weed at the cave	1
Private boaters!	1
River was great but some drinking at take-out	1
Splashing people	1
Today- I feel it is too crowded and I don't like people drinking beer while rafting	1
Too many commercial trips	1
Water balloons	1

Visitors were asked what country they are from if they were not from the United States.

Table A7. International Location

	Frequency
Canada	7
Germany	1
UK	1

Visitors were asked to provide their zip code.

Table A8. Zip Codes

	Frequency
98672	32
97031	23
97229	16
97202	15
97212	15
97211	13
97217	13
97206	11
97219	10
97223	10
97007	9
97068	9
97209	9
97215	9
97213	8
97058	7
97701	7
98607	7
97006	6
97124	6
97224	6
98133	6
98683	6
97225	5
97232	5
97239	5
98103	5
98109	5
98648	5
99362	5
97008	4
97035	4
97040	4
97045	4
97060	4
97062	4

Table A8. Zip Codes continued

	Frequency
97203	4
97236	4
97304	4
97702	4
97759	4
98045	4
98105	4
98112	4
98115	4
98374	4
98502	4
98620	4
98664	4
98665	4
98671	4
98684	4
98685	4
99336	4
26508	3
97005	3
97027	3
97055	3
97080	3
97086	3
97140	3
97210	3
97218	3
97221	3
97222	3
97330	3
97333	3
97365	3
97402	3
97405	3
98052	3
98101	3
98102	3

Table A8. Zip Codes continued

	Frequency
98119	3
98121	3
98125	3
98506	3
98604	3
98605	3
98623	3
98632	3
98650	3
98661	3
98662	3
98686	3
99337	3
99338	3
15470	2
15904	2
23226	2
36695	2
49506	2
60618	2
81435	2
85750	2
89178	2
92677	2
97015	2
97032	2
97116	2
97123	2
97201	2
97204	2
97205	2
97207	2
97214	2
97216	2
97220	2
97227	2
97233	2

Table A8. Zip Codes continued

	Frequency
97234	2
97301	2
97302	2
97305	2
97306	2
97370	2
97477	2
98008	2
98011	2
98022	2
98029	2
98031	2
98042	2
98043	2
98056	2
98116	2
98117	2
98155	2
98178	2
98204	2
98229	2
98270	2
98275	2
98375	2
98377	2
98383	2
98406	2
98445	2
98512	2
98513	2
98516	2
98579	2
98580	2
98610	2
98626	2
98628	2
98651	2

Table A8. Zip Codes continued

98673	2
98682	2
98837	2
98908	2
99352	2
99354	2
01741	1
02139	1
02152	1
02474	1
02493	1
02571	1
05401	1
06611	1
07003	1
08003	1
08054	1
10009	1
10023	1
10065	1
10708	1
10990	1
11215	1
11235	1
11768	1
12582	1
12901	1
14414	1
16570	1
16803	1
17011	1
17516	1
17837	1
18336	1
19034	1
19348	1
19395	1
20136	1

Table A8. Zip Codes continued

	Frequency
20707	1
20910	1
21037	1
21042	1
21043	1
21220	1
22201	1
22203	1
22314	1
22911	1
23238	1
23455	1
23459	1
24060	1
26354	1
26505	1
27106	1
28225	1
27514	1
27517	1
27701	1
28269	1
28681	1
28731	1
28803	1
29585	1
29605	1
30019	1
30338	1
32259	1
32514	1
32803	1
32804	1
33176	1
33703	1
34103	1
34211	1

Table A8. Zip Codes continued

	Frequency
34243	1
34683	1
34695	1
34761	1
34990	1
36549	1
37122	1
38501	1
38706	1
42001	1
43085	1
43130	1
44286	1
44333	1
45069	1
46112	1
46167	1
46204	1
46237	1
46241	1
46383	1
46815	1
48152	1
48169	1
48214	1
48230	1
48858	1
49128	1
49441	1
49931	1
50010	1
50265	1
50428	1
50613	1
53022	1
53402	1
53562	1

Table A8. Zip Codes continued

	Frequency
53597	1
53711	1
53718	1
55124	1
55387	1
55401	1
55416	1
56093	1
56303	1
58102	1
58746	1
59715	1
59718	1
60103	1
60506	1
60515	1
60613	1
60614	1
60618	1
60702	1
63109	1
63368	1
66044	1
66208	1
68007	1
68116	1
75204	1
76220	1
77030	1
77062	1
77064	1
77070	1
77379	1
77380	1
77388	1
77459	1
77478	1

Table A8. Zip Codes continued

	Frequency
77486	
77515	1
77546	1
77573	1
77845	1
78233	1
78413	1
78664	1
78723	1
78741	1
78750	1
80203	1
80227	1
80241	1
80435	1
80439	1
80516	1
80521	1
81401	1
81632	1
83401	1
83651	1
83851	1
83860	1
84094	1
84106	1
84111	1
84124	1
84920	1
85053	1
85224	1
85650	1
85747	1
85748	1
86303	1
87016	1
89014	1
89016	1

Table A8. Zip Codes continued

	Frequency
89033	1
89502	1
89503	1
89705	1
89706	1
90015	1
90016	1
90024	1
90029	1
90205	1
90405	1
90815	1
90817	1
91030	1
91103	1
91311	1
91362	1
92007	1
92008	1
92021	1
92064	1
92075	1
92124	1
92129	1
92130	1
92215	1
92219	1
92253	1
92404	1
92629	1
92651	1
92673	1
92692	1
92705	1
93032	1
93257	1
93304	1

Table A8. Zip Codes continued

	Frequency
93401	1
93402	1
93671	1
93906	1
94020	1
94105	1
94109	1
94110	1
94301	1
94303	1
94305	1
94506	1
94536	1
94538	1
94549	1
94904	1
95448	1
95476	1
95685	1
96664	1
96779	1
96813	1
97002	1
97009	1
97013	1
97017	1
97024	1
97030	1
97034	1
97037	1
97038	1
97041	1
97042	1
97056	1
97065	1
97070	1
97103	1

Table A8. Zip Codes continued

	Frequency
97109	1
97114	1
97128	1
97132	1
97133	1
97208	1
97230	1
97266	1
97303	1
97307	1
97317	1
97321	1
97338	1
97351	1
97381	1
97391	1
97401	1
97404	1
97448	1
97470	1
97478	1
97504	1
97603	1
97801	1
97818	1
98006	1
98023	1
98034	1
98036	1
98040	1
98057	1
98065	1
98072	1
98077	1
98087	1
98104	1
98107	1

Table A8. Zip Codes continued

	Frequency
98110	1
98118	1
98126	1
98146	1
98205	1
98208	1
98217	1
98225	1
98226	1
98233	1
98236	1
98247	1
98265	1
98272	1
98294	1
98297	1
98321	1
98329	1
98335	1
98338	1
98367	1
98370	1
98382	1
98388	1
98391	1
98397	1
98402	1
98403	1
98404	1
98405	1
98421	1
98433	1
98446	1
98448	1
98520	1
98531	1
98565	1

Table A8. Zip Codes continued

	Frequency
98569	1
98572	1
98597	1
98606	1
98611	1
98619	1
98625	1
98629	1
98635	1
98663	1
98674	1
98675	1
98709	1
98802	1
98901	1
99016	1
99019	1
99022	1
99202	1
99203	1
99207	1
99212	1
99215	1
99301	1
99334	1
99361	1

Appendix B

Survey Instrument

Gender M F Date: _____ Time: _____ Location _____ Interviewer _____

2009 White Salmon River Survey

Please take a few minutes to answer these questions. We are trying to learn more about the recreational use of the White Salmon River and your impressions are important to us. All answers will be kept confidential.

1. Which type of user group did you run the river with? **70.4%** Commercial trip (outfitter) **29.6%** Private group

2. Where did you begin your trip today? **See Figure 2**

3. When you made plans to run the White Salmon, how far in advance did you make that decision?

Mean = 1.83 months **Mean = 1.75** weeks **Mean = 1.72** days **Mean = 3.23** hours

4. Overall, how would you rate your trip today? **Mean = 5.59**

0% Poor
0% Fair, it just didn't work out very well
.8% Good, but I wish a number of things could have been different
5.2% Very good, but it could have been better
28.3% Excellent, only minor problems
65.6% Perfect

Comments: **See Appendix A**

5. At the launch site, how long did you have to wait for other parties to leave before you could start your trip?

Mean = 4.96 minutes

6. How did the number of people you saw during your visit to the White Salmon River compare with what you expected to see? **Mean = 3.18**

13.8% A lot less than you expected	15.1% A little more than you expected
12.7% A little less than you expected	6.3% A lot more than you expected
41.8% About what you expected	10.2% You didn't have any expectations

7. How crowded did you feel during your visit to the White Salmon River [Circle one number] **Mean = 3.00**

1	2	3	4	5	6	7	8	9
3.2%	5.6%	5.1%	10.1%	1.2%	6.8%	2.3%	0.4%	0.4%
Not at all Crowded		Slightly Crowded		Moderately Crowded			Extremely Crowded	

8. While you were on the river today, about what percent of the time were you in sight of boats from other groups? (circle a number) **Mean = 37.49%**

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

9. How many times did you see boats from other groups while you were on the river? If you saw the same boat more than once, count each time separately.

Mean = 4.70 times

10. With which size group would you rather run the river?

39.7%	small (5 people or less)	4.9%	large (16-25 people)
37.1%	medium (6-15 people)	18.3%	makes no difference to me

11. If you have to wait for other parties before you can start your trip, it would be O.K. to wait at the launch site as long as.....**Mean = 14.25** minutes **34.7%** it doesn't matter to me

12. While on the river, it would be O.K. to see boats from other groups...?
Mean = 5.27 times **69.3%** it doesn't matter to me

13. What would be an acceptable percentage of time to see boats from other groups while you are on the river? (circle a number) **Mean = 45.64%**

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

14. If you have to wait for other parties to leave before you can portage or run the falls, it would be O.K. to wait as long as.....**Mean = 11.91** minutes **36.7%** it doesn't matter to me

15. Which category best describes the experience you think should be provided on the White Salmon River?

14.7%	Wilderness: where solitude is part of the experience
30.1%	Semi-wilderness: where complete solitude is not expected
37.7%	Undeveloped recreation: where you expect to see other people some of the time
13.4%	Scenic recreation: where you expect to see other people much of the time
4.1%	Social recreation: where seeing many people is part of the experience

16a. During your trip, did you have any conflicts with other parties?

1.8% yes **98.2%** no

16b. If yes, briefly describe who was involved and the nature of the conflict. **See Appendix A**

17. Is this your first visit to the White Salmon River? **59.3%** Yes **40.7%** No

[If no] In what year did you make your first visit to the White Salmon River? **Mean = 2002** year

17a. In a typical year, how many days do you spend recreating on the White Salmon River?

Mean = 10.10 days

17b. In a typical year, how many days do you spend recreating at other rivers besides the White Salmon River? **Mean = 23.22** days

18. Is your trip today... **34.5%** an overnight visit to this area **65.5%** a day trip [check one]

18a. In total, how many days (or hours) long will this trip be?

Mean = 3.61 days **Mean = 4.72** hours (if day trip)

19. What do you like MOST and LEAST about the White Salmon River?

_____ See Appendix A _____ MOST _____ See Appendix A _____ LEAST

20. If you could ask resource managers to improve some things about the way people experience the White Salmon River, what would you ask them to do? _____ See Appendix A _____

21. Overall, how would you rate the quality of each of the following at the White Salmon River:

	Awful	Fair	Good	Very Good	Excellent	Not applicable	Mean
Health and cleanliness	<1	1.8	6.2	24.0	66.8	1.0	4.57
Safety and security	0	1.0	7.0	27.8	61.4	2.9	4.54
Condition of facilities	<1	2.6	10.7	28.6	54.2	3.3	4.38
Responsiveness of staff	<1	<1	3.2	14.4	68.0	13.8	4.74
Recreation setting	0	<1	3.6	19.4	75.4	1.2	4.72

22. Please look at this list of statements that address your feelings about this trip to the White Salmon River. Please indicate your level of agreement with each of the statements listed below.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree	Mean
I thoroughly enjoyed my visit to the White Salmon River	<1	0	<1	15.8	83.8	4.83
I had the opportunity to recreate without feeling crowded	<1	2.4	6.0	31.1	59.9	4.47
I could find places to recreate without conflict from other visitors	<1	1.6	7.8	29.3	60.6	4.48
My trip to the White Salmon River was well worth the money I spent to take it	<1	0	2.9	21.3	75.6	4.72
Recreation activities at the river were NOT compatible	56.4	21.8	13.8	2.5	5.4	1.79
I was disappointed with some aspects of my visit to the river	64.9	23.3	5.5	2.9	3.4	1.57
I avoided some places at the river because there were too many people there	61.4	22.9	8.2	4.0	3.5	1.65
There is a good balance between social and biological values in the management of the White Salmon River	2.5	1.3	20.8	39.37	35.7	4.05
The number of people at the river reduced my enjoyment	49.1	30.3	13.2	3.5	4.0	1.83
The behavior of other people at the river interfered with the quality of my experience [if agree, specify behavior __ See Appendix A __]	60.8	24.6	8.1	3.6	2.9	1.63
The other people at the river increased my enjoyment	3.5	8.3	39.0	28.5	20.6	3.54
The river and its surroundings are in good condition	<1	<1	5.9	38.5	54.9	4.47

23. Here is a list of possible reasons why people recreate at the White Salmon River. Please tell me how important each item is to you as a reason for recreating at the White Salmon River.

REASON	Not at all Important	Somewhat Important	Moderately Important	Very Important	Extremely Important	Mean
To be outdoors	<1	2.4	6.0	31.1	59.9	4.60
For relaxation	<1	4.8	14.4	33.7	45.2	4.16
To get away from the regular routine	1.6	1.6	6.8	29.5	60.5	4.46
For the challenge or sport	1.4	3.4	14.5	28.1	52.6	4.27
For family recreation	11.7	7.5	17.5	25.1	38.2	3.71
For physical exercise	2.8	8.9	25.9	27.5	34.9	3.83
To be with my friends	1.4	2.6	9.2	33.4	53.4	4.35
To experience natural surroundings	<1	1.5	5.9	26.7	65.5	4.56
To develop my skills	12.1	12.8	23.1	19.1	32.9	3.48

24. Which of the following was the most important reason for this visit to the White Salmon River? [please check only one]

- 14.3% I went there because I enjoy the place itself
- 56.3% I went there because it's a good place to do the outdoor activities I enjoy
- 25.2% I went there because I wanted to spend more time with my companions
- 4.2% I went there because it was close to home

The last questions are about you personally and will be used only to categorize responses for different groups of visitors. Your answers are anonymous and cannot be linked to you individually.

25. What is your home ZIP code? See Appendix A 3.7% Visitor is from another country

26. What is your age? 5.0% 16-20 29.7% 21-30 26.8% 31-40
21.7% 41-50 13.2% 51-60 3.5% 61-70 .1% over 70

27. What is your gender? 55.2% Male 44.8% Female

28. How many people are in your group today? Mean = 6.78 adults Mean = 2.85 children up to 17 years

29. How many vehicles are in your group today? Mean = 2.00 cars/trucks Mean = 1.56 trailers (any type)