



Visitor Survey of Day-use Visitors at Starvation Creek State Park

Final Report

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Nature
HISTORY
Discovery

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EXECUTIVE SUMMARY

Objectives

Understanding opinions of park users about issues such as the quality of facilities, social and resource conditions, and how they use these parks is critical to providing adequate programs and services. Project objectives were to describe day user activities, demographic characteristics, and opinions about conditions and management at this park and provide recommendations for maintaining or improving conditions at this park.

Methods

Data were obtained from questionnaires administered to random samples of day user visitors to the park between July 27 and September 30, 2012. The day-use visitor survey involved on-site intercepts. The total number of completed questionnaires was $n = 377$ with a response rate of 83%. The sample size allows generalizations about the population of day users at Starvation Creek State Park at a margin of error of $\pm 5.0\%$ at the 95% confidence level.

Results

Personal and Visit Characteristics

- The most popular day-use activities at this park were hiking or walking (87%), sightseeing (48%), dog walking (22%), and picnicking or barbecuing (16%). The least popular activities were bicycling on local roads (2%) and bicycling on trails (4%).
- The most common main activity groups were people hiking or walking (71%) and sightseeing (7%). The least common activity groups were people bicycling on local roads (1%), bird or wildlife watching (1%), running or jogging (2%), and bicycling on trails (2%).
- Day users spent an average of approximately three hours in the park. The majority (67%) of day users spent one to two hours in the park, with 33% spending three or more hours in the park.
- On average, day users traveled 167 miles from home to visit the park.
- In total, 52% of day-use respondents had visited this park before. Day users had visited an average of five times in the past 12 months with the highest proportions having made three to five trips (31%) and one trip (25%) to this park in the past year, while 71% had made one to five trips.
- Average group size of day-use visitors was approximately three people ($M=2.72$ people). The majority of day users (36%) visited in groups of two people and three to four people (28%).
- Most day users arrived at the park in their family vehicle (82%), 7% arrived in somebody else's vehicle, and 11% arrived in another form of transportation. Almost all respondents arriving in other vehicles were in rental vehicles. On average, there were 2.25 people in each family vehicle, 3.08 people in someone else's vehicle, and 2.50 people in other types of vehicles. When combining personal, other and somebody else's vehicle responses, the average number of people per vehicle was 2.31.
- Most day users (55%) considered this park the main reason for their trip.
- If unable to go to the park for this trip, they would have gone somewhere else for the same activity (72%), done something else (10%), or come back another time (9%).

Visitor Spending

- Most day-use visitors to the park (80%) are non-local visitors (living more than 30 miles from the park).
- For local day-use visitors, the highest percentage reported spending \$1-\$25 (31%) and \$51-\$150 (29%) on their trip. For non-local day-use visitors, the highest percentage (31%) reported spending \$51-\$150 on their trip.
- Most day use visitors reported spending money on gasoline and oil.

Obtaining Information about the Parks

- Almost all day users (93%) were able to find the information they needed when planning their visit to this park, and the few (7%) who did not find it would like better trail signs and markers, a trail brochure, and a trail map including the Mt. Defiance trail.
- The most heavily used sources of information by day users were previous visits (71% used sometimes or often), friends or family members (70%), official internet websites (e.g., Oregon State Parks, Travel Oregon; 69%), highway signs (69%), books (53%), and brochures (42%). The least used sources were health care providers (9%), videos or DVDs (11%), social media websites (11%), and community organizations (13%).
- Official internet websites (e.g., Oregon State Parks, Travel Oregon) were used by about half (46%) of respondents as the first primary information source, followed by books (18%), friends or family (12%), highway signs (8%), previous visits (4%), books (4%), and brochures (3%). Few people used other sources when obtaining information.

Satisfaction with Experiences and Conditions

- Day users considered the most important characteristics the park's absence of litter (93%), cleanliness (e.g., lawn care, lack of graffiti; 93%), cleanliness of toilets (88%), condition / maintenance of trails (85%), signs with directions in the park (78%), and parking for vehicles (76%). The least important attributes were facilities for groups to gather (25%), amount of educational information (35%), ease of movement / access (36%), and presence of park rangers / personnel (39%).
- Overall satisfaction among day users was extremely high, as 93% were satisfied and almost no respondents (7%) were dissatisfied or neutral. In addition, the highest proportion of users was "very satisfied" (62%). The majority of day users were satisfied with most characteristics at Starvation Creek State Park. Day users were most satisfied with park cleanliness (96%), absence of litter (96%), number of toilets / bathrooms (91%), cleanliness of toilets (87%), personal safety (84%), and parking for vehicles (82%). Users were least satisfied with the amount and quality of educational information (45% to 48%), facilities for groups to gather (51%), and information about conditions / hazards (54%). Most day users (85%) said they were likely to return to this park in the future.
- An Importance – Performance analysis showed that most park attributes were in the "keep up the good work" category, with one in the "possible overkill" category, indicating that users thought that staff were doing a good job managing conditions and experiences. There was, however, on attribute that was important to users, but these users were only slightly satisfied with this attribute. Managers should, therefore, consider monitoring the signs with directions in the park.

- Approximately 32% of day users felt crowded at the park. These results suggest that crowding in the day use areas is at “suppressed crowding” where crowding is likely limited by management, situational factors, or natural factors may offer unique low-density experiences.

Attitudes about Management Strategies

- Day users most strongly supported management strategies that would provide more opportunities for hiking (76%), more opportunities for viewing wildlife (72%), more opportunities for escaping crowds (67%), more information / education (nature, history; 67%), more recycling containers (63%), and restore the park to historical conditions (63%). The least supported strategies were to close the park to all recreation/tourism activities (6%), provide wireless internet access in the park (18%), limit the number of people allowed in the park per day (20%), and provide more enclosed shelters (20%).

Sociodemographic Characteristics of Users

- There were a few more male (55%) than female (45%) day users at this park.
- The average age of respondents was 47 years old, and the largest proportions of users were 50 to 59 years old (24%) and 40 to 49 years old (20%).
- The average annual household income before taxes of respondents was \$73,000, and the largest proportion of users had incomes from \$50,000 to \$69,999 (21%). Day-use visitors to Starvation Creek State Park are generally wealthier than the Oregon population at large (Oregon median household income in 2010 was \$51,994).
- Most respondents were white (i.e., Caucasian; 90%) with some Asians (4%), Hispanic / Latinos (3%), other (1%), and American Indian / Alaska Natives (1%).
- Most day users (97%) considered English as the primary language in their homes, while some spoke other languages (2%), and Spanish (1%).
- Over 71% of day use visitors resided in Oregon, 18% resided in Washington State, 9% were from other states, 2% were from California, 1% were from Florida, 1% were from Idaho, and 1% were from Kansas. Among day users, 50% lived in the Portland Metro region (<http://www.guidetooregon.com/regions/map.html>), 12% resided in the Mt. Hood / Gorge region, 6% resided in the Willamette Valley region, 3% resided in the Eastern region, <1% resided in the Coastal region, and <1% resided in the Southern region. No visitors lived in the Central region of the state.
- 91% of day users said that nobody in their group had a disability, whereas 9% had at least one group member with a disability. The most common disability was associated with walking (5% of day users), while 2% of day users had a hearing disability, 1% had a learning disability, 1% had a sight disability, and 1% had some other form of disability.

Recommendations

Management Recommendations

- Most day users traveled to this park in their own vehicles (82%), so adequate parking is important and should be considered in planning and management.
- The average number of visitors per vehicle for Starvation Creek State Park day-use vehicles (2.31) was significantly lower than the current FMS assumption of 4.0 visitors

per vehicle. Park managers may want to use this updated figure in future day-use calculations for the park.

- Almost all day users (93%) were satisfied with their experiences and the conditions at this park. Satisfaction, however, was consistently lower for the amount and quality of educational information (45% to 48%), facilities for groups to gather (51%), and information about conditions / hazards (54%). Managers may wish to evaluate these services to users to insure they are meeting visitor needs.
- Day user visitors most strongly supported strategies that would provide more opportunities for hiking (76%), more opportunities for viewing wildlife (72%), more opportunities for escaping crowds (67%), more information / education (nature, history; 67%), more recycling containers (63%), and restore the park to historical conditions (63%). Managers may want to consider some or all of these strategies.
- The Importance – Performance analysis showed that most park attributes were in the “keep up the good work” category, with one in the “possible overkill” category, indicating that users thought that staff were doing a good job managing conditions and experiences. However, this analysis showed that managers should consider examining the signs with directions in the park. The need for directional signs was also identified as a top need in a review of visitor comments in Appendix A.
- Almost all park visitors (93%) were able to find the information they needed when planning their visit to Starvation Creek State Park. However, some visitors (7%) were not able to find all information needed. The most popular information needed was better trail signs and markers, a trail brochure, and a trail map including the Mt. Defiance trail.
- A large proportion of day users (46%) depended on official internet websites as the primary source of obtaining information about state parks such as Starvation Creek State Park. Given these results, it is imperative for staff to ensure that agency and park internet websites are easy to navigate, up to date, and provide comprehensive information.
- Appendix A is a listing of 162 verbatim open ended positive comments (58 comments, 2 page) and negative comments and suggestions for improvement of Starvation Creek State Park (104 comments, 4 pages). Many comments may provide insights for future planning and management. The most common concerns expressed needs for: (a) trail markers and trail directional signs; (b) trail maintenance on Mt. Defiance Trail; (c) trail distance and difficult information; (d) invasive plant removal; (e) trail map at park entrance; (f) informational signs (history, plants, wildlife); (g) more trails; and (h) reduce freeway noise.

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INTRODUCTION AND OBJECTIVES

The Oregon State Parks system provides public access to a collection of the state's outstanding natural, cultural, scenic, and outdoor recreation resources. Understanding the opinions of park users regarding issues such as the quality of facilities, recreational opportunities, social and resource conditions, and how they use these parks is critical to providing effective facilities, programs, and services. Project objectives were to describe day user activities, demographic characteristics, and opinions about conditions and management at this park and provide recommendations for maintaining or improving conditions at this park.

METHODS

Data were obtained from a questionnaire (see Appendix B) administered to a randomly selected sample of day users at Starvation Creek State Park between July and September 2012. An on-site (face to face) survey method was used for day users. A respondent was only allowed one opportunity to complete a questionnaire.

Onsite Survey of Day Users

Day users 18 years of age and older who visited Starvation Creek State Park between July 27 and September 30, 2012 were approached in person (face to face) and asked to complete the six page questionnaire onsite at this park. Day users were asked if they would be willing to complete the questionnaire and asked to immediately complete and return the full length questionnaire onsite. Questionnaires were printed on both sides of two legal sized (8 ½ x 14) pages and folded into a small booklet, and took most respondents approximately 15 to 20 minutes to complete. Respondents were provided with a clipboard and pen to complete the questionnaire. A number of volunteers (e.g., Camp Hosts) administered these questionnaires to reduce costs.

Sample Size and Response Rate

As shown in Table 1, the total number of completed questionnaires was $n = 377$ with an estimated total response rate of 83%.

Table 1. Sample size and response rate

	Initial contacts	Completed surveys (n)	Response rate (%)
Day Users	455	377	83

The sample size allows generalizations about the population of day users at Starvation Creek State Park at a margin of error of $\pm 5.0\%$ at the 95% confidence level, which meets the conventional standard of $\pm 5\%$ that has been widely accepted and adopted in recreation and tourism research (Mitra & Lankford, 1995; Vaske, 2008).

Questionnaires administered to day users included questions on a range of topics such as prior visitation, activity participation, satisfaction, support of management, and demographic characteristics. To highlight key findings, data were often recoded into major response categories (e.g., agree, disagree; support, oppose), but basic descriptive findings of uncollapsed questions (i.e., strongly, slightly agree) are provided in Appendix C.

RESULTS

Personal and Visit Characteristics

Activity Groups. The questionnaire asked respondents to check all of the activities in which they participated at Starvation Creek State Park on their most recent trip. Table 2 shows that the most popular activities at this park were hiking or walking (87%), sightseeing (48%), dog walking (22%), and picnicking or barbequing (16%). The least popular activities were bicycling on local roads (2%) and bicycling on trails (4%).

Respondents were then asked to specify the one primary activity in which they participated most often during their recent visit to Starvation Creek State Park. Table 3 shows that the most common primary activity groups were people hiking or walking (71%) and sightseeing (7%). The least common activity groups were people bicycling on local roads (1%), bird or wildlife watching (1%), running or jogging (2%), and bicycling on trails (2%).

Table 2. Day-use recreation activities at the park

Activity	% Participating ^a
Hiking or walking	87
Sightseeing	48
Dog walking	22
Other ^b	17
Picnicking or barbequing	16
Bird or wildlife watching	13
Running or jogging	8
Bicycling on trails	4
Bicycling on local roads	2

^a Cell entries are percentages (%) of users who reported participating in the activity at the park on their most recent visit. Percentages do not sum to 100% because respondents could check more than one activity from the list.

^b The most popular “other” activities were: photography, using the restroom, and to see the waterfall.

Table 3. Primary day-use activities at the park

Activity	Day Users (%)
Hiking or walking	71
Sightseeing	7
Other	7
Picnicking or barbequing	5
Dog walking	4
Bicycling on trails	2
Running or jogging	2
Bird or wildlife watching	1
Bicycling on local roads	1

Duration of Visit. Day users were asked to report how many *hours* they spent at Starvation Creek State Park on their recent trip. Table 4 shows that, on average, day users spent approximately three hours in the park (M=2.79 hours). The majority (67%) day users spent one to two hours in the park, with 33% spending three or more hours in the park.

Table 4. Duration of day user visit at the park

1 hour	40
2 hours	27
3 hours	10
4 to 5 hours	6
6 to 9 hours	15
10 or more hours	2
Mean / average hours	2.79

Cell entries are percentages (%) unless specified as means / averages

Distance Traveled. Respondents were also asked to report about how far from home they traveled to get to the park. Table 5 shows that 80% of day-use visitors were non-local (driving more than 30 miles to reach the park), 48% originated 31 to 60 miles from the park, and 32% originated from 61 or more miles. Day users, on average, traveled approximately 167 miles to visit the park.

Table 5. Day user distance traveled to the park

30 miles or less	20
31 to 60 miles	48
61 or more miles	32
Mean / average	167.48

Cell entries are percentages (%) unless specified as means / averages

Previous Visitation. Users were asked if they had ever visited Starvation Creek State Park before their most recent trip. Table 6 shows that 52% of day-use respondents had visited this park before, whereas 48% had not visited previously.

Table 6. Day user previous visitation to the park

	Day Users (%)
Yes, visited park before	52
No, not visited park before	48

Users who had previously visited this park were then asked how many trips they had made to this park in the past 12 months. Table 7 shows that day users had visited an average of five times in the past 12 months with the highest proportions having made three to five trips (31%) and one trip (25%) to this park in the past year, while 71% had made one to five trips.

Table 7. Day user number of previous visits to park in the last 12 months

0 Trips	12
1 Trip	25
2 Trips	15
3 to 5 Trips	31
6 to 12 Trips	10
13 to 24 Trips	2
More than 24 Trips	5
Mean / average trips	5.27

Cell entries are percentages (%) unless specified as means / averages

Group Size. Respondents were asked to report how many people, including themselves, accompanied them at Starvation Creek State Park on their most recent trip. Table 8 shows that the average day user group size was approximately three people ($M = 2.72$ people). Groups most commonly consisted of two people (36%) and three to four people (28%).

Table 8. Day user group size at the park

1 Person (alone)	25
2 People	36
3 or 4 People	28
5 to 10 People	10
11 to 25 People	1
More than 25 People	0
Mean / average	2.72

Cell entries are percentages (%) unless specified as means / averages

Transportation to the Park. Respondents were asked how they got to Starvation Creek State Park on their most recent trip. Table 9 shows most day users arrived at the park in their family’s personal vehicle (82%), 7% arrived in somebody else’s vehicle, and 11% arrived in another form of transportation. Almost all respondents arriving in other vehicles were in rental vehicles. On average, there were 2.25 people in each family vehicle, 3.08 people in someone else’s vehicle, and 2.50 people in other types of vehicles. When combining personal, other and somebody else’s vehicle responses, the average number of people per vehicle was 2.31.

Table 9. Day users transportation to the park

	Day Users (%)
My family’s personal vehicle ^a	82
Other ^b	7
Somebody else’s personal vehicle ^c	11

^a Number of people in vehicle: mean / average = 2.25 (1-4 people = 96%).

^b Number of people in vehicle: mean / average = 2.50 (1-4 people = 93%).

^c Number of people in vehicle: mean / average = 3.08 (1-4 people = 96%).

Reasons for Visiting. Day users were asked if this park was the main reason for their trip. Table 10 shows that 55% of day users considered this park their main reason for the trip.

Table 10. Whether the park was day users main destination

	Day Users (%)
Primarily for recreation – this park was main destination	55
Primarily for recreation – main destination was not this park	31
Primarily for business, family, or other reasons – park was side trip	10
Some other reason	4

Alternatives to Visit. Respondents were then asked what things they would have considered doing if they were not able to go to Starvation Creek State Park for this visit. As shown in Table 11, most day users responded that, if unable to go to the park for this visit, they would have either gone somewhere else for the same activity (72%), done something else (10%), or come back another time (9%).

Table 11. Day user alternatives to park visit

	Day Users (%)
Gone somewhere else for same activity ^a	72
Gone somewhere else for a different activity ^b	5
Come back another time	9
Stayed home	3
Gone to work at my regular job	<1
Something else (none of these)	10

^a If gone somewhere else for same activity, how far from home is the place you would have gone instead: mean / average = 61.71 miles.

^b If gone somewhere else for different activity, how far from home is the place you would have gone instead: mean / average = 45.92 miles.

Section Summary. Taken together, results in this section showed that:

- The most popular day-use activities at this park were hiking or walking (87%), sightseeing (48%), dog walking (22%), and picnicking or barbequing (16%). The least popular activities were bicycling on local roads (2%) and bicycling on trails (4%).
- The most common main activity groups were people hiking or walking (71%) and sightseeing (7%). The least common activity groups were people bicycling on local roads (1%), bird or wildlife watching (1%), running or jogging (2%), and bicycling on trails (2%).
- Day users spent an average of approximately three hours in the park. The majority (67%) of day users spent one to two hours in the park, with 33% spending three or more hours in the park.
- On average, day users traveled 167 miles from home to visit the park.
- In total, 52% of day-use respondents had visited this park before. Day users had visited an average of five times in the past 12 months with the highest proportions having made three to five trips (31%) and one trip (25%) to this park in the past year, while 71% had made one to five trips.
- Average group size of day-use visitors was approximately three people ($M=2.72$ people). The majority of day users (36%) visited in groups of two people and three to four people (28%).
- Most day users arrived at the park in their family vehicle (82%), 7% arrived in somebody else's vehicle, and 11% arrived in another form of transportation. Almost all respondents arriving in other vehicles were in rental vehicles. On average, there were 2.25 people in each family vehicle, 3.08 people in someone else's vehicle, and 2.50 people in other types of vehicles. When combining personal, other and somebody else's vehicle responses, the average number of people per vehicle was 2.31.
- Most day users (55%) considered this park the main reason for their trip.
- If unable to go to the park for this trip, they would have gone somewhere else for the same activity (72%), done something else (10%), or come back another time (9%).

Visitor Spending

Day users were asked to estimate how much they and the other members of their party spent on their trip within 30 miles of Starvation Creek State Park on eight spending categories. The information included in this section of the report summarizes basic visitor spending results from the survey. A more extensive visitor spending analysis will be conducted by Oregon State University and available in a separate report.

For this analysis, “local” visitors are defined as those visitors reporting traveling 30 miles or less from home to get to the park. “Non-local” visitors are those respondents living 31 or more miles from the park. All foreign visitors were classified as “non-local” visitors. Visitor responses were excluded under the following conditions:

- The number of nights spent away from home in the local area was greater than 30,
- The reported size of the group was greater than 10 individuals,
- Spending per day/night was greater or equal to \$500 or spending on recreation and equipment rental was greater or equal to \$500 in total.

Table 12 includes the percentages of all park day users that are local and non-local visitors. Most day users to the park are non-local (living more than 30 miles from the park) visitors (80%).

Table 12. Day users, local / non-local

	Day Users (%)
Local	20
Non-Local	80

Table 13 shows the proportion of total spending for local and non-local day-use visitors and reported on a party trip basis. For local day-use visitors, the highest percentage reported spending \$1-\$25 (31%) and \$51-\$150 (29%) on their trip. For non-local day-use visitors, the highest percentage (31%) reported spending \$51-\$150 on their trip.

Table 13. Day user total spending, dollars per party per trip

	Local	Non-Local
Spent no money	12	13
\$1 - \$25	31	21
\$26 - \$50	12	19
\$51 - \$150	29	31
\$151 - \$350	14	11
\$351 - \$550	2	5

Table 14 includes the proportion of day-use visitor parties that reported spending any dollars on the eight spending categories (e.g., motel, camping, restaurants and bars, groceries, etc.). For local day-use visitors, most reported spending some money on gasoline and oil (61%). A large proportion of non-local day use visitors also reported spending money on gasoline and oil (55%) and restaurants and bars (43%).

Table 14. Percent of day user party spending of any dollars in eight spending categories

Spending Categories	Local	Non-Local
Motel, lodge, cabin, B&B, other lodging	11	9
Camping	9	10
Restaurants and bars	36	43
Groceries	36	32
Gasoline and oil	61	55
Park entry, parking, or recreation use fees	11	16
Recreation and equipment (guide fees, equipment rental)	5	2
Souvenirs, clothing, and other miscellaneous	13	11

Section Summary. Taken together, results in this section showed that:

- Most day-use visitors to the park (80%) are non-local visitors (living more than 30 miles from the park).
- For local day-use visitors, the highest percentage reported spending \$1-\$25 (31%) and \$51-\$150 (29%) on their trip. For non-local day-use visitors, the highest percentage (31%) reported spending \$51-\$150 on their trip.
- Most day use visitors reported spending money on gasoline and oil.

Obtaining Information about the Parks

The questionnaire contained several questions examining how day users obtained information about state parks such as Starvation Creek State Park and whether they were able to obtain the information they needed. Table 15 shows that almost all day users (93%) were able to find the information they needed when planning their visit to this state park, and the few (7%) who did not find the information reported needing better trail signs and markers, a trail brochure, and a trail map including the Mt. Defiance trail.

Table 15. Whether day users found the information needed

	Day Users (%)
Yes, found the information needed	93
No, did not find the information needed ^a	7

^a The most popular information needed was: better trail signs and markers, a trail brochure, and a trail map including the Mt. Defiance trail.

Table 16. Day user use of information sources ^a

	Day Users (%)
Previous visit	71
Friends / family	70
Official internet websites (OPRD)	69
Highway signs	69
Books	53
Brochures	42
Other ^b	37
Magazines	37
Newspapers	29
Work	22
Radio	17
Television	15
Community organizations (Church, etc.)	13
Social media websites	11
Videos / DVDs	11
Health care providers	9

^a Cell entries are percentages (%) of users who used the information source “sometimes” to “often.”

^b The most popular “other” sources were: hiking websites, Friends of the Gorge, and the Curious Gorge Guidebook.

Respondents were also presented with a list of 16 possible sources for finding information and asked how often they obtained information from these sources when thinking about visiting an Oregon State Park such as Starvation Creek State Park. Table 16 shows that the most heavily used sources of information by day users were previous visits (71% used sometimes or often), friends or family members (70%), official internet websites (e.g., Oregon State Parks, Travel Oregon; 69%), highway signs (69%), books (53%), and brochures (42%). The least used sources were health care providers (9%), videos or DVDs (11%), social media websites (11%), and community organizations (13%).

Respondents were then asked to specify from this list of information sources what one source they would use first when obtaining information about an Oregon State Park such as Starvation Creek State Park. Table 17 shows that official internet websites (e.g., Oregon State Parks, Travel Oregon) were used by about half (46%) of respondents as the first primary information source, followed by books (18%), friends or family (12%), highway signs (8%), previous visits (4%), books (4%), and brochures (3%). Few people used other sources when obtaining information.

Table 17. Day user primary information sources

	Day Users (%)
Official internet websites (OPRD)	46
Books	18
Friends / family	12
Highway signs	8
Previous visit	4
Brochures	3
Other ^b	3
Social media	2
Newspapers	1
Magazines	1
Work	<1

Section Summary. Taken together, results in this section showed that:

- Almost all day users (93%) were able to find the information they needed when planning their visit to this park, and the few (7%) who did not find it would like better trail signs and markers, a trail brochure, and a trail map including the Mt. Defiance trail.
- The most heavily used sources of information by day users were previous visits (71% used sometimes or often), friends or family members (70%), official internet websites (e.g., Oregon State Parks, Travel Oregon; 69%), highway signs (69%), books (53%), and brochures (42%). The least used sources were health care providers (9%), videos or DVDs (11%), social media websites (11%), and community organizations (13%).
- Official internet websites (e.g., Oregon State Parks, Travel Oregon) were used by about half (46%) of respondents as the first primary information source, followed by books (18%), friends or family (12%), highway signs (8%), previous visits (4%), books (4%), and brochures (3%). Few people used other sources when obtaining information.

Satisfaction with Experiences and Conditions

Overall Satisfaction. Respondents were asked “overall, how dissatisfied or satisfied were you with your *overall experience* at Starvation Creek State Park?” Table 18 shows that overall satisfaction was extremely high, as 93% were satisfied and almost no respondents (7%) were dissatisfied or neutral. In addition, the highest proportion of users was “very satisfied” (62%).

Table 18. Day user overall satisfaction

	Day Users (%)
Very Satisfied	62
Satisfied	31
Dissatisfied or Neutral	7

Satisfaction and Expectations with Specific Characteristics. Although almost all day users were satisfied with their overall visit at Starvation Creek State Park, this does not indicate that they were satisfied with every aspect of this park. This project, therefore, first measured respondent *expectations* by asking them the extent they believed that several attributes of Starvation Creek State Park were *important* to their visit (e.g., absence of litter, personal safety, signs, parking). Then, respondents reported their *satisfaction* of these same attributes at this park to measure *performance* of these attributes.

Table 19. Day user specific *expectations* at the park

	Day Users (%) ^a
Absence of litter	93
Cleanliness of park (graffiti, lawns)	93
Cleanliness of toilets / bathrooms	88
Condition / maintenance of trails	85
Signs with directions <i>in</i> the park	78
Parking for vehicles	76
Courteousness of rangers / personnel	75
Personal safety	73
Signs with directions <i>to</i> the park	70
Number of toilets / bathrooms	70
Number of park trails	70
Information about conditions / hazards	68
Variety of things to do	43
Quality of educational information	42
Presence of park rangers / personnel	39
Ease of movement / access (wheelchair, elderly, stroller)	36
Amount of educational information	35
Facilities for groups to gather	25

^a Cell entries are percentages (%) of users who rated the characteristic as “somewhat” or “extremely important.”

Table 19 shows that the most important characteristics were the park’s absence of litter (93%), cleanliness (e.g., lawn care, lack of graffiti; 93%), cleanliness of toilets (88%), condition / maintenance of trails (85%), signs with directions in the park (78%), and parking for vehicles

(76%). The least important attributes were facilities for groups to gather (25%), amount of educational information (35%), ease of movement / access (36%), and presence of park rangers / personnel (39%).

Table 20. Day user specific *satisfactions* at the park

	Day Users (%) ^a
Cleanliness of park (graffiti, lawns)	96
Absence of litter	96
Number of toilets / bathrooms	91
Cleanliness of toilets / bathrooms	87
Personal safety	84
Parking for vehicles	82
Number of park trails	81
Courteousness of rangers / personnel	80
Condition / maintenance of trails	80
Presence of park rangers / personnel	73
Signs with directions <i>to</i> the park	71
Variety of things to do	65
Ease of movement / access (wheelchair, elderly, stroller)	63
Signs with directions <i>in</i> the park	61
Information about conditions / hazards	54
Facilities for groups to gather	51
Quality of educational information	48
Amount of educational information	45

^a Cell entries are percentages (%) of users who rated the characteristic as “satisfied” or “very satisfied.”

Table 20 shows that the majority of day users were satisfied with most of these characteristics at Starvation Creek State Park. Day users were most satisfied with park cleanliness (96%), absence of litter (96%), number of toilets / bathrooms (91%), cleanliness of toilets (87%), personal safety (84%), and parking for vehicles (82%). Users were least satisfied with the amount and quality of educational information (45% to 48%), facilities for groups to gather (51%), and information about conditions / hazards (54%).

Importance – Performance Analysis. One approach for visualizing relationships between expectations (i.e., importance of attributes) and satisfaction (i.e., performance of these attributes) is Importance – Performance (I-P) analysis (Figure 1). Importance or expectations are represented as averages (i.e., means) on the vertical axis (i.e., y-axis) and average performance or experiences (i.e., satisfaction) are measured on the horizontal axis (i.e., x-axis). When combined, these axes intersect and produce a matrix of four quadrants that can be interpreted as “concentrate here” (high importance or expectation, low satisfaction or poor experiences; Quadrant A), “keep up the good work” (high importance or expectation and high satisfaction or good experiences; Quadrant B), “low priority” (low importance or expectation and low satisfaction or poor experiences; Quadrant C), and “possible overkill” (low importance or expectation, high satisfaction or good experiences; Quadrant D). This matrix provides managers with an easily understandable picture of the status of services, facilities, and conditions as perceived by users, and reveals conditions that may or may not need attention (Bruyere, Rodriguez, & Vaske, 2002; Vaske, Beaman, Stanley, & Grenier, 1996).

Figure 1. Importance-performance (I-P) analysis matrix

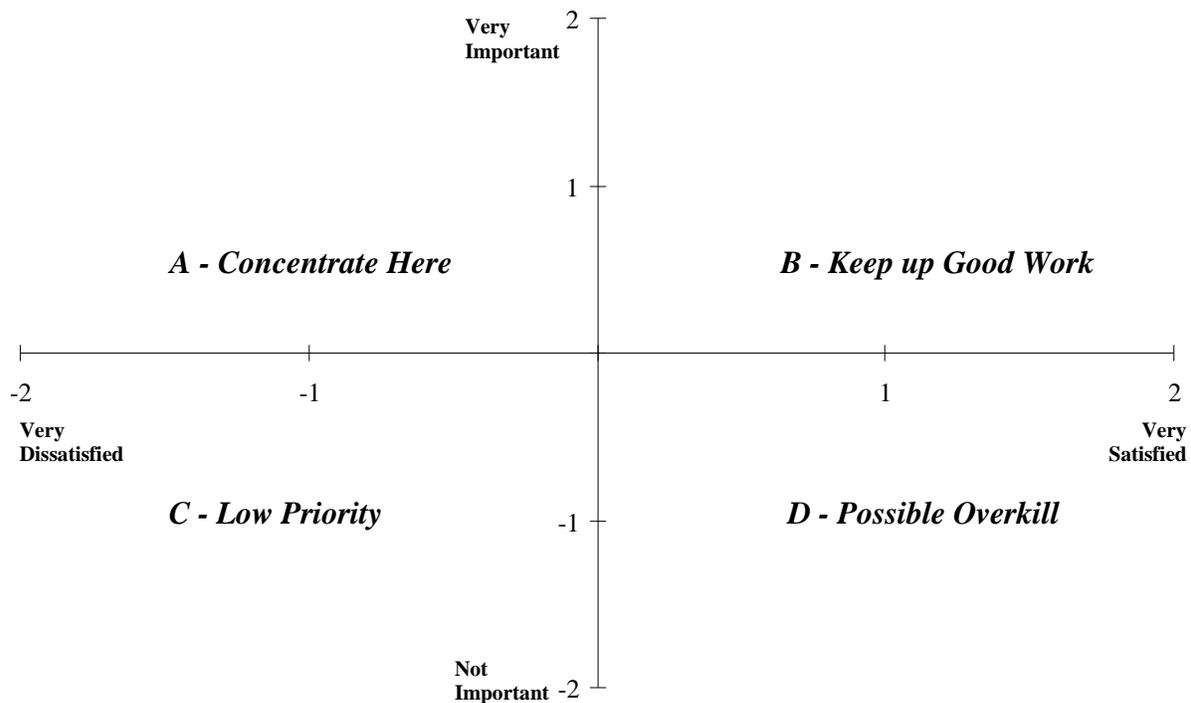


Figure 2. Importance-performance (I-P) analysis matrix for *day users*

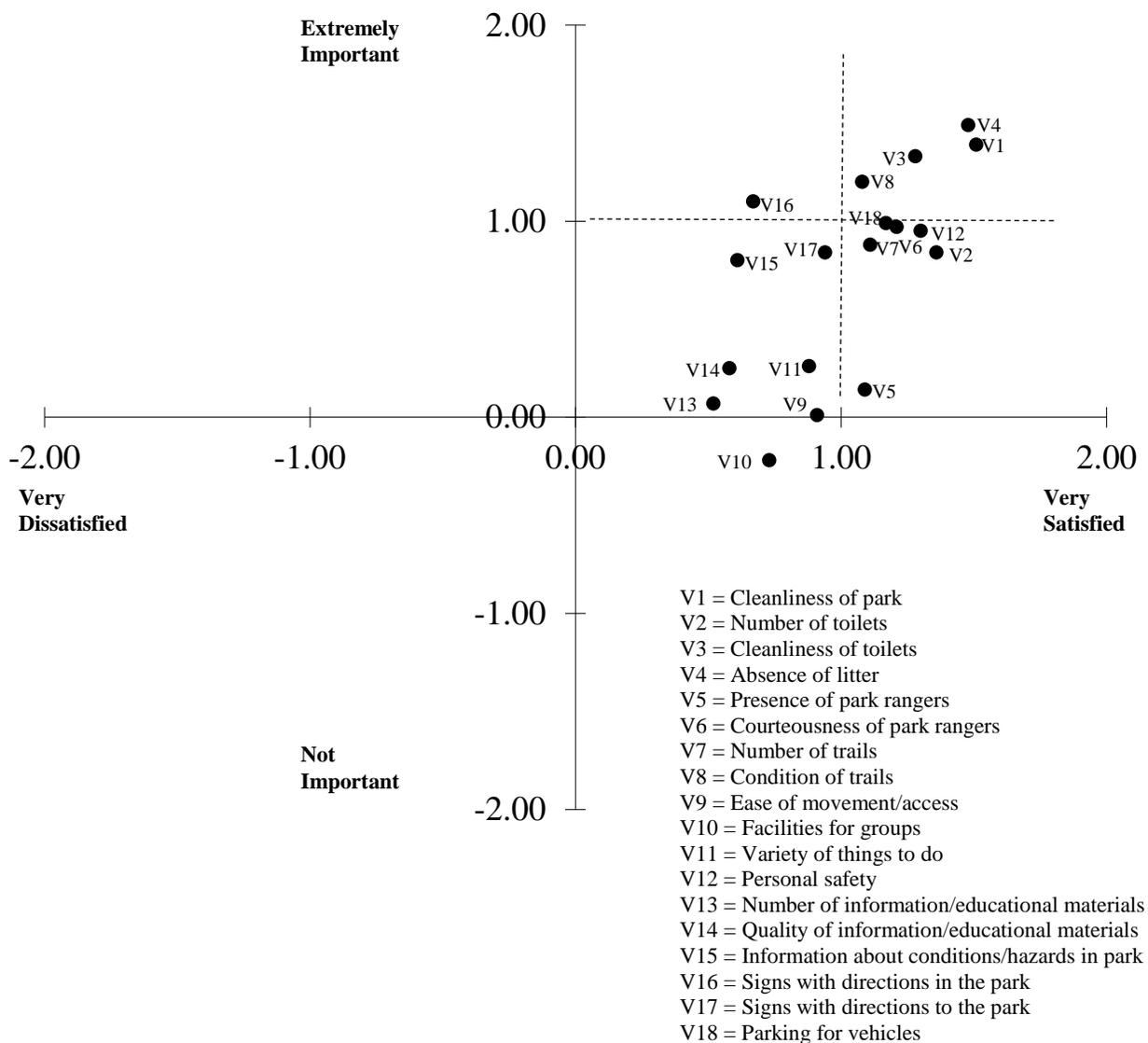


Figure 2 is the I-P matrix for day users at Starvation Creek State Park. The matrix shows that most of the attributes were in the “keep up the good work” quadrant, with a few in the “possible overkill” quadrant, indicating that day users thought that park staff were doing a good job managing conditions and experiences at the park. For this state park visitor survey project, we are also taking a closer examination of I-P scores within the dashed lines included in Figure 2. There is one attribute that was important to users, but users were only slightly satisfied with this attribute. Managers should, therefore, consider monitoring the signs with directions in the park.

Respondents were asked several additional questions about their satisfaction with Starvation Creek State Park, including this park’s natural environment, facilities and services. Day users were also asked how likely they would return to this state park. Table 21 shows high day user satisfaction with the park’s environment (93%) and satisfaction with facilities and services (93%). In total, 85% of day users said they were likely to return to this park in the future.

Table 21. Day user likelihood of returning and satisfaction with the park facilities and environment

	Day Users (%)
Satisfaction with natural environment ^a	93
Satisfaction with facilities and services ^a	93
Likelihood of returning ^b	85

^a Cell entries are percentages (%) of users who rated the characteristic as “satisfied” or “very satisfied.”

^b Cell entries are percentages (%) of users who said they were “likely” or “very likely” to return to the park in the future.

Perceived Crowding. *Perceived crowding* is a subjective and negative evaluation that the number of encounters or people observed in an area is too many. Research suggests that when users perceived an area to be crowded, they likely encountered more than their maximum acceptance (i.e., their norm) of impacts (e.g., use levels) for the particular setting (Manning, 2010; Needham & Rollins, 2009).

Table 22. Day user perception of crowding

	Day Users
Perception of crowding ^a	2.29
Reported feeling crowded	32

^a Cell entries are means on 9 point crowding scale of 1-2 “not at all crowded” to 3-4 “slightly crowded” to 5-7 “moderately crowded” to 8-9 “extremely crowded.”

^b Cell entries are percentages (%) of users who reported being “slightly crowded,” “moderately crowded,” or “extremely crowded.”

Table 22 shows that, on average, day users felt not crowded, with 32% of day users having felt some degree of crowding on their visit. According to Shelby, Vaske, and Heberlein (1989) and Vaske and Shelby (2008), these results suggest that crowding at the day use areas can be considered “suppressed crowding” where crowding is likely limited by management, situational factors, or natural factors may offer unique low-density experiences.

Section Summary. Taken together, results in this section showed that:

- Day users considered the most important characteristics the park's absence of litter (93%), cleanliness (e.g., lawn care, lack of graffiti; 93%), cleanliness of toilets (88%), condition / maintenance of trails (85%), signs with directions in the park (78%), and parking for vehicles (76%). The least important attributes were facilities for groups to gather (25%), amount of educational information (35%), ease of movement / access (36%), and presence of park rangers / personnel (39%).
- Overall satisfaction among day users was extremely high, as 93% were satisfied and almost no respondents (7%) were dissatisfied or neutral. In addition, the highest proportion of users was "very satisfied" (62%). The majority of day users were satisfied with most characteristics at Starvation Creek State Park. Day users were most satisfied with park cleanliness (96%), absence of litter (96%), number of toilets / bathrooms (91%), cleanliness of toilets (87%), personal safety (84%), and parking for vehicles (82%). Users were least satisfied with the amount and quality of educational information (45% to 48%), facilities for groups to gather (51%), and information about conditions / hazards (54%). Most day users (85%) said they were likely to return to this park in the future.
- An Importance – Performance analysis showed that most park attributes were in the "keep up the good work" category, with one in the "possible overkill" category, indicating that users thought that staff were doing a good job managing conditions and experiences. There was, however, one attribute that was important to users, but these users were only slightly satisfied with this attribute. Managers should, therefore, consider monitoring the signs with directions in the park.
- Approximately 32% of day users felt crowded at the park. These results suggest that crowding in the day use areas is at "suppressed crowding" where crowding is likely limited by management, situational factors, or natural factors may offer unique low-density experiences.

Attitudes about Management Strategies

Day users were asked the extent they opposed or supported several potential new strategies for the park. Table 23 shows that the most strongly supported strategies by day users were to provide more opportunities for hiking (76%), more opportunities for viewing wildlife (72%), more opportunities for escaping crowds (67%), more information / education (nature, history; 67%), more recycling containers (63%), and restore the park to historical conditions (63%). The least supported strategies were to close the park to all recreation/tourism activities (6%), provide wireless internet access in the park (18%), limit the number of people allowed in the park per day (20%), and provide more enclosed shelters (20%).

Table 23. Day user attitudes about management at the park

	Day Users (%) ^a
More opportunities for hiking	76
More opportunities for viewing wildlife	72
More opportunities for escaping crowds	67
More info / education (nature, history)	67
More recycling containers	63
Restore to historical conditions	63
Do not change anything / keep as is	56
Natural buffers block view of development	54
Require dogs be kept on leash at all times	51
Better maintenance / upkeep of facilities	50
More trash cans	45
Limit the number of large groups allowed	42
Make park more pet friendly	40
More programs led by rangers	34
More group picnic areas	35
More paved trails	31
Downloadable mobile phone applications	25
More enclosed shelters	20
Limit the number of people allowed per day	20
Wireless internet access in park	18
Close park to all recreation/tourism activities	6

^a Cell entries are percentages (%) of users whose response was “support” or “strongly support.”

Section Summary. Taken together, results in this section showed that:

- Day users most strongly supported management strategies that would provide more opportunities for hiking (76%), more opportunities for viewing wildlife (72%), more opportunities for escaping crowds (67%), more information / education (nature, history; 67%), more recycling containers (63%), and restore the park to historical conditions (63%). The least supported strategies were to close the park to all recreation/tourism activities (6%), provide wireless internet access in the park (18%), limit the number of people allowed in the park per day (20%), and provide more enclosed shelters (20%).

Sociodemographic Characteristics of Users

Table 24 shows demographic characteristics of day users. There were more male (55%) than female (45%) day users at Starvation Creek State Park. The average age of respondents was 47 years old, and the largest proportions of users were 50 to 59 years old (24%) and 40 to 49 years old (20%). Most respondents were white (i.e., Caucasian; 90%) with some Asians (4%), Hispanic / Latinos (3%), Other (1%), and American Indian / Alaska Natives (1%). The average annual household income before taxes of respondents was \$73,000, and the largest proportion of users had incomes from \$50,000 to \$69,999 (21%). Day-use visitors to Starvation Creek State Park are generally wealthier than the Oregon population at large (Oregon median household income in 2010 was \$51,994).

Table 25 shows that most day users (97%) considered English as the primary language in their homes, while some spoke other languages (2%), and Spanish (1%). Other languages spoken in their homes included Cambodian, Dutch, French, Italian, Polish, Portuguese, and Vietnamese.

Table 24. Day user demographic characteristics

	Day Users (%) ^a
Gender	
Male	55
Female	45
Age	
Less than 20 years old	1
20 – 29 years	17
30 – 39 years	17
40 – 49 years	20
50 – 59 years	24
60 – 69 years	17
70 – 79 years	5
80+ years old	<1
Average age (mean years)	46.73
Household income (before taxes)	
Less than \$10,000	3
\$10,000 – \$29,999	9
\$30,000 – \$49,999	13
\$50,000 – \$69,999	21
\$70,000 – \$89,999	17
\$90,000 – \$109,999	11
\$110,000 – \$129,999	10
\$130,000 – \$149,999	5
\$150,000 – \$169,999	2
\$170,000 or more	9
Average income (mean dollars)	73,000
Ethnicity	
White (Caucasian)	90
Asian	4
Hispanic / Latino	3
Other	1
American Indian / Alaska Native	1
Black / African American	0
Native Hawaiian or Pacific Islander	0

^a Cell entries are percentages (%) unless specified as means or averages.

Table 25. Day user language spoken most often at home

	Day Users (%)
English	97
Other ^a	2
Spanish	1

^a The most reported “other” languages were: Cambodian, Dutch, French, Italian, Polish, Portuguese, and Vietnamese.

Table 26 shows that 71% of day use visitors resided in Oregon, 18% resided in Washington State, 9% were from other states, 2% were from California, 1% were from Florida, 1% were from Idaho, and 1% were from Kansas. Among day users, 50% lived in the Portland Metro region (<http://www.guidetooregon.com/regions/map.html>), 12% resided in the Mt. Hood / Gorge region, 6% resided in the Willamette Valley region, 3% resided in the Eastern region, <1% resided in the Coastal region, and <1% resided in the Southern region. No visitors lived in the Central region of the state.

Table 26. Day user location of residence

	Day Users (%)
Country	
USA	99
Canada	1
State	
Oregon ^a	71
Washington	18
Other states	5
California	2
Florida	1
Idaho	1
Kansas	1

^a The largest percentage of day users were from the Portland Metro region (50%), whereas 12% resided in the Mt. Hood / Gorge region, 6% resided in the Willamette Valley region, 3% resided in the Eastern region, <1% resided in the Coastal region, and <1% resided in the Southern region. No visitors lived in the Central region of the state.

Table 27 shows that 91% of day users said that nobody in their group had a disability, whereas 9% had at least one group member with a disability. The most common disability was associated with walking (5% of day users), while 2% of day users had a hearing disability, 1% had a learning disability, 1% had a sight disability, and 1% had some other form of disability.

Table 27. Day user disabilities

	Day Users (%)
Disability in group	
No	91
Yes ^a	9

^a Types of disabilities: walking = 5%, hearing = 2%, learning = 1%, sight = 1%, other = 1%

Section Summary. Taken together, results in this section showed that:

- There were a few more male (55%) than female (45%) day users at this park.
- The average age of respondents was 47 years old, and the largest proportions of users were 50 to 59 years old (24%) and 40 to 49 years old (20%).
- The average annual household income before taxes of respondents was \$73,000, and the largest proportion of users had incomes from \$50,000 to \$69,999 (21%). Day-use visitors to Starvation Creek State Park are generally wealthier than the Oregon population at large (Oregon median household income in 2010 was \$51,994).
- Most respondents were white (i.e., Caucasian; 90%) with some Asians (4%), Hispanic / Latinos (3%), Other (1%), and American Indian / Alaska Natives (1%).
- Most day users (97%) considered English as the primary language in their homes, while some spoke other languages (2%), and Spanish (1%).
- Over 71% of day use visitors resided in Oregon, 18% resided in Washington State, 9% were from other states, 2% were from California, 1% were from Florida, 1% were from Idaho, and 1% were from Kansas. Among day users, 50% lived in the Portland Metro region (<http://www.guidetooregon.com/regions/map.html>), 12% resided in the Mt. Hood / Gorge region, 6% resided in the Willamette Valley region, 3% resided in the Eastern region, <1% resided in the Coastal region, and <1% resided in the Southern region. No visitors lived in the Central region of the state.
- 91% of day users said that nobody in their group had a disability, whereas 9% had at least one group member with a disability. The most common disability was associated with walking (5% of day users), while 2% of day users had a hearing disability, 1% had a learning disability, 1% had a sight disability, and 1% had some other form of disability.

RECOMMENDATIONS

Management Recommendations

Based on these results from survey of day users, the following recommendations, in no particular order, are proposed for management of Starvation Creek State Park:

- Most day users traveled to this park in their own vehicles (82%), so adequate parking is important and should be considered in planning and management.
- The average number of visitors per vehicle for Starvation Creek State Park day-use vehicles (2.31) was significantly lower than the current FMS assumption of 4.0 visitors per vehicle. Park managers may want to use this updated figure in future day-use calculations for the park.
- Almost all day users (93%) were satisfied with their experiences and the conditions at this park. Satisfaction, however, was consistently lower for the amount and quality of educational information (45% to 48%), facilities for groups to gather (51%), and information about conditions / hazards (54%). Managers may wish to evaluate these services to users to insure they are meeting visitor needs.
- Day user visitors most strongly supported strategies that would provide more opportunities for hiking (76%), more opportunities for viewing wildlife (72%), more opportunities for escaping crowds (67%), more information / education (nature, history; 67%), more recycling containers (63%), and restore the park to historical conditions (63%). Managers may want to consider some or all of these strategies.
- The Importance – Performance analysis showed that most park attributes were in the “keep up the good work” category, with one in the “possible overkill” category, indicating that users thought that staff were doing a good job managing conditions and experiences. However, this analysis showed that managers should consider examining the signs with directions in the park. The need for directional signs was also identified as a top need in a review of visitor comments in Appendix A.
- Almost all park visitors (93%) were able to find the information they needed when planning their visit to Starvation Creek State Park. However, some visitors (7%) were not able to find all information needed. The most popular information needed was better trail signs and markers, a trail brochure, and a trail map including the Mt. Defiance trail.

- A large proportion of day users (46%) depended on official internet websites as the primary source of obtaining information about state parks such as Starvation Creek State Park. Given these results, it is imperative for staff to ensure that agency and park internet websites are easy to navigate, up to date, and provide comprehensive information.
- Appendix A is a listing of 162 verbatim open ended positive comments (58 comments, 2 page) and negative comments and suggestions for improvement of Starvation Creek State Park (104 comments, 4 pages). Many comments may provide insights for future planning and management. The most common concerns expressed needs for: (a) trail markers and trail directional signs; (b) trail maintenance on Mt. Defiance Trail; (c) trail distance and difficult information; (d) invasive plant removal; (e) trail map at park entrance; (f) informational signs (history, plants, wildlife); (g) more trails; and (h) reduce freeway noise.

REFERENCES

- Bruyere, B. L., Rodriguez, D. A., & Vaske, J. J. (2002). Enhancing importance – performance analysis through segmentation. *Journal of Travel and Tourism Marketing*, 12, 81-95.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Erlbaum.
- Manning, R. E. (2010). *Studies in outdoor recreation: Search and research for satisfaction* (3rd ed.). Corvallis, OR: Oregon State University Press.
- Mitra, A., & Lankford, S. (1999). *Research methods in park, recreation, and leisure services*. Champaign, IL: Sagamore.
- Needham, M. D., & Rollins, R. (2009). Social science, conservation, and protected areas theory. In P. Dearden & R. Rollins (Eds.), *Parks and protected areas in Canada: Planning and management* (3rd ed.) (pp. 135-168). Don Mills, ON: Oxford University Press.
- Needham, M. D., Rollins, R. B., & Wood, C. J. B. (2004). Site-specific encounters, norms and crowding of summer visitors at alpine ski areas. *International Journal of Tourism Research*, 6, 421-437.
- Shelby, B., Vaske, J. J., & Heberlein, T.A. (1989). Comparative analysis of crowding in multiple locations: Results from fifteen years of research. *Leisure Sciences*, 11, 269-291.
- Vaske, J. J. (2008). *Survey research and analysis: Applications in parks, recreation and human dimensions*. State College, PA: Venture.
- Vaske, J. J., & Donnelly, M. P. (2002). Generalizing the encounter-norm-crowding relationship. *Leisure Sciences*, 24, 255-270.
- Vaske, J. J., & Shelby, L. B. (2008). Crowding as a descriptive indicator and an evaluative standard: Results from 30 years of research. *Leisure Sciences*, 30, 111-126.

APPENDIX A: OPEN-ENDED COMMENTS

Positive Comments

- All was well, thank you!
- Don't change it.
- Don't change it.
- Don't change it. It's beautiful
- Fab!
- Good job.
- great job
- Great park! Perfect as is!
- Had a great time.
- Help it stay nice.
- I like it as it is
- I like it here. Keep it up on the bathrooms. They are clean every time I've used it.
- I like it the way is.
- I like it the way it is now.
- I like Starvation Creek State Park the way it is.
- I like the park just the way it is.
- I love this place. It's beautiful. I would come a lot more often if I didn't live so far away. I could spend hours just looking at the water and trees
- I love it exactly as it is - very natural/wild feeling, good, quick access, clean not crowded. Very pleasant quick stop for myself and dog
- I love the easy access, being able to cool off on the shady paths - the natural beauty and history
- I love this park! Keep it the same
- I love this park. We have hiked it for years.
- I really like this park. I always stop to stretch my legs and use toilet on trips through the Gorge. Like it the way it is!
- Impressed! Unexpected visit. Facilities are of good design and well maintained, and always nice to see no trash. Thanks for being there.
- Include school-based curriculum for all state parks on Dept. of Ed website
- Its just fine. We love this place. Stop here at least once a month.
- Its great the way it is
- It's great the way it is.
- It's great the way it is.
- It's nice.
- It's perfect.
- Keep doing what you're doing!
- Keep doing what you're doing!
- Keep it green
- Keep it the same
- Keep it the same. Continue maintaining what is here. Good job!
- Keep on keepin' on!
- Keep on with the same service pretty much.
- Keep up the good work!

- Leave it the way it is! It's perfect!
- Long as it's clean, it's great
- Love it and nothing needs to be improved.
- love the pretty setting
- Love the walking stick on trailhead. More eagles over river. Dog wash, free popsicles, live band, masseuse on can, casino Just kidding
- Love this hike-close to an hour for a good workout-it's our "go to" hike
- Loved it.
- No complaints! Nice job!
- Nothing its perfect
- One of our favorite places. Thank you.
- One of my favorite parks, conveniently located on I-84. The trails and waterfalls are just great!
- Our visit was great and exceeded our expectations
- Seems good to me.
- Thank you
- Thanks
- Thanks for repairing Defiance trail.
- The trail (paved) from Viento is excellent - This attracts us for many walks.
- We love Starvation Creek!
- Wonderful just the way it is.
- You are doing it! Keep in touch with the people who come here! Thank you!

Negative Comments and / or Issues for Improvement

- A trail map at entrance. Suggestions for risks found on trails ie steep ridge
- Advertise the trails, other than that it was lovely
- Attention to trail maintenance on loop trail-some landslide areas. Maybe coordinate with US forest services.
- Baby changing table in men's room.
- Best nearby hike-would love to have directional signs for first time users
- Better hiking/trail maps w/distance and elevation and difficulty at trailhead. Better signage for big falls behind rest stop.
- Better sign to mark Mt. Defiance trailhead. Make it obvious! It's not now
- Better signage for trails
- Better signs and trails!
- Better signs near bathrooms with directions to the falls.
- Better trail signage. Trails could also use some tread work.
- Better trail signs
- Block road noise. Trails - more maintenance. Rangers - personnel
- Clear "some" of the limbs covering the creek. Provide a modest trail on the east side of the creek. 1-2 more picnic tables. Some access to the base of the falls area (above/behind large boulder).
- Decrease highway noise. More trails with moderate hiking access to falls. Thank you!
- Didn't see map showing trails. Confused w/limited directions. Wonderful hike though.

- Do a better job of marking trails and points of interest, and more info and detail.
- Don't make me pay to park here.
- Either improve loose trails or make it known to public by info posted on each trail to warn against accidents that maybe life threatening!
- Excellent park. Would love to know more about other activities
- Facilities are terrible as they are
- Fix trails/washouts etc. Poison oak! Get rid of it.
- Freeway access going west.
- Great park. Maybe clean-up some of the poison oak on the edge of the trails.
- Great hike spot. Parking a bit small. The path by freeway is a slight draw back.
- Have more signs with better descriptions of trails and level of hike difficulty. Otherwise, this trail/state park is great.
- I don't think anything needs to change! Keep trails maintained, we had a wonderful time hiking.
- I got stung by a bee. That was unfortunate but not preventable. Also, this was a side trip from our main trip to Portland.
- I like it as it is. Please keep as fee-free site.
- I like it as it is. Keep it in this condition.
- I loved the quietness from no crowds. However, highway noise is a problem but don't know how you would change that. It is convenient because of the highway so I guess that's the tradeoff. I would come back again,
- I would say more trails ways to get to the top of the falls. I wanted to see the hole in the wall waterfall but from where it started. And ya, that's mostly it. Had a great time.
- If the lights in rest area are not on after dark - it would be much safer spot to have lighted night bathroom stop
- Improve switchback trail, please - had to abort climb at second switch up. Rest was absolutely AWESOME! Thank you for taking good care of our public spaces!
- Improve the conditions of the Defiance trail 414
- Improve trail on Starvation Creek loop - it's a good work out hike, but some safety improvements would be good.
- It is perfectly fine the way it is for my purposes, which is as a parking lot/trailhead. Personally I wouldn't change a thing, except maybe add another toilet? But that'd just be a nice to have, not something that needs to be addressed. All in all it's a great spot!
- It was a great hike some of the signs could be more descriptive.
- It's a wonderful spot. I had never heard about it. Beautiful waterfall!! (Keep it a secret so it doesn't become like Multnomah Falls)
- Just keep it clean. It's a great park.
- Just keep it open and maintain the trail to the top.
- Just provide trash cans and remove litter. Let nature take its course.
- Keep drains open in restroom. Clean with soap! Protect old growth.
- Keep funded
- Keep litter out. Education/history is good. Trails maps are also good.
- Limit development
- Make stuff more dangerous.
- Make the trail wider in some areas where it is narrow.
- Maybe a freeway sound buffer would make it better.
- Maybe a sign that points to the trail that follows the freeway.

- More historical information. Displays
- More historical information on: Hole-In-The-Wall Falls - Carin Creek
- More history - bird life, native plants
- More history on waterfall names
- More info on trails/waterfalls
- More light at night. Emergency call box/phone
- More maps, trailheads
- More natural trails; possibly one to the top of the falls
- More signage on trails
- More signs on trails, with distances.
- More signs.
- More specific trail markings and direction to different parts of the trail
- Move trail signs with mileage posted. Trail map at trailhead showing where waterfalls are located and trails connect. A garbage can by restroom
- My only complaint is that the hike up the hill wasn't very well marked and we thought the big steep hike lead to the waterfall and didn't realize it was right behind the bathroom/picnic area. We headed west along
- My only complaint is that the signs on the trails are somewhat degraded/unreadable. I also like it when signs post the mileage for the trail.
- My wife would like to see trails in better condition.
- Need more brochures and maps.
- Need more publicity. Some shops.
- Nice park. Need more signs.
- Nice park. Need more signs.
- Noise reduction due to freeway. Poison ivy control.
- Pave more bike paths. Otherwise fabulous
- Please improve the switch-back trail - too dangerous as is. But still a beautiful and worthwhile day was spent here. Thanks! All else is just fine
- Post trail maintenance of closures on web site or curiousgorge.org (I think)
- Provide OHV trails.
- Pull Ivy
- Pull the ivy!
- Put clear warning signs on the difficulty of Mt Defiance. Maybe add benches periodically along the trail. Water source at the top?
- Recycling bins.
- Reduce off trail walkers, maintain official trails
- Removal of downed trees, some gravel for places with loose dirt, simple weed removal, summit info at top, signage showing distance to destination.
- Remove the English Ivy. A state park should not be responsible for destroying the entire hillside behind it
- Retired. Storyboards. Recycle cans
- Signage and mileage on trails.
- Signage on trails. Systems at Starvation Creek
- Signs for trails cut off mark as dangerous step
- Starvation Creek is awesome. Things to improve - repair fence, remove downed trees near the viewpoint.
- Starvation trail is pretty rough

- Thank you for not ticketing when I forgot to display pass. Trail signs point correct direction
- The park was great! More/better signs with trail names, length of trails, etc. would be helpful
- There need to be trash cans by the picnic tables
- There we 5 washed out sections of trail on the Mt Defiance trails - otherwise a great hike.
- This spring there was major damage to the trail above the powerline about 3/4-1 miles west of the trail junction. Though much of the trail has been repaired it was disappointing to see the upper portion of the repair poorly completed. Perhaps looping a new 30 foot section is better than the 'log slide' currently in place
- Trail condition is poor, otherwise good!
- Trail conditions on Mt Defiance Trail above 500' and below 1800' need maintenance. Tree fall conditions are ok, several spots of trail washed out making navigating them tricky. Signage on trails could be improved. The signs in place are weathered. Info on signs, miles and should include elevation. I often see people on trails not fully prepared for 4700' and elevation gain and 6 miles of trail.
- Trail signs need replaced. Trails need to be maintained more frequently. Everything else about the park is fine and what I would consider average for a roadside park absence of park employees.
- Trails are not very well marked. Otherwise - great experience.
- We did not know about the poison oak along the trails until after we had taken a walk. Would like to see warning signs
- We did Starvation Ridge waterfalls loop and would have liked to have more signage. We had to back track to see Lancaster Falls. Thank you. Oregon is wonderful and we've enjoyed the park
- We enjoy the solitude we can often find here so easily accessed from the highway - but sometimes it can be a bit creepy for my wife if she is alone. We were married here 4 years ago - it was nice to assemble a small group for a simple ceremony without hassle and fuss.
- We've often wished more picnic facilities. We take turns bringing our grandkids to Hood River and we end up going on to Columbia River and Hood River (the river walk) for our picnic. Would prefer to have it here. We average approximately 18 stops per year.
- Wildlife viewing areas.
- Would like to have a trail from picnic area to the top of the falls; other than that I absolutely love this park and its peacefulness
- Would like to hear less of the car/traffic noise from the highway.

APPENDIX B: QUESTIONNAIRE

Day Visitor Experiences and Perceptions at Starvation Creek State Park



Please Complete this Survey and Return it as Soon as Possible

Participation is Voluntary and Responses are Anonymous

Thank You for Your Participation

A Study Conducted Cooperatively by:



Nature
HISTORY
Discovery



We are conducting this survey to learn about your experiences at Starvation Creek State Park (SNA). Your input is important and will assist managers improve your experiences at this park. **Once you have completed this survey, please return it as soon as possible.**

1. Before this trip, had you ever visited Starvation Creek State Park? (check **ONE**)
 - No
 - Yes → if yes, how many day trips have you made to this park in the past 12 months? (write number) _____ trip(s)

2. How many hours did you spend at Starvation Creek State Park on this trip? (write number) _____ hour(s)

3. Please check **all** recreation activities you did at Starvation Creek State Park on this trip. (check **ALL THAT APPLY**)

<input type="checkbox"/> A. Hiking or walking	<input type="checkbox"/> D. Bicycling on trails	<input type="checkbox"/> G. Picnicking or barbecuing
<input type="checkbox"/> B. Dog walking	<input type="checkbox"/> E. Bicycling on local roads	<input type="checkbox"/> H. Bird or wildlife watching
<input type="checkbox"/> C. Running or jogging	<input type="checkbox"/> F. Sightseeing	<input type="checkbox"/> I. Other (write response) _____

4. From activities in Question 3 above, what **ONE primary activity** did you do at Starvation Creek State Park on this trip? (write a letter that matches your response)
Letter for primary activity _____

5. Which of the following best describes the purpose of your trip? (check **ONE**)
 - Primarily for recreation – this park was my main destination
 - Primarily for recreation – my main destination was NOT this park
 - Primarily for business, family, or other reasons – this park was a side trip
 - Some other reason

6. About how far from your home did you travel to get to this park? (write number of miles) _____ mile(s)

7. Overall, how dissatisfied or satisfied were you with your **overall experience** at Starvation Creek State Park? (check **ONE**)
 - Very Dissatisfied Dissatisfied Neither Satisfied Very Satisfied

8. How dissatisfied or satisfied were you with the **natural environment** at Starvation Creek State Park? (check **ONE**)
 - Very Dissatisfied Dissatisfied Neither Satisfied Very Satisfied

9. How dissatisfied or satisfied were you with the **facilities / services** at Starvation Creek State Park? (check **ONE**)
 - Very Dissatisfied Dissatisfied Neither Satisfied Very Satisfied

10. How unlikely or likely are you to return to Starvation Creek State Park in the future? (check **ONE**)
 - Very Unlikely Unlikely Neither Likely Very Likely

11. How **important** is it to you that each of the following is at Starvation Creek State Park? (**circle one number for EACH**)

	Not Important		Neither		Extremely Important
Overall cleanliness of park (e.g., graffiti, lawn care).	1	2	3	4	5
Number of toilets / bathrooms.	1	2	3	4	5
Cleanliness / conditions of toilets / bathrooms.	1	2	3	4	5
Absence of litter.	1	2	3	4	5
Presence of park rangers / personnel.	1	2	3	4	5
Courteousness of park rangers / personnel.	1	2	3	4	5
Number of park trails.	1	2	3	4	5
Condition / maintenance of park trails.	1	2	3	4	5
Ease of movement or access (e.g., wheelchair, elderly, baby stroller).	1	2	3	4	5
Facilities for groups to gather.	1	2	3	4	5
Variety of things to do.	1	2	3	4	5
Personal safety.	1	2	3	4	5
Number of information / education programs or materials.	1	2	3	4	5
Quality of information / education programs or materials.	1	2	3	4	5
Information specifically about conditions or hazards in the park.	1	2	3	4	5
Signs about directions within the park.	1	2	3	4	5
Signs about directions to the park.	1	2	3	4	5
Parking for vehicles.	1	2	3	4	5

12. Now, how **dissatisfied or satisfied** were you with the following at Starvation Creek State Park? (**circle a number for EACH**)

	Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied
Overall cleanliness of park (e.g., graffiti, lawn care).	1	2	3	4	5
Number of toilets / bathrooms.	1	2	3	4	5
Cleanliness / conditions of toilets / bathrooms.	1	2	3	4	5
Absence of litter.	1	2	3	4	5
Presence of park rangers / personnel.	1	2	3	4	5
Courteousness of park rangers / personnel.	1	2	3	4	5
Number of park trails.	1	2	3	4	5
Condition / maintenance of park trails.	1	2	3	4	5
Ease of movement or access (e.g., wheelchair, elderly, stroller).	1	2	3	4	5
Facilities for groups to gather.	1	2	3	4	5
Variety of things to do.	1	2	3	4	5
Personal safety.	1	2	3	4	5
Number of information / education programs or materials.	1	2	3	4	5
Quality of information / education programs or materials.	1	2	3	4	5
Information specifically about conditions or hazards in the park.	1	2	3	4	5
Signs about directions within the park.	1	2	3	4	5
Signs about directions to the park.	1	2	3	4	5
Parking for vehicles.	1	2	3	4	5

13. To what extent did you feel crowded at Starvation Creek State Park on this trip? (circle a number)

1	2	3	4	5	6	7	8	9
Not at all Crowded		Slightly Crowded			Moderately Crowded		Extremely Crowded	

14. To what extent do you *oppose or support* each of the following possible management actions at Starvation Creek State Park? (circle one number for EACH)

	Strongly Oppose	Oppose	Neither	Support	Strongly Support
Provide more opportunities for escaping crowds of people.	1	2	3	4	5
Provide more opportunities for viewing wildlife.	1	2	3	4	5
Provide more group picnic areas.	1	2	3	4	5
Provide more opportunities for hiking.	1	2	3	4	5
Provide more paved trails.	1	2	3	4	5
Provide more trash cans.	1	2	3	4	5
Provide more recycling containers.	1	2	3	4	5
Provide more information / education about nature, history, or archeology.	1	2	3	4	5
Provide more programs led by park rangers.	1	2	3	4	5
Provide wireless internet access within the park.	1	2	3	4	5
Provide downloadable mobile phone applications.	1	2	3	4	5
Provide more enclosed shelters.	1	2	3	4	5
Improve maintenance or upkeep of facilities / services.	1	2	3	4	5
Require all dogs be kept on leash at all times.	1	2	3	4	5
Make the park more pet friendly.	1	2	3	4	5
Provide natural buffers to block views of development outside the park.	1	2	3	4	5
Restore it to historical conditions (e.g., replace non-native with native plants)	1	2	3	4	5
Limit the number of people allowed per day.	1	2	3	4	5
Limit the number of large groups allowed (e.g., no more than 10-20 people).	1	2	3	4	5
Close this park to all recreation / tourism activities.	1	2	3	4	5
Do not change anything / keep things as they are now.	1	2	3	4	5

15. **Including yourself**, how many people accompanied you at Starvation Creek State Park on this trip? _____ person(s)

16. Did anyone in your group have a disability?

- No
- Yes → if yes, what are these disabilities? (check ALL THAT APPLY)
- Walking Hearing Sight
- Learning Other
- _____

17. If you had NOT been able to go to Starvation Creek State Park for this visit, what would you have done? (check ONE)

- Gone somewhere else for the same activity → how far from home is the place you would go instead? _____ miles(s)
- Gone somewhere else for a different activity → how far from home is the place you would go instead? _____ miles(s)
- Come back another time
- Stayed home
- Gone to work at my regular job
- Something else (none of these)

18. How did you get to Starvation Creek State Park on this trip? (**check ONE**)

- My family's personal vehicle → how many total people were in the vehicle? _____ person(s)
- Somebody else's personal vehicle → how many total people were in the vehicle? _____ person(s)
- Other (write response) _____
 _____ → how many total people were in the vehicle? _____ person(s)

19. When you were thinking about visiting an Oregon State Park such as Starvation Creek State Park, about how often did you obtain information from each of the following sources when making your decision? (**circle one number for EACH**)

	Never		Sometimes		Often
A. Official internet websites (e.g., Oregon State Parks, Travel Oregon).	1	2	3	4	5
B. Social media internet websites (e.g., Facebook, Twitter).	1	2	3	4	5
C. Brochures.	1	2	3	4	5
D. Newspapers.	1	2	3	4	5
E. Magazines.	1	2	3	4	5
F. Books.	1	2	3	4	5
G. Television.	1	2	3	4	5
H. Videos / DVDs.	1	2	3	4	5
I. Radio.	1	2	3	4	5
J. Community organization or church.	1	2	3	4	5
K. Health care providers.	1	2	3	4	5
L. Work.	1	2	3	4	5
M. Friends or family members.	1	2	3	4	5
N. Highway signs.	1	2	3	4	5
O. Previous visit.	1	2	3	4	5
P. Other (write response) _____	1	2	3	4	5

20. From the list of sources in question 19 above, which **ONE** would you use **FIRST** when obtaining information about an Oregon State Park? (**write letter**)

Letter _____

21. When planning your visit to Starvation Creek State Park, were you able to find the information you needed? (**check ONE**)

- Yes
- No → if no, what additional information did you need? (**write response**) _____

22. For each of the following categories, please estimate how much you and other members of your party spent and plan to spend on this trip within **30 miles** of Starvation Creek State Park. **Please round off to the nearest dollar.**

- Motel, lodge, cabin, B&B, other lodging: \$ _____ .00
- Camping: \$ _____ .00
- Restaurants and bars: \$ _____ .00
- Groceries: \$ _____ .00
- Gasoline and oil: \$ _____ .00
- Park entry, parking, or recreation use fees: \$ _____ .00
- Recreation and equipment (guide fees, equipment rental): \$ _____ .00
- Souvenirs, clothing, and other miscellaneous: \$ _____ .00

23. Are you staying away from home within 30 miles of Starvation Creek State Park on this trip? (**check ONE**)

- No
- Yes → if yes, how many nights are you staying away from home within 30 miles of this park? _____ night(s)

24. Are you: (**check ONE**) Male Female

25. How old are you? (**write response**) _____ years old

26. Which of the following best describes you? (**check ONE**)

- White (Caucasian) Hispanic / Latino American Indian or Alaskan Native Other (write response)
 Black / African American Asian Native Hawaiian or Pacific Islander _____

27. What language is spoken most often at your home? (**check ONE**)

- English Spanish Russian Other (write response) _____

28. Where do you live? (**write responses**) City / town _____ State _____ Country _____ Zipcode _____

29. Which of these broad categories best describes your *current annual household income before taxes*? (**check ONE**)

- | | |
|-----------------------------------------------|-------------------------------------------------|
| <input type="checkbox"/> Less than \$10,000 | <input type="checkbox"/> \$90,000 to \$109,999 |
| <input type="checkbox"/> \$10,000 to \$29,999 | <input type="checkbox"/> \$110,000 to \$129,999 |
| <input type="checkbox"/> \$30,000 to \$49,999 | <input type="checkbox"/> \$130,000 to \$149,999 |
| <input type="checkbox"/> \$50,000 to \$69,999 | <input type="checkbox"/> \$150,000 to \$169,999 |
| <input type="checkbox"/> \$70,000 to \$89,999 | <input type="checkbox"/> \$170,000 or more |

Please tell us how we can improve Starvation Creek State Park:

Thank you, your input is important! *Please return this survey as soon as possible.*

APPENDIX C: UNCOLLAPSED PERCENTAGES

Day Visitor Experiences and Perceptions at Starvation Creek State Park



Please Complete this Survey and Return it as Soon as Possible

Participation is Voluntary and Responses are Anonymous

Thank You for Your Participation

A Study Conducted Cooperatively by:



We are conducting this survey to learn about your experiences at Starvation Creek State Park (SNA). Your input is important and will assist managers improve your experiences at this park. **Once you have completed this survey, please return it as soon as possible.**

1. Before this trip, had you ever visited Starvation Creek State Park? (**check ONE**)
 - 48% No
 - 52% Yes → if yes, how many day trips have you made to this park in the past 12 months? (**write number**) M=5.27 trip(s)

2. How many hours did you spend at Starvation Creek State Park on this trip? (**write number**) M=2.79 hour(s)

3. Please check **all** recreation activities you did at Starvation Creek State Park on this trip. (**check ALL THAT APPLY**)

87% A. Hiking or walking	4% D. Bicycling on trails	16% G. Picnicking or barbecuing
22% B. Dog walking	2% E. Bicycling on local roads	13% H. Bird or wildlife watching
8% C. Running or jogging	48% F. Sightseeing	17% I. Other (write response) <u>See report</u>

4. From activities in Question 3 above, what **ONE primary activity** did you do at Starvation Creek State Park on this trip? (**write a letter that matches your response**)

Letter for primary activity See report

5. Which of the following best describes the purpose of your trip? (**check ONE**)
 - 55% Primarily for recreation – this park was my main destination
 - 31% Primarily for recreation – my main destination was NOT this park
 - 10% Primarily for business, family, or other reasons – this park was a side trip
 - 4% Some other reason

6. About how far from your home did you travel to get to this park? (**write number of miles**) M=167.48 mile(s)

7. Overall, how dissatisfied or satisfied were you with your **overall experience** at Starvation Creek State Park? (**check ONE**)

4% Very Dissatisfied	1% Dissatisfied	2% Neither	31% Satisfied	62% Very Satisfied
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8. How dissatisfied or satisfied were you with the **natural environment** at Starvation Creek State Park? (**check ONE**)

2% Very Dissatisfied	1% Dissatisfied	5% Neither	34% Satisfied	59% Very Satisfied
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9. How dissatisfied or satisfied were you with the **facilities / services** at Starvation Creek State Park? (**check ONE**)

1% Very Dissatisfied	1% Dissatisfied	5% Neither	42% Satisfied	50% Very Satisfied
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10. How unlikely or likely are you to return to Starvation Creek State Park in the future? (**check ONE**)

4% Very Unlikely	4% Unlikely	7% Neither	31% Likely	54% Very Likely
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11. How **important** is it to you that each of the following is at Starvation Creek State Park? (**circle one number for EACH**)

	Not Important		Neither		Extremely Important
Overall cleanliness of park (e.g., graffiti, lawn care).	1%	1%	6%	43%	50%
Number of toilets / bathrooms.	5	3	22	43	27
Cleanliness / conditions of toilets / bathrooms.	1	1	10	39	49
Absence of litter.	1	<1	6	35	58
Presence of park rangers / personnel.	13	13	35	27	13
Courteousness of park rangers / personnel.	5	3	18	42	32
Number of park trails.	1	2	27	48	22
Condition / maintenance of park trails.	1	2	12	45	40
Ease of movement or access (e.g., wheelchair, elderly, baby stroller).	19	9	37	24	13
Facilities for groups to gather.	22	11	42	16	9
Variety of things to do.	11	9	37	30	14
Personal safety.	6	4	17	35	39
Number of information / education programs or materials.	13	12	40	25	10
Quality of information / education programs or materials.	12	8	38	28	14
Information specifically about conditions or hazards in the park.	6	4	22	40	28
Signs about directions within the park.	4	3	16	37	42
Signs about directions to the park.	5	4	21	41	29
Parking for vehicles.	3	4	17	45	31

12. Now, how **dissatisfied or satisfied** were you with the following at Starvation Creek State Park? (**circle a number for EACH**)

	Very Dissatisfied	Dissatisfied	Neither	Satisfied	Very Satisfied
Overall cleanliness of park (e.g., graffiti, lawn care).	<1%	0%	3%	42%	55%
Number of toilets / bathrooms.	<1	1	8	45	46
Cleanliness / conditions of toilets / bathrooms.	1	2	10	42	45
Absence of litter.	<1	1	3	41	54
Presence of park rangers / personnel.	1	2	25	34	39
Courteousness of park rangers / personnel.	<1	1	19	29	51
Number of park trails.	1	3	15	47	34
Condition / maintenance of park trails.	1	5	14	45	35
Ease of movement or access (e.g., wheelchair, elderly, stroller).	1	1	35	32	31
Facilities for groups to gather.	1	1	48	28	24
Variety of things to do.	1	1	34	39	26
Personal safety.	1	1	15	44	40
Number of information / education programs or materials.	2	5	48	29	16
Quality of information / education programs or materials.	2	4	46	28	20
Information specifically about conditions or hazards in the park.	3	7	36	35	20
Signs about directions within the park.	4	12	24	36	25
Signs about directions to the park.	1	4	25	41	29
Parking for vehicles.	1	2	15	44	39

13. To what extent did you feel crowded at Starvation Creek State Park on this trip? (**circle a number**)

48%	21%	13%	7%	5%	3%	2%	1%	1%
Not at all Crowded		Slightly Crowded			Moderately Crowded		Extremely Crowded	

14. To what extent do you **oppose or support** each of the following possible management actions at Starvation Creek State Park? (**circle one number for EACH**)

	Strongly Oppose	Oppose	Neither	Support	Strongly Support
Provide more opportunities for escaping crowds of people.	1%	1%	31%	38%	29%
Provide more opportunities for viewing wildlife.	<1	0	28	41	31
Provide more group picnic areas.	3	10	51	27	8
Provide more opportunities for hiking.	1	1	22	46	31
Provide more paved trails.	9	17	43	20	11
Provide more trash cans.	2	3	50	35	10
Provide more recycling containers.	2	2	33	46	17
Provide more information / education about nature, history, or archeology.	1	1	31	46	21
Provide more programs led by park rangers.	3	8	56	26	8
Provide wireless internet access within the park.	23	18	41	11	7
Provide downloadable mobile phone applications.	15	13	47	17	8
Provide more enclosed shelters.	9	14	57	15	5
Improve maintenance or upkeep of facilities / services.	2	3	45	38	13
Require all dogs be kept on leash at all times.	11	10	28	25	26
Make the park more pet friendly.	6	10	44	24	16
Provide natural buffers to block views of development outside the park.	3	5	38	33	21
Restore it to historical conditions (e.g., replace non-native with native plants)	3	4	30	34	29
Limit the number of people allowed per day.	18	28	34	14	6
Limit the number of large groups allowed (e.g., no more than 10-20 people).	9	12	37	27	15
Close this park to all recreation / tourism activities.	53	23	18	3	3
Do not change anything / keep things as they are now.	2	7	35	35	21

15. **Including yourself**, how many people accompanied you at Starvation Creek State Park on this trip? M=2.72 person(s)

16. Did anyone in your group have a disability?

91% No

9% Yes → if yes, what are these disabilities? (**check ALL THAT APPLY**) 2% Hearing 1% Sight 5% Walking
1% Learning 1% Other See report

17. If you had NOT been able to go to Starvation Creek State Park for this visit, what would you have done? (**check ONE**)

72% Gone somewhere else for the same activity → how far from home is the place you would go instead? M=61.71 miles(s)

5% Gone somewhere else for a different activity → how far from home is the place you would go instead? M=45.92 miles(s)

9% Come back another time

3% Stayed home

<1% Gone to work at my regular job

10% Something else (none of these)

18. How did you get to Starvation Creek State Park on this trip? (**check ONE**)

82% My family's personal vehicle → how many total people were in the vehicle? M=2.25 person(s)

- 11% Somebody else's personal vehicle → how many total people were in the vehicle? M=3.08 person(s)
 7% Other (write response) See report → how many total people were in the vehicle? M=2.50 person(s)

19. When you were thinking about visiting an Oregon State Park such as Starvation Creek State Park, about how often did you obtain information from each of the following sources when making your decision? (**circle one number for EACH**)

	Never		Sometimes		Often
A. Official internet websites (e.g., Oregon State Parks, Travel Oregon).	25%	6%	30%	16%	24%
B. Social media internet websites (e.g., Facebook, Twitter).	60	12	17	5	6
C. Brochures.	44	15	27	9	5
D. Newspapers.	57	14	22	4	2
E. Magazines.	50	13	27	8	3
F. Books.	36	11	19	16	18
G. Television.	70	15	11	2	2
H. Videos / DVDs.	75	14	8	2	1
I. Radio.	70	13	13	2	1
J. Community organization or church.	73	14	9	1	3
K. Health care providers.	81	10	7	1	1
L. Work.	67	11	13	7	2
M. Friends or family members.	25	5	20	30	20
N. Highway signs.	20	10	30	22	17
O. Previous visit.	24	5	19	25	28
P. Other (write response) <u>See report</u>	55	8	14	6	17

20. From the list of sources in question 19 above, which **ONE** would you use **FIRST** when obtaining information about an Oregon State Park? (**write letter**)

Letter See report

21. When planning your visit to Starvation Creek State Park, were you able to find the information you needed? (**check ONE**)

93% Yes

7% No → if no, what additional information did you need? (**write response**) See report

22. For each of the following categories, please estimate how much you and other members of your party spent and plan to spend on this trip within **30 miles** of Starvation Creek State Park. *Please round off to the nearest dollar.*

Motel, lodge, cabin, B&B, other lodging: See report

Camping: See report

Restaurants and bars: See report

Groceries: See report

Gasoline and oil: See report

Park entry, parking, or recreation use fees: See report

Recreation and equipment (guide fees, equipment rental): See report

Souvenirs, clothing, and other miscellaneous: See report

23. Are you staying away from home within 30 miles of Starvation Creek State Park on this trip? (**check ONE**)

79% No

21% Yes → if yes, how many nights are you staying away from home within 30 miles of this park? M=4.66 night(s)

24. Are you: (**check ONE**) 55% Male 46% Female

25. How old are you? (**write response**) M=46.73 years old

26. Which of the following best describes you? (**check ONE**)

- | | | | |
|-----------------------------|----------------------|----------------------------------------|---------------------------|
| 90% White (Caucasian) | 3% Hispanic / Latino | 1% American Indian or Alaskan Native | 1% Other (write response) |
| 0% Black / African American | 4% Asian | 0% Native Hawaiian or Pacific Islander | <u>See report</u> |

27. What language is spoken most often at your home? (**check ONE**)

- | | | | |
|-------------|------------|------------|---------------------------------------------|
| 98% English | 1% Spanish | 0% Russian | 2% Other (write response) <u>See report</u> |
|-------------|------------|------------|---------------------------------------------|

28. Where do you live? (**write responses**) City / town See report State See report Country See report Zipcode See report

29. Which of these broad categories best describes your *current annual household income before taxes*? (**check ONE**)

- | | |
|--------------------------|----------------------------|
| 3% Less than \$10,000 | 11% \$90,000 to \$109,999 |
| 9% \$10,000 to \$29,999 | 10% \$110,000 to \$129,999 |
| 13% \$30,000 to \$49,999 | 5% \$130,000 to \$149,999 |
| 21% \$50,000 to \$69,999 | 2% \$150,000 to \$169,999 |
| 17% \$70,000 to \$89,999 | 9% \$170,000 or more |

Please tell us how we can improve Starvation Creek State Park:

See report

Thank you, your input is important! ***Please return this survey as soon as possible.***