

Boundary Hydroelectric Project (FERC No. 2144)

***Study No. 21
Recreation Resource Study
Interim Report***

**Prepared for
Seattle City Light**

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March 2008

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Study No. 21: Recreation Resource Study

Interim Report

Boundary Hydroelectric Project (FERC No. 2144)

1 INTRODUCTION

Study No. 21, the Recreation Resource Study (RRS), is being conducted in support of the relicensing of the Boundary Hydroelectric Project (Project), Federal Energy Regulatory Commission (FERC) No. 2144, as identified in the Revised Study Plan (RSP; SCL 2007a) submitted by Seattle City Light (SCL) on February 14, 2007, and approved by the FERC in its Study Plan Determination letter dated March 15, 2007. This is the interim report describing the 2007 study efforts of the RRS. Of the five study elements (see next section), only two – the Recreation Surveys and the Dispersed Recreation Use, Access, and Condition Analysis – were conducted in 2007 and are thus described in this report; the remaining three components will be implemented in 2008 and reported on in the Updated Study Report (USR).

2 STUDY OBJECTIVES

The overall goal of the RRS is to provide information necessary to analyze current and future recreational use, opportunities, and needs related to the Project. The RRS comprises the following five study elements:

- Recreation surveys
- Regional recreation analysis
- Dispersed recreation use, access, and condition analysis
- Future recreation use analysis
- Recreation carrying capacity analysis

Objectives for each of the five study elements are described below.

2.1. Recreation Surveys

The main objective of the Recreation Surveys is to characterize existing levels and patterns of recreational use and visitor characteristics, preferences, needs, and attitudes in the Project area and vicinity. Specific objectives of the Recreation Surveys are as follows:

- *Quantify existing recreational use in the Project area*—Identify the amount of use, activity types, daytime and overnight use, and spatial and temporal distribution of existing use within the Project area, including developed recreation sites, dispersed recreation use, and boating on the reservoir.
- *Quantify visitor perceptions relative to Project-related recreation facilities, use areas, and opportunities*—Collect information on visitor characteristics, attitudes and preferences, as well as existing and/or anticipated future unmet need of the Project area’s primary visitor populations (e.g., boaters, picnickers, sightseers, anglers) and populations who may come in the future.

The results from the Recreation Surveys will be applied to varying degrees in the other components of the RRS. The Regional Recreation Analysis (see Section 2.2) will include a comparison of Project-area resources and use levels, as determined through the Recreation Surveys, to resources and use levels within a larger region surrounding the Project. The Future Recreation Use Analysis (see Section 2.4) will use data developed through the Recreation Surveys as a baseline for projecting future use levels and demand for various facility and activity types. The Recreation Carrying Capacity Analysis (see Section 2.5) will involve the evaluation of data on current use, developed through the Recreation Surveys, relative to various types of carrying capacity indicators to assess appropriate direction for future recreation management.

Subsequent to the completion of Study 21, the RRS data will be used to develop a Recreation Needs Analysis specific to the Boundary Project. In the Recreation Needs Analysis, SCL will synthesize data from all five RRS components to develop an integrated assessment of existing and potential future recreation needs for the Project area. SCL will then develop a Recreation Resources Management Plan (RRMP) for the Project that defines the scope, cost, timing, and other parameters for proposed recreation actions identified through the needs analysis.

2.2. Regional Recreation Analysis

The objective of the Regional Recreation Analysis study element of the RRS is to analyze recreation information related to the supply and demand of regional recreation resources near the Project, and to place the Project in the proper regional context. This is an important step in determining the role of the Project area in meeting a portion of regional recreation demand and in planning for potential future recreational development, if needed, on or near Project lands.

The Regional Recreation Analysis study element was designed to address the following objectives:

- Define approximate boundaries of the region by zone, likely including the local area, more distant areas of Pend Oreille County, adjacent Washington state counties such as Spokane County, and nearby areas of the northern Idaho panhandle and southern British Columbia within the Scenic Byway corridor (note that this activity will occur when the analysis is conducted during 2008).
- Identify similarities, differences, and relative significance of the Project area's recreational resources and opportunities within each zone and the broader regional context.
- Document existing regional recreation opportunities by zone including specific facilities, use areas, and capacities.
- Identify regional alternatives to Project area facilities, use areas, and opportunities by zone.
- Broadly assess current use levels for regional recreation opportunities, facilities, and use areas by zone.
- Identify relevant regional trends in recreation participation and demand.
- Understand the role and significance of the Scenic Byway (State Route [SR] 31) (a component of the International Selkirk Loop) to the region and to the Project area,

including existing and projected use of the Scenic Byway and existing and planned facility components and visitor programs.

Although the Regional Recreation Analysis is broader in scope and geographic context compared to the other study elements, the primary focus will be on Project-related recreational activities and opportunities with a Project nexus.

2.3. Dispersed Recreation Use, Access, and Condition Analysis

In addition to developed recreation facilities, dispersed recreation sites and use areas and public access/trails to and along the reservoir shoreline and water surface are important recreational components to be considered in the Project area. For this study element, the definition of trails (land and water) follow the same definition as provided in the Washington State Trails Plan (IAC 1991). Dispersed recreation sites and use areas include undeveloped day use and overnight recreation sites/use areas that are user-defined and may be accessible by foot, watercraft, or vehicle.

Specific objectives of the Dispersed Recreation Use, Access, and Condition Analysis study element of the RRS include the following:

- Identify and document/map existing and potential dispersed recreation use areas and sites in the Project area. Define physical attributes of existing sites (e.g., location, slope, vegetation, access). Inventory user-created facilities (e.g., campfire rings, benches and tables, tent pads, trails, excavated sandy beaches, boat mooring poles). Identify likely users based on anecdotal information (e.g., access to each site, impacts observed, and observations).
- Identify and document/map existing road, foot trail, and/or watercraft access routes used by the public and SCL to access the Project shoreline, Project facilities, or along the reservoir water surface. In addition, potential road and/or trail routes that may potentially be developed in the future for enhanced public access will be noted. Information obtained along existing routes includes the qualitative condition of site features and/or routes; presence of fencing, gates, or other barriers (natural or man-made); presence of posted signs that may direct or prohibit public access; impacts observed along these routes such as erosion; and an assessment of the likely users of these land and water routes. Additional detailed information on Project-related roads and their condition has been collected and analyzed in Study 22, Land and Roads Study Interim Report (SCL 2008).
- Identify and document/map trail and dispersed site-related ecological impacts (e.g., vegetation damage or removal, wetland impacts, exposed soil and compaction, accumulated litter and debris, sanitation issues). Identify the likely users of these areas or sites based on observed impact and access, such as off-highway vehicle use. Evaluate and quantify the location, timing, and extent of user-related impacts to sensitive Project area lands, waters, and resources.
- Identify opportunities and constraints to maintaining or enhancing dispersed recreation use areas, sites, and public road/trail access within the Project area.
- Identify the potential effects of projected future private shoreline development directly adjacent to, but outside of, the Project boundary on dispersed recreation use

areas, sites, and public road and trail access in the Project area. Identify the potential effects of current and potential future Project operations on dispersed recreation use areas, sites, and public road/trail access.

2.4. Future Recreation Use Analysis

It is important to estimate future use levels in the Project area to appropriately plan for anticipated recreation needs over the term of the new FERC license. Specific objectives of the Future Recreation Use Analysis study element of the RRS include the following:

- Analyze recreation activity demand and user data by activity type collected during the recreation surveys and the regional recreation analysis.
- Estimate recreation use levels and demand for different activity types within the study area through the anticipated term of the new license (30 to 50 years).
- Identify any specific recreation activities in the Project area that may currently have lower demand, but are anticipated to experience increased (or decreased) rates of participation in the future.

2.5. Recreation Carrying Capacity Analysis

Beyond the traditional biological definition of carrying capacity that defines the capability of a given environment to sustain a specific number of individuals over time, recreation carrying capacity issues are also related to the ecological, social, and managerial aspects of recreational opportunities (McCool 1996). At some point, recreation demand cannot be met without negatively affecting sensitive resources and/or the recreation experience that people expect. The goal for decision-makers is to manage recreation use levels and impacts so that they do not exceed overall capacity standards.

To address these issues, the specific objectives of the recreation carrying capacity analysis study element of the RRS include the following:

- Use information developed in the other RRS elements to help develop the results of this analysis.
- Establish whether existing recreation use levels are below, approaching, at, or exceeding the Project area's ability to adequately accommodate recreational use without adversely impacting the ecological, social, or managerial capacity of the Project area, including the reservoir surface, developed recreation sites, and dispersed use areas.
- Use the results of the recreation carrying capacity analysis to help define potential capacity indicators and standards/guidelines and determine whether management actions may be needed to maintain use levels at or below established standards/guidelines.

3 STUDY AREA

The study area for the overall RRS includes lands and waters within and adjacent to the Project boundary (Figure 3.0-1), with a focus on lands and waters within the Project boundary; however, adjacent public and private lands are also evaluated, as appropriate, based on the needs of each RRS study element..

Because this interim report addresses only the Recreation Surveys and Dispersed Recreation Use study elements of the RRS, study area definitions specific to only these components of the RRS have been finalized. Other elements of the RRS, particularly the Regional Recreation Analysis, will need to address a somewhat larger geographic scope. The study area specific to each remaining element of the RRS will be defined in 2008 and will be described in the USR.

In general, the study area for the Recreation Surveys study element included the lands and waters within and adjacent to the Project boundary and its vicinity and local communities near the Project (see Figure 3.0-1). For the study task involving review of existing survey and public input data, the applicable sources include data gathered within a broader region around the Project, such as the three northeastern Washington counties. The primary focus of this assessment is the Project area, however, including lands and waters of the Project and public and private lands adjacent to the Project.

Developed recreation sites (as identified in the Pre-Application Document [PAD; SCL 2006]) within the study area and specifically addressed in the Recreation Surveys include:

- SCL Vista House
- SCL Tailrace Recreation Area
- SCL Forebay Recreation Area/Boat Ramp
- Bureau of Land Management (BLM) Boundary Recreation Area
- Town of Metaline Waterfront Park/Boat Ramp
- Pend Oreille County Public Utility District (PUD) Campbell Park/Boat Ramp

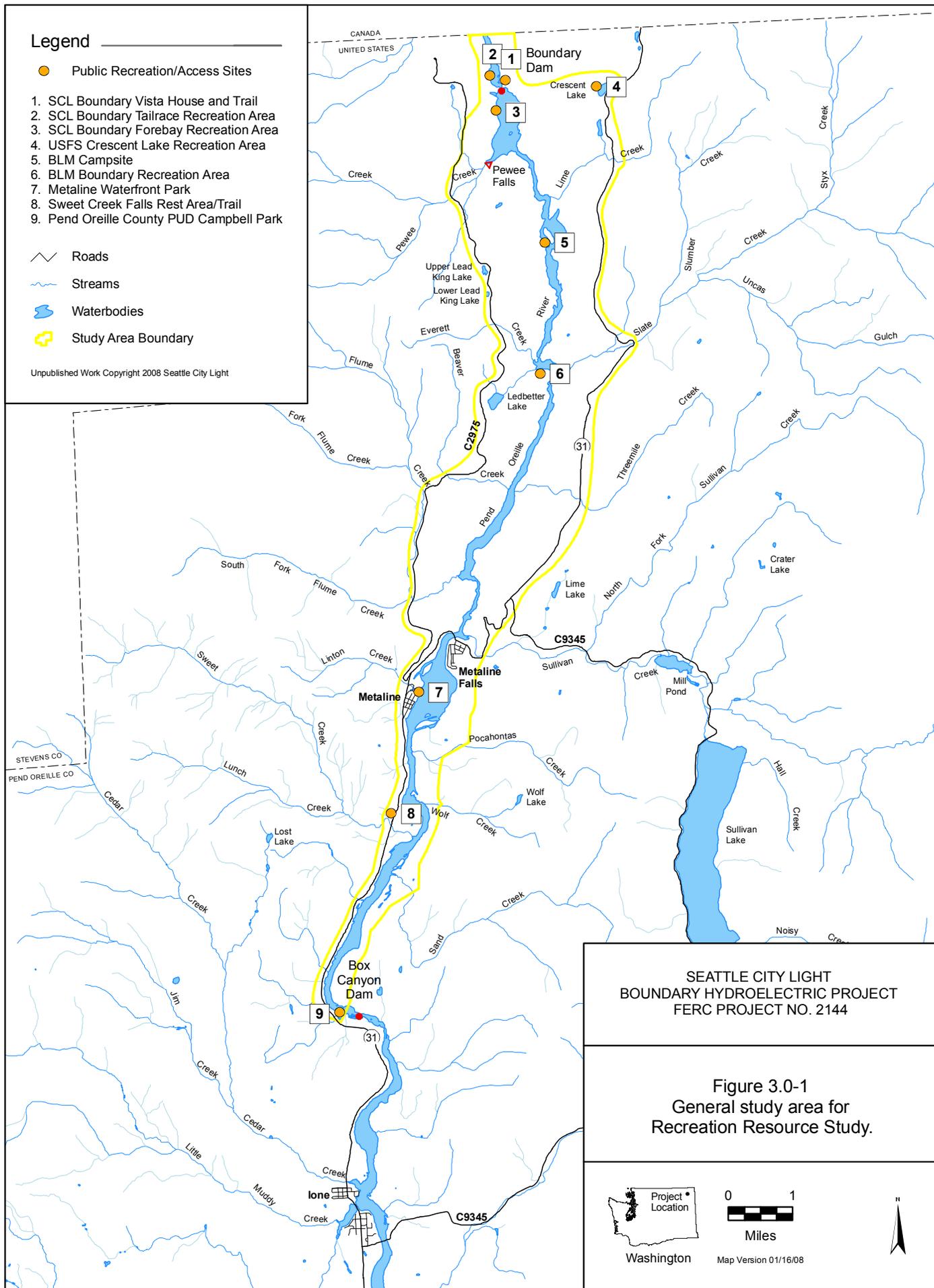
In addition to the sites listed above, the Recreation Survey data-gathering effort addressed selected other public use and recreation sites in the vicinity of the Project used by local residents and other visitors who also visit the Project area. These additional sites include the U.S. Forest Service (USFS) Crescent Lake Recreation Area (a former road used for boating and fishing access and a developed site with picnic facilities) and the Sweet Creek Falls Rest Area. The developed recreation sites referenced in this discussion are indicated on Figure 3.0-1. In addition to collecting data on specific sites and areas, the Recreation Surveys obtained recreation-related input from residents of communities along or near Boundary Reservoir including Metaline, Metaline Falls, and Ione in Washington, and Salmo, Fruitvale, Montrose and Trail in British Columbia.

Legend

- Public Recreation/Access Sites
1. SCL Boundary Vista House and Trail
 2. SCL Boundary Tailrace Recreation Area
 3. SCL Boundary Forebay Recreation Area
 4. USFS Crescent Lake Recreation Area
 5. BLM Campsite
 6. BLM Boundary Recreation Area
 7. Metaline Waterfront Park
 8. Sweet Creek Falls Rest Area/Trail
 9. Pend Oreille County PUD Campbell Park

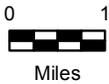
- Roads
- Streams
- Waterbodies
- Study Area Boundary

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BOUNDARY HYDROELECTRIC PROJECT
FERC PROJECT NO. 2144

Figure 3.0-1
General study area for
Recreation Resource Study.



Map Version 01/16/08

The study area for the Dispersed Recreation Use, Access, and Condition Analysis study element of the RRS is the same as the area for the field sampling component of the Recreation Surveys, as indicated on Figure 3.0-1. In general, this assessment addressed the reservoir and the lands between the reservoir shoreline and major adjoining parallel roads and/or highways, specifically SR 31 to the east and Pend Oreille County Road 2975 to the west. This study area includes SCL-owned lands in and adjacent to the Project boundary, the water surface within the Project, and adjacent public and private lands.

4 METHODS

Five tasks were identified as part of this study:

- Recreation surveys
- Regional recreation analysis
- Dispersed recreation use, access, and condition analysis
- Future recreation use analysis
- Recreation carrying capacity analysis

As this interim report addresses only the Recreation Surveys and Dispersed Recreation Use study elements of the RRS, methods descriptions for only these elements are included below. Methods descriptions for the other RRS components will be provided in the USR.

4.1. Recreation Surveys

The Recreation Surveys study element consisted of four tasks: 1) reviewing existing regional survey and public input data; 2) conducting visitor counts; 3) conducting visitor questionnaires, area resident questionnaires and focus group meetings; and 4) compiling and summarizing recreation surveys results into a report. The first and fourth tasks in this list are self-explanatory and do not require further discussion. The second and third tasks required some additional implementation planning to develop specific study methods and involved more complex study activities; the methods and their development for these two components are discussed in more detail below.

The field-based recreation surveys were conducted over approximately a 6-month period beginning on May 19, 2007, and ending on October 31, 2007. This time period was selected because it represents the primary recreation season, when the Project area receives the majority of visitor and resident use. Additional information on recreational use outside of the primary use season has been or will be collected through other means, including interviews with recreation providers and focus groups comprised of local residents.

4.1.1. Implementation Planning Process

SCL, in collaboration with the relicensing participants, developed an implementation plan for the Recreation Surveys to expand on the direction provided in the RSP (SCL 2007a) for this RRS component. The implementation plan described in detail the field sampling program to be undertaken to support the data collection objectives for the Recreation Surveys, primarily the

visitor count and visitor questionnaire tasks. It included discussion of sampling objectives, sampling methods and locations, sampling frequency and effort, and the staffing and equipment requirements to implement the field data collection effort. The implementation plan prescribed specific procedures for recording visitor counts within various geographic sectors of the study area, and for administration of the visitor questionnaire. The plan also outlined Recreation Surveys data collection activities that would be implemented through means other than active sampling in the field, including operation of visitor registries at key facilities, conducting interviews with local recreation providers, distributing questionnaires to local area residents by mail, and conducting focus group meetings in the local area.

SCL distributed an initial draft of the Recreation Surveys implementation plan to the relicensing participants on March 28, 2007. This draft of the plan included draft visitor count forms and a draft visitor questionnaire as appendices. SCL met with the relicensing participants in Spokane on April 5, 2007, to receive comments on the draft materials and to discuss any proposed modifications. Based on input from that review process, SCL circulated a revised implementation plan and appendices on May 1, 2007. With minor subsequent refinements to selected sections, the May 1 implementation plan provided the basis for the Recreation Surveys data collection activities.

SCL met with the relicensing participants in Spokane again on June 5, 2007, to review proposed refinements to selected elements of the implementation plan and plans for additional activities not addressed in detail in the May 1 implementation plan. Based on observation of conditions in the field during the initial weeks of survey activity, SCL wanted relicensing participant input on field sampling of dispersed areas accessible by road. SCL and the relicensing participants tentatively agreed to these sampling refinements at the June 13 meeting, and concluded agreement on those changes through a conference call on July 19, 2007. SCL subsequently revised the implementation plan to incorporate those refinements in a final version dated August 10, 2007.

Through the process summarized above, all data collection forms for the field component of the Recreation Surveys (questionnaires, user and activity count forms, visitor registry forms, and other data collection forms) and related survey methodologies and protocols (scheduling, logistics, frequency, number of survey days, targeted number of surveys, etc.) were reviewed with relicensing participants prior to study implementation in early 2007. The final implementation plan and data collection tools reflected the detailed input obtained from the relicensing participants. The complete implementation plan is included as Appendix 1; key components of the plan relating to the 2007 field sampling program, area resident questionnaires, and other data collection activities are described below.

4.1.2. Visitor Counts, Registries, and Questionnaires

4.1.2.1. Objectives and General Approach

The objective for the visitor count component of the Recreation Surveys was to develop data needed to establish an estimate of existing visitor use levels and activity participation in the study area. Visitor counts were conducted during the 2007 primary recreation season at SCL-managed recreation sites (Vista House, Tailrace Recreation Area, and Forebay Recreation Area),

and at other managed sites in the study area (Metaline Waterfront Park, Campbell Park/Boat Ramp at Box Canyon Dam, and the Sweet Creek Falls Rest Area on SR 31). The visitor count sampling activity also covered dispersed use in reservoir shoreline areas, along roads near the Project, and watercraft on the reservoir surface. In the process of obtaining visitor counts in dispersed areas, visitor counts were taken at the USFS Crescent Lake Recreation Area and the BLM Boundary Recreation Area.

Through the implementation planning process described above, and prior to beginning field work, SCL developed standardized count forms to be used during the on-site visitor counts. Based on the geographic stratification of the study area used to organize the field sampling activity, SCL used four separate forms to collect data for developed recreation sites, road-accessible dispersed use, and on-water and shoreline dispersed use in the northern and southern sectors of Boundary Reservoir. Copies of the forms are included in Appendix 2a.

At the SCL-managed recreation sites, a combination of on-site visitor counts and visitor registries was used to gather information on visitor use patterns. In the past, SCL has maintained visitor registries at both the Vista House and Tailrace Recreation Area to obtain information about visitor use. The visitor registry for the Vista House was modified and maintained during the 2007 study season. The original visitor registry for the Visitor's Gallery at the Boundary Dam powerhouse was retained without modification for the 2007 season. Under the security procedures in effect for the 2007 season, visitors wanting to access the powerhouse and Tailrace Recreation Area signed in at the security gate (located on access road to the dam) and were escorted to the tailrace area by a tour guide. The registration logs at the security gate effectively replaced the registry at the Visitor's Gallery. SCL had planned to develop a new visitor registry form for use at the Forebay Recreation Area during the 2007 season. Because SCL and Tetra Tech EC, Inc. (TtEC) staff could not determine a suitable site and means to keep a registry at this location secure and protected from the elements, there was no registry at the Forebay Recreation Area in 2007. A copy of the registry form used in 2007 is included as Appendix 2c.

The objective for the Visitor Questionnaire component of the Recreation Surveys was to assess the attitudes, perceptions, needs and characteristics of visitors to developed recreation facilities and dispersed recreation use areas in the study area. Field crews administered visitor questionnaires during the 2007 primary recreation season in conjunction with conducting the visitor counts, as discussed above. Visitor questionnaires were distributed and collected at designated sites within the study area. A copy of the visitor questionnaire form is included as Appendix 3a.

4.1.2.2. Field Sampling Program

Staff from TtEC implemented the visitor count and questionnaire components of the Recreation Surveys through a single, integrated field sampling program. The field program was conducted from May 19, 2007, through the end of October and employed a multistage cluster sampling method to determine when and where sampling would occur at a given time (Schaeffer et al. 1996). The first stage of the sampling design involved selecting a random sample of weekdays and a complete census of weekends and holidays to ensure extensive coverage of the main recreation season. Because the staff required to sample the entire study area during a given day would be prohibitively large, the sampling plan included a second stage with randomly selected

combinations of sectors (geographic clusters) by day period (time clusters) to cover the various recreation sites and the early and late portions of each sampling day. Field crews attempted to obtain complete data, or a census, from each of the sampled clusters as they occurred on the schedule.

Based on study area geography, access considerations, and the types and locations of recreational use, the study area was divided into six sectors for scheduling and execution of cluster sampling in the field. The six geographic sectors are defined in Table 4.1-1.

Table 4.1-1. Geographic sectors for field sampling activities.

Sector	Area/Sites Included
1. Northeast	Vista House, east bank of river below Boundary Dam and Tailrace Recreation Area
2. Forebay	Forebay Recreation Area
3. SR 31 South	Sweet Creek Falls Rest Area and Campbell Park
4. Roaded Dispersed	Road-accessible dispersed recreation sites and Crescent Lake
5. North Reservoir	Dispersed sites and reservoir surface north of Metaline Falls
6. South Reservoir	Metaline Waterfront Park, dispersed sites and reservoir surface south of Metaline Falls

Field sampling was accomplished by two-person survey crews based at a facility in Ione. A crew conducted sampling activities within a specific sector each time the sampling calendar required sampling to occur there on a given date and period of the day. For all six sectors, crews recorded visitor counts on standard forms (see Appendix 2) and contacted visitors to distribute questionnaires. The crews attempted to contact all visitors encountered at each sampled sector during the corresponding time of day. (Under most circumstances, the crews were successful at contacting all visitors. In very limited cases at the Forebay Recreation Area and Metaline Waterfront Park, visitor numbers were so large that the crews were not able to contact all visitors.) Upon arriving at a site, the survey crews contacted visitors, introduced themselves and the study, and communicated the importance of participating to help understand recreation use at the site. After these introductions, crews asked visitors if they would be willing to complete the survey booklet. Visitors who were willing to participate were handed a questionnaire, a small pencil, and a self-addressed, postage-paid envelope. Visitors were instructed to return their completed survey directly to one of the crew members, deposit it in one of several drop boxes that were installed at selected recreation sites in the study area, or return it by mail. When visitors refused to accept a survey, the crew asked them to quickly answer one or two key questions (such as their home ZIP or postal code, primary destination at the Project, or frequency of visits to the Project; these questions varied and were not used in any specified order) to allow later checking for non-response bias (that is, to determine whether the people who refused were different from those who completed and returned the survey).

The cluster sampling program used to implement the visitor count and questionnaire sampling provided comprehensive sampling coverage of developed and dispersed sites, overnight and day users, and water-based and land-based activities within the study area. Sampling in the field was scheduled based on a standard 6-hour block of time for sampling activity (including travel time

and related activity, such as launching and trailering boats). For the entire survey period, the following daily sampling periods were used:

- 0600 to 1200 (6 a.m. to 12 p.m.)
- 1200 to 1800 (12 p.m. to 6 p.m.)

Because extended daylight hours occur during most of the summer, sampling was conducted from 1800 to 2000 hours (6 p.m. to 8 p.m.) during July and August. Based on the number of sectors defined for the Project area, two daily time blocks, and the number of days in the season, 274 sampling sessions were proposed to yield adequate coverage of the variability of recreational use at the Project. This estimate ensured that field crews would have sufficient time to conduct visitor counts and observations in addition to administering the visitor questionnaire. Table 4.1-2 provides a summary of the planned distribution of sampling activity conducted for Study 21, as indicated in the implementation plan (Appendix 1). Appendix 3b is a daily log of sampling activity actually conducted during the season; the aggregate figures for the actual sampling activity correspond very closely to the distribution indicated in Table 4.1-2.

Table 4.1-2. Time distribution of planned sampling activity and effort, 2007 Boundary recreation season.

Month	Sampling Days	Weekend/Holiday Sampling Days (sampling periods)	Weekdays (sampling periods)	Field Crews/ Personnel	Sampling Periods Per Day/(Month)
May	7	5 (10)	2 (4)	2/4	2 (14)
June	23	9 (18)	14 (28)	2/4	2 (46)
July	23	10 (30)	13 (39)	3/6	3 (69)
August	23	8 (24)	15 (45)	3/6	3 (69)
September	23	11 (22)	12 (24)	2/4	2 (46)
October	15	6 (12)	9 (18)	2/4	2 (30)
Total	114	49 (116)	65 (158)	4-6	274

To provide the labor resources needed to cover the proposed number of sampling sessions, two full-time, two-person field survey crews worked continuously from spring through fall, providing a baseline level of sampling activity for the entire study period. A third crew was added for the peak summer season, from the beginning of July through Labor Day. Field crews worked one 6- or 7-hour sampling period in the field each day on duty, plus time for preparation and follow-up (for example, data entry before and after field work).

Because overnight camping and multiple day-use activities at the Forebay Recreation Area make it a key recreation site, this sector was over-sampled, that is, it received a level of sampling effort slightly larger than what would result from an even distribution among the six sectors. Likewise, Metaline Waterfront Park was over-sampled because it is highly accessible to visitors and was believed to be a popular site. Based on indications of quite limited roaded dispersed use within the study area, effort allocated to sampling this sector of the study area (Sector 4) was reduced accordingly. These sampling factors were developed in collaboration with the relicensing participants and are documented in the implementation plan. Table 4.1-3 indicates the allocation of sampling effort by sector and type of day during the 2007 season.

Table 4.1-3. Allocation of weekend and weekday sampling effort by sector.

Sector	Number of Weekend Sample Periods	Number of Weekday Sample Periods
1. Northeast	18	25
2. Forebay	22	29
3. SR 31 South	20	27
4. Roaded Dispersed	16	23
5. North Reservoir	18	25
6. South Res./MWP	22	29
Total	116	158

Note:

MWP – Metaline Waterfront Park

4.1.3. Area Resident Questionnaires

Differences in visitor perception, use, activity, and needs may exist between local and vicinity residents and Project visitors from outside of the Project vicinity. These potential differences can be identified and explored through the use of an area resident questionnaire. Therefore, a second questionnaire was used to gather information from residents in and near the towns of Metaline, Metaline Falls, and Ione in Washington, and Salmo and Trail and nearby communities in British Columbia, Canada.

The area resident questionnaire was developed using the same formatting guidelines discussed previously for the Project visitor questionnaire. SCL provided a draft of the area resident questionnaire and an outline of proposed questionnaire administration to the relicensing participants in early June, and reviewed the plans for this component of the Recreation Surveys at a meeting in Spokane on June 13, 2007. SCL finalized the questionnaire based on comments from the relicensing participants. The questionnaire focuses on recreation-related issues and needs that apply specifically to area residents. It replicates many of the items in the visitor questionnaire, so that data from the two respondent groups can be compared, and includes some questions applicable specifically to area residents (as opposed to Project area visitors). A copy of the questionnaire is included as Appendix 4a.

A key objective for the area resident questionnaire effort was to obtain a large enough sample population to achieve a reasonable confidence level and sampling error in the survey results. Targets of a 90–95 percent confidence level and 5–10 percent sampling error were adopted, as these levels are typically used in recreation and other social research efforts. The mail distribution for the area resident questionnaire was planned to meet these targets.

Results presented in the PAD (SCL 2006) from the 2000 Census indicated the three Washington state towns included a total population of 864 persons, with 395 households. Because drawing a sample from such a small population could produce unacceptable levels of response and sampling error, the objective for distributing questionnaires to the Washington towns was to take a census by mailing a questionnaire to each household. To develop a mailing list for the Washington portion of the study area, TtEC requested a vendor to supply addresses for all resident households receiving mail through the post offices in Metaline, Metaline Falls, and Ione.

Further investigation revealed that certain types of Census data, including total population and households, are available for geographic areas termed ZIP Code Tabulation Areas (ZCTAs). Census 2000 population and household data for residents of the 99139 (Ione), 99152 (Metaline) and 99153 (Metaline Falls) ZCTAs amount to a combined total of 1,826 persons and 769 households for the three communities. These figures indicate the total number of households in the three communities and the surrounding unincorporated areas are nearly double the number of target Washington households assumed at the outset.

Upon receipt of the mailing list addresses, TtEC determined that the vendor actually delivered 433 Washington addresses, rather than the 546 indicated when the order was placed. The expected total of 546 addresses represented 71 percent of the total households, according to the ZCTA totals, whereas the 433 addresses received amounted to 56 percent of the households. In view of the shortfall in number of addresses relative to the objective of a complete census of the local Washington population, TtEC conducted a supplemental on-site distribution of approximately 200 questionnaires within the Metaline and Metaline Falls post offices, with the objectives of reaching a larger share of the total population and obtaining a larger number of returned, completed surveys. With this supplemental distribution, it is estimated that the area resident questionnaire was distributed to 620 to 650 Washington addresses.

For the Canadian portion of the local area, the implementation plan indicated that the total population was estimated at 10,000 people. In developing a mailing list for the Canadian side of the local area, TtEC determined that the communities of Fruitvale and Montrose (population 1,952 and 1,012, respectively) are located within the same region and are actually situated closer to the Boundary Project than are Trail and Salmo (7,237 and 1,007, respectively). Consequently, the postal codes for Fruitvale and Montrose were added to the geographic area for which an address sample was purchased. Including the rural areas around these four towns, the population of the Canadian portion of the study area was estimated at approximately 14,300 total residents and 6,600 households. Given a local population that was larger than originally anticipated, TtEC purchased a random sample of 1,500 Canadian addresses, rather than the sample size of 1,000 that was originally assumed. Based on this population size, a target of approximately 370 completed surveys would achieve a 5 percent margin of sampling error at the 95 percent confidence level (Salant and Dillman 1994).

Following guidance from Salant and Dillman (1994) for conducting surveys by mail, TtEC used a four-step mailing process to administer the area resident questionnaire:

1. A personalized but short pre-survey notice letter was mailed to all addresses on the mailing list, telling people that the survey was coming and informing them that their participation in this important study is greatly appreciated.
2. One week after the first mailing, a survey packet including a cover letter, the questionnaire, and a pre-paid return envelope was mailed to all addresses on the mailing list (1,500 in British Columbia and 433 in Washington). At the same time, 200 additional survey packets were distributed through the Metaline and Metaline Falls post offices to boxholders not on the mailing list.
3. Approximately 8 to 10 days after the survey packets were mailed, each addressee on the mailing list (minus those determined to be bad addresses, based on undeliverable returns from the first and second mailings) was sent a postcard to thank those who

- had responded and to remind and encourage those who had not responded to please complete and return the questionnaire.
4. Approximately 4 weeks after the second mailing, a new packet with a new personalized letter, questionnaire, and pre-paid return envelope was sent to all remaining valid addresses on the mailing list from which a survey had not been returned.

4.1.4. Local Area Focus Groups

The RSP indicated that focus group meetings were to be held with area residents to obtain additional, detailed information about recreational use and preferences. The RSP anticipated a total of three focus group meetings, with selection of the groups to be defined by recreational activity types. Invitations to participate in focus group meetings are to be based on information obtained from user organizations and other contacts within the local communities. The focus group meetings are planned to occur in the vicinity of the Project and will cover discussions of use (or non-use) of the Project area and questions related to aesthetic considerations.

The schedule for Study 21 provided in the RSP indicates that all elements of the Recreation Surveys were to be completed by the end of the first quarter of 2008. The implementation plan for the Recreation Surveys notes that it would be advantageous to hold the focus group meetings relatively late in the 2007 recreation season, so that participants can base their input on relatively fresh recollections, and that attendance at the meetings will likely be higher if the meetings do not occur during a peak period for vacation activity. Consequently, when the implementation plan was issued, SCL was planning to hold the focus group meetings during the early to middle part of September 2007. Following additional discussion of this study element at the June 13, 2007, meeting with relicensing participants, SCL proposed to defer the focus group meetings to the second quarter of 2008 (early May, tentatively). This schedule change for the focus group meetings was expected to fit more efficiently with related or similar activities for the regional recreation analysis and the carrying capacity analysis, and to provide a better opportunity to validate data collected during 2007. Based on agreement from the relicensing participants, the focus groups activity has been postponed to 2008, and the results of these meetings will be documented in the USR.

4.1.5. Other Data Collection Activities

Most of the effort during 2007 for the Recreation Surveys involved primary data collection, specifically field data collection for the visitor counts and visitor questionnaire and the mail survey effort for the area resident questionnaire. In addition to those activities, Recreation Surveys activity in 2007 included secondary data collection to obtain certain types of information needed for the study. Specific activities in this category include: (1) review of other existing regional survey and public input data and (2) informal contacts with private recreation business owners/operators and campground concessionaires to obtain information about their facilities and use patterns.

The RSP identified 12 specific information sources (including recreation and/or tourism survey programs, federal, state and local planning documents, and related data sets) that were to be reviewed as available for information pertinent to the Recreation Surveys scope (see RSP for the

complete list). These data sources were reviewed with respect to the types of data they contain, the geographic scope of the data, and the methods used to collect the data. In general, the identified sources and their respective data have a county-wide, regional, or even state-wide focus. In several cases, the referenced sources provide information about tourism activity in general, as opposed to the types of outdoor recreation activities that occur at and near the Boundary Project. Because of these characteristics, 10 of the 12 identified sources were considered to be not directly comparable to the types of data developed elsewhere in the Recreation Surveys component of the RRS; these sources will be reviewed in full as part of the Regional Recreation Analysis, and the results of that review will be documented in the USR. The first two entries on the list of existing data sources, pertaining to information on the Colville National Forest from the USFS National Visitor Use Monitoring (NVUM) program, were considered to be sufficiently similar in nature and context to the recreation use measures developed through the Recreation Surveys that they are addressed in this report. In addition, TtEC identified a recent survey of visitors to northeastern Washington (Jim Lillstrom & Associates 2005) that employed data collection methods and included some specific questions similar to work conducted for the Recreation Surveys. Section 5.1.1 summarizes information from these two sources.

As discussed in the RSP, the Recreation Surveys element of the RRS calls for obtaining visitor count data and similar information from private-sector resort/campground operators, including concessionaires operating the Mill Pond and Sullivan Lake campgrounds administered by the USFS. TtEC staff used telephone contacts and in-person interviews with these local provider representatives to request the following types of information:

- Inventory data for facilities, including plans to expand or reduce facilities and services
- Facility use levels and capacity
- Season of operations
- Visitor information including origin, length of stay, party size, activities, etc.
- Anecdotal information about trends (in use levels or patterns)
- Fees charged and average funds expended by recreational vehicle (RV) and tent campers

The results of this activity are documented in Section 5.1.5.

4.2. Regional Recreation Analysis

This study component is scheduled for implementation in 2008. The RSP identifies three tasks for this study component, which are to: 1) define the regional study area boundary; 2) collect and analyze regional data; and 3) develop regional analysis results. The RSP outlines the study activities and the topical focus in considerable detail. The primary need for additional definition of methods concerns determination of the regional study area boundary, which is the first task. Relicensing participants will be contacted early in 2008 to provide input on implementation details, as appropriate. The methods for this component will be described in the USR.

4.3. Dispersed Recreation Use, Access, and Condition Analysis

Two primary tasks were proposed for the Dispersed Recreation Use, Access, and Condition Analysis study element of the RRS: 1) dispersed recreation inventory and condition analysis, and 2) public access analysis. Each of these tasks is described below.

4.3.1. Dispersed Recreation Inventory and Condition Analysis

The dispersed recreation inventory and condition analysis identified existing dispersed recreation use areas and sites within the study area, including along the reservoir and in nearby road-accessible areas. In general, the approach for this effort was to 1) develop a site inventory form and procedures for conducting the inventory; 2) conduct an initial inventory of dispersed sites in the study area early in the 2007 recreation season; 3) check all inventoried sites in the field again in October 2007, to confirm and update the initial inventory; and 4) compile and review the inventory data to assess the condition of each dispersed site, and compare the spring and fall observations.

4.3.1.1. *Site Inventory Form and Procedures*

SCL and TtEC developed a form and procedures for use in conducting the field inventory of existing dispersed recreation use areas and dispersed sites. The site inventory form was generally based on a variety of forms commonly used to evaluate potential biophysical impacts resulting from public use and recreation (Cole 1989, Hammitt and Cole 1998). SCL distributed these materials to the relicensing participants in June 2007 and discussed the inventory form and process at a meeting on June 13, 2007.

The site inventory form provided space for general reference data including the date of the inventory, the identity of the field surveyor completing the form, alphanumeric codes for the location and the specific site(s) at each location, a space to mark whether photographs were taken, and an area to draw a sketch map of the site. The remainder of the form provided space (generally blanks or multiple-choice arrays) on which the field crew recorded the following types of information: 1) site delineation, 2) site access, 3) physical setting, 4) human use conditions, 5) site facilities, 6) visual setting, and 7) shoreline conditions. The form also included space to provide any notes about each site. A blank site inventory form is provided as Appendix 5a.

4.3.1.2. *Initial Field Inventory*

TtEC field crews conducted an initial field inventory of identified dispersed recreation sites during June and early July of 2007, in conjunction with field sampling activities for the Recreation Surveys. The inventory was guided largely by background information on previously identified dispersed sites and locations thought likely to include dispersed sites. Sources of this background information included observations from a September 2005 SCL field visit; SCL aerial photographs that were reviewed/marked-up and then confirmed in a July 2006 field visit; a March 2007 site visit by SCL, EDAW, and TtEC staff; a detailed TtEC field reconnaissance in May 2007; and existing USFS mapping and staff observations of dispersed sites.

In addition to visiting known and suspected dispersed sites, the field crews performed a complete, systematic search of the study area to identify any site with evidence of human use. This included driving or walking existing roads and trails within the study area and making stops at all locations where there was sufficient cleared space to park a vehicle and/or establish a campsite. Dispersed sites along roads and trails often include user-made fire rings that are readily visible and signify the presence of a dispersed campsite, although this is not always the case. The search phase of the inventory process also included a slow sweep by boat of the reservoir shoreline area, with stops at all locations where landing a boat appeared to be possible. At each stop the inventory staff looked for a cleared area sufficient to support a campsite, fire rings, and/or evidence of repeat use such as trampling or accumulated trash. The inventory procedures did not include specific threshold criteria, such as X amount of trash or trampling, that were used to define the existence of a dispersed site.

Specific locations were identified in the field as dispersed recreation sites based on visible evidence of human use that appeared to be repeated or recurring. In most cases, the specific feature that confirmed identification of a given location as a dispersed recreation site was the presence of a user-made fire ring at the site. (As discussed in Section 5.3, 22 of the 25 dispersed sites inventoried appeared to have been used at least occasionally as a campsite, and all of those sites included a fire ring.) At each identified dispersed site, the field crew obtained and recorded a GPS reading of the location, took a series of digital photographs depicting typical site conditions and views to and from the site, and recorded observed site characteristics for all items identified on the pre-printed site inventory forms.

One site that was not included in the initial inventory was added later in the season (in September 2007), after field sampling for the recreation surveys recorded dispersed recreation use in a site not previously identified and inventoried.

4.3.1.3. *Fall Field Inventory*

TtEC crews repeated the site inventory process in mid-October 2007, after virtually all recreational activity from the primary recreation season had ceased. The purpose for this second inspection of the sites was to assess the evidence of human use in comparison to the observations recorded early in the season when use levels are expected to be low. Ideally, site conditions observed in October would indicate whether the site had been used during the 2007 season, and provide an impression of the level of use during the season.

For the fall inventory, the field crew carried along photocopies of the original inventory forms completed for the respective sites. These copies were marked up in the field to include new information on site conditions or changes to the original observations that were considered appropriate. The field crew also photographed sites during the fall inventory, but did not duplicate all of the photographs taken in the original inventory.

4.3.2. Public Access Analysis

Evaluating public access conditions for dispersed recreation within the study area requires consideration of both existing and potential future public access routes (land and water) in the

study area. As discussed in the RSP, SCL believes it is appropriate to use a phased approach to considering these types of recreation opportunities and their access needs.

In addition to the inventory of dispersed recreation sites discussed above, RRS activities conducted in 2007 included documenting existing public access conditions within the study area. Existing access conditions were identified and assessed through a variety of means including:

- Reviewing existing resource and land ownership maps, topographic maps, and aerial photography.
- Consulting with SCL, USFS, and BLM staff, and others who know the Project area and/or its history.
- Thorough, repeated travel throughout the study area during the 2007 recreation season to implement the field sampling program for the visitor counts and questionnaires components of the RRS, including sampling of the reservoir and dispersed sites near the shoreline by boat and sampling road-accessible areas by vehicle and on foot.
- Documenting and mapping existing public access routes to and within the Project area in GIS, including roads and trails (land and water).
- Reviewing existing USFS road inventory data to identify current maintenance objectives (Level 1 to 5) for USFS roads.
- Identification of pertinent access conditions through analysis of responses to the Project visitor and area resident questionnaires administered for the recreation surveys.

Potential future dispersed recreation access conditions will be influenced by a variety of factors. Some of these dispersed access factors may be addressed in additional RRS activities that will be conducted in 2008, such as (possibly) the carrying capacity analysis. Additionally, the future Recreation Needs Analysis will potentially address existing and future dispersed recreation needs and access conditions. (By definition, future access conditions that do not currently exist will need to be developed by land owners and managers, and such development should be in response to an identified need.) In addition to the access-related work already completed, potential future access conditions for dispersed recreation may be addressed through the following:

- Defining potential water trail routes along the reservoir water surface, shoreline watercraft put-ins/take-outs and portage sites, constraints to watercraft access along the reservoir water surface such as the falls area, and overnight stop-over sites.
- Documenting and mapping potential public access routes to and within the Project area in GIS, including roads and trails (land and water).
- Reviewing potential recreation use areas and potential trail opportunities identified in the 1965 Boundary Reservoir Area Recreation Plan (USFS 1965).
- Identifying likely future road management actions by reviewing USFS Road Management Objectives (RMOs) to be developed as part of the Colville National Forest Plan (CNFP) update.
- Reviewing Colville National Forest Travel Management planning documents if available from the USFS during the study timeframe (i.e., if available for preparation of the USR).

Existing public road, trail and water access in the study area was evaluated at a qualitative level based on the extent and distribution of the respective means of access and the associated ease or difficulty of using each access means (for example, whether road access to a given area is by means of a high-standard road suitable for travel by most passenger vehicles, or by a rough road suitable for use only by high-clearance vehicles). Subsequent study will include a more detailed analysis using three criteria ratings (high, medium, and low) for existing public shoreline and reservoir access, as well as potential future public shoreline and reservoir access. A descriptive analysis with tables and maps will categorize Project areas including: 1) where the public has reasonable and safe public road and trail access now; 2) where public road and trail access to the shoreline and along the reservoir is highly constrained now and will likely remain so into the future; and 3) where public road and trail access could potentially be created or improved in the future if identified options were further investigated and found to be viable for implementation. Results of this work will be reported in the USR and/or the needs analysis.

4.4. Future Recreation Use Analysis

This study element is scheduled for implementation in 2008. The RSP identifies three tasks for this study element: 1) assess regional population and use trends; 2) estimate future recreation use in the Project area; and 3) compile and summarize future recreation use analysis results. The RSP outlines the topical focus and proposed approach for these study activities. Relicensing participants will be contacted in 2008 to confirm agreement on the implementation approach described in the RSP. The methods for this element will be described in the USR.

4.5. Recreation Carrying Capacity Analysis

This study element is scheduled for implementation in 2008. The RSP identifies four tasks for this study element: 1) compile and review carrying capacity data and information; 2) determine carrying capacity levels; 3) recommend potential carrying capacity indicators and standards; and 4) compile and summarize recreation carrying capacity analysis results. The RSP outlines the topical focus and proposed approach for these study activities, although the basis for recommending potential carrying capacity indicators and standards is described in only general terms. Relicensing participants will be contacted in 2008 to confirm agreement on the overall approach and provide input on implementation details concerning carrying capacity indicators and standards, as appropriate. The methods for this element will be described in the USR.

5 PRELIMINARY RESULTS

This section presents the results of the Recreation Surveys and Dispersed Recreation Use, Access, and Condition Analysis tasks. Based on the nature of the RRS tasks conducted in 2007, which focused on developing baseline data concerning recreation use and conditions in the study area, the focus of this section is on presentation of basic results rather than in-depth analysis of those results. The results from the Recreation Surveys and Dispersed Recreation Use, Access, and Condition Analysis tasks will feed into the remaining RRS tasks to be conducted in 2008. In addition, as discussed in Section 2.1, the full suite of data from the RRS will be used in the future to develop a Recreation Needs Analysis specific to the Boundary Project. The Recreation Needs

Analysis will synthesize data collected through the RRS to identify existing and potential future recreation needs in the Project area.

5.1. Recreation Surveys

Results from the 2007 recreation season for the Recreation Surveys are discussed below for the four primary elements of this study task (reviewing existing regional survey and public input data; conducting visitor counts; conducting visitor questionnaires, area resident questionnaires and focus group meetings; and compiling and summarizing recreation surveys results into a report). Because the Recreation Survey activities produced a large volume of data, Section 5.1 provides information at a summary level. More detailed results based on tabulation of survey data are included in Appendices 2 through 5.

5.1.1. Review Existing Regional Survey and Public Input Data

As described in Section 4.1.5, two sources provided visitor survey data considered to be sufficiently similar in nature and context to the recreation use measures developed through the Recreation Surveys that they are addressed in this report. Information highlights from these sources are summarized below.

5.1.1.1. Colville National Forest National Visitor Use Monitoring Results

As discussed in the PAD (SCL 2006), from October 2002 through September 2003, the Colville National Forest (CNF) participated in the USFS NVUM Program. The NVUM Program was implemented “to better understand the use and importance of and satisfaction with National Forest System recreation opportunities” (SCL 2006) and measures trends in visitor use and satisfaction. Compared to the SCL Recreation Surveys, the NVUM survey data reflect an earlier survey period (by 4 to 5 years) and a larger and more diverse respondent population comprised of the range of visitors to CNF sites and resources in all three northeastern Washington counties. Similarities between the studies include the fact that some visitors may visit both the Boundary Project and the CNF for recreation (given their close proximity), and that both studies collected information on visitor characteristics, activities and satisfaction levels.

Results for the CNF indicate that there were a total of 546,260 National Forest visits to the CNF from October 2002 through September 2003 (USFS 2004). (A National Forest visit is defined as “the entry of one person upon a National Forest to participate in recreation activities for an unspecified period of time.”) Visitors to the CNF tended to be male (approximately 80 percent), white (nearly 92 percent), and over 40 years of age (about 57 percent). Additionally, most visitors were from the CNF region (i.e., northeastern Washington), and less than 1 percent were from another country.

The most popular activities reported for visitors to the CNF included viewing wildlife, relaxing, viewing natural features, downhill skiing, driving for pleasure, hiking/walking, hunting, developed camping, and gathering forest products. The developed recreation facilities most used by visitors to the CNF included downhill ski areas, forest access roads, developed campgrounds, scenic byways, forest trails, and picnic areas. Visitors were generally satisfied with the developed recreation facilities provided at the CNF (USFS 2004).

A new cycle of NVUM data collection that will include the CNF is expected to begin in 2008, and results from that effort should be available in 2009. Applicable NVUM results that are available prior to the time of publication (of the USR) will be summarized in the USR.

5.1.1.2. *Northeast Washington Counties 2004 Visitor Profile*

The Washington Department of Community, Trade and Economic Development (WDCTED), in partnership with several local economic development and tourism organizations, contracted for a survey of visitors to Pend Oreille, Stevens, Ferry, and Spokane counties in northeastern Washington during 2004. The survey was administered by approximately 30 electronic, programmable survey registers at a variety of visitor centers, overnight accommodations and tourist attractions within the study region. Self-selected respondents answered survey questions addressing visitor origin, household income, age and number of people in the party, length of stay, activities during the trip, and related topics. The complete report is posted on the Washington State Tourism Industry website (www.experiencewashington.com/industry). Selected study results specific to Pend Oreille County visitors are summarized as follows (Jim Lillstrom & Associates 2005):

- Washington residents accounted for 45 percent of all visitors to Pend Oreille County. The next largest visitor origins were California and Idaho, with 10 percent and 8 percent of the total, respectively. Five percent of the visitors in this survey reported they were from Canada.
- Spokane County residents represented 23 percent of all visitors surveyed in Pend Oreille County, and just over half of the visitors who originated in Washington. King, Snohomish and Pierce Counties combined accounted for another 10 percent of the visitors to Pend Oreille County.
- Among overnight visitors surveyed in Pend Oreille County, 51 percent were from Washington, 11 percent were from California, and 6 percent were from Canada. These figures were all slightly higher than the respective proportions of all visitors from each origin.
- Spokane County accounted for 41 percent of all Washington visitors to Pend Oreille County who made an overnight stay. Visitors from King, Snohomish and Pierce Counties represented another 32 percent of all overnight visitors from Washington counties.
- Among the visitors surveyed in Pend Oreille County, 48 percent were making an overnight visit, 28 percent were making a day visit to a site in the county, and 24 percent were just passing through Pend Oreille County on their way to an overnight visit elsewhere.
- The most common type of accommodation for overnight visitors to Pend Oreille County was recreational vehicle (RV) camping, which accounted for 35 percent of the total response. In decreasing order, responses for other accommodation types included: 23 percent staying with friends or family, 16 percent in hotels or motels, 11 percent tent camping, 5 percent in a guest ranch or resort, and 4 percent in a vacation rental.
- The top responses as the primary reason for overnight visits to the four northeast Washington counties were identified as: visiting friends or family (33 percent),

- visiting an historical or geologic attraction (12 percent), participating in outdoor recreation (10 percent), taking a sightseeing or driving tour (9 percent), shopping (9 percent), business (7 percent), and attending a festival or event (7 percent). No other activities were identified by more than 1 percent of the respondents.
- Among overnight visitors to Pend Oreille County, the most common trip activity reported was a sightseeing/driving tour, which was identified by 69 percent of the total. Responses for outdoor recreation activities included 47 percent for hiking, 40 percent for visiting a historic site, 34 percent for wildlife viewing, 30 percent for boating/watersports, 26 percent for camping, 22 percent for biking, and 16 percent each for bird watching and fishing. A similar range of percentages was reported for a variety of non-outdoor or recreational activities including visiting a museum or gallery (58 percent), shopping (40 percent), attending a family event (26 percent), attending a festival or event (16 percent), and antiquing (16 percent).

Compared to the visitor survey conducted in the Boundary Project study area in 2007 (see Section 5.1.3), the results from the WDCTED survey reflect an earlier survey period (by only 3 years, however) and a larger and more diverse respondent population with somewhat different travel or visitation purposes. Nevertheless, there is a degree of overlap in these sets of survey-based information, including data collection methods (surveys) and survey questions about visitor origins, demographic characteristics, trip activities, and satisfaction with the visitor experience.

5.1.2. Visitor Counts

TtEC survey crews conducted field sampling throughout the study area to obtain visitor counts from May 19 through the end of October in 2007. Sampling was conducted on a pre-determined schedule within the six geographic sectors of the study area, according to the procedures described in Section 4.1.2. Results from this activity are summarized below for the developed recreation sites in the study area and activity on the surface of Boundary Reservoir. Visitor counts were also recorded at dispersed recreation sites in the study area; for the reader's convenience, that information is summarized with other material on dispersed recreation in Section 5.3. Copies of the blank visitor count forms are provided in Appendix 2a, while additional details from the counts are included in Appendix 2b.

5.1.2.1. *Developed Recreation Site Counts*

Survey crews recorded visitor counts and observations at the following developed recreation sites in the study area during the 2007 recreation season (see Figure 3.0-1 for the locations of these sites):

- SCL Vista House
- SCL Tailrace Recreation Area
- SCL Forebay Recreation Area/Boat Ramp
- BLM Boundary Recreation Area
- Town of Metaline Waterfront Park/Boat Ramp
- Pend Oreille County Sweet Creek Falls Rest Area
- Pend Oreille County PUD Campbell Park/Boat Ramp

While the BLM Boundary Recreation Area is considered a developed site, for sampling efficiency the visitor counts at this site were conducted as part of sampling for the dispersed recreation sites. In addition, the inventory of dispersed recreation sites identified some user-made recreation features at this BLM site, supplementing the facilities installed by the agency. Based on these conditions and the types of forms used to collect data, site conditions and visitor count results for the BLM site are included within the data summarized in Section 5.3.1 and 5.3.3, respectively. Key sampling results for the remaining developed sites are summarized below.

5.1.2.1.1. SCL Vista House

The Vista House is an SCL-operated viewing and visitor information site located immediately downstream of Boundary Dam on a promontory along the eastern bank of the Pend Oreille River (see Figure 3.0-1). The site is accessed via a secondary road intersecting SR 31 and is generally open daily during the primary recreation season. The recreation facilities consist of the Vista House structure, an outdoor wooden viewing platform, a trail leading to the viewing platform, and a gravel parking area. The Vista House provides interpretive and informational displays, two restrooms, bear-proof trash receptacles and a picnic area with one picnic table. There is no fee for use of the Vista House, which provides public day use opportunities including sightseeing, picnicking, and hiking, among others. Please refer to Section 4.8.2.1.3 of the PAD (SCL 2006) for additional information about this developed recreation site.

Survey crews sampled visitor activity at the Vista House on 39 total sampling sessions during the 2007 season (Table 5.1-1). (Monitoring activity at the Vista House was started later than at other sites during the 2007 season. The Vista House was closed to the public from late May until approximately June 5 because of roadway reconstruction activity nearby.) The sampling distribution included 15 sampling periods on weekends and holidays (7 a.m. sessions and 8 p.m. sessions) and 24 weekday sampling periods (15 a.m. and 9 p.m. sessions). Crews observed 0 visitors to the site during 9 of the 39 sampling periods. Over the course of the season, they observed a total of 115 visitor parties and 266 visitors. The overall level of observed visitor activity represents an average of 6.8 visitors per sampling session, or 1.6 people per hour of observation activity.

A table listing the overall count results for the Vista House is included in Appendix 2b. Table 5.1-1 summarizes key aggregate results. The highest observed use at Vista House was 25 people, which occurred on both Saturday, July 7 and Saturday, August 18. The sampling schedule included both a.m. and p.m. sampling at the Vista House on August 18, and the total activity for the day was reported at 16 parties and 45 people. As would be expected based on the specific opportunities available at the Vista House, virtually all of the observed visitor activity at this site was recorded as viewing scenery/photography. A handful of visitors at this site were observed to be just driving through, some were walking pets, and a few engaged in wildlife viewing.

Table 5.1-1. Summary of the Vista House visitor count results.

Measure	Number
Sampling Periods	
Weekend/holiday	15
Weekday	24
Total	39
Visitor Activity	
Total Parties	115
Total Visitors	266
Avg. visitors per sample period	6.8
Avg. visitors per hour	1.6
Minimum no. of visitors	0 (9 periods)
Maximum no. of visitors	25 (2 periods)

5.1.2.1.2. SCL Tailrace Recreation Area

The Tailrace Recreation Area is located immediately downstream of Boundary Dam on the west bank of the Pend Oreille River. It provides public day-use opportunities including picnicking, sightseeing, and access to the powerhouse, among others. Day-use facilities include a large asphalt parking area, including bus and vehicle-with-trailer spaces; three covered picnic tables with pedestal barbecues; three trash receptacles; a paved viewpoint/flagpole area with several benches; and access to the Visitors' Gallery inside the Machine Hall entrance. The Visitors' Gallery provides interpretive displays, a large viewing area with views onto the generator floor, and two public restrooms. The Tailrace Recreation Area includes a gravel boat launch that provides access to the Pend Oreille River below Boundary Dam. This boat launch is generally not used by the public because it is less than 1 mile from the U.S.-Canada border, and boaters are not permitted to cross the border. Further, the public is discouraged from accessing the river at this location because of potential safety concerns associated with releases of water from the powerhouse. Please refer to Section 4.8.2.1.2 of the PAD (SCL 2006) for additional information about this developed recreation site.

Visitors must pass through a staffed security checkpoint at the top of the access road to obtain entry to this site. The Tailrace Recreation Area is typically open from 10:30 a.m. to 4:30 p.m. daily during the primary recreation season, and there is no fee for recreational use of the site.

As prescribed in the implementation plan (Appendix 1), survey crews observed visitor activity in the Tailrace Recreation Area at Boundary Dam from a distance (using binoculars), in conjunction with sampling at the Vista House. The level and distribution of sampling activity was therefore the same, with 39 total sampling sessions, including 15 sampling periods on weekends and holidays and 24 weekday sampling periods. Visitors to the tailrace area drive and walk through the same areas as SCL Project employees, so the observation records for the tailrace include both work activities and visitor activities; survey staff noted Project operational activity separately on the count forms, using their best judgment as to the type of activity that was observed.

Under the security procedures in effect for the 2007 season, visitors wanting to access the powerhouse and Tailrace Recreation Area signed in at the security gate on the dam access road

and were escorted to the tailrace area by a tour guide. Tour activity began in late June in 2007, and survey crews did not record any tour activity after the end of August. Table 5.1-2 summarizes key aggregate results. Crews observed 0 visitors to the tailrace area during 22 of the 39 sampling periods. Over the course of the season, they observed a total of 48 visitor parties and 177 individual visitors. The level of observed visitor activity represents an average of 4.5 visitors per sampling session, or 1.1 people per hour of observation activity. The busiest day of the season was Saturday, July 7, when crews observed 9 visitor parties and 39 people on tours of the powerhouse area. These figures included a tour bus carrying 20 people.

Table 5.1-2. Summary of Tailrace Recreation Area visitor count results.

Measure	Number
Sampling Periods	
Weekend/holiday	15
Weekday	24
Total	39
Visitor Activity	
Total Parties	48
Total Visitors	177
Avg. visitors per sample period	4.5
Avg. visitors per hour	1.1
Minimum no. of visitors	0 (22 periods)
Maximum no. of visitors	39

The spreadsheets documenting the visitor counts and activity observations in the tailrace area contain an unavoidable mix of visitor use and SCL administrative and operations activity. Because the data have not been completely processed there is no daily table for this location in Appendix 2 of this interim report; this information will be included in the USR. Review of the daily records indicates that all of the visitor activities observed in the tailrace area were recorded as viewing scenery/photography or taking a tour of the dam. Use of the tailrace boat ramp was observed on only one occasion during the season, and that involved SCL employees or contractors launching boats for work purposes.

5.1.2.1.3. SCL Forebay Recreation Area/Boat Ramp

The Forebay Recreation Area is located on the western shoreline of Boundary Reservoir immediately upstream of Boundary Dam. The Forebay Recreation Area provides public day use, picnicking, boating, and camping opportunities, among others. Day-use facilities at this site include approximately 20 parking spaces, 7 picnic tables, 5 trash receptacles, horseshoe pits, a viewpoint of Boundary Dam, a single-lane concrete boat ramp with an L-shaped boarding dock, and a restroom. The PAD (SCL 2006) indicates there are four developed campsites, each with a graveled parking stall, picnic table, fire pit, and pedestal barbecue. There is no fee for use of the Forebay Recreation Area. Campers are requested to limit their stays to a six-night maximum. Please refer to Section 4.8.2.1.1 of the PAD (SCL 2006) for additional information about this developed recreation site.

The overnight and day-use facilities at the Forebay Recreation Area are not formally separated, and there is considerable intermingling of activities within the site. Survey crews taking visitor

counts at this site attempted to maintain separate records for occupants and their activities at the campground and day-use/boat launch components of the site, although there is some unavoidable overlap among the counts. Because the uses at this site are intermingled, the visitor count and observation records from the 2007 sampling are difficult to sort, analyze, and report. Therefore, the following discussion focuses on camping occupancy and boat launch use, because these measures can be readily extracted from the data. Results based on additional analysis of the data will be documented in the USR.

Survey crews logged 55 total sampling sessions at the Forebay campground during the 2007 season. The sampling distribution included 21 sampling periods on weekends and holidays (11 a.m. sessions and 10 p.m. sessions) and 34 weekday sampling periods (20 a.m. and 14 p.m. sessions). The sampling schedule included 5 days on which both a.m. and p.m. sampling occurred at this site, so sampling occurred on 50 days overall.

Table 5.1-3 summarizes the sampling results for the Forebay campground. At least one campsite at this area was occupied on all but 5 of the 50 total days sampled during the season. Over the full season, camping occupancy averaged 5.3 sites per sample day. The maximum observed use, at 16 campsites, occurred on Sunday, August 19.

Table 5.1-3. Summary of SCL Forebay Recreation Area campground visitor count results.

Measure	Number
Sampling Periods	
Weekend/holiday	21
Weekday	34
Total	55
Visitor Activity	
Total campsite occupancy	266
Total RV trailer occupancy	191
Total tent occupancy	156
Avg. sites occupied per sample day	5.3
Minimum no. of sites occupied	0 (5 days)
Maximum no. of sites occupied	16 (1 day)
Avg. sites occupied per weekend sample	7.8
Avg. sites occupied per weekday sample	3.9

It is difficult to assign a camping capacity to this area, for a variety of reasons. Not all sites intended for camping use are clearly defined, and there are sites intended for day use that are often used for overnight camping. In addition, the site has open areas that sometimes accommodate overflow use when the more defined sites are taken. Based on the sites that have tables, parking spurs, and (in most cases) fire rings, there appear to be 13 individual sites at the Forebay area that are commonly used for camping. Based on that measure, the number of camping parties exceeded the available capacity on the maximum-use day. There were six other occasions during the 2007 sampling season on which 10 or more campsites were occupied.

Table 5.1-4 summarizes the observed results for the SCL Forebay Recreation Area Boat Ramp. Survey crews observed at least one boat launch or retrieval operation at this site on all but 6 of

the 50 total days sampled during the season. Over the full season, crews observed 344 total launch operations. This represents an average of 6.9 launch operations per sample period, or 1.4 operations per hour of observation activity (based on 246 total hours of observation activity at this site during the season). The busiest day for boat launch use was Saturday, August 19 (the same weekend on which maximum use of the campground was recorded), when 41 launch operations were recorded between approximately 1:30 p.m. and 7 p.m.

Table 5.1-4. Summary of SCL Forebay Recreation Area Boat Ramp activity.

Measure	Number
Sampling Periods	
Weekend/holiday	21
Weekday	34
Total	55
Visitor Activity	
Total boat launch/retrieve activity	344
Avg. launch operations per sample	6.9
Minimum launch activity	0 (6 sample periods)
Maximum launch activity	41 (1 day)
Avg. launch operations per hour	1.4

While activity observations for the Forebay Recreation Area are still being compiled and processed results are not yet available, some generalizations can be made based on a cursory review of the records. Through the course of the 2007 sampling season survey crews observed campground visitors at the Forebay Recreation Area engaged in more than a dozen different activities in addition to camping. Virtually every activity listed on the visitor count form (see Appendix 2a) except for hunting was recorded in the campground observations (tabulations of the activity observations are still in process and will be included in the USR). The range of activities observed in the boat launch area was similar in number and type, although boat launching was by far the most common activity.

In addition to the visitor counts recorded through Study 21, SCL has another record of use at the Forebay Recreation Area in the form of a log of visitors maintained by Olympic Security, the firm that provides security personnel for the Boundary Project (SCL 2007b). The log for the 2007 recreation season includes entries for 96 days from May 8 through October 1, or approximately 66 percent of the dates in that period. Dates for which there are no log entries are presumably days when no visitors were seen during the security check of the area. Many of the entries in the log are somewhat imprecise (e.g., reporting numbers of users as a range or a minimum, such as “25-30” or “50+”), and the procedures used to derive these records are unknown. Nevertheless, the Olympic Security log provides another set of data that is relevant to use levels and patterns in 2007 at the Forebay Recreation Area.

Table 5.1-5 is a monthly summary of the use numbers recorded by Olympic Security. These records indicate total use of the site by 2,094 people from early May through the first day of October. Daily counts of overnight campers totaled 1,082 for the season, or nearly 52 percent of the total users. (Because the entries for campers and picnickers do not equal the number of total people, there presumably are other day users who are included in the total but not recorded

separately.) Based on the log entries for total people, nearly two-thirds of the total seasonal use occurred in July (35 percent) and August (30 percent).

Table 5.1-5. Summary of Olympic Security recreation log for the Forebay Recreation Area in 2007.

Month	Overnight Campers	Vehicles	Boats	Picnickers	Total People	Percent of Season Total
May	65	86	20	8	142	6.8
June	91	90	30	45	215	10.3
July	281	282	114	89	733	35.0
August	408	299	122	61	632	30.2
September	229	179	84	0	360	17.2
October ¹	8	8	1	0	12	0.6
Total	1,082	944	371	203	2,094	100.0

Note:

¹ Use recorded only on October 1.

5.1.2.1.4. *Town of Metaline Waterfront Park/Boat Ramp*

Managed by the Town of Metaline, this park is located along the western shoreline of the Boundary Reservoir in Metaline. The shoreline at this park is the only portion of the site within the Project boundary (SCL granted the Town of Metaline an easement for shoreline access). The site provides day use opportunities including picnicking, boat launching, and shoreline fishing, among others. Facilities at the site consist of a single-lane concrete boat launch with a boarding float, picnic sites, a lawn area, a playground area, a basketball court, and gravel parking areas. There are 10 picnic tables (7 covered), 4 stone fireplaces, 7 trash and recycling receptacles, a dumpster, a restroom with flush toilets, a portable toilet, and two covered shelters. There is no fee for use of the Metaline Waterfront Park. Please refer to Section 4.8.2.2.2 of the PAD (SCL 2006) for additional information about this developed recreation site.

Metaline Waterfront Park is somewhat of a hybrid recreation facility, as it provides both local park opportunities for Metaline residents and water access to Boundary Reservoir. Sampling at Metaline Waterfront Park was conducted as part of Sector 6 (South Reservoir), in conjunction with sampling by boat for on-water counts in the upstream portion of the reservoir. The standard procedure was for survey crews to divide each 6- or 7-hour sampling period into three segments, which were to 1) spend typically 1 to 2 hours observing visitor activity at Metaline Waterfront Park; 2) launch a boat for the reservoir circuit to observe on-water count activity; and 3) after returning to the ramp, spend the remainder of the sampling period again observing activity in the park. Consequently, the survey crews conducted 83 total sampling sessions on 45 days during the 2007 season. The sampling distribution included 29 sampling periods on weekends and holidays (11 a.m. sessions and 18 p.m. sessions) and 54 weekday sampling periods (23 a.m. and 31 p.m. sessions).

Similar to the situation at the Forebay Recreation Area, this site provides varied facilities that support a mix of intermingled or overlapping uses. Some of the activity at Metaline Waterfront Park is oriented to the boat ramp and the reservoir, while much of it consists of typical municipal park use. In addition, the visitor count records for this site are more complicated because they covered two separate observation sessions at the park within the overall Sector 6 sampling period

on most sampling days. Because of these conditions, the visitor count and observation records from the 2007 sampling will require further analysis; results based on additional analysis of the data will be summarized in the USR.

Survey crews observed a low to moderate level of boat launch activity at Metaline Waterfront Park, with a total of 41 launch or retrieval operations at this site on the 45 total days sampled during the season. This represents an average of 0.5 launch operations per sample period, or 0.3 operations per hour of observation activity (based on 139 total hours of observation activity at this site during the season). The peak observed activity for this ramp on a single sampling period was 7 boat launch operations on Sunday, July 8. Survey crews observed 3 launch operations on 4 other sampling sessions (1 weekday and 1 weekend day each in July and August). Because sampling at Metaline Waterfront Park occurred in conjunction with South Reservoir on-water counts, the sampling periods at Metaline were less than the full 6- or 7-hour time blocks for the respective sampling periods. The sampling sessions at Metaline included approximately 2.5 to 3.5 hours of observation on a given sampling day.

Table 5.1-6. Summary of Metaline Waterfront Park Boat Ramp activity.

Measure	Number
Sampling Periods	
Weekend/holiday	29
Weekday	54
Total	83
Visitor Activity	
Total boat launch/retrieve activity	41
Avg. launch operations per sample	0.49
Minimum launch activity	0 (19 days)
Maximum launch activity	7 (1 day)
Avg. launch operations per hour	0.3

While activity observations for Metaline Waterfront Park are still being compiled and processed results are not yet available, some generalizations can be made based on a cursory review of the records. People walking their pets is a common activity at this site, which is not surprising given that the park is adjacent to a residential area. Fishing was a relatively infrequent activity, accounting for approximately 20 (5 percent) of roughly 400 activity occasions recorded in the counts. Metaline Waterfront Park receives substantial drive-through use, both from people making restroom stops and people who drive through the park but do not stop or leave their vehicles. This site also appears to be a common location for large-group activities and events, such as large family picnics, a baseball team picnic, and the annual community Fourth of July picnic. Specific information about observed activity will be included in the USR.

5.1.2.1.5. Pend Oreille County Sweet Creek Falls Rest Area

The Sweet Creek Falls site is a highway rest area facility located on the west side of SR 31 approximately 7 miles north of Ione and 2 miles south of Metaline. Facilities at the site include a paved vehicle access loop and parking area, vault toilets, picnic tables, and an information/map kiosk. There is also a short trail from the parking area to a spot on the creek with a view of the falls. The facility was constructed and is maintained by Pend Oreille County. As the name

indicates, the primary function of this facility is to provide a rest stop for travelers on SR 31. The site is located some distance away from Boundary Reservoir and on the opposite side of the highway, and does not have physical or visual access to the reservoir. The primary reason this site was included in the field sampling for Study 21 is that it was expected to be an effective location for distributing surveys to sightseers and pass-through visitors (such as people traveling the North Pend Oreille Scenic Byway) who might otherwise not be contacted.

Survey crews observed visitor activity at the Sweet Creek Falls site on 48 total sampling sessions during the 2007 season. The sampling distribution included 20 sampling periods on weekends and holidays (8 a.m. sessions and 12 p.m. sessions) and 28 weekday sampling periods (11 a.m. and 17 p.m. sessions). Crews recorded no (0) visitors to the site during only 2 of the 48 sampling periods. Over the course of the season, they observed a total of 274 visitor parties and 576 visitors. The level of observed visitor activity represents an average of 12 visitors per sampling session, or 4.6 people per hour of observation activity.

A table listing the overall count results for Sweet Creek Falls Rest Area is included in Appendix 2b. Table 5.1-7 summarizes those results for the sampling season. The highest observed use at Sweet Creek Falls was 65 people, which occurred on Saturday, September 1 (during the Labor Day weekend). Twenty or more visitors were observed on a total of 10 sampling occasions. Survey crews observed no visitors at this site on only two sampling periods, one of which was the last sample for the season near the end of October. As would be expected based on the specific opportunities available at the Sweet Creek site, most of the observed visitor activity at this site was recorded as drive-through use. Viewing scenery/photography and hiking/walking were also relatively common activities.

Table 5.1-7. Summary of Sweet Creek Falls Rest Area visitor count results.

Measure	Number
Sampling Periods	
Weekend/holiday	20
Weekday	28
Total	48
Visitor Activity	
Total Parties	274
Total Visitors	576
Avg. visitors per sample period	12.0
Avg. visitors per hour	4.6
Minimum no. of visitors	0 (2 periods)
Maximum no. of visitors	65

5.1.2.1.6. Pend Oreille County PUD Campbell Park/Boat Ramp

Similar to the SCL Forebay Recreation Area near Boundary Dam, Campbell Park/Boat Ramp at Box Canyon Dam provides both overnight and day-use recreation facilities, including a campground, picnic sites, swimming area, visitor center and a boat launch. The overnight and day-use facilities are located close together and there is considerable intermingling of activities within the site. Survey crews taking visitor counts at this site recorded all types of activities and

maintained separate records for occupants and their activities at the campground and boat launch. Because these facilities are operated by Pend Oreille County PUD and their use has already been documented and analyzed for the Box Canyon Project relicensing process, however, this report focuses only on the Campbell Park activities that are oriented to Boundary Reservoir. The primary interest is the use of the boat ramp, as that activity results in water-based recreation on Boundary Reservoir.

Survey crews logged 47 sampling periods covering 124 total hours at Campbell Park/Boat Ramp during the 2007 sampling season. They observed no (0) use of the boat ramp at Campbell Park on 44 of the 47 sampling periods. Total boat launching activity at this site amounted to 5 operations. Observation notes indicate that at least 4 of the 5 activity occasions were users launching rafts or other non-power boats to float downstream (indicating there would not be a return trip and a retrieval operation at Campbell Park). This minimal boat launching activity at Campbell Park is consistent with anecdotal feedback from local residents that this boat ramp is not a preferred location for launching boats.

5.1.2.2. *Boundary Reservoir Counts*

At the time of writing of this report, the Boundary reservoir count data was not adequately processed for inclusion in the report; these counts will be presented in the USR.

5.1.2.3. *Visitor Registries*

Appendix 2c documents entries from the visitor registry in place at the Vista House during the 2007 season, organized by place of residence (visitors from Washington, Idaho, other U.S. states, Canada, and other countries). From May 11 through October 18, 2007, entries in the register represented a total of 313 visitor parties and 1,021 visitors. Highlights of the registry entries are as follows:

- There were no (0) entries for approximately 60 of the days during the period of coverage.
- The maximum number of visitor parties was 12 on Sunday, July 29.
- The maximum number of visitors was 61 on Wednesday, July 11, when members of a group of 51 visitors signed the log.
- Other days with similarly high visitation included 10 parties and 59 people on Thursday, August 16, and 9 parties and 31 visitors on Saturday, September 1.

Washington residents accounted for 61 percent of the visitor parties and number of visitors represented by register entries. Visitors from Idaho represented approximately 7 percent of the register entries, while other U.S. states accounted for 25 percent and Canada about 6 percent.

The entries in the Vista House register represent an uncertain fraction of all visitors to this site, as not all visitors choose to sign the register. Visitor counts conducted at this site (see Section 5.1.2.1.1) indicated that 115 total visitor parties were observed while survey crews were present at the Vista House during the season, and crews recorded 23 new register entries corresponding to those sampling periods. By that measure, on average someone from approximately 1 in every 5 visitor parties (20 percent of the total) elects to sign the visitor register. If that compliance

ratio held true for the entire 2007 season, the numbers of register entries suggest total visitation at the Vista House from mid-May through mid-October would have been approximately 1,565 visitor parties and 5,105 people. Studies of compliance ratios for visitor registries show a wide range, and those studies are usually based on observers who are watching visitor behavior at a distance and are not identifiable to the visitors. In this instance, visitors at the Vista House would have been aware that observers were present and in view; how that knowledge may have influenced their tendency to sign the register is unknown..

5.1.3. Visitor Questionnaires

Blank visitor questionnaires were distributed to recreational visitors in the study area during the sampling period from May 19 through the end of October 2007. Questionnaire distribution was conducted according to the procedures outlined in Section 4.1.2, and described in more detail in the implementation plan (see Appendix 1). The blank questionnaire, including the map distributed with the questionnaire, is provided in Appendix 2a. The blank questionnaires were numbered, and survey crews maintained logs of both the distribution of blank questionnaires and returns of completed questionnaires by date and location. The following sections summarize questionnaire distribution, returns, and responses.

5.1.3.1. Survey Completion Summary

Visitor questionnaires were distributed according to the schedule and methods discussed in Section 4.1.2. The following discussion summarizes overall data for distribution and completion of the visitor questionnaires. The survey results, based on tabulated responses to the individual questions, are provided in Section 5.1.3.2.

5.1.3.1.1. Questionnaire Distribution

A total of 969 blank questionnaires were distributed to visitors during the 2007 study season. Table 5.1-8 summarizes the distribution of questionnaires by sector within the study area. The largest number of surveys, 323 or 33 percent of the total, were distributed to visitors at the SCL Forebay Recreation Area campground and boat launch. The next highest distribution of surveys occurred at developed sites on SR 31, specifically the Sweet Creek Falls Rest Area and Campbell Park at Box Canyon Dam. The South Reservoir sector accounted for 16 percent of all surveys distributed, with the majority of surveys in this sector given to visitors at Metaline Waterfront Park. Field crews were unable to account for the distribution location for 16 surveys (2 percent of the total).

Table 5.1-8. Visitor questionnaire distribution and returns by location during 2007 sampling period.

Sector/Location	Distribution		Returns	
	Frequency ¹	Percent ²	Frequency ¹	Percent ²
1. Northeast ³	111	11.5	69	
Vista House			(56)	(9.4)
Tailrace/Visitors Gallery			(13)	(2.2)
2. Boundary Recreation Area ⁴	323	33.3	223	37.5
3. SR 31 ⁵	314	32.4	190	31.7
Sweet Creek Falls Rest Area			(67)	(11.3)
Box Canyon/Campbell Park			(123)	(20.7)
4. Dispersed Roaded ⁶	29	3.0	20	3.3
Crescent Lake			(11)	(1.9)
Other Sector 4			(9)	(1.5)
5. North Reservoir ⁷	19	2.0	12	2.0
6. South Reservoir ⁸	157	16.2	80	13.3
Metaline Waterfront Park			(76)	(12.8)
Other Sector 6			(4)	(0.7)
Location not recorded	16	1.7	6	1.0
Total	969	100.0		

Notes:

- 1 Number of questionnaires distributed or completed during sampling period
- 2 Percent of all questionnaires distributed
- 3 Vista House and Tailrace Recreation Area
- 4 Forebay Campground and Boat Launch
- 5 Box Canyon and Sweet Creek Falls Rest Area
- 6 Secondary roads within the study area
- 7 On the reservoir surface from Metaline Falls to Boundary Dam
- 8 On the reservoir surface from Box Canyon to Metaline Falls and at Metaline Waterfront Park

5.1.3.1.2. Questionnaire Response Rate

Of the 969 questionnaires distributed during the 2007 field season, 600 usable surveys were returned as of November 2, 2007. (Because sampling of visitors to the Boundary Reservoir Area concluded on October 31, it is possible that a few additional surveys may be returned in the mail). The sample size of 600 completed questionnaires is large enough to allow researchers to make inferences about the visitor population within approximately a 5 percent margin of error at the 95 percent confidence level. (That is, if the survey analysis reported that 60 percent of the sample population selected response “a” to a specific survey question, researchers could be 95 percent confident that the true response from the entire population would be within 5 percentage points of that response from the sample population, or that the true response would be between 55 and 65 percent.)

The 600 completed surveys represent an overall response rate of 62 percent of the total surveys distributed, which is considered a good response rate for a drop-off/mail-back survey.

The survey crews collected addresses from visitors, including non-respondents, at the time they were given a survey. Almost 79 percent (n = 763) of the total stated that they were Washington residents and almost 23 percent (n= 221) of the total were considered local residents (that is, residents from Ione, Metaline, and Metaline Falls). Similarly, approximately 23 percent (n =

219) indicated that they lived in Spokane or the Spokane Valley. Only approximately 5 percent (n = 48) of the visitors stated that they were from Canada.

Table 5.1-8 includes the breakdown of returned surveys by the sector and specific location where they were distributed. (When a visitor agreed to take a survey at the Boundary Reservoir Area, field technicians recorded the location and the date on the survey prior to distribution, to allow researchers to track returned surveys by site.) The largest source of returned surveys for the May through October sampling season was the SCL Boundary Recreation Area, which accounted for 223 of the 600 completed surveys (37.5 percent of the total). Approximately 21 percent of the overall returns came from Campbell Park/Boat Ramp at Box Canyon Dam.

Overall, 558 of the completed surveys (93 percent) were from visitors contacted at the developed recreation sites in the study area. Of the remaining completed surveys, 36 surveys (6 percent) were from visitors contacted at dispersed sites or use areas on the reservoir or along nearby roads, and the specific location was not identifiable for 6 surveys (1 percent).

Dates and times recorded on the blank forms allowed the returned surveys to be tracked by date. Table 5.1-9 shows the number of completed surveys that were returned, recorded by the month in which they were distributed. (For example, 34 of the returned surveys, representing 5.8 percent of all completed surveys, were distributed in May.) The timing pattern of the returned surveys follows what is a typical seasonal visitation pattern for many outdoor recreation areas, with the frequency increasing in June, peaking in July, tapering off somewhat in August, and decreasing substantially in September. (Visitor count data for the 2007 sampling season have not yet been analyzed for the monthly distribution, but likely follow a pattern similar to that for the survey distribution.) Thirty-seven percent of the completed surveys were distributed in July, and 27 percent in August. While the sampling effort was relatively evenly divided among the a.m. and p.m. sampling periods, approximately 68 percent of the completed surveys were distributed during p.m. sampling periods over the course of the season. This statistic is likely to be consistent with recorded observations from the visitor counts; while these results have not been completely analyzed, review of the tabulated data (as reported Appendix 2b, for example) suggests that survey crews recorded generally lower use levels in the morning hours, compared to the afternoon hours of the day.

Table 5.1-9. Completed visitor surveys by month of distribution.

Month	Frequency ¹	Percent ²
May	34	5.8
June	104	17.7
July	217	37.0
August	158	27.0
September	59	10.1
October	14	2.4
Uncertain	14	2.4
Totals	600	100.0

Notes:

- 1 Number of completed surveys distributed during the specific month.
- 2 Percent of all completed surveys.

5.1.3.2. Survey Response Results

The visitor questionnaire included 42 specific questions addressing 10 categories of information. The last page of the questionnaire also included a space for respondents to enter open-ended comments with any additional input they wanted to provide about recreation at the Boundary Project. This section of the report provides a summary of the processed results from analysis of the visitor questionnaire responses. The analysis involved tabulating the responses to develop the frequency (number) and percentage distribution for each possible response to each question, and calculating measures of central tendency (for instance, mean and standard deviation) for the responses to a given question for which those measures are meaningful. The percentages that are reported are based on the number of survey participants responding to each question, and not on the total number of completed questionnaires (600). For most individual questions, the number of respondents is substantially less than 600.

Results are provided for each question in the survey, in sequential order. The subheadings correspond to the categories of questions as they were grouped on the survey. For each survey question, there is a graph or table summarizing the tabulation of responses and a brief narrative. Most of the survey questions included “Other” as the final possible response, with space provided for the respondents to write in specific information. Because those open-ended responses can cover a wide variety of subject matter and can be difficult to interpret, they have not been analyzed and categorized to group similar responses for this interim report. The open-ended responses are included in Appendix 3e and have been reviewed and obvious generalizations or tabulations from those data have been included in the discussion, where appropriate. For questions to which the responses in the “Other” category are numerous, additional categorization will be performed and will be reported in the final report.

The results that are provided below represent the basic tabulation of responses to the visitor survey questions. Given the time required for entry and processing of the survey data relative to the schedule for sampling, this interim report does not include in-depth or second-stage analysis of the responses. Supplemental analysis of the responses will likely include cross-tabulation of responses to two or more questions to isolate results for specific user groups or recreation sites. Examples of such analyses include respondent satisfaction with recreation facility maintenance by users for specific sites, or respondent satisfaction with the available recreation opportunities by user group (as defined by the primary recreation activity the respondents identified). Further, a comparison will be conducted of the results of the visitor and area resident surveys. These second-stage analyses will be performed during 2008 and will be documented in the USR. Additionally, RRS data and applicable results will be reviewed and synthesized to help identify recreation needs and will be addressed in the future Recreation Needs Analysis.

The following text, tables, and graphics report the survey results using the respective responses as they were stated in the questionnaire (see Appendix 3a for reference). In several cases, the questionnaire employed place names or recreation facility names that do not exactly match the standard terms used elsewhere in this report and in other SCL documents, such as the PAD and the RSP. This was done in response to pre-testing of the questionnaire with SCL Project staff, who recommended using place names that local recreation users would be most likely to recognize.

5.1.3.2.1. Information on Your Visit

Question 1: First Visit to Boundary Reservoir Area. The first question asked survey respondents if they were visiting the Boundary Reservoir Area for the first time. (The “Boundary Reservoir Area” is not a standard geographic term. The introduction to the questionnaire explained the geographic focus of the survey, however, and referred respondents to a map included with the questionnaire that highlighted the area of interest, as indicated in Appendix 3a.) Over 60 percent of the visitors surveyed who answered this question reported that they had visited the Boundary Reservoir area in the past (Figure 5.1.-1). A substantial number of respondents (n = 209) were first-time visitors. Thirty-one respondents did not answer this question.

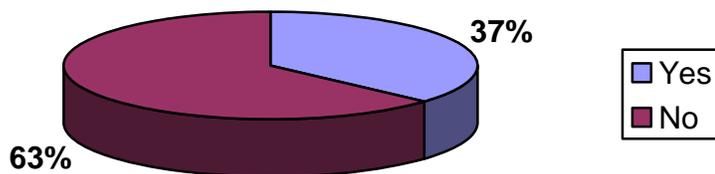


Figure 5.1-1. Responses to Question 1: Was this your first visit to Boundary Reservoir? (569 respondents)

Question 2: Future Visits. For newcomers (those who answered “Yes” to Question 1), 86 percent reported that they would visit the Boundary Reservoir area again (Figure 5.1-2). Thirteen percent of the newcomers were not sure if they would visit the area again, and 1 percent thought that they would not visit the Boundary Reservoir area in the future. Two first-time user respondents failed to answer this question.

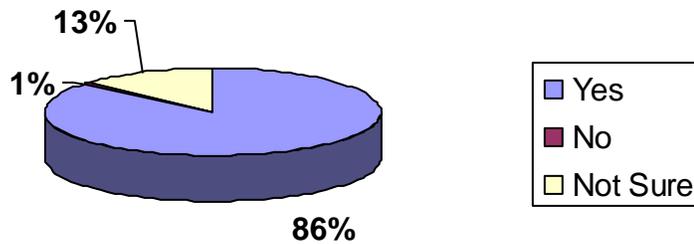


Figure 5.1-2. Response to Question 2: Would you visit Boundary Reservoir again? (207 respondents)

Question 3: Group Size. Slightly more than 35 percent of the visitors surveyed during 2007 visited the Boundary Reservoir Area in groups of two. The majority (79 percent) came to the area in groups of 1 to 5 people. The size of visitor groups ranged from 1 to 50 individuals. A substantial number of visitors (n = 111, 19 percent) visited the area in groups of 6 to 20 people. This sample of visitors reported a total of 2,627 companion visitors across all groups. Table 5.1-10 summarizes results for group size. Thirteen respondents in the total sample did not answer Question 3.

Table 5.1-10. Number of people in visitors’ groups.

Group size	Frequency	Percent of sample ¹
1	44	7.5
2	206	35.1
3	73	12.4
4	98	16.7
5	44	7.5
6	35	6.0
7 - 10	48	8.2
11 - 20	28	4.7
> 20	11	1.9

Note:

1 587 respondents

Group Size by Gender. In addition to size of group, visitors were asked to differentiate the number of males and females in their groups. Table 5.1-11 summarizes information on the number of males per group. The number of males per group ranged from 0 to 28 individuals. Over 85 percent of the visitors sampled reported having between 1 and 4 males in their group. Over 5 percent of the respondents reported no males in their group (i.e., 5 percent of groups were

all female). Twenty-seven respondents failed to answer this item. (Question 40 also asked respondents for gender information about themselves.)

Table 5.1-11. Number of males per group.

Number of Males	Frequency	Percent of Sample ¹
0	30	5.2
1	235	41.0
2	153	26.7
3	64	11.2
4	37	6.5
5 - 10	45	7.7
> 10	9	1.6

Note:

1 573 respondents

Table 5.1-12 summarizes information on the number of females per group. The number of females per group ranged from 0 to 22 individuals. Over 80 percent of the visitors sampled reported having between 1 and 4 females in their group. Nearly 10 percent of respondents reported no females in their group. In other words, 10 percent of groups were all male. Forty-five respondents did not answer this question.

Table 5.1-12. Number of females per group.

Number of Females	Frequency	Percent of Sample ¹
1	232	41.8
2	122	22.0
3	58	10.5
0	53	9.5
4	35	6.3
5 - 10	45	8.1
> 10	10	1.8

Note:

1 555 respondents

The aggregated responses to Question 3 amount to 1,343 total male visitors across all groups and 1,229 total female visitors across all groups, or 2,572 total visitors represented by the sample population. Based on those calculations, the expanded sample population was 52 percent male and 48 percent female.

Question 4: Duration of Visit. The majority (54 percent) of visitors reported that they stayed overnight in the Boundary Reservoir Area (Figure 5.1-3). The total number of nights that they spent in the area ranged from 1 to 20. On average, these visitors stayed for 3 nights (n = 292, mean = 3.0, standard deviation = 2.3, median and mode = 2.0).

About one-third of the sample comprised day visitors who reported stays ranging from 1 to 14 hours. On average, these day visitors stayed 4 hours and 24 minutes (n = 198, mean = 4.4, standard deviation = 2.4, median and mode = 4.0). Thirteen percent of the visitors sampled were

passing through the area on their way to another destination. Twenty-three respondents failed to answer this question.

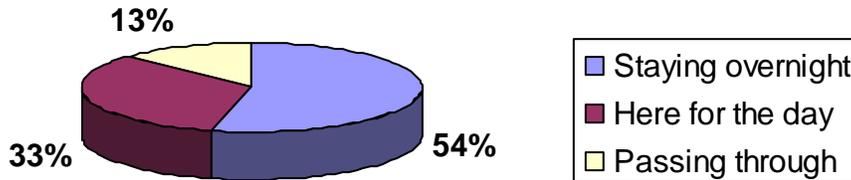


Figure 5.1-3. Responses to Question 4: Are you staying overnight on this visit? (577 respondents)

Question 5: Location of Overnight Stays. Figure 5.1-4 summarizes the results for where respondents reported staying overnight while visiting the Boundary Reservoir Area. A total of 311 respondents (54 percent) stayed overnight. From the list of places provided in the questionnaire, respondents were instructed to circle all that applied. These overnight visitors provided 328 responses when asked where they stayed. This indicates that some visitors who stayed more than one night stayed at more than one location during their visit.

Figure 5.1-4 reports the percentage of responses to this question. For example, the campground at Boundary Dam (Forebay Area) was circled 146 times out of 328 total responses (44.5 percent). For this sample of overnight campers at Boundary Dam (Forebay Area), 56 percent stayed in recreational vehicles (RVs)/campers, and 44 percent stayed in tents.

The second most frequented site reported by overnight visitors (17.4 percent) was the campground at Campbell Park. For this sample of overnight campers, 50 percent stayed in RVs/campers and 50 percent stayed in tents.

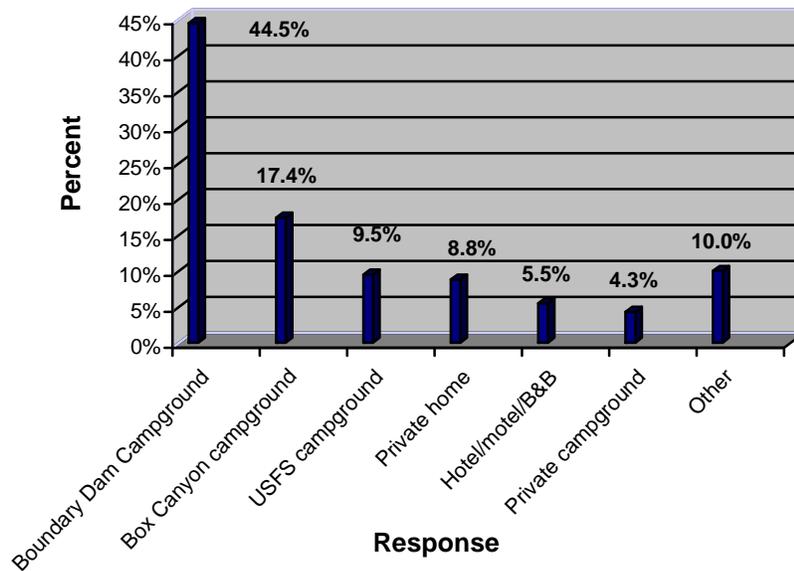


Figure 5.1-4. Responses to Question 5: Where are you staying overnight? (328 responses)

Question 6: ZIP or Postal Code for Primary Residence of Respondents. Respondents reported coming to the area from 212 different postal codes, 32 of which were outside the United States, mostly from Canada. Table 5.1-13 summarizes results for the most frequent primary residences for this sample of visitors, as reported by postal codes. Visitors with Spokane ZIP codes amounted to 18 percent of the sample (108 total respondents), representing the largest source of visitors for a specific community. The three nearby communities of Ione, Metaline, and Metaline Falls accounted for a combined total of 110 respondents, or 18.3 percent of the total. Appendix 3c provides a complete list of postal codes and frequencies, and will provide the basis for additional aggregation or sorting of visitor origin in the USR.

Table 5.1-13. Primary residence of respondents reported as ZIP or postal code.

Postal Code	City/Town	State/Province	Country	Frequency	Percent of Sample ¹
multiple	Spokane	Washington	USA	108	18.0
99139	Ione	Washington	USA	49	8.2
99153	Metaline Falls	Washington	USA	36	6.0
99152	Metaline	Washington	USA	25	4.2
99114	Colville	Washington	USA	25	4.2
99156	Newport	Washington	USA	19	3.2
99119	Cusick	Washington	USA	16	2.7
99223	Manito	Washington	USA	12	2.0
99006	Deer Park	Washington	USA	11	1.8
Other ²				299	49.8

Notes:

- 1 600 respondents
- 2 See Appendix 3c for the complete list of postal codes.

5.1.3.2.2. *Recreation Activities*

Question 7: Participation in Recreation Activities. The most frequent recreational pursuit reported by visitors was viewing scenery/sight seeing (identified by 75.9 percent of all respondents). Nearly half of the sample reported swimming (48.9 percent) and picnicking (48.5 percent) during their visit. Socializing (45.9 percent) and photography (42.4 percent) followed in popularity. This sample of visitors (n = 597) generated 3,594 total responses to this item, indicating that visitors engage in numerous activities while visiting the Boundary Reservoir Area. Figure 5.1-5 summarizes results for participation in recreation activities; the values shown on the graph are the percentages of all respondents.

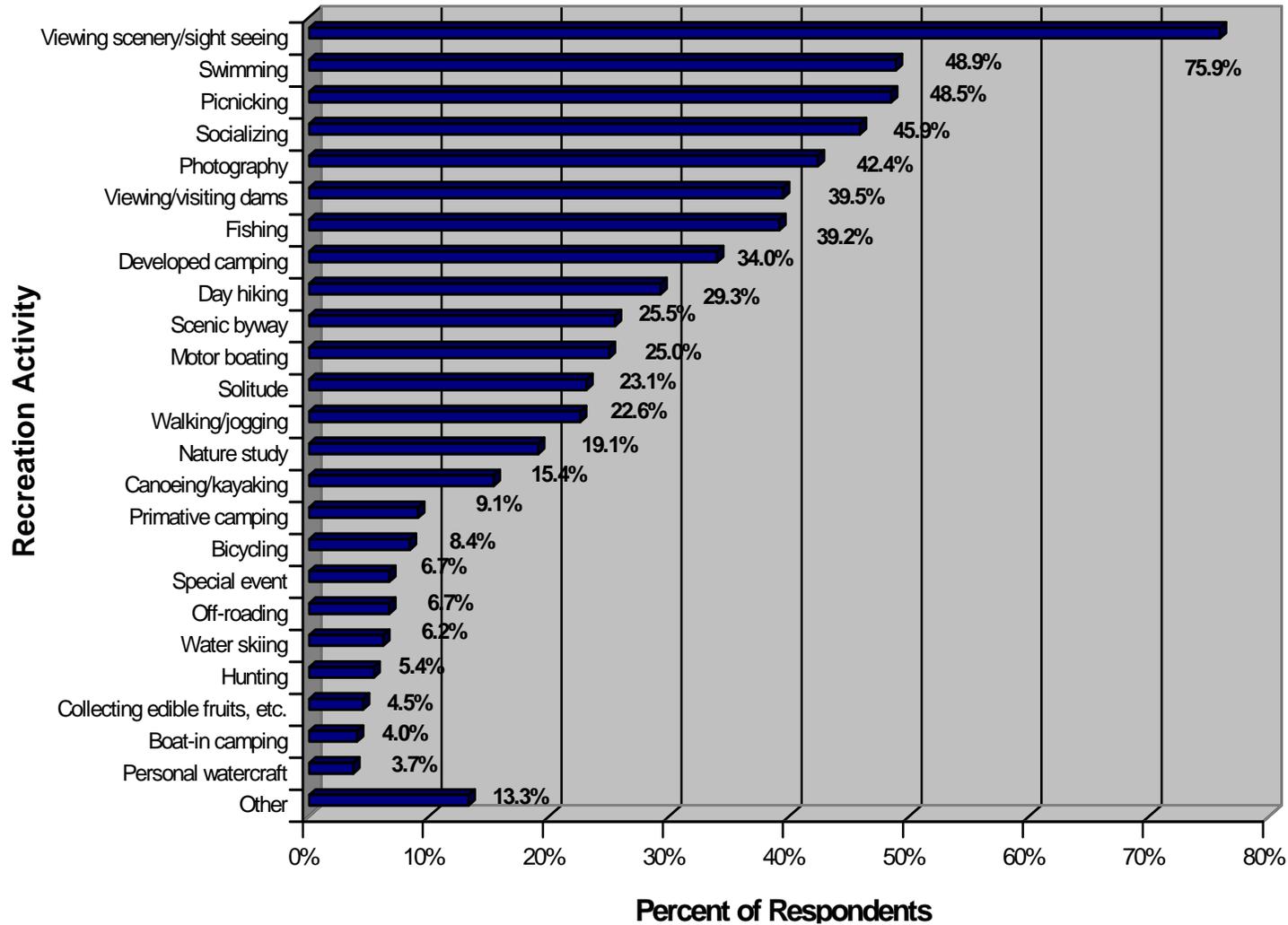


Figure 5.1-5. Participation in recreation activities at Boundary Reservoir Area (597 respondents).

Question 8: Primary Recreation Activity. After asking visitors what types of recreation activities they had done or planned to do during their visit to the Boundary Reservoir Area, we asked them to indicate which one of these activities was their primary activity for this particular visit, meaning the one they had spent the most time doing. The two most frequent primary activities reported by this sample were viewing scenery/sightseeing (16 percent) and fishing (15.8 percent). Table 5.1-14 summarizes the results for the respondents' primary activity.

Table 5.1-14. Primary recreation activity for visitors to the Boundary Reservoir Area.

Primary Activity	Frequency	Percent of Sample ¹
Viewing scenery/sightseeing	94	16.0
Fishing	93	15.8
Car/tent/RV camping developed	56	9.5
Swimming	51	8.7
Canoeing/kayaking	47	8.0
Motor boating for pleasure	44	7.5
Socializing	40	6.8
Day hiking/nature trails	19	3.2
Picnicking	15	2.5
Traveling State Route 31	14	2.4
Special event/festival	12	2.0
Viewing/visiting the dams	11	1.9
Photography	10	1.7
Car/tent/RV camping non-developed	10	1.7
Personal watercraft	7	1.2
Spending time alone	7	1.2
Hunting	7	1.2
Miscellaneous ²	18	2.9
Other	34	5.8

Notes:

- 1 589 respondents
- 2 Miscellaneous includes walking/jogging (3 people), waterskiing (6 people), boat-in camping (3 people), bicycling (2 people), nature study (2 people), and off-road vehicle use (2 people).

Question 9: Quality of the Recreation Experience. Table 5.1-15 summarizes results for the question that asked visitors to rate the overall quality of their recreation experience, on a scale of 1 to 9, for this visit to the study area. The most common rating reported, by 241 respondents or 41 percent of the sample, was “excellent” (mode = 9.0). Only 1.7 percent of the respondents rated their experience as below average (ratings of 4 or less).

Table 5.1-15. Ratings for overall quality of the recreation experience at Boundary Reservoir Area.

Rating ¹	Frequency	Percent of Sample ²
1 (Very Poor)	1	0.2
2	1	0.2
3	5	0.9
4	3	0.5
5 (Average)	30	5.1
6	34	5.8
7	119	20.2
8	154	26.2
9 (Excellent)	241	41.0

Notes:

1 mean = 7.8, standard deviation = 1.3, median = 8.0, mode = 9.0

2 588 respondents

5.1.3.2.3. Fishing

Questions 10 through 15 addressed fishing activity in the study area. Respondents were requested to answer these questions only if they fished or planned to fish on this visit to the Boundary Reservoir Area. The number of respondents for specific items in this part of the survey ranged from 150 to 227.

Question 10: Group Size for Visitors Fishing. Table 5.1-16 summarizes results for the number of people fishing per party for visitors who reported fishing during this visit to the Boundary Reservoir Area. This table is based on combined results for respondents indicating that they fished on the trip and the group-size information from Question 3. Group size reported by angler respondents ranged from 1 to 14 people. Groups of 2 anglers were the most frequent (the mode), reported by 35 percent of the sample. On average, about 3 people fished together (mean = 2.9, standard deviation = 1.9).

Table 5.1-16. Number of people fishing per party at Boundary Reservoir area.

Fishing Group Size	Frequency	Percent of Sample ¹
1	39	17.4
2	79	35.3
3	41	18.3
4	36	16.1
5	16	7.1
6 or more	13	5.8

Note:

1 224 respondents

Question 10: Number of Days Fished. Table 5.1-17 summarizes results for the number of days fished per party for visitors who reported fishing during this visit to Boundary Reservoir Area. The number of days fished per party ranged from 1 to 15 days. Over 40 percent of this sample reported fishing with their group for only 1 day. On average, visitors fished with their parties for 2 and a half days (mean = 2.5, standard deviation = 2.4, median = 2.0).

Table 5.1-17. Number of days fished per party at Boundary Reservoir area.

Fishing Days	Frequency	Percent of Sample ¹
1	86	41.1
2	48	23.0
3	37	17.7
4	16	7.7
5	10	4.8
6 or more	12	5.7

Note:

1 209 respondents

Question 10: Average Number of Hours Fished. Table 5.1-18 summarizes results for the average number of hours fished per party per day for visitors who reported fishing during this visit to Boundary Reservoir Area. The amount of time ranged from 30 minutes to 12 hours. Nearly 40 percent of this sample reported fishing with their group for an average of 2 to 3 hours per day.

Table 5.1-18. Average number of hours fished per party per day at the Boundary Reservoir Area.

Average Hours Fished/Day	Frequency	Percent of Sample ¹
1	20	9.2
2 – 3	82	37.8
4	37	17.1
5	16	7.4
6	34	15.7
8	10	4.6
Other ²	12	5.5

Notes:

1 217 respondents

2 Other = 30 minutes (1 party), 1.5 hours (3 parties), 3.5 hours (3 parties), and > 8 hours (5 parties).

Question 11: Means of Fishing. Visitors who reported fishing were asked how they went fishing during this visit to the Boundary Reservoir Area. Nearly the same percentage of anglers reported that they fished from shore as from a boat. Figure 5.1-6 summarizes the results for this survey item. Seven anglers failed to respond.

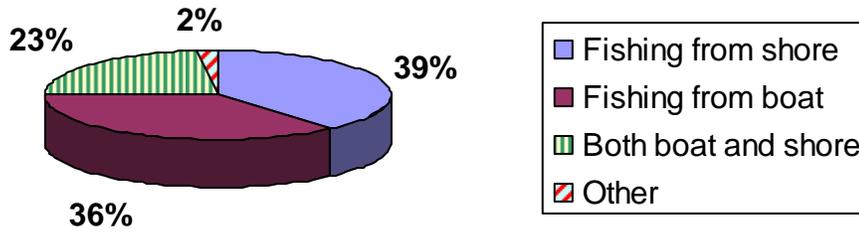


Figure 5.1-6. Responses to Question 11: How did you go fishing? (227 respondents)

Question 12: Fishing Locations. All survey respondents were provided with a map of the Boundary Reservoir Area (see Appendix 3a); anglers were asked to report on where they fished and/or intended to fish during this visit. The anglers who responded (n=225) to this item reported 432 total responses, indicating that some anglers fished in multiple locations during this particular visit. Nearly 40 percent of the sample reported that they fished in the Forebay area of Boundary Reservoir, between Boundary Dam and the north end of the canyon. The second most frequent location reported for fishing was in the canyon area of Boundary Reservoir. Figure 5.1-7 summarizes the results of this question by reporting percentages of respondents indicating the respective locations.

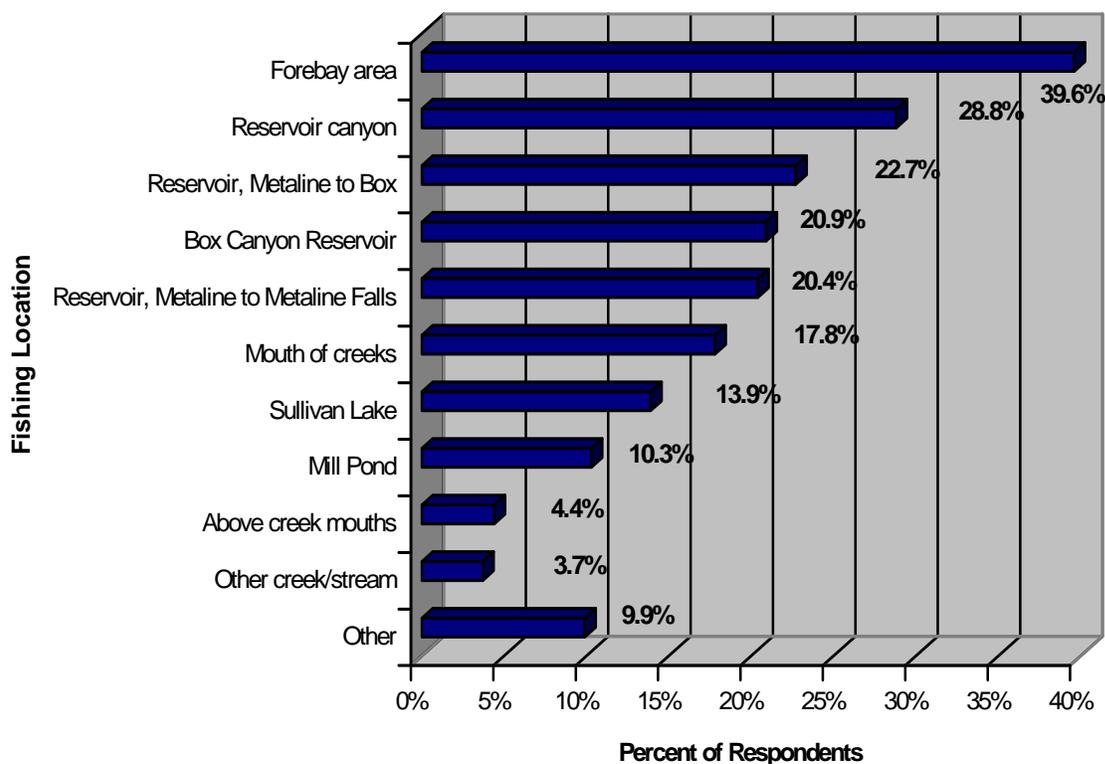


Figure 5.1-7. Responses to Question 12: In what places did/will you go fishing during this visit? (225 respondents)

Question 13: Preferred Species of Catch. Anglers were asked to identify the species of fish they wanted to catch while fishing in the Boundary Reservoir Area. There were five choices listed in the questionnaire item, and respondents were instructed to circle all that applied. This sample (n = 218 respondents) reported 491 total responses, indicating that some anglers are interested in catching more than one species while fishing in the area. Figure 5.1-8 summarizes the results of this item. Triploid trout were most commonly identified in the responses, by slight margins over smallmouth bass and other trout.

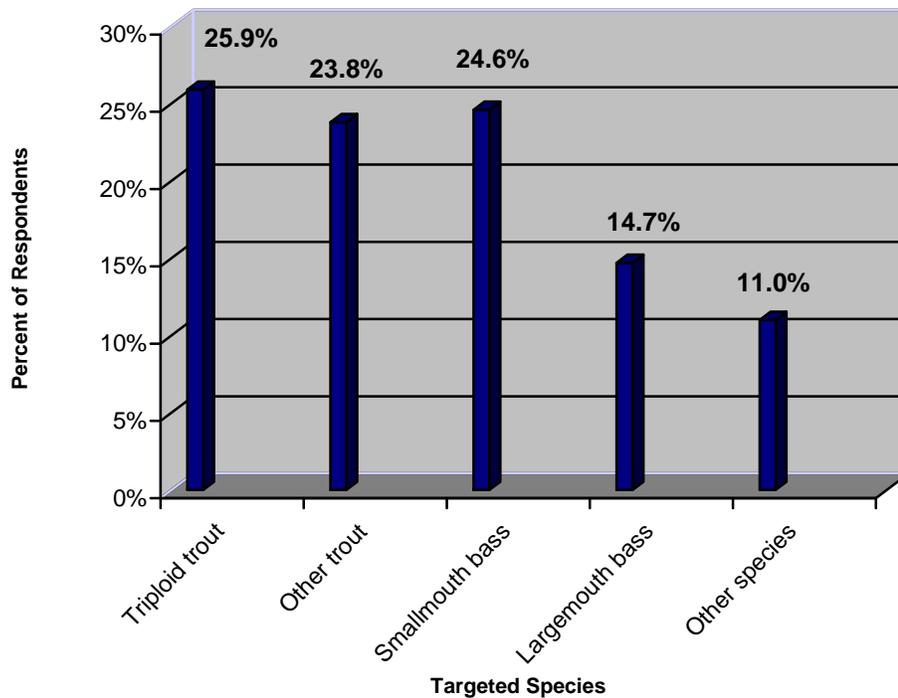


Figure 5.1-8. Responses to Question 13: What species of fish do you want to catch? (491 responses)

Question 14: Description of Fish Caught. Anglers were asked to report the numbers and size of fish caught by species during this particular visit to the Boundary Reservoir Area. Results are summarized below for triploid trout, other trout, smallmouth bass, and largemouth bass (Tables 5.1-19 to 5.1-22).

The anglers sampled in this survey caught between 0 and 15 triploid trout, with the responses representing a combined total of 271 fish. Table 5.1-19 summarizes data for the number of triploid trout caught by this sample of anglers. Most anglers (61 percent) reported catching zero triploid trout on their visit.

Table 5.1-19. Number of triploid trout reported caught by anglers.

Number of Triploid Trout	Frequency	Percent of Sample ¹
0	100	60.6
1	19	11.5
2	10	6.1
3	12	7.3
4 - 6	9	5.4
8 - 10	11	6.7
>10	4	2.4

Note:

1 165 respondents

Anglers reported various ranges in size for the triploid trout they caught. Overall, responses for triploid trout ranged in size from 4 to 27 inches. Thirty-six different sizes and ranges were reported for triploids. Of these reported sizes and ranges, 64 percent fell between 10 and 20 inches.

The anglers sampled in this survey caught between 0 and 15 other trout, with the responses representing a combined total of 136 fish. Table 5.1-20 summarizes the data for the number of other trout caught by this sample of anglers. Most anglers (68 percent) reported catching zero other trout on their visit.

Table 5.1-20. Number of other trout reported caught by anglers.

Number of Other Trout	Frequency	Percent of Sample ¹
0	102	68.0
1	18	12.0
2	11	7.3
3	8	5.3
4	5	3.3
>4	6	4.1

Note:

1 150 respondents

Anglers reported various ranges in size for the other trout that they caught. Overall, responses for other trout ranged in size from 3 to 24 inches. Twenty-four different sizes and ranges were reported for other trout. Of these reported sizes and ranges, 67 percent fell between 10 and 20 inches.

The anglers sampled in this survey caught between 0 and 30 smallmouth bass during this visit, with the responses representing a combined total of 595 fish. Table 5.1-21 summarizes the data

for the number of smallmouth bass caught by this sample of anglers. Nearly half (49 percent) of this group reported catching zero smallmouth bass on their visit.

Table 5.1-21. Number of smallmouth bass reported caught by anglers.

Number of Smallmouth Bass	Frequency	Percent of Sample ¹
0	82	48.8
1 - 2	29	17.3
3 - 4	22	13.1
5 - 10	19	11.3
12 - 30	16	9.5

Note:

1 168 respondents

Anglers reported catching smallmouth bass ranging in size from 1 to 20 inches. Forty-seven different sizes and ranges were reported for smallmouth bass. Of these reported sizes and ranges, 45 percent fell between 8 and 16 inches.

The anglers sampled in this survey caught between 0 and 6 largemouth bass during this visit, with the responses representing a combined total of 34 fish. Table 5.1-22 summarizes the data for the number of largemouth bass caught by this sample of anglers. Nearly 90 percent of this group reported catching zero largemouth bass on their visit.

Table 5.1-22. Number of largemouth bass reported caught by anglers.

Number of Largemouth Bass	Frequency	Percent of Sample ¹
0	128	87.7
1	10	6.8
2 - 6	8	5.5

Note:

1 146 respondents.

Anglers reported various ranges in size for the largemouth bass that they caught. Overall, largemouth bass ranged in size from 1 to 20 inches. Fifteen different sizes and ranges were reported for largemouth bass. Of these reported sizes and ranges, 67 percent fell between 6 and 16 inches.

Question 15: Fishing Satisfaction. Table 5.1-23 summarizes results for the question that asked anglers to rate their satisfaction with the fishing opportunities at Boundary Reservoir (in this instance, the question was specific to Boundary Reservoir, rather than the Boundary Reservoir Area). The most common rating reported (the mode) was average (5 on the numbered scale). Approximately 14 percent of the respondents rated their satisfaction as below average (ratings of 1 to 4), whereas 62 percent considered their experience to be above average (ratings of 6 to 9).

Table 5.1-23. Ratings for satisfaction with fishing opportunities at Boundary Reservoir.

Rating ¹	Frequency	Percent of Sample ²
1 (Very Poor)	10	4.6
2	3	1.4
3	10	4.6
4	7	3.2
5 (Average)	52	24.1
6	23	10.6
7	47	21.8
8	27	12.5
9 (Excellent)	37	17.1

Note:

1 mean = 6.3, standard deviation = 2.1, median = 7.0, mode = 5.0

2 216 respondents.

5.1.3.2.4. Boat Launches and Reservoir Use

Question 16: Boat Use. Respondents were asked if they operated or rode in a boat or other watercraft during this particular visit to Boundary Reservoir Area. The number of respondents for this question was 548. Over 40 percent of the sample used or operated a boat or other watercraft during this visit. Figure 5.1-9 summarizes the results of this survey item. Fifty-two respondents failed to answer this question.

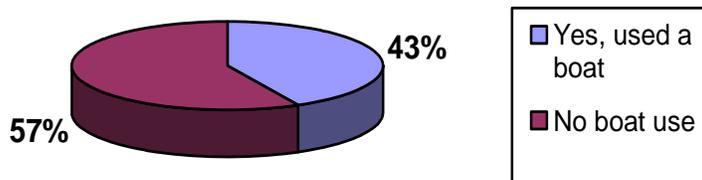


Figure 5.1-9. Responses to Question 16: Did you operate or ride in a boat during this visit? (548 respondents)

Question 17: Location of Boat Launch Used. Visitors who reported using a boat or other watercraft on this visit were asked to identify the boat launch they used, and were instructed to circle all choices that applied. Of those who answered this question (n=236), 78 percent said that they launched at the SCL Forebay Recreation Area. Figure 5.1-10 summarizes the results for boat launch use in the Boundary Reservoir Area. The values in Figure 5.1-10 are percentages of respondents.

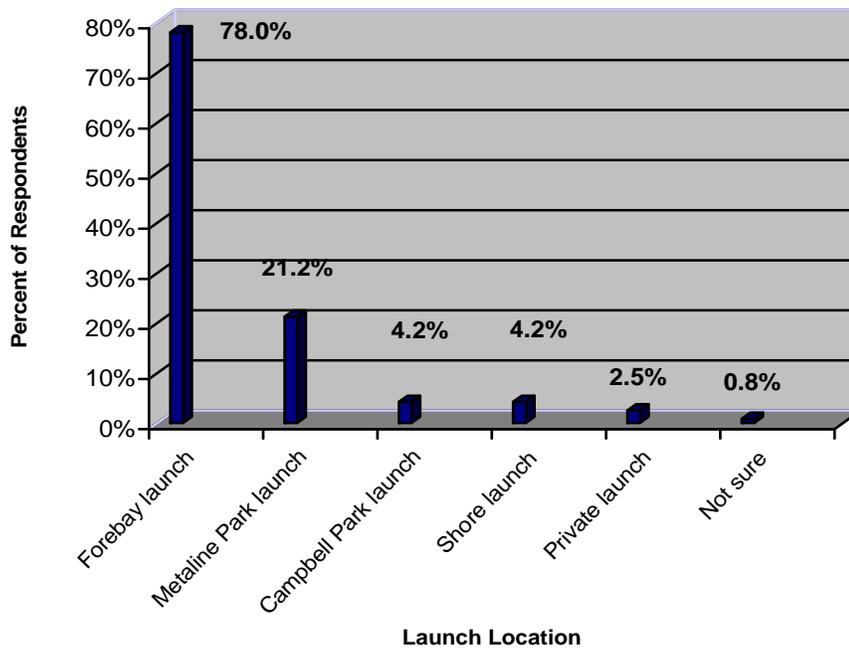


Figure 5.1-10. Responses to Question 17: Which boat launch did you use during this visit? (236 respondents)

Question 18: Boat Launch Adequacy. Visitors who used a boat launch were asked if the launch adequately met their needs for this particular visit. Figure 5.1-11 summarizes the results for this survey item. Over 90 percent of this sample of boaters (228 respondents) responded affirmatively that their needs had been met while using a launch.

Visitors who reported that their needs were not met were asked to describe any problems that they encountered launching their boats. These open-ended comments are listed in Appendix 3e. While these responses have not been formally categorized, they indicate that most boat launch problems were of two types. The most common cited issue concerned the type or conditions of facilities present (or lacking) at the boat launches. At least 19 of the 31 comments included references that docks were either missing or needing repair, and/or that boat ramps were rough, too steep, too narrow, or in need of repair or resurfacing. At least 10 comments included some reference to low, high, or fluctuating water levels in the reservoir that made launching difficult or unreliable.

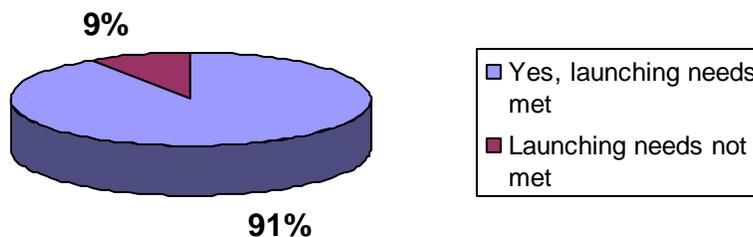


Figure 5.1-11. Responses to Question 18: Did the boat launch that you used adequately meet your needs? (228 respondents)

Question 19: Water Conditions. All respondents (not just those reporting use of a boat) were asked if the water conditions on the river or the reservoir caused them any problems during this particular visit. Figure 5.1-12 summarizes the results for this question. About 20 percent of the sample selected the response option that they did not access the river or the reservoir shoreline during this visit (and by inference had no problems with water conditions). Nearly 70 percent of the sample reported no problems. Approximately 10 percent of the sample reported that they had experienced minor or major problems with water conditions during their visit. Forty-five respondents failed to answer this item.

Visitors who reported that they had experienced problems with water conditions were asked to describe those problems. Forty-one visitors (7.4 percent of this sample) wrote open-ended responses to this part of the question, which are listed in Appendix 3e. In general, the most frequent problem described (in approximately 25 comments) related in some way to low and/or fluctuating water levels. Several of these comments suggested the respondents had some prior

knowledge of daily fluctuation patterns (specifically, lower water levels later in the day), and some responses associated low or changing water levels with more difficult fishing conditions. Three open-ended comments referenced problems or uncertainty associated with the rapids at Metaline Falls, and five comments identified milfoil as a problem.

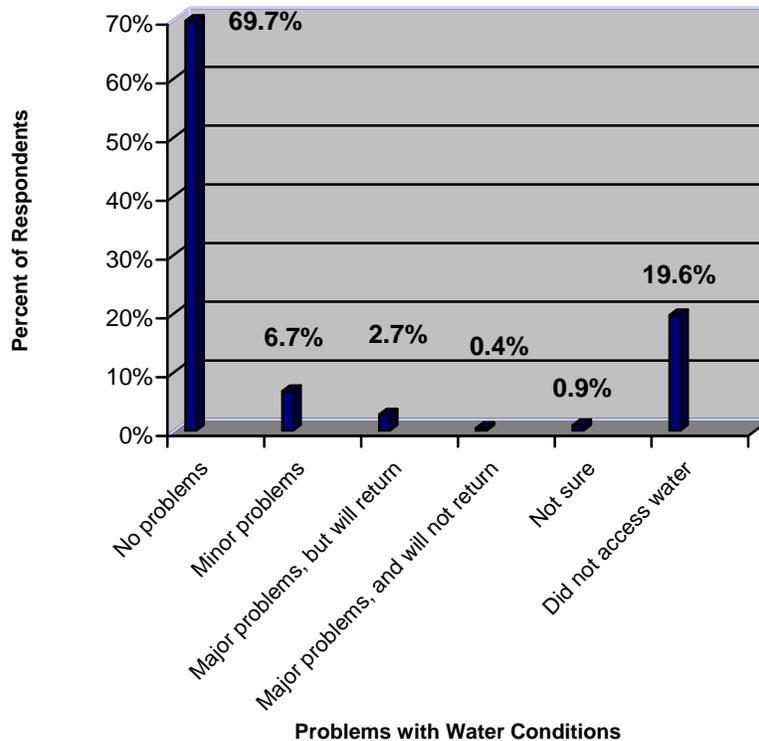


Figure 5.1-12. Responses to Question 19: Did the water conditions cause any problems for you during this visit? (555 respondents)

5.1.3.2.5. *Recreation Facilities and Services*

Question 20: Importance of and Satisfaction with Facilities and Services. Using a 5-point scale ranging from 1 = “not at all important” to 5 = “extremely important,” respondents were asked to rate the importance of having available 27 different recreation facilities or opportunities. Then, using a similar 5-point scale ranging from 1 = “not at all satisfied” to 5 = “extremely satisfied,” respondents were asked to rate their satisfaction with each of these recreation opportunities at the Boundary Reservoir Area. Table 5.1-24 summarizes the results for this questionnaire item by reporting the arithmetic mean calculated for each item, and the standard deviation associated with each mean. Given that there were 27 different importance and satisfaction variables, the number of respondents varied greatly for each item, ranging from 207 to 527 respondents. Appendix 3d reports the valid percentages of respondents for low, moderate, and high levels of importance and satisfaction for each item listed in Question 20.

Table 5.1-24. Mean scores for importance of and satisfaction with recreation facilities and services at Boundary Reservoir Area.

Facility/Opportunity	n	Mean	Standard Deviation
Tent campsites importance	425	3.7	1.5
Tent campsites satisfaction	307	4.1	0.88
RV campsites importance	407	3.6	1.5
RV campsites satisfaction	268	4.0	1.0
RV hookups/utilities importance	364	2.7	1.5
RV hookups/utilities satisfaction	207	3.3	1.3
Campsite fees importance	415	3.4	1.5
Campsite fees satisfaction	308	4.3	1.1
Parking area importance	521	4.1	1.0
Parking area satisfaction	473	4.3	0.81
Road access to recreation area importance	508	4.2	0.94
Road access to recreation area satisfaction	455	4.3	0.83
Access for the disabled importance	374	3.3	1.6
Access for the disabled satisfaction	265	3.9	1.1
Drinking water importance	510	4.2	1.1
Drinking water satisfaction	429	4.0	1.1
Flush toilets importance	508	3.7	1.4
Flush toilets satisfaction	425	4.0	1.2
Vault/portable toilets importance	436	3.6	1.3
Vault/portable toilets satisfaction	338	3.7	1.2
Trash containers/collection importance	524	4.3	1.0
Trash containers/collection satisfaction	472	4.3	1.0
Picnic sites importance	508	4.0	1.0
Picnic sites satisfaction	448	4.2	0.90
Swimming/beach access importance	490	4.1	1.1
Swimming/beach access satisfaction	430	4.2	0.98
Historic sites/information importance	483	3.6	1.2
Historic sites/information satisfaction	414	4.1	0.92
Scenic views/viewpoints importance	527	4.2	1.0
Scenic views/viewpoints satisfaction	476	4.3	0.82
Wildlife viewing/nature trails importance	496	4.1	1.0
Wildlife viewing/nature trails satisfaction	422	4.1	1.0
Interpretive/education programs importance	435	3.3	1.3
Interpretive/education programs satisfaction	330	3.7	1.2
Hiking trails importance	475	3.8	1.2
Hiking trails satisfaction	369	3.9	1.0
Boat ramps importance	448	3.8	1.5
Boat ramps satisfaction	348	4.1	1.1

To better highlight the information provided by the responses to Question 20, Figure 5.1-13 provides a graphical representation of the mean importance and satisfaction ratings for each item. As a group, visitors assigned the highest importance and satisfaction ratings (over 4.0 on the 5-point scale for both importance and satisfaction) to scenic views/viewpoints, wildlife viewing/nature trails, trash containers/collection, swimming/beach access, picnic sites, parking areas, drinking water, and road access to recreation. RV hookups/utilities had the lowest ratings (mean importance = 2.7, mean satisfaction = 3.3), and was the only facility/service category to

average a rating of less than 3.0 for importance. None of the 27 facilities or service categories received a mean satisfaction rating lower than 3.0. After RV hookups/utilities, boat-in campsites were the second lowest on the satisfaction scale (mean = 3.6).

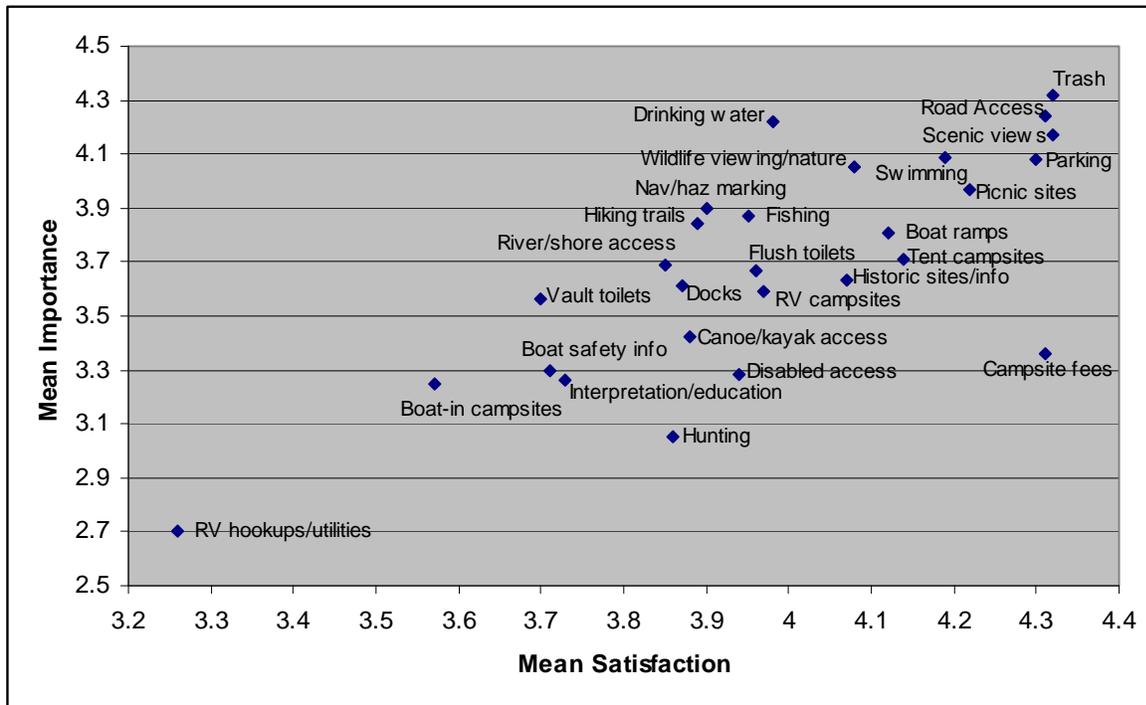


Figure 5.1-13. Importance and satisfaction ratings for recreation opportunities and facilities at the Boundary Reservoir Area (variable number of respondents; mean scores calculated based on a 1-5 continuous response scale).

Question 21: Recreation Improvements Needed. Visitors were asked to report, based on their experiences during this particular visit, whether they thought that any of the existing recreation opportunities in the study area were in need of improvement. Figure 5.1-14 summarizes the results for this survey item. Over 50 percent of the sample reported being satisfied with the recreation activities/facilities that are currently available at the Boundary Reservoir Area. Forty-two respondents failed to answer this question.

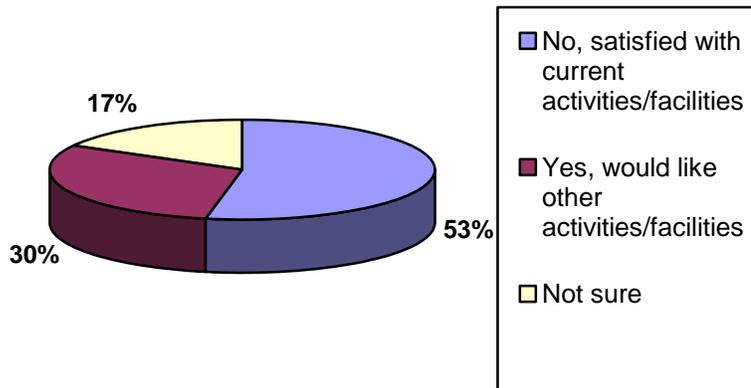


Figure 5.1-14. Are there any improvements to the existing recreation opportunities at Boundary Reservoir that you think are needed? (558 respondents)

Thirty percent of the sample reported that they would like other recreation activities or facilities at Boundary Reservoir Area. These respondents were asked to list what they would like to have at this destination in addition to what is currently available. The 168 respondents who answered Question 21 affirmatively generated a lengthy list of activities, facilities or management actions, often in combination (see Appendix 3e). While these open-ended responses have been arranged in alphabetical order, the extensive content has not yet been categorized to identify numbers of like items; this categorization and subsequent analysis will be presented in the USR.

5.1.3.2.6. *Your Primary Destination*

Question 22: Places Visited. Visitors were asked to report what specific sites in the Boundary Reservoir Area they intended to visit or had already visited. The most frequently selected response option (as worded in the survey question) was the campground at Boundary Dam, in reference to the SCL Forebay Recreation Area. The second most common place to be was on the water in a boat. This sample of visitors generated 1,821 responses to this item, indicating that most respondents visited several different sites during this particular visit to the Boundary Reservoir Area. Figure 5.1-15 summarizes these results by reporting the percent of respondents who circled each site; because respondents were instructed to circle all responses that applied, the percentages total more than 100.

Nineteen percent of the respondents in this sample selected the “Other” response option and named other specific sites in the area. The three sites most frequently listed were Gardner Caves at Crawford State Park (4 entries), Sullivan Lake (5) and Sullivan Lake Campground (5), and Peewee Falls (8).

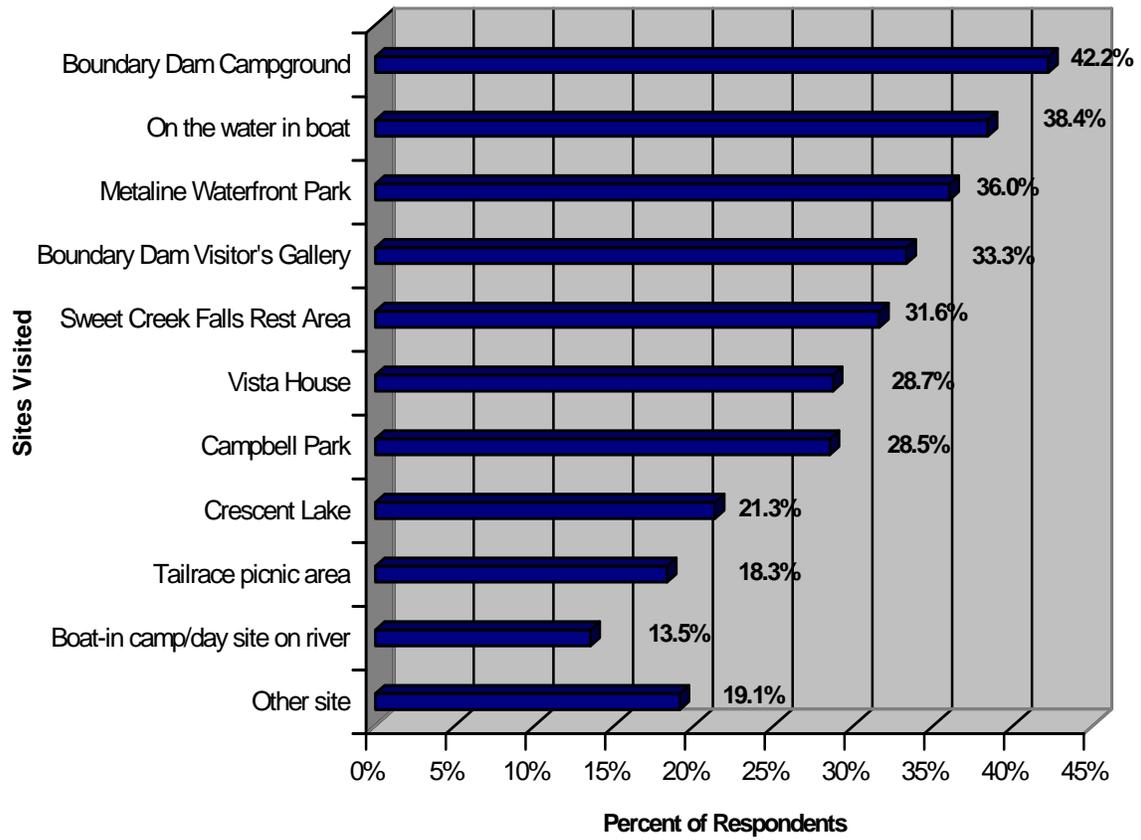


Figure 5.1-15. Recreation sites visited at Boundary Reservoir Area (586 respondents).

Question 23: Primary Destination. As a follow-up, visitors were asked to indicate which *one* of the sites identified in Question 22 was their *primary* destination for this particular visit, meaning the one site where they spent the most time. The two most frequent primary destinations reported were the Boundary Dam campground (the SCL Forebay Recreation Area near Boundary Dam, by 22 percent of all respondents) and on the water in a boat (16 percent). Table 5.1-25 summarizes results for primary destination. Thirty-four respondents did not answer this item.

Table 5.1-25. Primary destination for visitors to the Boundary Reservoir Area.

Primary Destination	Frequency	Percent of Sample ¹
Boundary Dam campground	126	22.3
On the water in a boat	93	16.4
Campbell Park (Box Canyon campground)	82	14.5
Metaline Waterfront Park	60	10.6
Vista House	37	6.5
Sweet Creek Falls Rest Area/trail	37	6.5
Boundary Dam Visitors' Gallery	31	5.5
Boat-in campsite/day-use site on river	13	2.3
Crescent Lake	12	2.1
Tailrace picnic area	10	1.8
Other	65	11.5

Note:

1 = 566 respondents.

Question 24: Crowding at One's Primary Destination. After respondents identified their primary destination for this particular visit, they were asked whether or how crowded they felt at that destination. Respondents rated the level of crowding they had experienced on a 9-point scale that ranged from 1 = "not at all crowded" to 9 = "extremely crowded"; the midpoint of the scale was 5 = "moderately crowded". The most common level of crowding reported was not at all crowded (mode = 1.0). Table 5.1-26 summarizes the results for the crowding item. Twenty-one respondents failed to answer this item.

Table 5.1-26. Reported levels of crowding at visitor's primary destinations at Boundary Reservoir Area.

Rating ¹	Frequency	Percent of Sample ²
1 (Not at all crowded)	282	48.7
2	96	16.6
3	70	12.1
4	30	5.2
5 (Moderately crowded)	50	8.6
6	27	4.7
7	9	1.6
8	6	1.0
9 (Extremely crowded)	9	1.6

Notes:

1 = Mean = 2.4, Standard deviation = 1.9, Median = 2.0, Mode = 1.0

2 = 579 respondents.

Question 25: Conflicts at One’s Primary Destination. Visitors were asked if they had experienced any problems or conflicts with other visitors that detracted from their enjoyment of being at their primary destination. Figure 5.1-16 summarizes the results of the recreation conflict question. Twenty-four respondents did not answer this question.

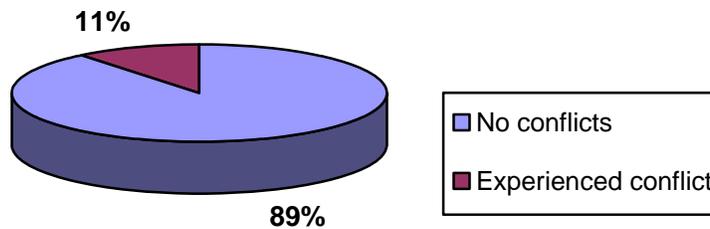


Figure 5.1-16. Responses to Question 25: Did you experience conflict or problems with other visitors during this visit to Boundary Reservoir Area? (576 respondents)

Respondents who answered affirmatively and reported conflicts were asked to describe what had occurred. These visitors generated approximately 75 open-ended comments, many expressed in full paragraph form (see Appendix 3e). In general, many comments address conflicts in campgrounds and on the water. Respondents reported high levels of noise and general raucous behavior at campgrounds such as loud music, drinking/drugs, foul language, and unleashed and uncurbed dogs. Some of these respondents suggested posting and enforcing quiet hours, and having pet control at campgrounds. On the water, respondents reported conflict and activity interference involving motorboats, personal watercraft, kayaks/canoes, and swimming. Additional analysis of these responses will be undertaken for the USR.

Question 26: Intention to Change Recreation Plans in the Future. Respondents were asked, based on their experiences during this visit to their primary destination, whether they intended to adjust their recreation plans in the future to avoid the presence or behavior of other visitors at their primary destination. Approximately 94 percent of the sample reported that they did not intend to adjust their plans in the future because of adverse experiences at their primary destination. Figure 5.1-17 summarizes the results for this survey item. Forty-five respondents failed to answer this question.

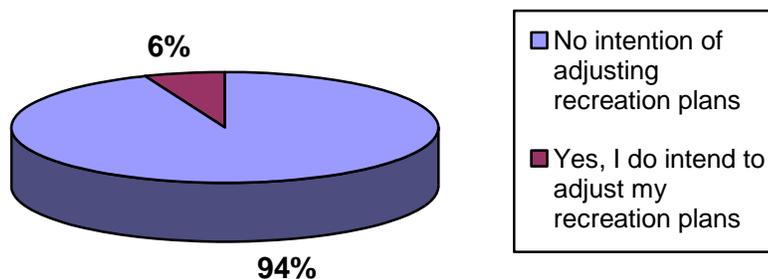


Figure 5.1-17. Responses to Question 26: Do you intend to adjust your recreation plans to avoid other visitors at this site in the future? (555 respondents)

Question 27: How Would You Adjust Your Plans? For those respondents who reported that they did intend to adjust their future plans to avoid other visitors at their primary destination, we asked them how they would do things differently in the future. Thirty-four respondents intended to adjust their plans, and seven respondents provided a response to this question without answering the previous item on general intention. Of these 41 respondents, over 40 percent reported that they would prefer to visit their same primary destination on weekdays instead of weekends or holidays. Similarly, over 40 percent reported that they would visit their same primary destination but earlier or later in the year to avoid busier times. A substantially lower proportion of respondents said that they would move to a different site. Because 80 percent of the respondents in this group indicated they still intended to visit their primary destination but at a different time, rather than shifting to a different site, these results suggest that this relatively small group of visitors may be attached, or loyal, to the primary destination that they reported in this survey. Figure 5.1-18 summarizes the results for this question.

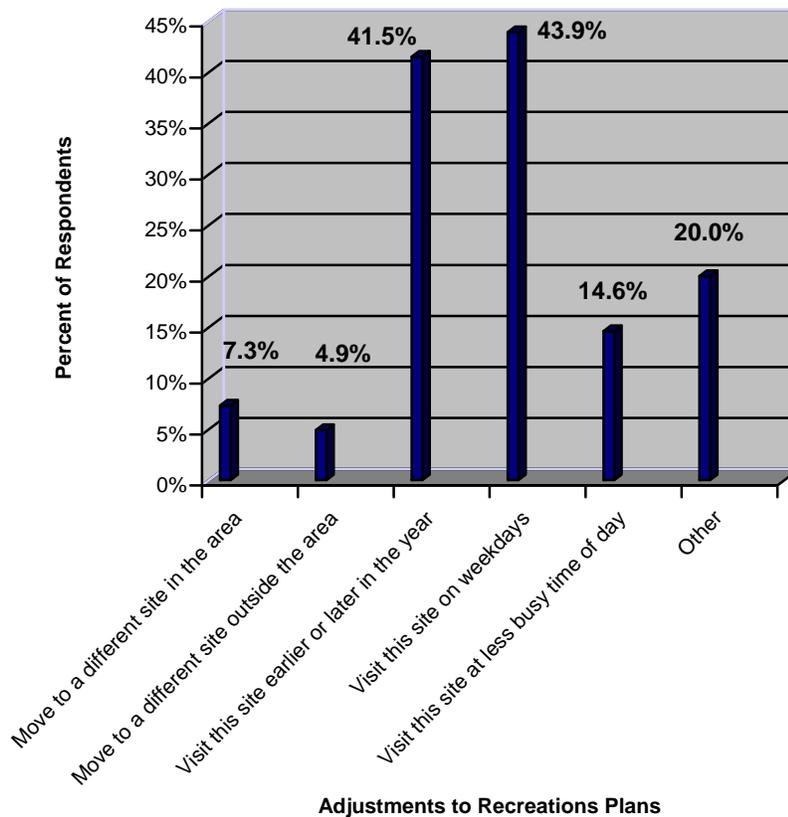


Figure 5.1-18. Responses to Question 27: How do you intend to adjust your recreation plans? (41 respondents)

Question 28: Maintenance of Facilities at Primary Destination. Respondents were asked if they found the facilities at the primary destination they identified in Question 23 to be adequately maintained on this visit. A large majority of the visitors surveyed (90 percent) reported that they found the facilities at their primary destination to be adequately maintained. Figure 5.1-19 summarizes results for this item.

The 10 percent of respondents who reported that the facilities at their primary destination were not adequately maintained were asked to describe any maintenance needs they thought were not currently being met. This group provided approximately 70 open-ended responses, which are listed in Appendix 3e. The descriptions primarily focused on general facility services and maintenance issues such as cleaning and stocking restrooms and more frequent removal of trash from garbage cans. Approximately 30 of the comments referenced bathrooms/restrooms/toilets in some manner, which was the most common topic area.

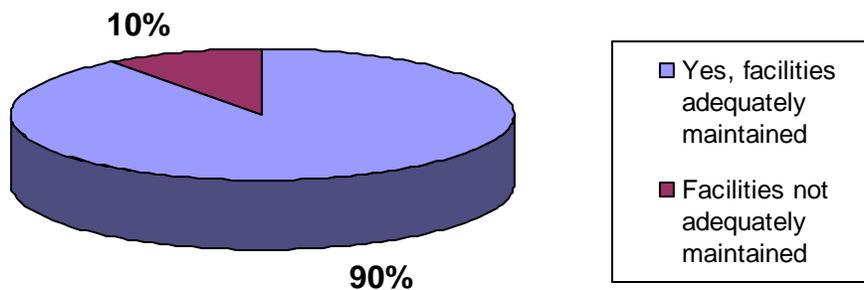


Figure 5.1-19. Responses to Question 28: Did you find the facilities at your primary destination to be adequately maintained? (570 respondents)

5.1.3.2.7. *Past Visits*

Question 29: Number of Visits to Boundary Reservoir Area in Past Year. To obtain an indication of how much experience visitors have coming to the Boundary Reservoir Area, respondents were asked to report how many visits they had made to the study area in the past 12 months. Table 5.1-27 summarizes results for this item. The most frequent response, received from 32 percent of the visitors, was one visit in the past 12 months. A majority (52 percent) of respondents reported visiting more than one time during the past 12 months. Approximately 16 percent of respondents were visiting the area for the first time in the past year. Conversely, nearly 85 percent of these respondents indicated they had made 1 or more previous visits in the past year. These results are somewhat at odds with the responses to Question 1, which reported

63 percent repeat visitors and 37 percent first-time visitors. This issue will be analyzed further and the results presented in the USR. Seventy-eight respondents failed to answer this question.

Table 5.1-27. Number of visits to the Boundary Reservoir Area made in the past year.

Number of Past Visits ^{1,2}	Frequency	Percent of Sample ³
0	82	15.7
1	167	32.1
2	96	18.4
3 - 5	87	16.7
6 - 10	46	8.7
12 - 25	25	4.8
>25	19	3.6

Notes:

- 1 Mean based on sample after removing 11 outliers over 40 visits and removing zero responses (n = 429); range in response is 1 – 40.
- 2 Mean = 4.1, standard deviation = 5.8, mode = 1.0
- 3 522 respondents; range is 0 – 200 visits.

Question 30: Number of Years Visiting Boundary Reservoir Area. As an additional indicator of past experience at the Boundary Reservoir Area, respondents were asked to report how many years they have been coming to the area. Nearly 30 percent of the sample had been visiting between 0 and 2 years. Nearly one fourth of the sample had been visiting between 3 and 9 years. About 46 percent of respondents have been coming to the Boundary Reservoir area for 10 or more years, indicating a substantial percentage of long-term, return visitors. Table 5.1-28 summarizes results for this item.

Table 5.1-28. Number of years that visitors have been coming to the Boundary Reservoir Area.

Number of Years ¹	Frequency	Percent of Sample ²
0	29	6.8
1 – 2	96	22.6
3 – 9	105	24.7
10 – 15	81	19.1
16 – 20	45	10.6
21 – 30	42	10.0
>30	27	6.4

Notes:

- 1 Median = 7.0, mode = 2.0
- 2 425 respondents; range is 0 – 80 years.

Question 31: Visitation by Season. Respondents were asked to report the seasons of the year in which they visit the Boundary Reservoir Area, identifying all seasons that apply. Over 90 percent of the sample reported visiting during the summer months. Over 50 percent of the respondents also visit the area in the fall, and 48 percent visit in the spring. Figure 5.1-20 summarizes results for this survey item.

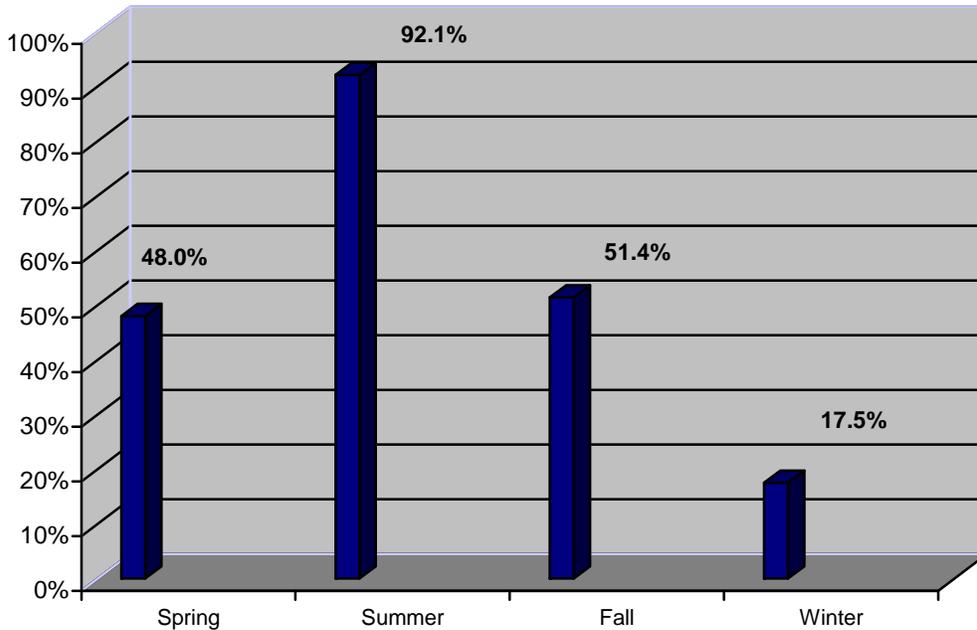


Figure 5.1-20. Responses to Question 31: In what seasons of the year do you visit the Boundary Reservoir Area? (429 respondents)

Question 32: Characteristics of the Boundary Recreation Area that Attract Visitors.

Visitors were asked to describe the characteristics of the Boundary Reservoir Area that attracted them, and were given a list of eight pre-specified motivations and the option to identify other reasons. Figure 5.1-21 summarizes the results for this question. Large majorities stated they liked the scenery or the views (81 percent) and/or were drawn to the quiet (76 percent) they can find in the area. Another characteristic selected frequently by visitors was “I like the cost/it’s affordable” (57 percent). The 22 percent of the sample choosing the “Other” category provided approximately 80 open-ended responses that are listed in Appendix 3e. The five comments that mentioned Crawford State Park and/or Gardner Caves represent the most common topic among these comments.

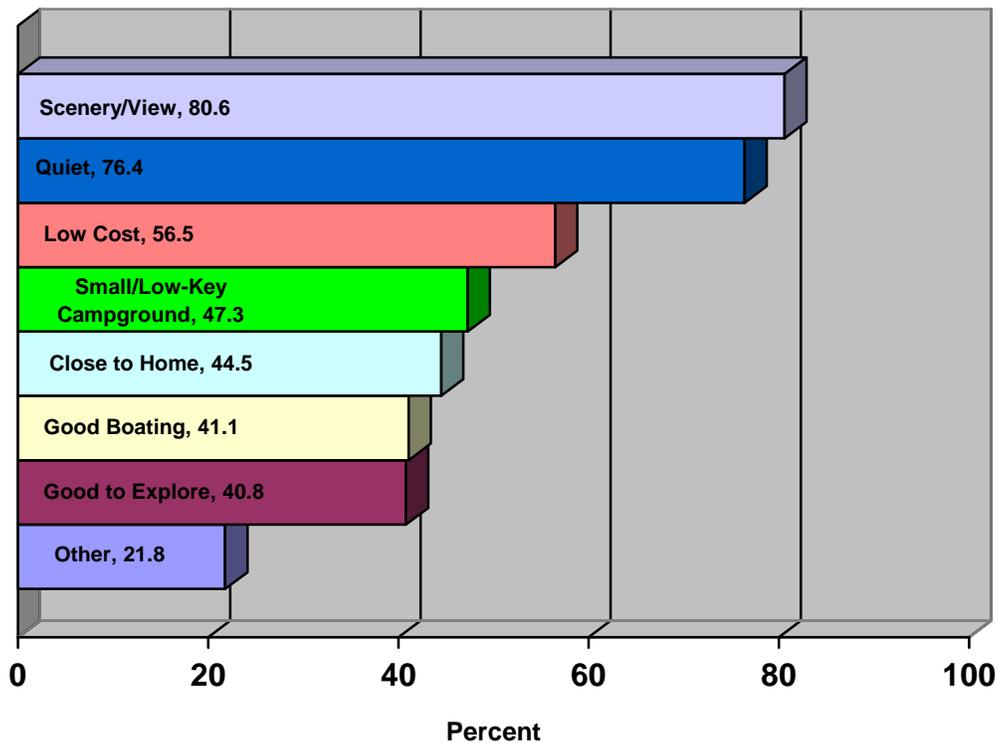


Figure 5.1-21. Responses to Question 32: What do you particularly like about visiting the Boundary Reservoir Area? (584 respondents)

Question 33: Other Lakes and Rivers Visited. Respondents were asked to list up to three other lakes or rivers that they visit in the region for water-based recreation. Only part of this sample provided all three responses, but 404 respondents named at least one other place in the region that they visit. The respondents who answered this item provided a total of 830 responses. Sullivan Lake (16.6 percent) was most frequently listed as a place where these visitors to the Boundary Reservoir Area go for recreation. Table 5.1-29 summarizes the results for this question. Percentages are based on the total number of responses. Appendix 3e contains the total list of responses with locations.

Table 5.1-29. Other lakes or rivers in the region visited for recreation by Boundary Reservoir Area visitors.

Other Lakes or Rivers Visited	Frequency	Percent of Responses ²
Sullivan Lake	138	16.6
Pend Oreille River	94	11.3
Columbia River	52	6.3
Lake Roosevelt	51	6.2
Priest Lake/ River	46	5.5
Lake Coeur d'Alene	45	5.4
Mill Pond	17	2.1
Diamond Lake	15	1.8
Little Pend Oreille Lakes	14	1.7
Crescent Lake	13	1.6
Kootenay Lake/River	13	1.6
Spokane River	12	1.4
Box Canyon Reservoir	11	1.3
Lake Pend Oreille	11	1.3
Yokum Lake	10	1.2
Leo Lake	9	1.1
Long Lake	9	1.1
Other places ¹	270	32.5

Notes:

- 1 Other places include responses listed less than 9 times in frequency. See Appendix 3e for complete list of responses.
- 2 830 total responses

Question 34: Other Places or Features Visited in the Region. When asked what other places or features in the region they had visited or intended to visit, visitors reported Box Canyon Reservoir and Sullivan Lake as the two most common responses (42 percent each) on the list provided; Spokane followed closely with 41 percent. Table 5.1-30 summarizes the results for this question.

Table 5.1-30. Other places in the region visited by respondents.

Location or Feature	Frequency	Percent of Sample ¹
Box Canyon Reservoir	228	42.4
Sullivan Lake/Mill Pond Area	225	41.8
Spokane, WA	222	41.3
North Pend Oreille Scenic Byway (State Route 31)	203	37.7
Gardner Caves/Crawford State Park	194	36.1
Colville National Forest	175	32.5
Colville, WA	172	32.0
Newport, WA	163	30.3
Northern Idaho	162	30.1
British Columbia, Canada	125	23.2
Columbia River/Lake Roosevelt	109	20.3
Selkirk International Loop	91	16.9
Little Pend Oreille Lakes	74	13.8
Little Pend Oreille National Wildlife Refuge	69	12.8
Salmo/Priest Wilderness	57	10.6
Other	53	9.9

Note:

1 538 respondents.

5.1.3.2.8. Scenery

Question 35: Overall Rating for Visual Quality of Scenery at Boundary Reservoir Area.

Respondents were asked to rate the overall quality of the scenery at Boundary Reservoir Area on a 9-point scale ranging from 1 = “very poor” to 9 = “excellent”. Almost 50 percent of the respondents rated the visual quality of the scenery as excellent, which was the most common response. No visitors rated the visual quality at less than a 4 (below average) on a 9-point scale. Table 5.1-31 summarizes the results for this question.

Table 5.1-31. Overall rating of visual quality at the Boundary Reservoir Area.

Rating	Frequency	Percent of Sample ¹
1 Very Poor	0	0.0
2	0	0.0
3	0	0.0
4	1	0.2
5 Average	15	2.6
6	30	5.0
7	78	13.0
8	158	26.3
9 Excellent	298	49.7

Note:

1 mean = 8.2, standard deviation = 1.0, 580 respondents

Question 36: Views of Facilities Associated with the Boundary Hydroelectric Project.

Respondents were asked if they had seen the dam or any structural evidence of the hydroelectric project (e.g., maintenance buildings, utility lines, or towers) during their visit. Nearly 60 percent of the sample reported seeing structures associated with the Boundary Hydroelectric Project, while 35 percent stated they had not (see Figure 5.1-22). Approximately 6 percent of surveyed visitors to the area reported that they were unsure as to whether they had seen structures related to the Project. The total number of respondents to this question was 563.

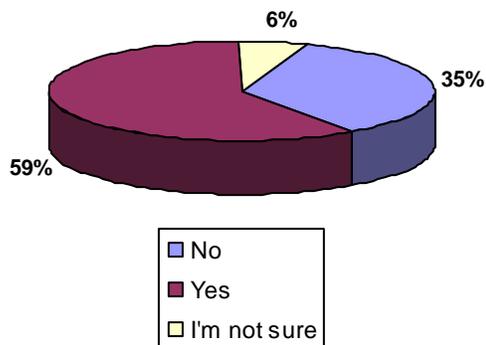


Figure 5.1-22. Responses to Question 36: Percentage of visitors reporting seeing Boundary Hydroelectric Project structures (563 respondents).

Question 37: Where Did You See these Facilities? As a follow-up, visitors who had answered affirmatively to Question 36 (n=335) were asked where they were when they saw these structures. The majority of respondents (53 percent) reported being in the SCL Forebay Recreation Area when they saw facilities or structures associated with the Boundary Hydroelectric Project. The next highest location category reported was from roads near the reservoir (46 percent). Table 5.1-32 summarizes the results for this question.

Table 5.1-32. Locations from which visitors reported seeing structures associated with the Project.

Location	Percent ¹
Boundary Recreation Area (Forebay Campground)	53.3
Roads near Reservoir	45.6
Vista House	36.5
On the Water	36.0
Picnic area below Boundary Dam (Tailrace)	23.2
Other	9.9

Note:

1 375 respondents (40 respondents answered this item despite reporting “No” on Question 36)

Question 38: How Did Seeing these Facilities Affect Your Enjoyment of the Scenery?

Respondents were asked to rate how seeing the Project facilities and structures affected their enjoyment of the scenery at the Boundary Reservoir Area. A bimodal distribution of response was observed? for this item. That is, the majority of visitors fell into two categories, either positive or neutral, regarding how seeing evidence of the Project affected their enjoyment of the scenery. Nearly 37 percent of the sample reported that it greatly enhanced their enjoyment of the scenery, and nearly 40 percent reported that seeing evidence of the Project had no effect on their enjoyment of the scenery. Twenty-eight visitors indicated that seeing the facilities detracted to some degree from their enjoyment of the scenery. Table 5.1-33 summarizes the results for this question.

Table 5.1-33. Effect of seeing facilities associated with the Project on enjoyment of the scenery.

Rating	Frequency	Percent of Sample*
1 Greatly Enhanced	136	36.6
2 Slightly Enhanced	60	16.1
3 No Effect	148	39.8
4 Slightly Detracted	26	7.0
5 Greatly Detracted	2	0.5

Note:

1 372 respondents

5.1.3.2.9. Trip Expenses

Question 39: Estimate the Total Amount of Money Spent in Pend Oreille County for this Visit. Respondents were asked if they paid their own expenses for this trip, or if someone else had paid their expenses. Over 80 percent of the sample (445 respondents) reported that they paid their own expenses for this trip.

Those who paid their own expenses were asked to estimate the total amount (in U.S. dollars) they had spent or would spend in Pend Oreille County for this trip. The reported ranges of expenditures were quite large (and surprisingly high, in some cases), as follows:

- Lodging \$0–\$500
- Camping expenses \$0–\$2,000
- Eating and drinking establishments \$0–\$3,000
- Groceries, including beverages, \$0–\$1,200
- Gasoline, oil, auto supplies, and services \$0–\$4,000
- Boat and recreation rentals \$0–\$200
- Hunting and fishing \$0–\$500
- Souvenirs \$0–\$2,000
- Recreational services (such as guided tours) \$0–\$150

The largest amounts of money were spent on lodging and groceries (mean = \$136.58 and \$91.52, respectively). The standard deviation on the mean response ranged from \$37-\$141, indicating substantial variance in individual expenditures, which is supported by the range on expenditures reported earlier. Table 5.1-34 summarizes the mean response for this question.

Table 5.1-34. Mean estimated expenses on this trip to the Boundary Reservoir Area.

Type of Expense	n	Mean ¹	Mode	Std. Dev.
Lodging	465	\$136.58	\$200.00	\$124.85
Camping	464	\$77.85	\$50.00	\$141.68
Eating and drinking establishments	464	\$64.22	\$50.00	\$64.58
Groceries: food and beverages	464	\$91.52	\$100.00	\$129.99
Gasoline, oil, auto supplies/services	464	\$79.86	\$50.00	\$92.96
Rentals of boats/RVs	464	\$71.82	\$100.00	\$52.88
Hunting/fishing supplies	464	\$42.34	\$20.00	\$67.85
Shopping/souvenirs	463	\$77.27	\$50.00	\$81.89
Recreation services, guided tours	463	\$43.87	\$50.00	\$37.29
Other	463	\$55.33	\$100.00	\$66.61

Note:

1 Means calculated after removing zero expenditure responses.

For each category of expenditure, a substantial number of respondents reported spending zero dollars (Table 5.1-35).

Table 5.1-35. Zero expenditures reported for this trip to the Boundary Reservoir Area. .

Type of Expense	Frequency	Percent of Sample ¹
Lodging	415	89.2
Camping	407	87.7
Eating and drinking establishments	253	54.5
Groceries: food and beverages	141	30.4
Gasoline, oil, auto supplies/services	124	26.7
Rentals of boats/RVs	453	97.6
Hunting/fishing supplies	366	78.9
Shopping/souvenirs	398	86.0
Recreation services, guided tours	448	96.8
Other	436	94.2

Note:

1 463–465 respondents

5.1.3.2.10. *About You and Your Party*

Question 40: Your Gender. Approximately 54 percent of the visitors responding in this question reported their gender as male, while 46 percent indicated they were female. Figure 5.1-23 displays the results for this question.

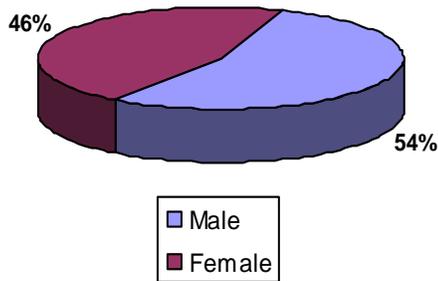


Figure 5.1-23. Responses to Question 40: Are you male or female (586 respondents)?

Question 41: Your Age. Individual visitors to the Boundary Reservoir Area reported ages ranging from under 16 to over 70. The most frequent response was from visitors in the 50-to-59 age group, representing approximately 25 percent of all respondents. A substantial proportion of visitors (19 percent) reported being from 60 to 69 in age and almost 8 percent stated that they were over 70, indicating the visitor population includes a sizable component of older visitors. Table 5.1-36 summarizes results for this question.

Table 5.1-36. Age group reported for individual visitors to the Boundary Reservoir Area.

Age Group	Frequency	Percent of Sample ¹
Under 16	1	0.2
16-19	12	2.1
20-29	53	9.1
30-39	94	16.1
40-49	123	21.0
50-59	146	25.0
60-69	111	19.0
Over 70	45	7.7

Note:

1 585 respondents

Question 42: Ages of Other People in Your Group. Respondents were asked to report the ages of the other members in their group, by indicating the numbers of people in specific age categories. The most frequent answer for all age categories was that they were alone and were reporting for just one person (zero response). However, there tended to be greater variance for ages under 29, while ages over 30 had a lower standard deviation. Table 5.1-37 reports statistics from the analysis of these responses.

Table 5.1-37. Ages reported for other people in respondents’ group (mean number of people by age group).

Age	Mean ¹	Median	Mode	Std. Dev.
Under 16	2.5	2.00	1	3.1
16-19	1.9	1.00	1	2.0
20-29	2.2	1.00	1	3.4
30-39	1.7	1.00	1	1.2
40-49	1.7	1.00	1	1.3
50-59	1.5	1.00	1	1.3
60-69	1.5	1.00	1	1.7
Over 70	1.5	1.00	1	1.2

Note:

1 586 respondents

5.1.3.2.11. *Additional Comments*

Following Question 42, the visitor questionnaire included space for visitors to provide any additional input or comments they had about how SCL could improve the management of the Boundary Reservoir Area. Many respondents included open-ended comments in this space, (see Appendix 3e); these additional comments are still being processed and categorized for summarization in the USR.

5.1.4. **Area Resident Questionnaires**

The area resident questionnaire used in the study was derived from the Project-area visitor questionnaire discussed in Section 5.1.3. The questionnaire included 44 specific questions addressing 10 categories of information. Most of the questions used in the visitor questionnaire were also used in the area resident questionnaire, with some minor modifications in the wording and/or orientation of the questions. The last page of the questionnaire also included a space for respondents to enter open-ended comments with any additional input they wanted to provide about recreation at the Boundary Project. This section of the report provides a summary of the processed results from analysis of the resident questionnaire responses. As with the visitor questionnaire, the analysis involved tabulating the responses to develop the frequency and percentage distribution for each possible response to each question, and calculating measures of central tendency (for instance, mean and standard deviation) for the responses to certain questions for which those measures are meaningful.

Question 1 in the area resident questionnaire asked respondents if they had visited the Boundary Reservoir Area (defined as the area including the Pend Oreille River between Boundary and Box Canyon Dams and some of the lands next to the river) for the purposes of recreation. Those who answered “Yes” to Question 1 were directed to skip to Question 3 and to complete the remainder of the survey. Respondents who answered “No” to Question 1 were directed to Question 2, which asked why they had not visited the Boundary Reservoir Area for recreation, and then they were directed to skip to Question 41, where they could answer several questions about themselves and their companions. The instructions in the cover letter also gave respondents the option of returning the blank questionnaire (without answering any of the questions) if they were not familiar with the Boundary Reservoir Area or did not use the area for recreation purposes.

Given this questionnaire format, respondents who returned the questionnaire either completed the entire form except Question 2 or completed Questions 1, 2 and (optionally) 41 through 44. The returned questionnaires indicated that a substantial proportion of the area resident respondents (57 percent) had not visited the Boundary Reservoir Area for recreation, and therefore provided responses for only a few questions at the beginning and end of the form.

5.1.4.1. *Survey Completion Summary*

Area resident questionnaires were distributed through the four-step process described in Section 4.1.3. The first mailing, a pre-survey notice, was mailed during the fourth week of August and the final mailing occurred in the first week of October 2007. Through November 5, 549 survey forms had been returned and logged (Table 5.1-32). Among those returned surveys, approximately 330 were in response to the initial distribution of survey packets (the second of

four mailings) and were received by TtEC by approximately October 8. Another 219 surveys, primarily from the second distribution of survey packets (the last of four mailings) were received through November 5, 2007. Among both groups of returned surveys (549 total), 67 returned surveys (12.2 percent) were entirely blank, 211 (38.4 percent) were partially complete (generally including responses to Questions 1, 2 and 41 – 44), and 271 (49.4 percent) included responses to all or virtually all questions. Table 5.1-38 summarizes the numbers of surveys distributed and returned as of the early-November tabulation. Approximately 30 additional surveys were returned after November 5 but have not been logged and are not included in the table entries.

Table 5.1-38. Summary of area resident questionnaire distribution and response.

Sample Population	Total Addresses	Bad Addresses/ Deceased Recipients	Usable Addresses	Returned Surveys	Response Rate
British Columbia Communities	1,500	112	1,388	317	22.8
Washington Communities	465	45	420	232	55.2
Total Population	1,965	157	1,808	549	30.4

The table entries for bad addresses and deceased recipients are based on mailed pieces that were returned to TtEC with notes to that effect. It is possible there were other cases of mailed items to invalid addresses that were not returned. Returns from the invalid addresses indicate the survey was distributed to a maximum of 1,808 valid addresses. Using this number, the 549 returned surveys that have been logged represent an overall response rate of over 30 percent.

The response rate from the Washington communities within the sample area was 55 percent, more than double the response rate from the British Columbia portion of the sample area. The returns from the Washington and British Columbia portions of the sample area also reflected a distinct difference in the level of completion of the returned survey forms. Washington residents returned 11 blank survey forms, and 85 percent of the respondents from Washington communities indicated that they use the Boundary Reservoir Area for recreation and returned completed surveys. By contrast, 56 blank surveys (many with brief notes indicating the recipients did not use the Boundary area) were returned from British Columbia residents. In addition, less than 24 percent of the surveys returned by British Columbia residents were complete surveys; by far the most common response from British Columbia residents (59 percent of this subtotal) was to enter responses to Questions 1 and 2 (and, usually, Questions 41 through 44), indicating that these respondents did not use the Boundary Reservoir Area for recreation.

The returned surveys indicate that residents of the British Columbia communities near the Project are considerably less likely to use the Boundary Reservoir Area for recreation than are the residents of the nearby Washington communities. That difference in use patterns may well explain the much lower response rate for the British Columbia residents. The difference in use patterns is also generally consistent with information on visitor origin derived from the Project-area visitor questionnaires. As reported in Section 5.1.3.1.2, when survey crews requested addresses from visitors they contacted, only 5 percent of the visitors indicated they were from

Canada. The tabulation of postal codes for Question 6 of the visitor survey also reported that 28 of the respondents (4.7 percent of the total) indicated their primary residence was in British Columbia, and 7 of those respondents (1.2 percent) reported postal codes for Trail, Salmo, Fruitvale, or Montrose.

The previous discussion of area resident questionnaires that have been returned is based on the 549 surveys that had been logged in as of November 5, 2007. Because of the time required to enter survey responses and analyze the results, only the responses from 400 surveys (primarily, returns from the initial distribution of survey packets) have been analyzed as of January 2008 and are presented in Section 5.1.4.2. That group includes 115 surveys (29 percent) from Washington residents who entered their addresses, 181 surveys (45 percent) from British Columbia residents who entered their addresses, and 104 respondents who did not indicate their address on the returned questionnaire. Among the 400 surveys analyzed to date, 166 (42 percent) were essentially complete surveys from respondents who used the Boundary Reservoir Area for recreation, while 221 (57 percent) were partial responses addressing primarily Questions 1-2 and 41-44, and 13 surveys (3 percent) were entirely blank. Based on the corresponding percentages discussed previously for the total 549 surveys logged, the group of 149 remaining surveys that have been logged but not analyzed includes a much higher proportion of blank surveys (3 percent for the 400 surveys that have been analyzed, but 12 percent for the 549 surveys logged) and a somewhat higher proportion of complete surveys (42 percent for the 400 surveys that have been analyzed, but 49 percent for the 549 surveys logged).

Responses from the remaining area resident surveys that have not yet been processed will be analyzed during 2008, and the USR will present results from the entire set of returned surveys. The USR will also address differences and similarities between the Washington and British Columbia components of the area resident population.

5.1.4.2. Survey Response Results

Results are provided for each question in the survey, in sequential order. The subheadings correspond to the categories of questions as they were grouped on the survey. For each survey question, there is a graph or table summarizing the tabulation of responses and a brief narrative. The analysis involved tabulating the responses to develop the frequency (number) and percentage distribution for each possible response to each question, and calculating measures of central tendency (for instance, mean and standard deviation) for the responses to a given question for which those measures are meaningful. The percentages that are reported are based on the number of survey participants responding to each question, and not on the total number of completed questionnaires (400, for the interim report). For most individual questions, the number of respondents is substantially less than 400, particularly given the relatively large numbers of returned surveys that were blank or provided responses for only a few questions.

Most of the survey questions included “Other” as the final possible response, with space provided for the respondents to write in specific information. Because those open-ended responses can cover a wide variety of subject matter and can be difficult to interpret, they have not been analyzed and categorized to group similar responses for this interim report. The open-ended responses are provided in Appendix 4b and have been reviewed, and obvious generalizations or tabulations from those data have been included in the discussion, where

appropriate. For questions where responses in the “Other” category are numerous, additional categorization will be performed and will be reported in the final report.

As is the case for the visitor questionnaires, the results that are provided below represent the basic tabulation of responses to the area resident survey questions, but do not include in-depth or second-stage analysis of the responses. Supplemental analysis of the responses will be performed during 2008 and will be documented in the USR. Additionally, RRS data and applicable results will be synthesized and used to identify recreation needs and will be included in the future Recreation Needs Analysis. As was also noted for the visitor questionnaire results, the area resident questionnaire employed place names or recreation facility names that do not exactly match the standard terms used elsewhere in this report and in other SCL documents, such as the PAD and the RSP.

5.1.4.2.1. *Your Recreation Use at Boundary*

Question 1: Use of Boundary Reservoir Area for Recreation. The first question asked survey respondents if they have ever visited the Boundary Reservoir Area for the purpose of recreation. Forty-three percent of the area resident respondents reported that they had visited the Boundary Reservoir Area for recreation in the past, while 57 percent indicated they had not (Figure 5.1.-24).

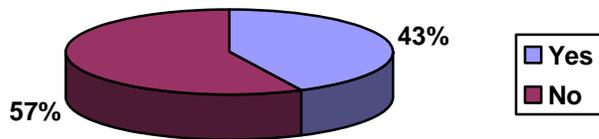


Figure 5.1-24. Response to Question 1: Have you visited the Boundary Reservoir Area for the purpose of recreation? (387 respondents)

Question 2: Reasons for Not Visiting. Respondents who answered “Yes” to Question 1 (166 respondents) were directed to skip to Question 3, while those who answered “No” (221 respondents) were asked why they have not visited the Boundary Reservoir Area for recreation. (Of those respondents who stated “No”, 206 chose to answer Question 3 explaining their reasons for not visiting the Boundary Reservoir Area, as is discussed subsequently.) Approximately 60 percent of the non-users selected one of the five pre-defined reasons for not visiting, while 22 percent indicated they did not have enough time and 20 percent reported that they preferred other areas (Table 5.1-39). Nearly 41 percent selected the “Other reason” response, and many of them wrote in a specific reason for not visiting the area. These open-ended responses are listed in Appendix 4b.

Table 5.1-39. Reasons area residents have not visited the Boundary Reservoir Area for recreation.

Reason	Frequency	Percent of Sample ¹
Not enough time	46	22.3
Not interested in types of activities there	33	16.0
Lack of adequate facilities	7	3.4
Prefer other areas	40	19.4
Poor health	30	14.6
Other reason	83	40.7

Note:

1 206 respondents

Some of the general categories that emerged from the other reasons for not visiting included general statements about health (“*age and health keep us home*” and “*husband’s poor health*”). Other themes that seemed to be common for Canadian respondents included the idea that they have many or more of the same recreation opportunities in Canada, so there was no need to make the trip (“*why cross the border when we have opportunities in Canada?*”). Related to that issue were problems with crossing the international border due to increased security, whether perceived or actual (“*due to security concerns I would rather not cross the border*”). Many residents were unaware of the recreation opportunities at the Boundary Reservoir Area making statements such as, “*didn’t realize there were so many good facilities in this area*” and “*didn’t know it was there*”. Finally, some residents stated they simply were not interested in participating in the kinds of recreation opportunities the area offers. Their statements included comments such as, “*I don’t camp or fish,*” “*do not do camping,*” and “*not campers at all*”. The complete list of open-ended responses is presented in Appendix 4b.

Question 3: Main Reason for Visiting the Boundary Reservoir Area. Those who answered “Yes” to Question 1 were asked their main reason for choosing the Boundary Reservoir Area for recreation. Over half (52 percent) of these respondents selected the “I live here” response, as shown in Table 5.1-40. Only 4.8 percent (8 respondents) selected the “Other” response; specific responses in that category are listed in Appendix 4b. They include “just passing through” and two respondents reporting “all of the above,” indicating that all of the possible responses to the categorical question are why they visit.

Table 5.1-40. Main reason for visiting the Boundary Reservoir Area for recreation.

Reason	Frequency	Percent of Sample ¹
I live here	86	52.1
A good place to do the recreation activities I enjoy	27	16.4
Spend time with family/friends	12	7.3
Scenery/views	16	9.7
A good place to relax	16	9.7
Other reason	8	4.8
Total	165	100.0

Note:

1 165 respondents

Question 4: Group Size. Area residents who reported they did visit the Boundary Reservoir Area for recreation were asked to indicate how many people were typically in their group when they visited, and the male/female distribution of their group. The size of visitor groups reported ranged from 1 to 45 individuals. The mean group size overall was 4.58 people, and a group of 4 was the most common response. Table 5.1-41 summarizes results for group size.

Table 5.1-41. Number of people in area residents’ groups when visiting Boundary Reservoir Area for recreation.

	Minimum	Maximum	Mean	Median	Mode	Std. Dev.
Group Size ¹	1	45	4.58	4.00	4	4.06
Males ²	1	30	2.49	2.00	2	2.64
Females ³	0	15	2.41	2.00	2	1.76

Notes:

1 165 respondents

2 143 respondents

3 144 respondents

Question 5: Overnight Visits. A large majority (79 percent) of the area residents who visited the Boundary Reservoir Area reported that they just visited for the day and did not stay overnight (Figure 5.1-25). Of those residents who reported overnight stays, the total number of nights that they spent in the area ranged from 1 to 10. On average, these visitors stayed for 2.6 nights (n = 32, mean = 2.6, standard deviation = 1.7, median and mode = 2.0).

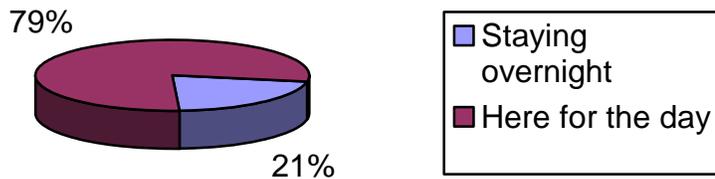


Figure 5.1-25. Responses to Question 5: Do you usually stay overnight when visiting the Boundary Reservoir Area? (164 respondents)

Question 6: Location of Overnight Stays. Respondents who indicated they usually stayed overnight while visiting the Boundary Reservoir Area were asked to identify the overnight facilities that they used. Table 5.1-42 summarizes the results for this question. From the list of places provided in the question, respondents were instructed to circle all that applied. The SCL Boundary Campground (Forebay Recreation Area) was the most commonly selected choice, followed by the campground at Box Canyon Dam (Campbell Park). When respondents chose the USFS Campground, BLM Campground, or Private Campground responses, they were instructed to provide the name of the campground. The USFS campgrounds named (five total responses) were Sullivan Lake, Crescent Lake, Big Meadow Lake and Kettle Falls. The BLM Campground (named in one response) was the site identified as 5NR BLM-1 from the dispersed site inventory (see Section 5.3) and the private campground was Blueslide.

Table 5.1-42. Where area residents usually stayed overnight at the Boundary Recreation Area.

Where	Frequency of Responses	Percent of Responses
Boundary Campground	23	40.3
Box Canyon Campground)	16	28.1
USFS Campground	5	8.8
BLM Campground	1	1.8
Private Campground	3	5.3
Hotel, Motel or Resort	3	5.3
Other	6	10.5

5.1.4.2.2. Recreation Activities

Question 7: Participation in Recreation Activities. The most frequent recreational pursuit reported by area residents who visited the Boundary Reservoir Area was viewing scenery/sightseeing, identified by over 71 percent of the respondents. Nearly half of the sample reported fishing (49.7 percent), swimming (49 percent), picnicking (48 percent), and resting/relaxing (48 percent). This sample of 168 area residents generated 1,043 responses to this item, indicating that many respondents identified multiple activities. Figure 5.1-26 summarizes results for participation in recreation activities. Respondents who chose the “Other” response category (5 percent of all responses) identified activities such as attending a softball tournament, golfing, caving and examining the history of the area.

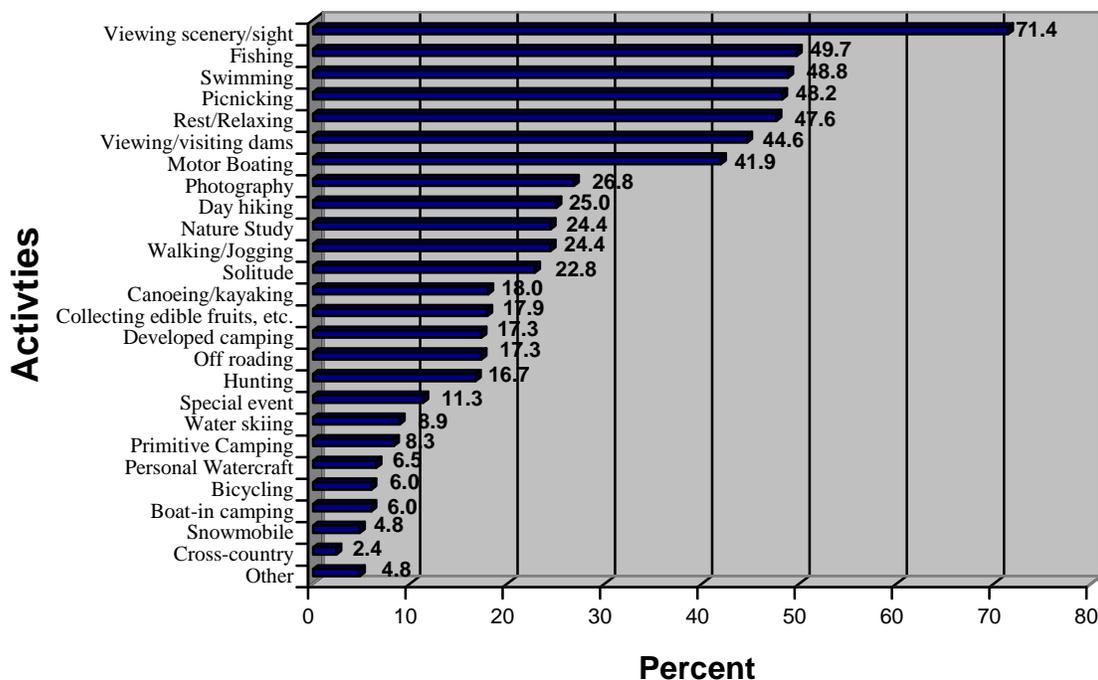


Figure 5.1-26. Responses to Question 7: Participation in recreation activities by area residents at Boundary Reservoir Area (1,043 responses).

Question 8: Primary Recreation Activity. After asking area residents what types of recreation activities they had participated in while visiting the Boundary Reservoir Area, they were asked to indicate which one of these activities was their main reason for choosing the Boundary Reservoir Area as a place for recreation. The most frequent primary activity reported was viewing scenery/sightseeing, which was identified by nearly 20 percent of the respondents to this question. Fishing and motor boating were both reported as the primary activity by 14 percent of the sample. Table 5.1-43 summarizes the results for the respondents' primary activity.

Table 5.1-43. Primary recreation activity for area residents visiting the Boundary Reservoir Area.

Primary Activity	Frequency	Percent of Sample ¹
Viewing scenery/sightseeing	32	19.5
Fishing	23	14.0
Motor Boating	23	14.0
Resting/Relaxing	14	8.5
Picnicking	12	7.3
Swimming	10	6.1
Developed camping	9	5.5
Canoeing/kayaking	8	4.9
Viewing/visiting dams	5	3.0
Day hiking	4	2.4
Nature study	4	2.4
Spending time alone	4	2.4
Hunting	3	1.8
Off-roading	2	1.2
Miscellaneous ²	7	4.2
Other	4	2.4

Notes:

- 1 164 respondents.
- 2 Miscellaneous includes bicycling, collecting edible fruits, personal watercraft, photography, primitive camping, walking/jogging and water skiing (1 respondent for each category).

Question 9: Quality of the Recreation Opportunities. Table 5.1-44 summarizes results for the question that asked area residents to rate the overall quality of the recreation opportunities available at the Boundary Reservoir Area. Respondents circled a number on a scale ranging from 1 to 9, with a 1 indicating “Very Poor” and a 9 meaning “Excellent.” The most common rating reported, by 40 percent of the sample, was a 7 (midway between average and excellent). Approximately 88 percent of the respondents rated the opportunities as better than average (a rating of 6 or higher), while less than 6 percent provided below-average ratings (4 or lower).

Table 5.1-44. Area resident ratings for the quality of recreation opportunities at the Boundary Reservoir Area.

Rating	Frequency	Percent of Sample ¹
1 Very Poor	0	0.0
2	1	0.6
3	1	0.6
4	7	4.3
5 Average	11	6.7
6	13	8.0
7	65	39.9
8	44	27.0
9 Excellent	21	12.9

Note:

1 163 respondents. Mean = 7.13, standard deviation = 1.33, median = 7.0, mode =7.

5.1.4.2.3. Fishing

Overall, 84 area residents (based on surveys processed to date) answered questions regarding fishing in the Boundary Reservoir Area. The area residents who provided an address allowed researchers to determine that Washington residents accounted for 92.6 percent (n = 63) of the area residents who indicated they fished in the Boundary Reservoir area, while the remaining 7.4 percent were Canadian residents.

Question 10: How Long Have Area Residents Been Fishing in the Boundary Reservoir Area. Table 5.1-45 summarizes results for the number of years area residents reported they had been fishing in the Boundary Reservoir Area. The mean number of years across all respondents was just over 15 years. Nearly 27 percent of this sample reported they had been fishing in the area for more than 20 years, while 31 percent had been fishing in the Boundary Reservoir Area for 5 years or less.

Table 5.1-45. Number of years that area residents have been fishing in the Boundary Reservoir Area.

Years Fishing	Frequency	Percent of Sample ¹
0-5	31	37.8
6-10	11	13.4
11-15	8	9.8
16-20	10	12.2
> 20	22	26.8

Note:

1 n = 82 respondents. Mean = 15.06 years, standard deviation = 10.0, median = 13.97, mode = 2 (6-10 years).

Question 11: Number of Days Per Year Fished. Question 11 asked area residents to identify how many days per year they fished in the Boundary Reservoir Area, by season. Table 5.1-46 summarizes these results. The number of days fished per respondent ranged from 0 to 60 for the spring, summer and fall seasons. The mean number of days fished was highest in the summer, at 6.9 days, decreasing to 4.1 days in the fall and less than 0.4 in the winter.

Table 5.1-46. Number of days area residents fished, by season, in the Boundary Reservoir Area.

Season	Minimum	Maximum	Mean	Median	Mode	SD
Spring ¹ (Mar-May)	0	60	5.29	2.50	0	9.09
Summer ² (Jun-Aug)	0	60	6.90	5.00	0	8.67
Fall ¹ (Sep-Nov)	0	60	4.12	2.00	0	8.22
Winter ³ (Dec-Feb)	0	15	0.36	0.00	0	1.80

Notes:

- 1 82 respondents
- 2 84 respondents
- 3 81 respondents

Question 12: Means of Fishing. Area residents who indicated they fished in the study area were asked to report how they usually fish in the Boundary Reservoir Area. Nearly half (48.8 percent) of the sample of anglers reported that they fished from a boat, while a third usually fished from shore. Figure 5.1-27 summarizes the results for this survey item. Those area residents who reported fishing from a boat were asked to identify the type of boat they used for fishing. The answers varied in specificity and included canoes, row boats, Zodiacs, pontoon boats, and motorboats. A complete list of these responses is included in Appendix 4b.

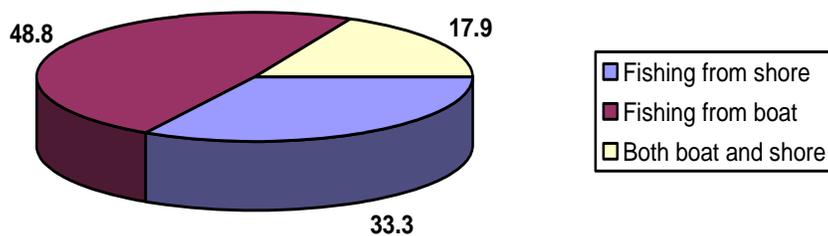


Figure 5.1-27. Responses to Question 12: How do you usually go fishing (84 respondents)?

Question 13: Fishing Locations. A map of the Boundary Reservoir Area was included in the questionnaire and area residents were asked to report where they usually went fishing in the area. The most common response, identified by nearly 54 percent of this sample, was the upper reach of Boundary Reservoir between Metaline and Box Canyon. Sullivan Lake and Mill Pond were the second and third most frequently identified areas. Figure 5.1-28 summarizes the results of this question, showing the percentages of respondents selecting the various locations.

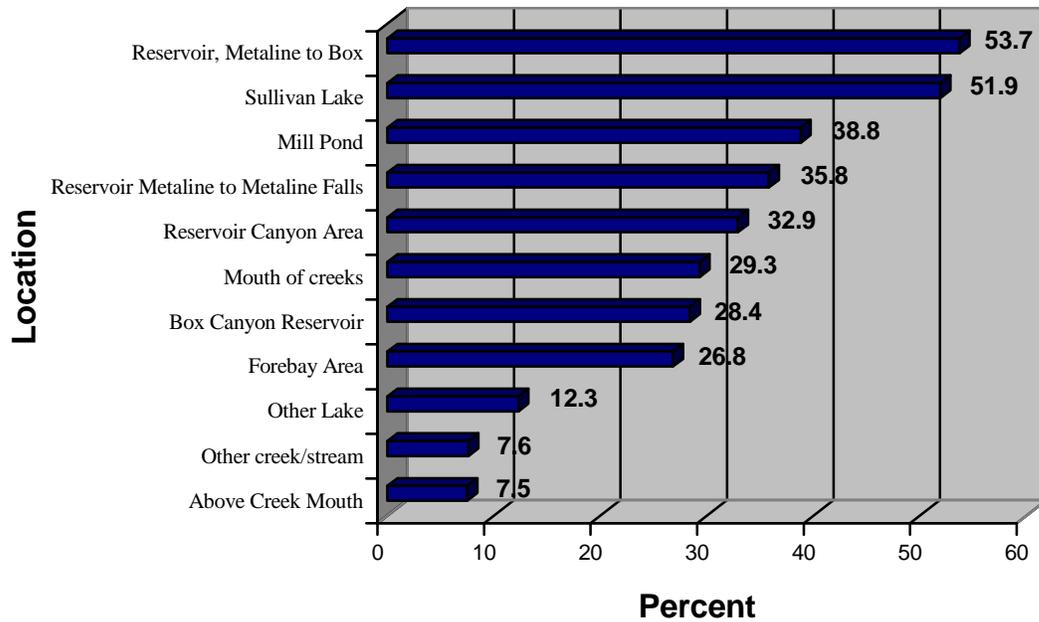


Figure 5.1-28. Responses to Question 13: In what area(s) do you usually fish when you visit the Boundary Reservoir Area? (81 respondents)

Question 14: Preferred Species of Catch. Area resident anglers were asked what species of fish they usually tried to catch while fishing in the Boundary Reservoir Area. There were five choices (including “Other species”) listed in the question, and respondents were instructed to circle all that applied. This sample (81 respondents) reported 174 total responses, indicating that many anglers are interested in catching more than one species while fishing in the area. Triploid trout were the most desired fish to catch, followed by other trout. Figure 5.1-29 summarizes the results for this question.

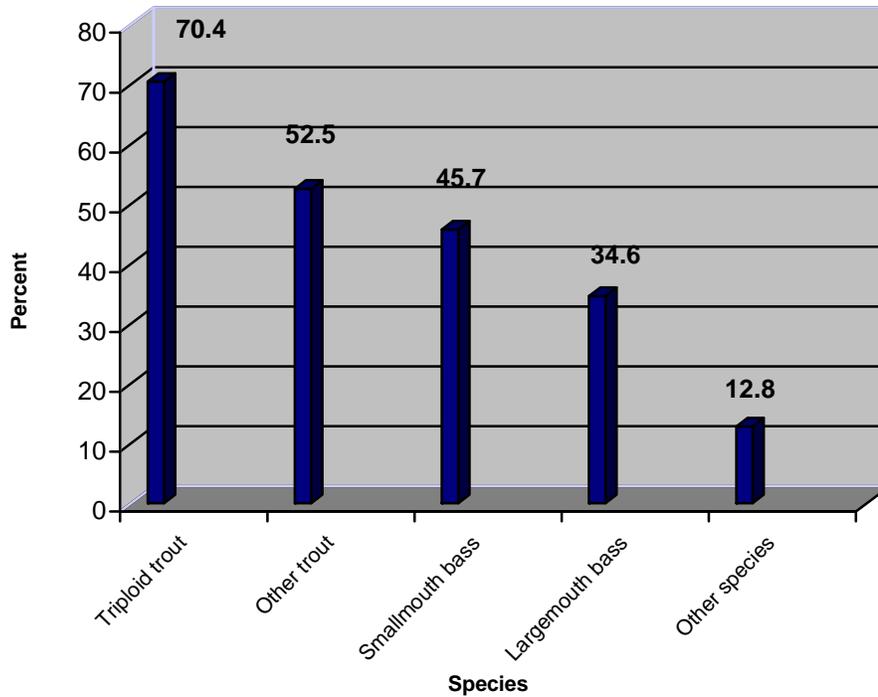


Figure 5.1-29. Responses to Question 14: What species of fish do you usually try to catch? (81 respondents)

Question 15: Description of Fish Caught. Question 15 asked area residents to report the numbers and size of fish they typically catch by species during a fishing trip in the Boundary Reservoir Area. Results are summarized in Table 5.1-47. The anglers in this sample reported catching from 0 to 24 fish on a single trip, with the maximum figure reported for both triploid trout and other trout. The most common response for the number caught per trip (the mode) was 2 fish for all species except other trout. The median reported harvest per trip was also 2 fish for triploid trout, largemouth bass and smallmouth bass, and 2.5 fish for other trout. Species reported in the other fish category included squawfish, pike, walleye and tench.

Table 5.1-47. Number of fish typically caught by area residents on a fishing trip at the Boundary Reservoir Area.

Species	Minimum	Maximum	Mean	Median	Mode	Std. Dev.
Triploid	0	24	4.34	2.00	2	4.68
Other Trout	1	24	4.58	2.50	1	5.74
Smallmouth Bass	0	20	3.93	2.00	2	4.23
Largemouth Bass	0	9	2.82	2.00	2	2.79
Other Fish 1	1	12	4.09	3.00	2	3.21
Other Fish 2	2	4	3.00	3.00	2	1.16

Note:

Table entries are based on data from 82 respondents.

Table 5.1-48 summarizes the fish size component of the responses to Question 15. Based on the range of the responses, the survey analysts established four different size categories. Across all species, the most common sizes reported were in the 10-18-inch size class; this category accounted for a combined 55 percent of all responses to this question. Among responses for triploid trout that fit into the size categories (i.e., discounting the “Other size” responses), 68 percent were in the 10-18-inch size range and 18 percent were in the over-18-inch category.

Table 5.1-48. Size range of fish typically caught by residents in the Boundary Reservoir Area.

Species	Size Range of Fish (Inches)									
	Under 6		6-9		10-18		Over 18		Other Size ¹	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%	Frequency	%
Triploid	1	1.0	3	2.9	19	18.4	5	4.9	7	6.8
Other Trout	2	1.9	0	0.0	15	14.6	1	1.0	7	6.8
Smallmouth Bass	1	1.0	2	1.9	14	13.6	1	1.0	6	5.8
Largemouth Bass	0	0.0	0	0.0	6	5.8	0	0.0	1	1.0
Other Fish	1	1.0	1	1.0	3	2.9	3	2.9	4	3.9

Notes:

Table entries based on data from 103 responses.

1 Other Size of fish are responses that were not numbers (i.e. small) or sizes that did not fit into the size categories

Question 16: Fishing Satisfaction. Table 5.1-49 summarizes results for the question that asked area resident anglers to rate their satisfaction with the fishing opportunities in the Boundary Reservoir Area. The responses were based on a scale ranging from 1 to 9, with 1 representing “Very Poor” and 9 representing “Excellent.” The most common rating reported among the nine classes (the mode) was 5, “Average,” which was selected by 17 respondents (22 percent of this sample). Approximately 23 percent of the respondents rated their satisfaction as below average (combining all ratings of 1 to 4), whereas 55 percent considered the opportunities to be above average (ratings of 6 to 9).

Table 5.1-49. Area residents’ satisfaction with fishing opportunities in the Boundary Reservoir Area.

Rating	Frequency	Percent of Sample ¹
1 Very Poor	1	1.3
2	5	6.4
3	5	6.4
4	7	9.0
5 Average	17	21.8
6	16	20.5
7	12	15.4
8	11	14.1
9 Excellent	4	5.1

Note:

1 78 respondents; mean = 5.68, standard deviation = 1.9, median = 6.0, mode = 5.

5.1.4.2.4. *Boating and Reservoir Use*

Question 17: Boat Use. Area residents were asked if they often operated or rode in a boat or other watercraft for pleasure or travel on Boundary Reservoir when they visit the area for recreation. Approximately 44 percent of the sample reported they did often use or operate a boat or other watercraft on Boundary Reservoir, while 56 percent reported no such boat use. Figure 5.1-30 summarizes the results of this survey item.

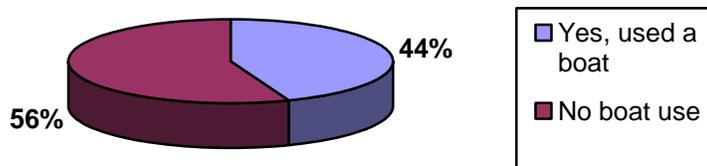


Figure 5.1-30. Responses to Question 17: Area residents who reported using a boat on Boundary Reservoir (156 respondents).

Question 18: Number of Years Boating on Boundary Reservoir. As an additional indicator of past experience at the Boundary Reservoir Area, respondents were asked to report on how many years they have been boating on Boundary Reservoir. Approximately 14 percent of the respondents had been boating on the reservoir for more than 20 years, while 36 percent had 0 to 5 years of local boating experience. The median response was 10 years of boat use on Boundary Reservoir. Table 5.1-50 summarizes results for this item.

Table 5.1-50. Number of years residents have been boating on Boundary Reservoir.

Years	Frequency	Percent of Sample ¹
0-5	24	36.4
6-10	15	22.7
11-15	5	7.6
16-20	13	19.7
> 20	9	13.6

Note:

1 66 respondents; mean = 11.65, standard deviation = 9.3, median = 10, mode = 20.

Question 19: Number of Days Per Year Boating on Boundary Reservoir. Table 5.1-51 summarizes results for the number of days per year area residents reported boating on Boundary Reservoir. Boating use in the winter was virtually none. The number of days reported for other seasons ranged from 0 to 12 days for the spring and fall, and from 0 to 60 days for the summer. Based on the means calculated from these responses, boating use among this sample averaged 8 days in the summer.

Table 5.1-51. Number of days area residents reported boating on Boundary Reservoir, by season.

Season	Minimum	Maximum	Mean	Median	Mode	Std. Dev.
Spring (Mar-May)	0	20	1.76	0.00	0	3.50
Summer (Jun-Aug)	0	60	8.01	5.00	10	10.04
Fall (Sep-Nov)	0	20	2.79	0.50	0	4.42
Winter (Dec-Feb)	0	1	0.04	0.00	0	0.21

Note:

Table entries based on data from 68 respondents.

Question 20: Location of Boat Launches Used. Of the residents who reported using a boat or other watercraft on Boundary Reservoir, their boat launch use was relatively evenly divided between Metaline Waterfront Park and the SCL Forebay Recreation Area. Two-thirds (66 percent) of the sample indicated they usually used the launch at Metaline, while 62 percent said that they usually launched at the SCL Forebay Recreation Area (respondents were directed to circle all responses that applied, and many identified multiple launch locations). Figure 5.1-31 summarizes the results for boat launch use on Boundary Reservoir by area residents.

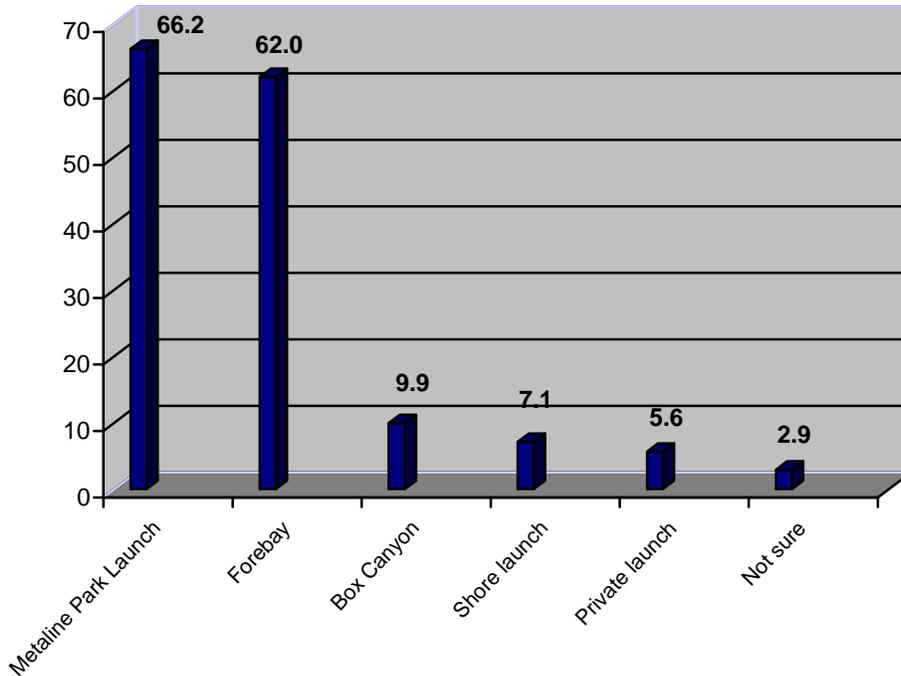


Figure 5.1-31. Responses to Question 20: Which boat launch do you usually use at Boundary Reservoir? (71 respondents)

Question 21: Boat Launch Adequacy. Those who reported using a boat launch were asked if the boat launch adequately met their needs. Approximately 68 percent of this sample of boaters responded affirmatively that their needs had been met while using a launch, while 32 percent responded “No.” Figure 5.1-32 summarizes the results for this survey question. The area residents who reported that their launching needs were not met provided 20 open-ended comments about problems they encountered. These entries included nine comments that specifically mentioned some aspect of the facilities at the Metaline Waterfront Park launch, and three comments referencing problems with launching a boat at Box Canyon Dam. Some area residents discussed problems with low or fluctuating water levels, such as returning to a launch in the afternoon and having difficulty taking out their boat. Responses for specific boat launch problems encountered are listed in Appendix 4b.

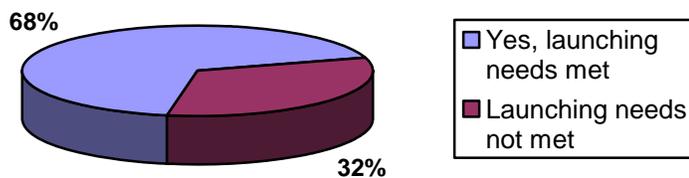


Figure 5.1-32. Responses to Question 21: Do the boat launches adequately meet your needs? (68 respondents)

Question 22: Problems with Water Conditions When Boating. The survey asked respondents if they ever experienced problems with water conditions when boating on Boundary Reservoir. Over 47 percent of the sample reported no problems, while another 33 percent reported minor problems. Twelve respondents (16 percent of the sample) characterized the problems as being major. Table 5.1-52 summarizes the results for this question. This sample provided 19 open-ended responses describing specific problems encountered. These responses included some specific problems, such as difficulty passing through the rapids area near Metaline Falls due to water fluctuations (4 responses) or difficulty launching or retrieving boats due to low or changing water levels (4 or possibly 5 responses). Some of the open-ended responses were more general statements such as “low water” or “water levels change daily.” A complete list of these comments is included in Appendix 4b.

Table 5.1-52. Area residents who reported problems with water conditions while boating on Boundary Reservoir.

Response	Frequency	Percent of Sample¹
No problems	34	47.2
Minor problems	24	33.3
Major problems, but would not keep me from returning	11	15.3
Major problems, that would keep me from returning	1	1.4
I'm not sure	2	2.8

Note:

1 72 respondents

5.1.4.2.5. Recreation Facilities and Services

Question 23: Importance of and Satisfaction with Facilities and Services. Using a 5-point scale ranging from 1 = “not at all important” to 5 = “extremely important,” the survey asked respondents to rate the importance of having available 27 different recreation facilities or opportunities. Then, using a 5-point scale ranging from 1 = “not at all satisfied” to 5 = “extremely satisfied,” respondents rated their satisfaction with each of these recreation opportunities at the Boundary Reservoir Area. Given that there were 27 different importance and satisfaction variables, the number of respondents for each variable varied widely, ranging from 58 to 144 respondents. Table 5.1-53 summarizes statistical measures calculated from the results for this question. As a group, area residents assigned the highest importance ratings to trash containers/collection, scenic views/viewpoints, swimming/beach access, picnic sites, parking areas and road access to recreation; the mean ratings for these response options were all over 4 on the 5-point scale. RV hookups/utilities had the lowest importance ratings, with a mean of 2.61, and was the only facility/service category to average a rating of less than 3. Scenic views/viewpoints received the highest satisfaction rating, with a mean of 4.01. Area residents also reported relatively high satisfaction with picnic sites, campsite fees, and road access to recreation and parking areas. None of the 27 facility or service categories received a mean rating lower than 3; the lowest ratings were 3.34 for RV hookups/utilities and 3.38 for flush toilets.

Table 5.1-53. Area residents’ ratings for importance and satisfaction with recreation facilities and services at the Boundary Reservoir Area.

Opportunity	Mean	Importance ¹ Mode	Std. Dev.		Mean	Satisfaction ² Mode	Std. Dev.
Tent campsites	3.27	5	1.49		3.69	3	0.84
RV campsites	3.19	4	1.45		3.59	3	0.89
RV hook-ups/utilities	2.61	1	0.89		3.34	3	0.97
Campsite fees	3.04	1	1.57		3.81	3	1.09
Parking areas	4.01	5	0.96		3.76	4	0.95
Road access to recreation	4.01	5	1.00		3.78	4	1.00
Disabled access	3.44	5	1.45		3.43	3	1.07
Drinking water	3.98	5	1.13		3.60	3	1.04
Flush toilets	3.43	3	1.28		3.38	3	1.02
Vault/portable toilets	3.52	5	1.29		3.53	3	0.92
Trash containers/collection	4.12	5	0.99		3.72	4	1.11
Picnic sites	4.02	5	1.11		3.94	4	0.93
Swimming/beach access	4.06	5	1.11		3.70	4	0.98
Historic sites/information	3.52	4	1.14		3.51	3	0.98
Scenic views/viewpoints	4.08	5	1.00		4.01	4	0.96
Wildlife viewing/nature trails	3.78	4	1.07		3.70	4	0.95
Interpretation/education	3.26	3	1.25		3.42	3	0.93
Hiking trails	3.70	4	1.14		3.42	3	0.99
Boat ramps	3.96	5	1.31		3.52	3	1.20
Boat docks	3.90	5	1.28		3.40	3	1.29
Boating safety information	3.39	5	1.47		3.46	3	1.10
Navigation hazard marking	3.99	5	1.36		3.44	3	1.25
River/shore access for fishing	3.58	5	1.34		3.44	3	1.25
Fishing opportunities	3.83	5	1.27		3.66	4	1.02
Hunting opportunities	3.31	4	1.40		3.55	3	0.91

Table 5.1-53, continued...

Opportunity	Mean	Importance ¹ Mode	Std. Dev.	Mean	Satisfaction ² Mode	Std. Dev.
Boat-in campsites	3.10	3	1.36	3.57	3	0.96
Canoe/kayak access facilities	3.10	3	1.36	3.57	3	0.96

Notes:

- 1 Importance was measured using a 5-point scale ranging from 1 = “not at all important” to 5 = “extremely important”.
- 2 Satisfaction was measured using a 5-point scale ranging from 1 = “not at all satisfied” to 5 = “extremely satisfied”.

To better highlight the information provided by these responses, Figure 5.1-33, provides a graphical representation of the mean importance and satisfaction ratings for each item. The graph shows how area residents, as a group, assigned the highest importance and satisfaction ratings (over 4.0 on the 5-point scale for both importance and satisfaction) to scenic views/viewpoints and picnic sites, with similarly high ratings for wildlife viewing/nature trails, trash containers/collectors, swimming/beach access, parking areas, drinking water, and road access to recreation.

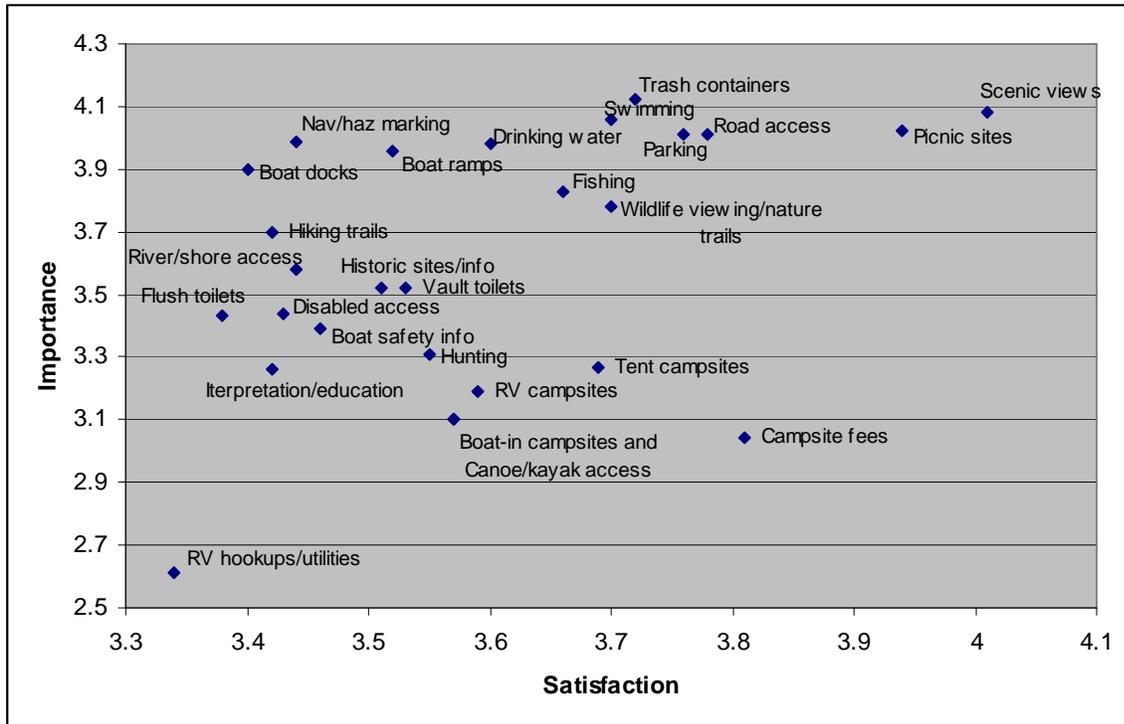


Figure 5.1-33. Area residents’ ratings of recreation facilities/opportunities at the Boundary Reservoir Area. (58 to 144 respondents per variable).

Question 24: Recreation Improvements Needed. Area residents were asked if, based on their experiences, they thought any of the existing recreation opportunities in the Boundary Reservoir Area were in need of improvement. Figure 5.1-34 summarizes the results for this survey question. The most common response, selected by 41 percent of the sample, was that they were satisfied with the recreation activities/facilities that are currently available at the Boundary Reservoir Area. Approximately 26 percent (42 respondents) indicated they would like to see other recreation activities or facilities. These respondents provided open-ended comments identifying the activity or facility improvements they would like to see. Boating-related input included 17 comments with some reference to more or better boat docks and/or launches. Other facility-related comments included suggestions about disabled access (three comments), better maintenance of grounds or more green grass and/or trees (two comments), additional bathrooms and trashcans (two comments), boat-in campsites (two comments), and trails for hiking/walking, biking or horses (three comments). Appendix 4b includes a complete list of the specific improvements suggested in these open-ended responses.

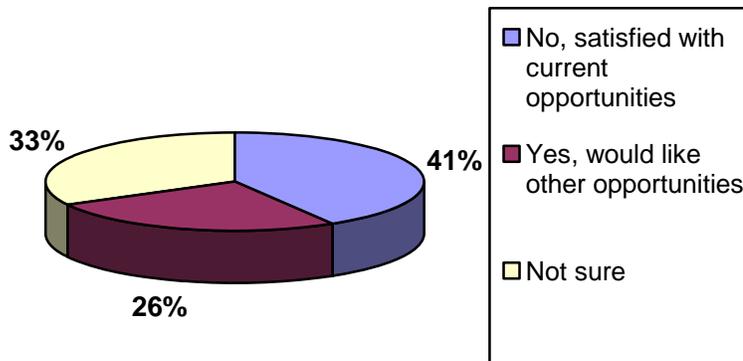


Figure 5.1-34. Responses to Question 24: Are there improvements to the existing recreation opportunities at the Boundary Reservoir Area that are needed? (162 respondents)

5.1.4.2.6. Recreation Sites

Question 25: Specific Sites Visited for Recreation. Question 25 asked area residents to report what specific sites in the Boundary Reservoir Area they usually or often visited for recreation. Among area residents, the most frequently visited site was Metaline Waterfront Park, which was reported by 58 percent of the sample. The SCL Forebay Recreation Area and the Sweet Creek Falls Rest Area were identified by 44 percent and 42 percent of the respondents, respectively. This sample of 164 residents generated nearly 600 responses to this item, indicating that most respondents reported visiting several different sites in the Boundary Reservoir Area. Figure 5.1-35 summarizes results for Question 25. Appendix 4b includes a list of “Other” specific sites visited by local residents.

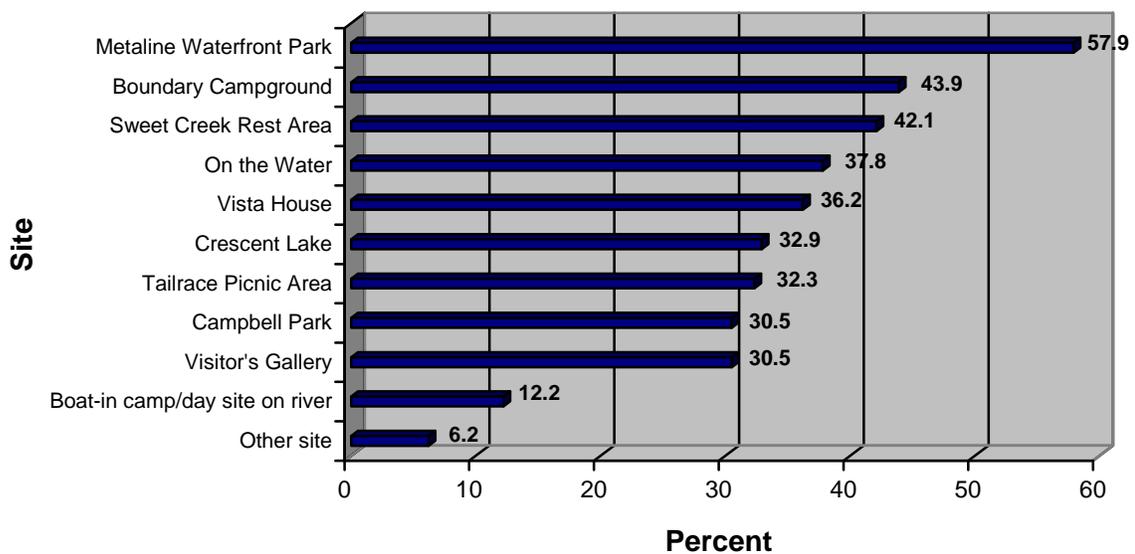


Figure 5.1-35. Responses to Question 25: Recreation sites in the Boundary Reservoir Area often visited by residents. (164 respondents)

Question 26: Primary Destination. Area residents were asked to indicate which *one* of the sites identified in Question 25 was the one site where they usually spent the most time when visiting the Boundary Reservoir Area. The specific sites identified most frequently among the primary destinations reported by this sample were Metaline Waterfront Park (21 percent of the total), the SCL Forebay Recreation Area (16 percent), and Campbell Park at Box Canyon Dam (13 percent). The more general response “On the water in a boat” was selected by 18 percent of the sample. Table 5.1-54 summarizes the results for primary destination.

Table 5.1-54. Primary destination for area residents when visiting the Boundary Reservoir Area.

Primary Destination	Frequency	Percent of Sample ¹
Metaline Waterfront Park	33	20.6
On the water in a boat	29	18.1
Boundary Campground	25	15.6
Campbell Park	21	13.1
Crescent Lake	16	10.0
Sweet Creek Falls rest area/trail	9	5.6
Tailrace Picnic Area	9	5.6
Visitor’s Gallery	5	3.1
Vista House	4	2.5
Boat-in campsite or day use site	2	1.3
Other	7	4.4

Note:

1 160 respondents

Question 27: Crowding at the Primary Destination. After respondents identified their primary destination, they were asked whether or how crowded they typically felt at that destination. Respondents rated the level of crowding they had experienced on a 9-point scale that ranged from 1 = “not at all crowded” to 9 = “extremely crowded”; the midpoint of the scale was 5 = “moderately crowded”. Table 5.1-55 summarizes the results for the crowding question. The most commonly reported rating was 2, which was selected by 24 percent of the sample. No respondents rated their primary site as extremely crowded; 28 percent of the residents assigned ratings of 5 (moderately crowded) or higher.

Table 5.1-55. Levels of crowding reported at area residents’ primary destinations in the Boundary Reservoir Area.

Rating	Frequency	Percent of Sample ¹
1 Not at all crowded	31	19.3
2	38	23.6
3	28	17.4
4	19	11.8
5 Moderately crowded	10	6.2
6	25	15.5
7	7	4.3
8	3	1.9
9 Extremely crowded	0	0.0

Note:

1 161 respondents; mean = 3.35, standard deviation = 1.96, median = 3.0, mode = 2.

Question 28: Problems or Conflicts at the Primary Destination. Question 28 asked area residents if they had ever experienced any problems or conflicts with other people or their behaviors that detracted from their enjoyment at their primary destination at the Boundary Reservoir Area. Figure 5.1-36 summarizes the results of the recreation conflict question. A large majority (85 percent) of the area residents reported no problems or conflicts. Those residents who reported having a conflict entered 23 open-ended responses describing problems or conflicts they had encountered. These comments covered a wide range of topics, with multiple comments addressing unsupervised children, crowding of some type, problems with pets, noise and drunken behavior. None of these issues were dominant topics. Appendix 4b includes a list of specific responses from those who indicated they had experienced problems or conflicts.

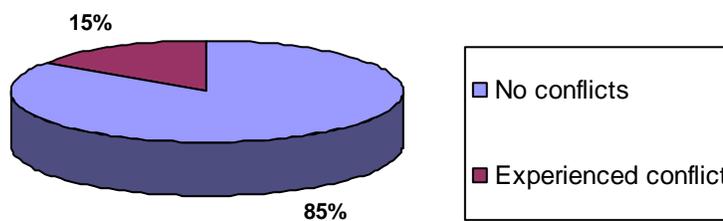


Figure 5.1-36. Responses to Question 28: Did area residents experience conflict or problems with others at their primary destination at the Boundary Reservoir Area? (164 respondents)

Question 29: Intention to Change Recreation Plans in the Future. This question asked respondents, based on their experiences at their primary destination, whether they intended to adjust their recreation plans in the future to avoid the presence or behavior of other visitors at the site. Over 90 percent of the sample reported that they did not intend to adjust their plans in the future because of adverse experiences at their primary destination. Figure 5.1-37 summarizes the results for this survey item.

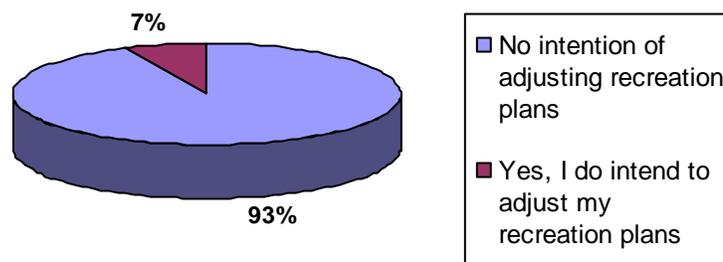


Figure 5.1-37. Responses to Question 29: Area residents’ intent to adjust recreation plans to avoid the presence or behaviors of other visitors at their primary site in the future. (157 respondents)

Question 30: How Would You Adjust Your Plans. Respondents who reported that they did intend to adjust their future plans to avoid other visitors at their primary destination were asked how they would do things differently in the future. Based on the response to Question 29, with only 7 percent of the respondents indicating they would change their plans, there were only 12 respondents (with more than 12 responses) to Question 30. Five of these reported that they would prefer to visit their same primary destination on weekdays instead of weekends or holidays, 4 reported they would visit their same site at less busy times of the day, and 4 said they would move to a different site.

Question 31: Maintenance of Facilities at Primary Destination. The survey asked respondents if they found the facilities at the primary destination they identified in Question 26 to be adequately maintained. Figure 5.1-38 summarizes results for this question. A large majority of the area residents responding (82 percent) reported that they found the facilities at their primary destination to be adequately maintained. Those who answered “No” to this question identified a number of specific maintenance needs. Those respondents provided 26 open-ended comments that are listed in Appendix 4b. Most comments included some type of reference to bathroom facilities (6 comments), boat launches (6 comments) and trash or litter (3 comments). Specific comments were that bathrooms were unclean or without toilet paper, that better maintenance or more boat launches and docks were needed, and that there was a lot of trash or it was not being picked up on a regular basis.

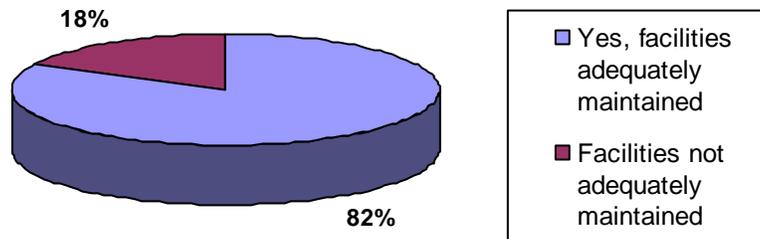


Figure 5.1-38. Responses to Question 31: Do you find the facilities at your primary destination to be adequately maintained? (160 respondents)

5.1.4.2.7. *Your History in the Area*

Question 32: Last Visit to Boundary Reservoir Area for Recreation. To obtain an indication of how frequently area residents visit the Boundary Reservoir Area, Question 32 asked respondents when (month and year) they had last visited the area for recreation. Table 5.1-56 summarizes results for this question. Over 80 percent of the area residents indicated they had visited the Boundary Reservoir Area for recreation some time during 2007. An additional 17 percent indicated that had visited the area sometime between 2000 and 2006, with the remaining 2 percent stating they had not visited the Boundary Area since the 1990s. Based on the months reported in these responses, the summer months (June to August) of 2007 comprised the most frequent response for the time of the last visit; responses in this range were reported by 57 percent of the sample.

Table 5.1-56. Area residents’ last visit to the Boundary Reservoir Area for recreation, by month and year.

Year	Spring (Mar-May)		Summer (Jun-Aug)		Fall (Sep-Nov)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
1992-1999	1	0.1	3	2.2	0	0.0
2000-2006	1	0.1	19	13.8	4	3.0
2007	11	7.9	79	56.6	22	15.8

Note:
Table entries based on data from 140 respondents.

Question 33: Number of Visits to Boundary Reservoir Area in Past Year. Residents were asked to report how many visits they had made to the Boundary Reservoir Area for recreation in the past 12 months. Table 5.1-57 summarizes results for this question. The most frequent single response (the mode), received from approximately 17 percent of the respondents, was zero visits in the past 12 months. Conversely, approximately 83 percent of this sample had visited the area for recreation at least 1 time in the past year. Over 38 percent of the sample reported visiting the area for recreation six or more times in the past year, and the mean response was approximately seven visits.

Table 5.1-57. Number of visits to the Boundary Reservoir Area for recreation in the past year.

Number of Visits	Frequency	Percent of Sample ¹
0	25	16.6
1	17	11.3
2	19	12.6
3 – 5	32	21.2
6 – 10	34	22.5
11 – 25	18	11.9
>25	6	4.0

Note:
1 151 respondents; mean = 6.99, median = 3.0, mode = 0, standard deviation = 11.44.

Question 34: Visitation by Season. Respondents were asked to report the seasons of the year in which they visit the Boundary Reservoir Area for recreation, identifying all seasons that apply. Nearly 94 percent of the sample reported visiting during the summer months. At least 50 percent of the respondents also reported visiting the area for recreation in the fall and in the spring, while only 13 percent reported use in the winter. Figure 5.1-39 summarizes results for this question.

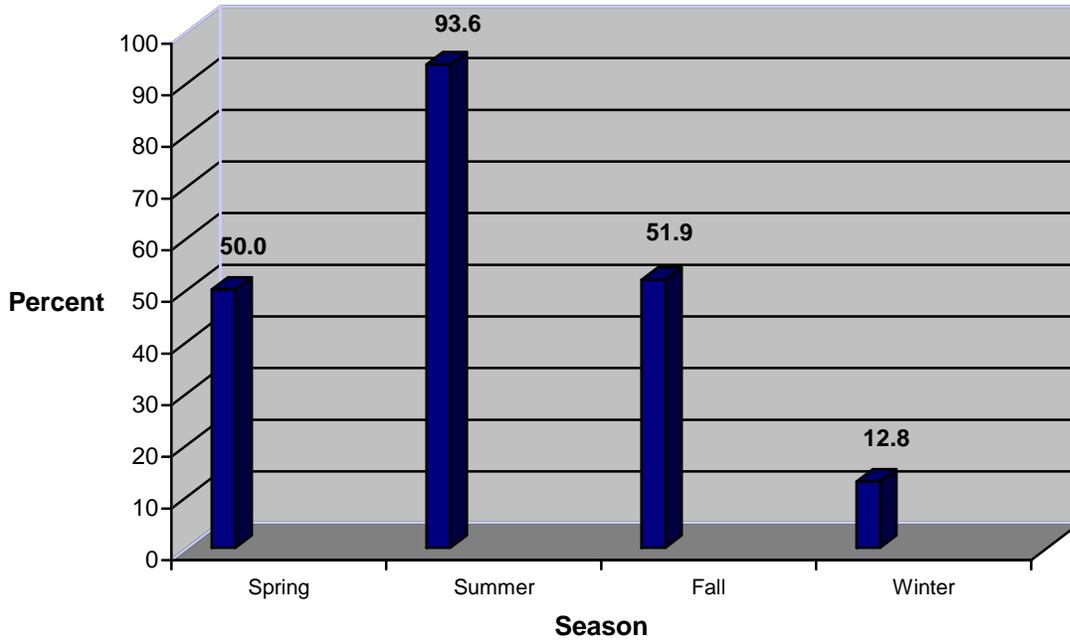


Figure 5.1-39. Responses to Question 34: Seasons of the year in which area residents visit the Boundary Reservoir Area for recreation. (156 respondents)

Question 35: Special Places. Question 35 asked residents if there were any sites or locations in the Boundary Reservoir Area that were really special or meaningful to them or their family as a place for recreation. Those who responded “Yes” were asked to list or describe those special places. Figure 5.1-40 summarizes the Yes/No responses for this question. Less than a third (31 percent) of the area residents indicated they did have a special place for recreation in the Boundary Reservoir Area. Verbatim entries for the places these respondents identified are listed in Appendix 4b. Four of these responses included references to the canyon area of Boundary Reservoir or to Z Canyon specifically, and four respondents mentioned Metaline Waterfront Park as a special place. Pend Oreille County PUD Campbell Park, Sweet Creek Falls Rest Area, and Peewee Falls were each mentioned in three of the verbatim responses.

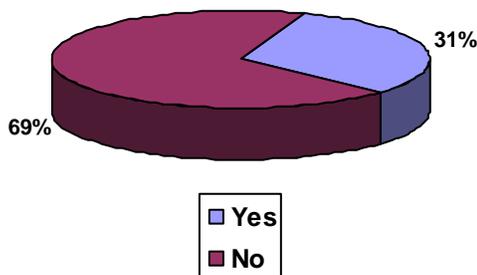


Figure 5.1-40. Responses to Question 35: Area residents reporting they have a special place for recreation in the Boundary Reservoir Area.. (151 respondents)

Question 36: Other Lakes or Rivers Visited for Recreation. Area residents were asked to name up to three other (than Boundary) lakes or rivers in the region that they frequently visited for recreation. Local residents provided a total of 194 responses to Question 36. Table 5.1-58 summarizes how these responses have been aggregated based on frequency; the percentages reported in the table are relative to the 194 total responses, rather than the number of respondents. Sullivan Lake was by far the water body most often identified by respondents, accounting for 30 percent of all responses. Other relatively frequent responses were the Pend Oreille River (presumably reaches other than Boundary Reservoir) and the Columbia River, with 19 and 13 occurrences, respectively. No other specific lakes or rivers were named in more than 10 responses. Appendix 4b includes a listing of verbatim entries for this question.

Table 5.1-58. Other lakes and rivers in region frequently visited by area residents for recreation.

Other Lake or River	State or Province	Frequency	Percent
Sullivan Lake	WA	58	29.9
Pend Oreille River	WA	19	9.8
Columbia River	WA	13	6.6
Big Meadow Lake	WA	7	3.6
Mill Pond	WA	6	3.1
Leo Lake	WA	5	2.6
Crescent Lake	WA	4	2.1
Yokum Lake	WA	4	2.1
Other Lakes/Rivers in Washington	WA	22	11.3
Lakes/ Rivers in Idaho	ID	11	5.7
Lakes/Rivers in Montana	MT	6	3.1
Lakes/Rivers in Canada	BC	39	20.1

5.1.4.2.8. Scenery

Question 37: Overall Rating for Visual Quality of Scenery at the Boundary Reservoir Area. Area residents were asked to rate the visual quality of the scenery at the Boundary Reservoir Area on a scale of 1 to 9, with 1 meaning “Very Poor” and 9 representing “Excellent.” Table 5.1-59 summarizes the results for this question. Almost 38 percent of the area residents rated the visual quality of the scenery as excellent, and 91 percent assigned ratings of above average (6 or higher). The mean of the responses was approximately 7.7, and the median response on the 9-point scale was 8.

Table 5.1-59. Area residents’ ratings of the visual quality of the scenery at the Boundary Reservoir Area.

Rating	Frequency	Percent of Sample ¹
1 Very Poor	0	0.0
2	0	0.0
3	1	0.6
4	0	0.0
5 Average	14	8.8
6	15	9.4
7	35	21.9
8	35	21.9
9 Excellent	60	37.5

Note:

1 160 respondents; mean = 7.68, standard deviation = 1.35, median = 8.0, mode =9

Question 38: Views of Facilities Associated with the Boundary Hydroelectric Project.

Sixty-nine (69) percent of the area residents responding to this question reported seeing structures associated with the Boundary Hydroelectric Project when visiting the area, while 23 percent stated they had not, and 8 percent were not sure if they had seen Project structures (see Figure 5.1-41).

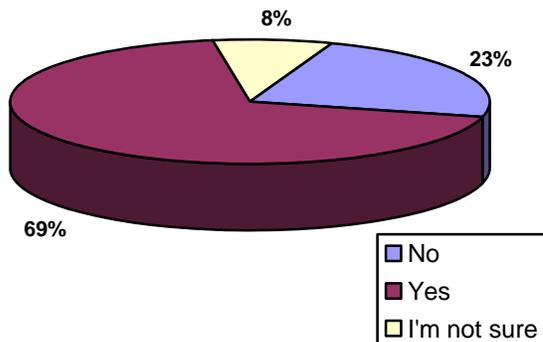


Figure 5.1-41. Responses to Question 38: Percentage of residents reporting seeing Boundary Hydroelectric Project structures. (159 respondents)

Question 39: How Did Seeing These Facilities Affect Your Enjoyment of the Scenery.

Respondents who reported they had seen Project facilities while visiting the area were asked whether that enhanced or detracted from their enjoyment of the scenery. Table 5.1-60 summarizes the results for this question. The most common response, from 46 percent of the sample, was that seeing these facilities had no effect on their enjoyment of the scenery. Nearly as many (41 percent) of those answering this question reported that the presence of these structures greatly enhanced their enjoyment, while another 14 percent stated that the sight of Project facilities slightly enhanced their enjoyment. Fifteen residents (13 percent of those answering Question 39) indicated that views of the facilities detracted to some degree (slightly, in most cases) from their enjoyment of the scenery.

Table 5.1-60. Effect of seeing Project structures on area residents' enjoyment of the scenery at the Boundary Reservoir Area.

Rating	Frequency	Percent of Sample ¹
Greatly enhanced my enjoyment	41	34.7
Slightly enhanced my enjoyment	16	13.6
No effect	46	39.0
Slightly detracted my enjoyment	11	9.3
Greatly detracted my enjoyment	4	3.4

Note:

1 118 responses

5.1.4.2.9. *About You and Your Companions*

Question 40: Ages of Other People in Your Group. Question 40 asked area residents to report the ages of other people typically in their group when they visit the Boundary Reservoir Area, by indicating the numbers of people in specific age categories. Table 5.1-61 reports statistics from the analysis of these responses. Group sizes ranged from a minimum of 1 to a maximum of 10 for all age categories, with the median group size being 2. There tended to be greater variance for responses in the under-16, 20 to 29, and over-70 age groups. Based on the calculated means, there was relatively even distribution of group membership in the age classes up through age 49.

Table 5.1-61. Ages of other people in your group visiting the Boundary Reservoir Area.

Age Group	Min.	Max.	Mean	Median	Mode	Std. Dev.
Under 16	1	10	2.46	2.00	2	1.49
16-19	1	5	2.29	2.00	2	1.16
20-29	1	8	2.20	2.00	1	1.54
30-39	1	7	2.21	2.00	1	1.35
40-49	1	8	2.21	2.00	1	1.47
50-59	1	6	1.96	2.00	1	1.27
60-69	1	4	1.75	1.00	1	0.93
Over 70	1	8	2.00	1.00	1	1.67

Question 41: Your Age. Question 41 asked the area residents to identify their own age group. Table 5.1-62 summarizes the results for this question. Individual responses ranged from the 16-19 to the over-70 age groups. The most common response was from residents in the 50-to-59 age group, representing 29.5 percent of all respondents who identified their age. A relatively large proportion of residents (24 percent) reported that they were over 70 and almost 21 percent stated they were from 60 to 69 years in age. Altogether, more than 74 percent of the respondents were aged 50 or older, and the median age for the sample population is approximately 48 years.

Table 5.1-62. Age groups reported by area residents.

Age Group	Frequency	Percent of Responses
Under 16	0	0.0
16-19	5	1.4
20-29	5	1.4
30-39	21	5.7
40-49	63	17.2
50-59	108	29.5
60-69	75	20.5
Over 70	89	24.3
Total	366	100.0

Question 42: Your Gender. Approximately 56 percent of the area residents responding to this question reported their gender as male, while 44 percent indicated they were female.

Question 43: Time at This Address. Respondents were asked to indicate how long, in years and months, they had lived at their current address. Table 5.1-63 summarizes the results. The most common response was 3 years, and nearly 28 percent of the sample had been at their present address for 0 to 5 years. By contrast, 22 percent of the respondents had been at the same address more than 30 years. The median tenure was approximately 16.4 years.

Table 5.1-63. Number of years area residents have been living at their present address.

Number of Years	Frequency	Percent ¹
0-5	97	27.5
6-10	50	14.1
11-15	43	12.2
16-20	34	9.7
21-25	19	5.3
26-30	29	9.1
Over 30	81	22.1

Note:

1 353 respondents; mean = 19.07, standard deviation = 16.44, median = 14.0, mode = 3

Question 43: People Living at This Address. Respondents were asked to indicate how many people, including themselves, lived at their address. Table 5.1-64 summarizes the results. The most common response was 2 people, with 53 percent of the sample giving this response. Approximately 21 percent of the respondents live in single-person households. The median number of people in the household was 2, and the mean was 2.32.

Table 5.1-64. Number of people living at present address.

Number of People	Frequency	Percent ¹
1	73	20.5
2	189	53.1
3	37	10.4
4	35	9.8
Over 5	22	6.2
Total	356	100.0

Note:

1 Mean = 2.32, median = 2.0, mode = 2, standard deviation = 1.25

5.1.4.2.10. Additional Comments

At the end of the area resident questionnaire, space was provided for respondents to provide any additional input or comments they had about how SCL could improve the management of the Boundary Reservoir Area. Respondents included a total of 67 open-ended comments, some of which were rather extensive, in this space. Some of these comments were quite brief and simple, including entries such as “Do not camp,” “No thank you,” “Please enforce speeding laws!” and “Thanks for caring!!!” Several entries explained why the respondents did not visit the Boundary Reservoir Area, or no longer visited the area. Approximately 12 comments offered general or specific suggestions that appear to relate in some way to perceived recreation needs or resource management in the Project vicinity. These additional comments, which probably reflect similar points made by the same respondents in the responses to survey items such as Questions 21, 24, and 31, will be reviewed and considered in future applications involving the recreation survey data. Appendix 4b includes a list of these comments.

5.1.5. Local Area Focus Groups

As stated earlier, with relicensing participant concurrence, focus group meetings have been deferred until Spring 2008. Results from this activity will be documented in the USR.

5.2. Regional Recreation Analysis

This study component is scheduled for implementation in 2008; the results will be reported in the USR.

5.3. Dispersed Recreation Use, Access, and Condition Analysis

This section presents a narrative and supporting tables summarizing the results of the inventory and analysis of dispersed recreation sites and access conditions. Specific contents include the

number and distribution of dispersed sites inventoried, including a map of their locations; characterization of dispersed site conditions, based on tabulation and analysis of entries on the site forms for the inventoried sites; characterization of existing land (vehicle and pedestrian) and water access conditions throughout the study area; and information about the use of the inventoried dispersed sites during the 2007 sampling season.

5.3.1. Dispersed Recreation Site Inventory and Conditions

5.3.1.1. Site Inventory Summary

A total of 25 sites within the study area (as outlined on Figure 3.0-1) were recorded as dispersed recreation sites. Dispersed recreation sites were found in four of the six sectors (Sectors 3 through 6) of the study area that were defined for the visitor count and survey field sampling (refer to the discussion in Section 4.1.2). These four sectors include:

- Sector 3, SR 31 South Reservoir (SR 31): While this sector primarily includes developed recreation sites along SR 31 parallel to the southern portion of the reservoir, one dispersed recreation site was found near the developed day-use area at Sweet Creek Falls.
- Sector 4, Roaded Dispersed (RD): All dispersed recreation sites adjacent to or near specific secondary roads of interest within the study area, as determined in consultation with the relicensing participants and described in the implementation plan. These are primarily roads administered by the USFS located between County Road 2975 and the west side of Boundary Reservoir, and between SR 31 and the east side of Boundary Reservoir.
- Sector 5, North Reservoir (NR): All dispersed sites accessed primarily by water within the reservoir area north of Metaline Falls (the Forebay and Canyon reaches of the reservoir).
- Sector 6, South Reservoir (SR): All dispersed sites accessed primarily by water within the reservoir area south of Metaline Falls.

The inventory procedures specified assignment of a unique location/site code for each inventoried site. The location codes assigned to dispersed recreation sites all begin with the sector identifier (e.g., 4RD for sites in Sector 4). Codes for sites in Sector 4 include a reference to the road number (e.g., 172 for sites on Road 3100-172), followed by numbers in sequence for individual sites (-1, -2, and so on). Codes for sites in Sectors 3, 5 and 6 include a reference to common local terminology or nearby physical or map features (e.g., SC for Sweet Creek, EI for Everett Island) followed by numbers in sequence for individual sites. Location numbering within each sector generally started at the north and proceeded from north to south. Some location/site codes do not follow in sequence because of adjustments to the inventory subsequent to the initial field work.

Table 5.3-1 lists the 25 inventoried dispersed recreation sites and summarizes key information about those sites. The unique location/site code for each inventoried site is indicated in the second column of the table. For ease of location on a map, the sites have also been assigned a number from 1 through 25. Figure 5.3-1 shows the geographic distribution of the dispersed sites

within the study area, with the sites identified by the simple number code. Just over half of the inventoried sites (13 out of 25 total sites) are located in the North Reservoir portion of the study area (Sector 5). Eight of the sites (32 percent) are road-accessible sites in Sector 4, three are located along the South Reservoir (Sector 6), and one site is a road-accessible site in Sector 3.

Table 5.3-1. Inventoried dispersed recreation sites.

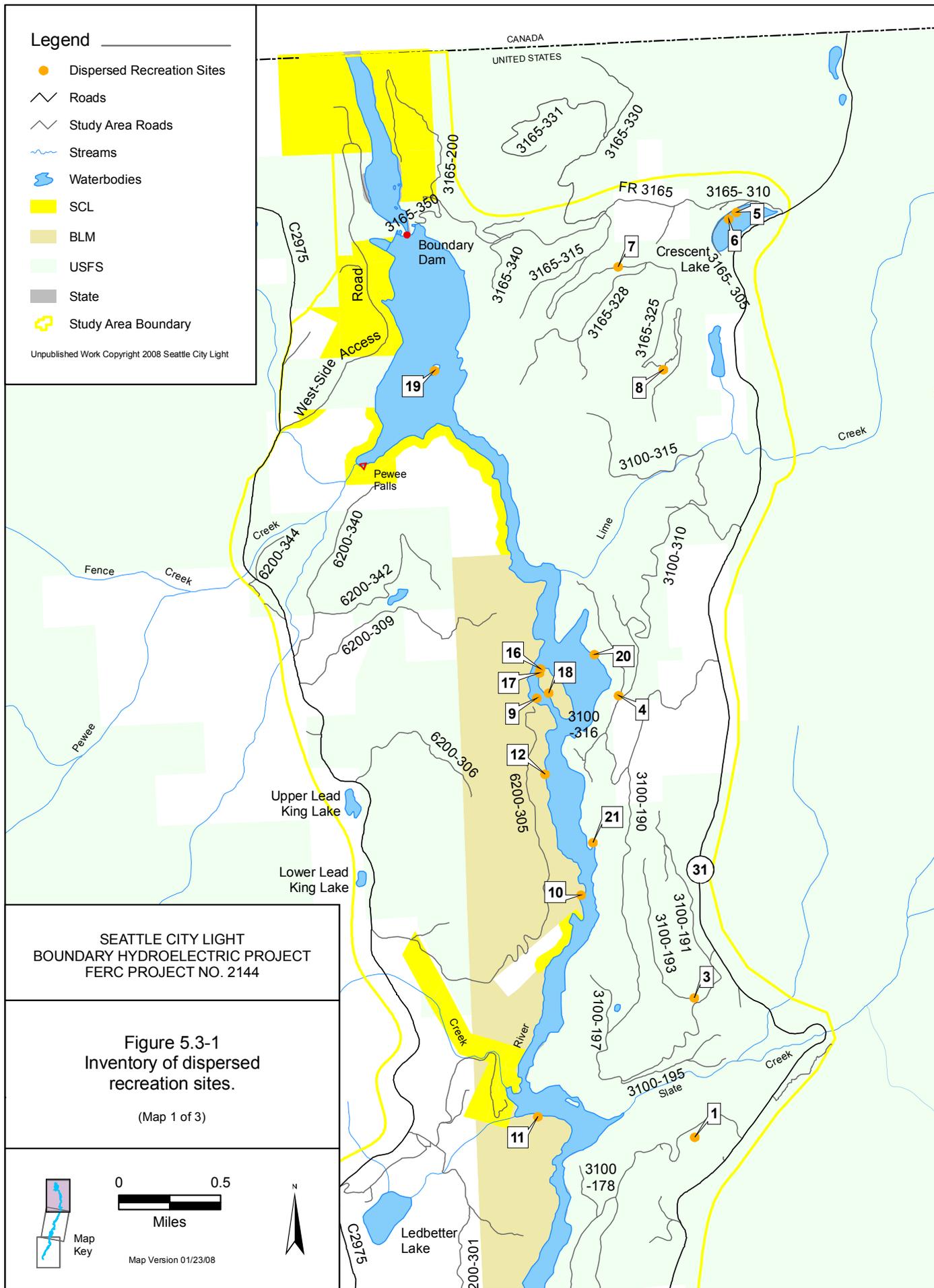
Map Number	Sector/Location/ Site Code	Location Name	Land Ownership	Key Site, Access Attributes	Likely Type of Use
	Sector 4 (RD)				
1	4RD 172-1	Road 3100-172	USFS	Upland; easy road access, near SR 31; large site	Overnight (fire pit)
2	4RD 172-2	Road 3100-172	USFS	Upland; difficult road access, beyond locked USFS gate; also water access	Overnight (fire pit)
3	4RD 190-1	Road 3100-190	USFS	Upland; easy road access, near SR 31	Overnight (fire pit)
4	4RD 310-1	Road 3100-310	USFS	Upland; long road access	Overnight (fire pit)
5	4RD 305-1	Road 3165-305	USFS	Shoreline (lake); access spur from FR 3165; large site	Day/Overnight (fire pits)
6	4RD 305-2	Road 3165-305	USFS	Shoreline (lake); access spur from FR 3165; large site	Day/Overnight (fire pits)
7	4RD 325-1	Road 3165-325	USFS	Upland; easy road access from FR 3165; small site	Day/parking (fire pit)
8	4RD 325-2	Road 3165-325	USFS	Upland; easy road access from FR 3165	Overnight (fire pit)
	Sector 5 (NR)				
9	5NR BLM-1	BLM	BLM	Shoreline; BLM Recreation Area; rough access road; water access; large site	Overnight (fire pit)
10	5NR BLM-2	BLM	BLM	Shoreline; water access only; 2-unit site	Overnight (fire pit)
11	5NR BLM-3	BLM	BLM	Shoreline; water access only; larger site	Overnight (fire pit)
12	5NR BLM-4	BLM	BLM	Shoreline; water access only; 1-unit site	Overnight (fire pit)
13	5NR DE-1	Deadman’s Eddy	BLM	Shoreline; water access only; 1-unit site	Overnight (fire pit)
14	5NR DE-2	Deadman’s Eddy	BLM	Shoreline; water access; ATV access via gated road; large site	Overnight (fire pits)
15	5NR DE-3	Deadman’s Eddy	BLM	Shoreline; water access only; 1-unit site	Overnight (fire pit)
16	5NR EI-1	Everett Island	BLM	Shoreline; water access only; larger site	Overnight (fire pits)
17	5NR EI-2	Everett Island	BLM	Shoreline; water access only; 1-unit site	Overnight (fire pits)
18	5NR EI-3	Everett Island	BLM	Shoreline; water access only; 1-unit site	Overnight (fire pit)
19	5NR FI-1	Rat Island (Forebay)	USFS	Shoreline; water access only; 2-unit site	Day/Overnight (fire pit)
20	5NR LC-1	Lime Creek	USFS	Shoreline; water access only; large, elaborate site (8 units)	Overnight (fire pits)
21	5NR MB-1	Monument Bar	USFS	Shoreline; water/foot and ATV access; large site	Overnight (fire pit)

Map Number	Sector/Location/ Site Code	Location Name	Land Ownership	Key Site, Access Attributes	Likely Type of Use
	Sector 3 (SR 31)				
22	3SR31 SC-1	Sweet Creek	POC	Upland; easy foot access (1/4 mile) via Sweet Creek trail	Overnight (fire pit)
	Sector 6 (SR)				
23	6SR WC-1	Wolf Creek	WA	Sand/gravel bar area; primarily water access, also road/walk-in, ATV	Day; beach/shore/fish access (no fire pit)
24	6SR SG-1	Gaging Station	WA	Shoreline; road and water access, near SR 31	Day/fish access (fire pits)
25	6SR SG-2	Gaging Station	WA	Shoreline; water access only; 1-unit site	Day/fish access (fire pit)

Legend

- Dispersed Recreation Sites
- Roads
- Study Area Roads
- Streams
- Waterbodies
- SCL
- BLM
- USFS
- State
- Study Area Boundary

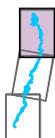
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FERC PROJECT NO. 2144

Figure 5.3-1
Inventory of dispersed
recreation sites.

(Map 1 of 3)



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Miles

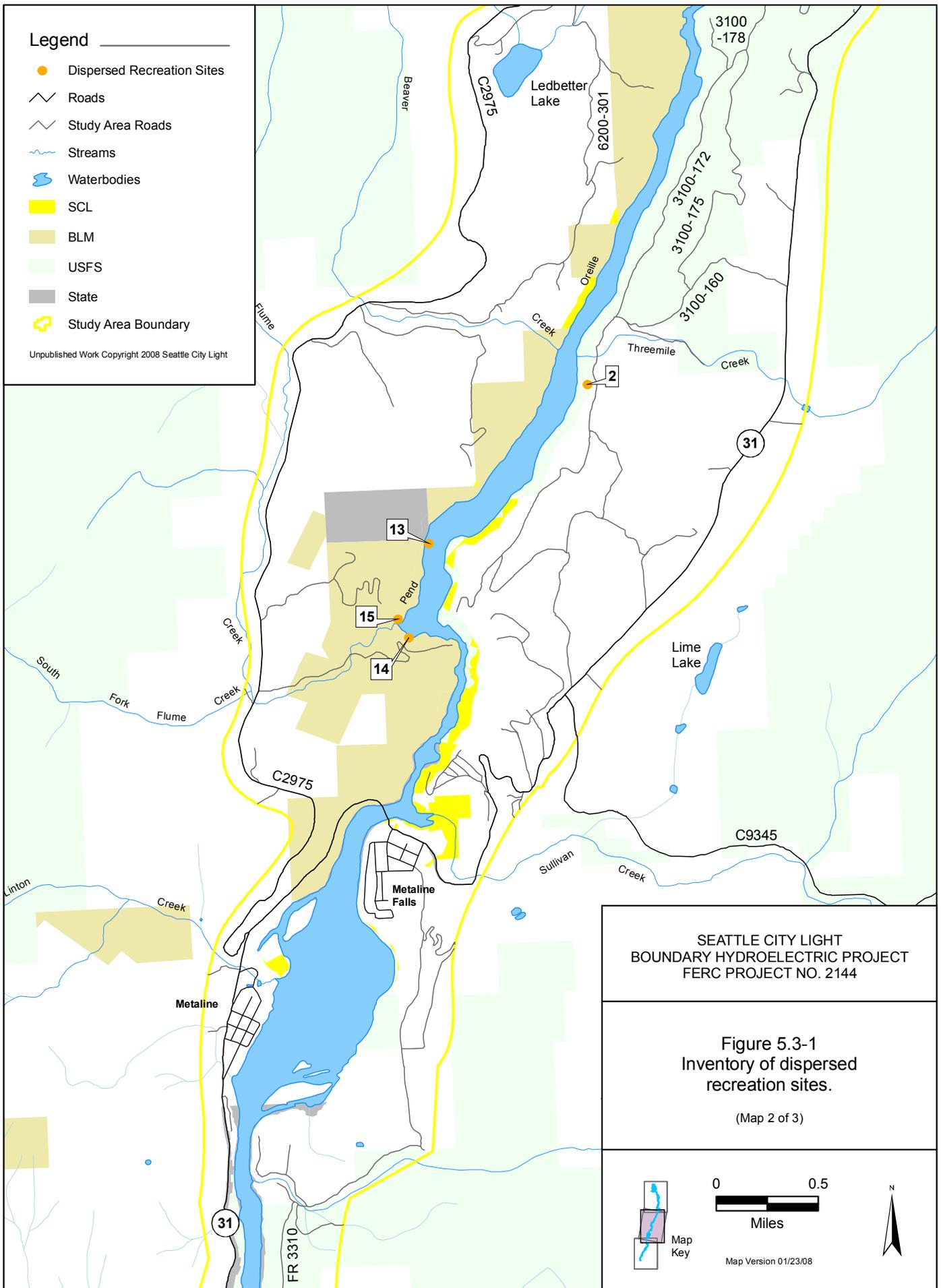


Map Version 01/23/08

Legend

-  Dispersed Recreation Sites
-  Roads
-  Study Area Roads
-  Streams
-  Waterbodies
-  SCL
-  BLM
-  USFS
-  State
-  Study Area Boundary

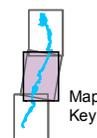
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Figure 5.3-1
Inventory of dispersed
recreation sites.

(Map 2 of 3)

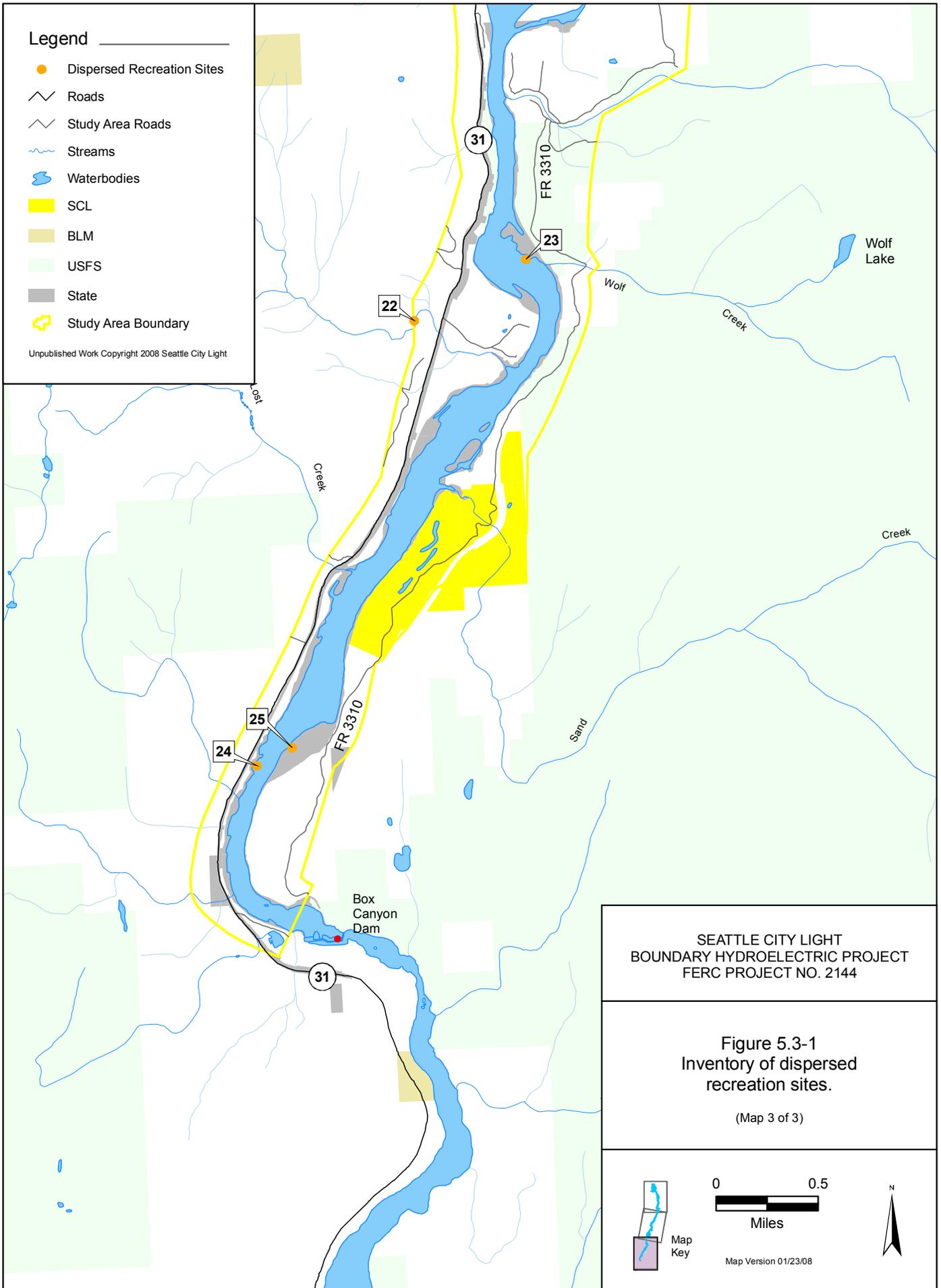


Map Version 01/23/08

Legend

-  Dispersed Recreation Sites
-  Roads
-  Study Area Roads
-  Streams
-  Waterbodies
-  SCL
-  BLM
-  USFS
-  State
-  Study Area Boundary

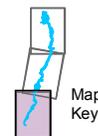
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FERC PROJECT NO. 2144

Figure 5.3-1
Inventory of dispersed
recreation sites.

(Map 3 of 3)



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Map Version 01/23/08

A summary description of each dispersed recreation site is provided below, organized by sector and location.

5.3.1.1.1. *Sector 4, Roaded Dispersed*

Eight dispersed recreation sites were recorded on or near secondary USFS roads in this part of the study area. Sector 4 includes Crescent Lake, a small lake near the intersection of SR 31 and USFS Forest Road [FR] 3165 and Pend Oreille County Road 3990). The dispersed sites within Sector 4 are summarized below, by general location.

FR 3100-172

The FR 3100-172 system is located to the east of the reservoir and west of SR 31, and extends south from just below Slate Creek almost to Metaline Falls. Spur roads are identified as FR 3100-160, -175 and -178. Dispersed sites were identified at two locations on the FR 3100-172 road system. Both sites are on federal land administered by the USFS.

Site 4RD 172-1 (location 1 on Figure 5.3-1, Map 1) is an upland site located along a short dead-end spur road to the left of Road 172 and approximately 0.5 mile west of SR 31. It is approximately 0.5 mile in aerial distance from Boundary Reservoir and is not on a road system that provides vehicle access to the reservoir. The site is an open, grassy area surrounded by a mix of mature and younger trees and has partially screened views of the surrounding mountains. This site can be easily accessed with a standard two-wheel drive vehicle. It has a user-made fire ring and sufficient space for several tents, although it appears to receive low use as an overnight camping area. The presence of a user-made skinning pole and the accessible location suggest that this site may be used primarily by hunters on a seasonal basis.

Site 4RD 172-2 (location 2 on Figure 5.3-1, Map 2) is an upland site located toward the southern end of Road 172, approximately 3.5 miles from SR 31. It is situated behind a USFS gate and road closure sign located a short distance south of the junction of Roads 172 and 160. To access site 4RD 172-2 by land now, users would have to travel by foot past the gate for several hundred yards. An alternative approach to the site from the reservoir is possible, although this would require travel on foot and uphill approximately 100 yards from the reservoir shoreline. It appears that this site may have received moderate use before the road was gated, but there was no evidence of recent use. As noted for site 4RD 172-1 above, the presence of a buck pole at this site suggests likely use by hunters in past years.

FR 3100-190/310

Two dispersed sites were recorded on the FR 3100-190/310 road system, which is located west of SR 31, east of Boundary Reservoir, and north of Slate Creek. Both sites are on federal land administered by the USFS.

Site 4RD190-1 (location 3 on Figure 5.3-1, Map 1) is an upland site similar in location to Site 4RD 172-1. It is just to the right of Road 190 at the intersection with Spur 193, approximately one-quarter mile west of SR 31. It is approximately 0.75 mile in aerial distance from Boundary

Reservoir and is not on a road that provides vehicle access to the reservoir. This site is surrounded by mature trees and appears to be used for camping, with sufficient space for several tents. The condition of the road from SR 31 to the site is suitable for use by standard passenger vehicles. The site is large enough to accommodate a camper trailer or a small recreational vehicle. There is a user-made fire ring and a user-made toilet at this site. The field crew observed fresh tire tracks at this site during the October 2007 site visit. Conditions observed suggest this site may receive more use than many of the dispersed sites.

Site 4RD 310-1 (location 4 on Figure 5.3-1, Map 1) is located adjacent to Road 310 just north of its junction with FR 3100-316, and approximately 2 miles in from SR 31. The area to the north of this site was harvested relatively recently, perhaps about 10 years ago. The site has a user-made fire ring. Conditions observed at the site, such as the extent of trampling and trash, indicate it may get low to moderate use. Because this site is some distance from a main road, does not have access to a water feature, and is in the same general area as Sites 4RD190-1, 4RD172-1, and 4RD172-2, it is likely the site is used primarily by hunters.

Crescent Lake

Recreational use at Crescent Lake appears to be concentrated in two locations. The site inventory identified two dispersed sites along an abandoned road adjacent to the Crescent Lake shoreline, identified as FR 3165-305. These sites are on federal land administered by the USFS. In addition, there are three picnic sites constructed by the USFS on a short spur road (FR 3165-310) just above Crescent Lake; use of these formal sites was monitored through the Sector 4 visitor counts, but these sites were not recorded as dispersed sites.

Sites 4RD 305-1 and 4RD 305-2 (locations 5 and 6 on Figure 5.3-1, Map 1) are both located adjacent to the old road that travels along the north and west shoreline of Crescent Lake, on the opposite side of the lake from SR 31. They are more than 1 mile in aerial distance from Boundary Reservoir. While FR 3165 connects with the Vista House and the east-side access road to Boundary Dam, the latter road is gated and FR 3165 does not provide vehicle access to the reservoir itself.

The existence and condition of the two dispersed sites at Crescent Lake are documented in the PAD (SCL 2006). Both sites appear to receive substantial use by anglers, as well as by campers. Visitor count observations over the course of the 2007 season indicate that the two dispersed sites along the lake are somewhat more likely to be in use than the developed sites located above the lake. There are two fire rings located at Site 4RD 305-1. Site 4RD 305-2 is adjacent to 4RD 305-1 and has three user-made fire rings. There is a social trail from this site leading to the developed USFS sites above the lake on FR 3165-310.

FR 3165-325

FR 3165-325 is a spur road system that extends to the south from the East-Side Access Road (FR 3165/Pend Oreille County Road [POC] 3990) at a point approximately half-way between SR 31 and the Vista House. Road 325 has a total length of approximately 4 miles, ending at a point southwest of Lake Lucerne. Additional spur roads from Road 325 are identified as FR 3165-315

and -328. Dispersed sites were identified at two locations on FR 3165-325, both on federal land administered by the USFS.

Site 4RD 325-1 (location 7 on Figure 5.3-1, Map 1) is an upland site located adjacent to Road 3165-325 approximately 1 mile in from Road 3165. It is nearly 1 mile in aerial distance from Boundary Reservoir and is on a road that does not provide vehicle access to the reservoir. This area is accessible by two-wheel drive vehicle and is essentially just a small pull-out on the side of the road. The area surrounding the site consists of both older trees and an area that was harvested about 10 years ago. There is a fire pit at the site, but no area that has obviously been used as a tent site. Because the site is so small and just off of the road, it may be used more as a site for day-use activity, such as a parking location for hunter access.

Site 4RD 325-2 (location 8 on Figure 5.3-1, Map 1) is an upland site located in a small clearing on the south side of Road 325 approximately 1.5 miles in from Road 3165. It is approximately 1 mile in aerial distance from Boundary Reservoir and is on a road that does not provide vehicle access to the reservoir. A user-made fire ring at the site is easily visible from Road 325. This is a relatively large site with a good view of the surrounding area. It is immediately adjacent to a cleared area that was probably harvested about 10 years ago. Field crews observed little evidence of use at this site during the initial inventory or the follow-up visit in October 2007.

5.3.1.1.2. *Sector 5, North Reservoir*

The field inventory identified 13 individual dispersed recreation sites within this sector, including multiple sites in a few locations. These sites occur on both sides of the reservoir, although most are located along the western shoreline, and on an island in the Forebay of the reservoir. All of these sites are shoreline sites with water access. Most do not have access by road. Based on conditions observed during the inventory, the dispersed sites in Sector 5 seem to be favored by users for overnight camping.

BLM Boundary Recreation Area

Site 5NR BLM-1 (location 9 on Figure 5.3-1, Map 1) is a shoreline site located on the western shore of the reservoir, between Peewee Creek and Everett Creek and across from Everett Island. This site is managed by the BLM and is described in the PAD (SCL 2006). BLM has provided users with two picnic tables and one fire ring at this location. This site was inspected early in the field inventory process, because it was a known camping location and was being sampled for visitor counts and questionnaires as part of Sector 5. Because the site has both user-made and agency-installed facilities and was monitored along with dispersed sites, it is discussed in Section 5.3 of the report.

In addition to the constructed facilities installed by the BLM, Site 5NR BLM-1 includes one user-made fire ring and one user-made toilet. Observed physical conditions at this site suggest it receives heavier recreation use than other sites in Sector 5. The survey estimated the site had space to accommodate six tents. Users can access this site by water travel on the reservoir or by vehicle on Road 6200-305. Road 305 is relatively steep and rough, and the distance from POC 2975 to the site is approximately 3 to 4 miles. Nevertheless, survey crews observed vehicles at this site on several occasions during the season.

Other Sites on BLM-Managed Land

The inventory identified three other dispersed sites on BLM-managed land on the west side of Boundary Reservoir. Site 5NR BLM-2 (location 10 on Figure 5.3-1, Map 1) is located on the western shore of the reservoir approximately 1.5 mile south of 5NR BLM-1. It is situated on a steep bank above the reservoir and is enclosed by mature trees. Access to this site is only by water, and is a little more difficult than other boat-access sites because of the rocky shoreline. A tree at this site has been carved into a totem pole, apparently by a user during the 2006 season (given the date noted in the carving). Conditions observed in 2007 suggest this site has received moderate use in the past.

Site 5NR BLM-3 (location 11 on Figure 5.3-1, Map 1) is located on the western shore of the reservoir approximately 1 mile south of BLM-2, near a sharp bend in the canyon between the mouths of Everett Creek and Slate Creek. The site has one fire ring and can accommodate multiple tents. The tent pads are fairly well hidden from boaters on the reservoir, although the fire pit and a picnic table can be clearly seen from the reservoir. (One of the respondents to the area resident questionnaire reported that he/she had moved the picnic table to this site and maintains the site. If that report is accurate, this picnic table was not installed at the site by the BLM.) There are multiple social trails leading through the site and several distinct tent sites, indicating the site has been used consistently in the past. There is also one user-made toilet facility. Because no means of access to this site by road is apparent, it is anticipated that users are reaching the site by boat.

Site 5NR BLM-4 (location 12 on Figure 5.3-1, Map 1) is located on the west side of the reservoir approximately 0.5 mile south of Everett Island. The site is not obvious from the water and was not identified as a dispersed site until September 2007, when a survey crew observed someone camping at the site. The user reported he had camped at the site in the past, although the site had become somewhat overgrown. The site has one user-made fire ring and an area apparently used for tent camping. Access to this site is only by water.

Deadman's Eddy

Deadman's Eddy is the relatively open area of the reservoir at the south end of the canyon reach, where Flume Creek enters the reservoir and the channel bends to the west below Metaline Falls. The field inventory identified three dispersed sites on the western shoreline in this general area of the reservoir. All three sites are on federal land administered by the BLM. Site 5NR DE-1 (location 13 on Figure 5.3-1, Map 2) is the most northerly of these sites, and is over one quarter mile north of the other two sites. This site is out in the open and provides clear views of the surrounding reservoir and canyon walls. It has a user-made fire ring, but no obvious area used as a tent pad. Based on conditions observed during the initial and fall inventory visits, it appears that this site had little or no use during the 2007 season.

Sites 5NR DE-2 and 5NR DE-3 (locations 14 and 15 on Figure 5.3-1, Map 2) are located relatively close together near the mouth of Flume Creek. There is road access to this general area, and these sites can be accessed by boat or all-terrain vehicle (ATV), which can bypass the

locked Forest Service gate near POC 2975; the location is approximately 1 mile from POC 2975. Site 5NR DE-2 is set back in the trees somewhat and is considerably larger than the other sites in this location, with capacity for several tents. The inventory crew observed fresh tire tracks in the soil at this site during the October 2007 site visit. Site 5NR DE-3 is also set back in the trees, although it provides views of the reservoir, and does not appear to be used much. This site has enough area to accommodate one tent, although it slopes downward toward the reservoir and has not been cleared of brush in the recent past.

Everett Island

Everett Island is a small upland area in the northern part of the canyon reach that is situated just to the east across a narrow channel from the BLM Boundary Recreation Area. Three dispersed sites were recorded on Everett Island. Access to all three sites is only by water.

Site 5NR EI-1 (location 16 on Figure 5.3-1, Map 1) is located on the northeastern corner of the island. There are two fire rings at this site; one above and one that appears to be below the normal waterline of the reservoir. This site appears to have been used in the past, but to a lesser degree than the other sites on the island. Site 5NR EI-2 (location 17 on Figure 5.3-1, Map 1) is located just south of 5NR EI-1. There are two fire rings at this location, and enough room to fit at least one tent site. The site is located in the open, with some mature trees behind the site, and has a view toward the BLM-1 site. This site has been used as a campsite in the past, but did not show evidence of recent use during visits in 2007.

Site 5NR EI-3 (location 18 on Figure 5.3-1, Map 1) is located on the western side of Everett Island, to the southeast from the first and second sites. This site is larger than the other two sites on the island and in a preferable location that offers more shelter from the elements. This site includes one fire ring and one apparent tent site. Conditions observed on the two inventory visits, primarily the apparent presence of additional trash, indicated that the site was used at least one time during the 2007 season.

Rat Island

One dispersed site (5NR FI-1, location 19 on Figure 5.3-1, Map 1) was recorded on Rat Island, a small island located toward the south end of the Boundary forebay, approximately 0.75 mile south of Boundary Dam. Ownership in this part of the reservoir is federal, with USFS administration. It has excellent views in all directions that include the dam, the forebay campground and day-use area south of the dam, and PeeWee Falls to the southwest. The island, particularly the western portion, has been used heavily by Canada geese. The inventory crew observed evidence of past overnight use and a geocache site, and several social trails on slopes near the geocache site.

Lime Creek

Lime Creek enters the reservoir on the eastern side, near the northern end of the canyon reach. One dispersed site was recorded on the shoreline approximately 0.5 mile south of Lime Creek, on federal land administered by the USFS. Site 5NR LC-1 (location 20 on Figure 5.3-1, Map 1)

is almost directly across the reservoir from Everett Island and has clear views of the surrounding area. Access to the site appears to be primarily by boat, but there is an informal, user-created trail leading uphill behind the site. This route connects to a spur from Road 3100-310 that is located less than 100 yards above the site, although the trail shows more use near the campsite than up toward the road. Travel by road to the vicinity of this site may be possible, although the condition of the road would likely limit travel to four-wheel-drive vehicles. Site 5NR LC-1 appears to be the most elaborate dispersed site in the study area, based on the amount of user-made improvements evident. The inventory noted a number of flat areas that have clearly been used as tent pads, several items of user-made camping furniture, multiple fire rings, and an informal toilet. Based on the level of user improvements observed, this site appears to be relatively popular compared to many other sites. Site 5NR LC-1 is also the largest site recorded in the inventory, with an estimated capacity for approximately eight tents.

Monument Bar

Monument Bar is the name applied to a shoreline area on the east side of the reservoir roughly halfway between Lime Creek and Slate Creek, and approximately 1 mile south of Everett Island. There is a small cove on the shore that provides a landing spot for access to Site 5NR MB-1 (location 21 on Figure 5.3-1, Map 1) from the water. The site is located back in the trees a relatively short distance from the reservoir, on federal land administered by the USFS. This site can also be accessed by foot or by ATV on a user-made trail to the site from Road 3100-316. This site is surrounded by mature trees. It has one user-made (and relatively deep) fire pit, a user-made toilet, and four areas that have apparently been used as tent sites. Physical conditions observed at the site indicated past use at low or possibly moderate levels; there was no evidence of recent ATV tracks on the trail during the 2007 inventory visits.

5.3.1.1.3. Sector 3, SR 31

Only one dispersed site was recorded in Sector 3. The site is an upland site located near the Sweet Creek Falls Rest Area on the west side of SR 31, and was coded as site 3SR31 SC-1 (location 22 on Figure 5.3-1, Map 3). The rest area and the dispersed site are on land owned by Pend Oreille County. The specific location for this site is just off of the main trail from the parking area to the falls, and above the falls. To reach this site, users would follow the paved path from the parking lot until it turns into a dirt trail that follows Sweet Creek. From the dirt trail, a user-made spur trail veers to the right and climbs a small hill. An informal camping area with a user-made fire ring is situated at the top of the hill immediately adjacent to the spur trail, and a short distance from Sweet Creek and the constructed trail. Based on the physical conditions observed here, and the lack of noticeable change between the spring and fall site visits, the site appears to receive low use. Orange flagging was observed along the constructed trail, but the source or purpose of the markers was not evident.

5.3.1.1.4. Sector 6, South Reservoir

Sector 6 includes the reservoir surface and shoreline from Metaline Falls south to the head of the reservoir at Box Canyon Dam. The appearance, setting and character of the southern part of the reservoir are considerably different from the northern reservoir area, and these differences are reflected in the inventory of dispersed sites. In particular, a much higher proportion of the land

adjacent to the reservoir is in private ownership, which likely reduces the availability of on-shore sites for public use. The field inventory identified only three sites in Sector 6 that appeared to be used for dispersed recreation. The Sector 6 dispersed sites do not show evidence of overnight use; they appear to be locations for day-use activities, primarily fishing.

Site 6SR WC-1 (location 23 on Figure 5.3-1, Map 3) is located on the eastern shoreline just north of the mouth of Wolf Creek. The site appears to be used primarily or exclusively as a dispersed day-use site, as no fire rings or tent pads were identified in the inventory. The site consists of four gravel bars situated in shallow water, within the state of Washington river bedland ownership. When the water level is low, it apparently is possible for vehicles to travel off-road from FR 3310 and drive or walk to this site. This site has a rocky substrate and a limited surface area, even when the water level is low. USFS staff identified this site as an area where boaters beach or anchor their craft, and where anglers fish from shore.

The other two inventoried dispersed sites in Sector 6 are located at either end of the stream gaging station that spans the river approximately 1 mile north of Box Canyon Dam, also within State of Washington ownership. This area was investigated primarily because TtEC staff received anecdotal reports from local sources that the gaging station was a known fishing site. In addition, this location was identified as a catch location in several reports received through the tagged fish reward program operated as part of Study 13 (Recreational Fishery Study) during the 2007 season. Site 6SR SG-1 (location 24 on Figure 5.3-1, Map 3) is just off SR 31 on the west side of the reservoir, and the highway is visible and audible from the site. Users can access this site via boat or car. There is a pullout on SR 31 directly above this site, and high-clearance vehicles can drive directly to the site via a short spur road. Although there is a fire pit at this site, this appears to be primarily a day-use site that is most commonly used by anglers.

Site 6SR SG-2 (location 25 on Figure 5.3-1, Map 1) is located across from SG-1 on the eastern side of the reservoir. This site is located out in the open with views across the reservoir to development along SR 31. This site is covered by tall weeds and grass that shows slight evidence of trampling. There is a faint trail to a fire ring that has not been used in some time. Physical conditions observed here indicate there appears to be a low level of use at this site.

5.3.1.2. *Tabulated Site Conditions*

This section summarizes the entries on the site inventory forms for the 25 dispersed sites recorded in the study area. The following sections each address a corresponding section of the inventory form. For each section, the report includes a tabular summary for the full set of inventoried sites and a brief narrative. The tabular and text summaries were derived from an overall table of site inventory characteristics that is provided in Appendix 5b. These entries should be understood as recorded observations of conditions at particular times during 2007 that vary by site and can vary over time.

5.3.1.2.1. *Site Delineation and Capacity*

Section 1 of the site inventory form (see Appendix 5a) addresses basic reference information on the physical location and dimensions of the dispersed sites. Specific items include a Global Positioning System (GPS) reading for the site; reference points to identify locally-specific

landmarks that help to locate and define the site; the size and shape of the site, including a sketch map; and the estimated site capacity, which included an approximate number of tents and vehicles that the site appeared to be able to accommodate.

Items 1.1 and 1.2 on the form are specific to the individual site and are not suitable for display in summary fashion. Entries for Item 1.3 (size and shape of the site) indicate that the smallest site identified had dimensions of 15 feet by 15 feet, while the largest entry was 500 feet by 100 feet.

Entries for Item 1.4 (estimated site capacity) may be the most significant of the site delineation characteristics. Table 5.3-2 summarizes the aggregate results for tent and vehicle capacity estimates for the 25 sites. All but one of the sites had an apparent capacity for at least 1 or 2 tents. The site inventory procedures did not prescribe a specific size of tent to use as the basis for Item 1.4 entries, primarily because small tents would be expected at boat-in and hike-in sites while larger tents would be more common at roadside sites. In general, a reasonably flat, cleared area roughly 10 feet by 10 feet in size would be needed to accommodate a small tent. At 10 of the sites there had been sufficient camping use over time that the survey crew was able to distinguish specific locations that had obviously been used as tent sites.

Table 5.3-2. Estimated dispersed site capacity.

Number of Tents	Number of Sites	Percent of Sites
0	1	4
1	11	44
2	4	16
3	2	8
4	3	12
5	2	8
6	1	4
7-8	1	4
Number of Vehicles		
0	15	60
1	1	4
2	4	16
3	3	12
4	1	4
5	1	4

The grand total of the tent capacity estimates for the 25 inventoried sites is 57 tents. By sector, the total includes 1 tent site in Sector 3 (SR 31 South), 18 tent sites in Sector 4 (Roaded Dispersed), 36 tent sites in Sector 5 (North Reservoir), and 2 tent sites in Sector 6 (South Reservoir). Tents can vary considerably in size, resulting in a considerable range for the potential aggregate people-at-one-time capacity of the sites. If an average rate of 4 people per tent is assumed, the 25 inventoried dispersed sites (with 57 total tent sites) could accommodate 228 people at any given time. Given that access to more than half of the dispersed sites is exclusively or primarily by water, where two-person tents would likely be most common, an overall average rate of three people per tent might be more appropriate. On that basis, the practical capacity of the 25 sites would be approximately 170 people at one time. With a range of typical tent capacities from 2 to 6 people, the aggregate capacity of the 25 inventoried sites

could be considered as low as 114 people at one time or as high as approximately 300 people at one time.

The inventory indicated that no vehicles could be accommodated at 15 sites, or 60 percent of the total; vehicle capacity at these sites was recorded as 0. Nearly all of the sites in Sectors 5 and 6 (north and south reservoir zones) are not accessible by road, and by definition have no ability to accommodate vehicles. At most of the road-accessible locations the area available for parking vehicles is immediately adjacent to the sites. In rare cases (e.g., 3SR 31SC-1 and 4RD 172-2), users would have to carry their gear a short distance from the parking location to the site.

5.3.1.2.2. Site Access

Section 2 of the site inventory form focuses on the means and difficulty of access to the site. Specific entries include means of access to the site; distance to the site from the road, reservoir, and trail; and the access conditions.

Table 5.3-3 summarizes the distribution of sites by the available means of access, based on the conditions that could be observed in the field. In some instances, sites were accessible by more than one access means, such as directly by boat and by road. Twelve of the sites (48 percent) are accessible directly by boat and have no apparent means of land access, which is the most common access situation. Another seven sites (32 percent), all located within Sector 4, have direct or nearly direct access from a road and no water access. Three sites along the reservoir were recorded as having both boat-in and direct road access. Only two sites were identified as road/walk-in sites, which are accessible by road but require a (usually) short walk from the parking location to the site. Both of these sites can also be reached by boat, although one of these sites is some distance away from the reservoir shoreline. One site (3SR31SC-1) was classified as a trail/hike-in site because it is near a short maintained trail, although the access situation for this site is essentially the same as the sites classified as road/walk-in sites.

Table 5.3-3. Dispersed site access means.

Type of Access	Number of Sites	Percent of Sites
Direct by road	7	28
Direct by road and boat	3	12
Road/walk-in and boat	2	8
Trail/hike-in	1	4
Direct by boat	12	48
Total	25	100

Almost all of the sites are within approximately 50 feet of the primary access means or source, whether that is a road or the reservoir shoreline. Most of the sites with primary access by road were considered to be accessible by two-wheel drive vehicle. Because roads that can be used to access eight of the dispersed sites were in relatively rough condition, the four-wheel drive or ATV category was marked on the inventory form. None of the sites that required access on foot (such as the road/walk-in sites) were considered to be difficult to reach by foot. More specific information for these entries is included in Appendix 5b.

5.3.1.2.3. *Physical Setting*

Section 3 of the site inventory form includes five separate entries for various types of physical information about the site. These entries address vegetation characteristics at the site, including the predominant cover type within the site itself and the amount of shade cover. Other entries include the location of the site relative to the shoreline, where applicable, and the distance to the nearest water body, including the name of the water body.

Multiple cover types were recorded for many of the sites. Most the sites include or are surrounded by older trees or a mix of older and younger trees. The grass/shrub cover type is also common. Two sites (8 percent) were characterized as riparian sites and one as a river/lakebed cover type. Table 5.3-4 indicates the amount of shade cover observed at the inventoried sites. As is often typical for dispersed sites, most (68 percent) of the sites were judged to have 0 to 25 percent shade cover within the site itself. No sites had shade cover over 75 percent or more of the site.

Table 5.3-4. Percent shade cover at dispersed sites.

Shade Cover Class (Percent)	Number of Sites	Percent of Sites
0-25	17	68
26-50	3	12
51-75	5	20
76-100	0	0

Nearly three quarters of the inventoried sites are located close to the shoreline of a water body. Most (17 sites, or 68 percent of the total) are situated upland relative to the shoreline (i.e., on a terrace above a low or high bank to the water), while only one site (Site 6SRWC-1, the sand/gravel bar area at Wolf Creek) was recorded as located below the full-pool line of the reservoir. Three sites (12 percent) are set back in the trees slightly away from the shoreline, and six dispersed roaded sites not located near a water body and have no applicable shoreline condition.

Eighteen (72 percent) of the sites are located within about 50 feet of a water body; the water body is typically Boundary Reservoir, although two sites are near Crescent Lake and one is near Sweet Creek. Most of the dispersed sites in Sector 4 (five sites, or 20 percent of the total) are located more than 500 feet from a water body.

5.3.1.2.4. *Human Use Condition*

Section 4 of the site inventory form addresses site characteristics that are indicative of the level and effects of human use, particularly with respect to possible resource damage and unsanitary conditions. Specific information includes the number of user-made fire rings, the apparent level of use of the site, the presence of trash and human or animal waste, vegetation trampling/loss, the existence of social trails, and tree damage.

All but one of the sites inventoried had at least one user-made fire ring; 17 sites (68 percent) had 1 fire ring and 7 sites (28 percent) had 2 or more fire rings. The inventory crew recorded their

judgment of whether each site appeared to have received high, moderate, or low use, or did not have evidence of recent use but was clearly a usable dispersed site. As indicated in Table 5.3-5, only one site (4 percent) appeared to have no recent use, while the rest were characterized as showing low (32 percent), moderate (40 percent), and high (24 percent) evidence of recent use. These entries about evidence of recent use are composite judgments based on the combined entries concerning the amount of trash, human/animal waste, vegetation trampling and social trails present. As indicated in Section 5.1.2, visitor counts recorded at these sites during the 2007 season indicated low, minimal or no use for almost all of the inventoried sites.

Table 5.3-5. Human use condition at dispersed sites.

Overall Use Level	Number of Sites	Percent of Sites
High	6	24
Moderate	10	40
Low	8	32
None	1	4
Trash		
High	4	16
Moderate	9	36
Low	9	36
None	3	12
Human/Animal Waste		
High	5	20
Moderate	1	4
Low	7	28
None	12	48
Vegetation Trampling/Loss		
High	2	8
Moderate	5	20
Low	16	64
None	2	8
Social Trails		
High	0	0
Moderate	5	20
Low	11	44
None	9	36
Tree Damage		
High	1	4
Moderate	2	8
Low	4	16
None	18	72

Table 5.3-5 also summarizes results for other items in Section 4 of the site inventory form. Trash found in fire rings and/or scattered about the site was considered low to moderate at 18 sites (72 percent of the total), while a high level of trash was recorded at 4 sites (16 percent). Sanitation is a key concern often associated with dispersed recreation sites because, as

undeveloped sites, they lack toilet facilities. Toilets observed at the dispersed sites in the Boundary study area were makeshift or temporary structures that users installed or constructed. At the time of the site inventory, evidence of human or animal waste was considered to be high at 5 of the sites (20 percent, all of which included user-made toilets), moderate at 1 site (4 percent), and low at 7 sites (28 percent). No evidence of human waste was reported at 12 of the sites (48 percent). These results reflect the timing of the fall follow-up inventory in October 2007, after most recreation activity had concluded for the season, except for some hunting.

Trampling and loss of vegetation was found at some of the dispersed sites, as shown in Table 5.3-5. The inventory crew observed that some degree of vegetation trampling/loss had occurred at all but 2 of the 25 sites. Vegetation trampling/loss was considered to be high at 2 sites, moderate at another 5 sites, and low at the remaining 16 sites (64 percent of the total). Some of the vegetation loss resulted from the development of user-made social trails, which were considered moderate to low at 16 of the sites. There was no evidence of social trails at nine of the sites. Only seven sites (28 percent) were reported to have evidence of tree damage. Tree damage was rated high at one site, where a user had created a totem pole from a tree.

The inventory procedures instructed staff to note under item 4.8 or elsewhere on the form any obvious erosion or impacts to sensitive resources, such as wetlands and riparian vegetation, evident at the site for subsequent review by specialists from the appropriate disciplines. The dispersed site inventory forms do not include any recorded observations of erosion or sensitive resource impacts noted at the sites.

5.3.1.2.5. *Site Facilities*

Section 5 of the site inventory form was used to record facilities present at dispersed recreation sites. Table 5.3-6 provides a summary of the site facility results. With the exception of the three picnic tables and one fire ring, which were provided by the BLM at one or possibly two sites (it has not been confirmed whether the BLM provided a picnic table at Site 5NR BLM-3), all other site facilities were user-made. Users have installed makeshift toilet structures of various types at five of the sites; all but one of these sites is located along the reservoir. Thirty-four user-made fire rings were found (some with new use, and some that do not appear to have been used in a while). Identifiable tent sites had been cleared or created through repeated use at 10 of the 25 sites.

Table 5.3-6. Facilities observed at dispersed sites.

Type of Facility	Number of Sites	Percent of Sites
Toilets	5	20
Trash Cans	0	0
Picnic Tables	3	12
Signs	0	0
Fire Rings	24	96
Tent Sites	10	40
Other (e.g., buck pole)	2	8

5.3.1.2.6. *Visual Setting*

Section 6 of the site inventory form addresses the visual setting at the dispersed sites. Specific entries include the type of predominant view from the site, evidence of development or other recreation sites in the view from the site, and the amount of screening between the site and its primary access approach or other sites. Most of the sites (17 sites, or 68 percent) have a view of the reservoir, and at the same number of sites the view is enclosed by nearby trees and/or terrain. Evidence of development is present in the view at 15 of the sites (60 percent); roads can be seen at 13 sites and powerlines, the dam, and mining operations can be seen from two sites each. No recent timber harvests were in evidence at any of the sites. Other recreation areas (developed or dispersed) can be seen from 11 of the sites (44 percent). Vegetative screening around the dispersed sites tends to be somewhat limited, as no screening was recorded at 28 percent of all sites and low screening was recorded at another 24 percent.

5.3.1.2.7. *Shoreline Conditions*

The last section of the site inventory form includes six separate items relating to shoreline conditions at the site, if applicable. Specific types of information include the type or composition of the shoreline terrain, proportion of the shoreline area accessible by vehicle or foot, whether boat launching is possible at the shoreline, the existence of boating hazards and/or boat landing difficulty, and the composition of the lakebed substrate adjacent to the site.

Item 7.1 is a “yes/no” entry for whether surface water shoreline is present within or adjacent to the site. Consistent with previous inventory items, reservoir or river/stream shoreline is present at 19 (76 percent) of the sites. Nearly half of the sites (48 percent) had a low bank at the shoreline, while another eight sites (32 percent) had a high bank. The shoreline was vegetated at nine sites (36 percent), while at other sites the shoreline consisted of rock outcroppings, sand/silt, or gravel. As noted above, the dispersed site inventory forms do not include any recorded observations of erosion or sensitive resource impacts noted at the sites.

Foot access to the water is possible at nearly all of the sites that include a shoreline area, while vehicle access to the water was recorded for six sites (24 percent of the total). The inventory crew concluded that it would be possible to launch watercraft from 18 of the sites (72 percent). In all cases, however, only hand-launched watercraft (e.g., canoes, kayaks, rafts, and small rowboats) could be launched. None of the dispersed sites have or are near developed watercraft launching access (i.e., a constructed boat ramp), and launching a trailered-boat does not appear to be possible at any of the sites that are accessible by road. Of the 18 sites where a hand-carried watercraft could be used, launching was considered to be easy at 16 sites. One site was recorded with difficult watercraft launching conditions because of the number of boulders along the reservoir at that location.

The inventory crew judged whether rocks, stumps, and/or shallow areas in the water near the dispersed sites presented hazards to watercraft use, and the degree of difficulty represented by such hazards. These entries reflect evidence of hazards at the time each site was inventoried, which was largely dependent on the reservoir elevation at that specific time. Additionally, these subjective entries about watercraft use conditions were made by field staff of various backgrounds who were not expert or trained in boat navigation. Therefore, this entry should not

be interpreted as locations where specific boating hazards were identified, but rather as a potential starting point for any follow-up site investigation relating to potential boating hazards.

With those limitations acknowledged, the inventory indicated some degree of subsurface hazard (low to high) was likely present, during at least some reservoir conditions, at most of the shoreline dispersed sites. Stumps, rocks, and/or shallow water were observed at virtually all of these locations. The inventory crew considered the subsurface hazards they observed to represent a low degree of difficulty at 16 sites (64 percent), as shown in Table 5.3-7, and a high degree of difficulty for landing a boat at none of the sites.

Table 5.3-7. Watercraft use hazard level assumed at dispersed sites.

Hazard Level	Number of Sites	Percent of Sites
High	0	0
Moderate	3	12
Low	16	64
None	0	0
Not Applicable (no shoreline)	6	24

The final item on the inventory form addresses the substrate composition of the shoreline within or adjacent to the site. The most common condition at the shoreline sites is a sand/silt substrate (at 8 sites, or 32 percent), followed closely by gravel and cobble conditions. Boulders were found at four sites (16 percent).

5.3.2. Public Access Analysis

As discussed in Section 4.3.2, the RRS includes an assessment of existing and potential future conditions as they relate to dispersed recreation within the study area. The following discussion is a summary assessment of existing public access conditions relative to dispersed recreation use within the study area for the three key access means available – travel by roads, trails, and/or water. This assessment is based on the information collected during both the dispersed recreation site inventory and the Recreation Surveys field sampling activity conducted during the 2007 recreation season.

Potential future dispersed recreation access conditions cannot be sufficiently addressed at this point in the study process and are not directly addressed in this report. Future dispersed recreation access conditions will be influenced by a variety of factors, including the feasibility of providing some type of access in a specific location and a demonstrated need for providing such access. Some of these dispersed recreation access factors will be addressed in additional RRS activities that will be conducted in 2008, such as the Future Recreation Use Analysis and the Recreation Carrying Capacity Analysis. Consideration of other access factors will occur subsequent to completion of Study 21 and/or as part of other elements of the relicensing process, including the Recreation Needs Analysis.

5.3.2.1. Road Access

Virtually all of the lands within the study area have some degree of access by road that can be used by visitors for dispersed recreation (see Figure 5.3.-1). However, the level of road access varies considerably throughout the study area. The variation in road access conditions primarily reflects the locations and conditions of the existing roads, and the ownership and management characteristics of the lands within the study area. To facilitate review of existing road access conditions, this discussion is organized by quadrant of the study area, as follows:

- Northwest – north of Metaline Falls and from Boundary Reservoir west
- Northeast – north of Metaline Falls and from Boundary Reservoir east
- Southeast – south of Metaline Falls and from Boundary Reservoir east
- Southwest – south of Metaline Falls and from Boundary Reservoir west

5.3.2.1.1. Northwest Quadrant

POC 2975 is the primary means of road access to the study area north of Metaline Falls and west of Boundary Reservoir. POC 2975 is intersected by a number of public and private secondary roads that extend generally eastward for varying distances.

POC 2975 intersects SR 31 at the northern edge of Metaline and extends generally northward in the direction of Boundary Dam and the international border. The distance from SR 31 to the Boundary Dam Road junction is 12.4 miles. The road dead-ends at Crawford State Park, approximately 1.5 mile north of the Boundary Dam Road junction. Pend Oreille County operates and maintains the road, which is plowed in the winter. The roadway has two lanes and a bituminous (chip seal) paved surface, with a center stripe and standard signage. The road also carries a Forest Highway Designation, WA FH 148, as it is a primary access route to USFS-managed land along the northwestern edge of Pend Oreille County. The management objective for POC 2975 is Level 4, which is assigned to roads that are for use by standard passenger vehicles and provide a moderate degree of user comfort at moderate travel speeds.

The West-Side Access Road connects Boundary Dam with POC 2975. This is a two-lane, bituminous-surfaced road approximately 2.1 miles long and provides SCL with access to Boundary Dam, the powerhouse, and Project maintenance area. The West-Side Access Road also serves recreational visitors to Boundary Dam and the SCL Forebay Recreation Area. The lands adjacent to the West-Side Access Road are not available for dispersed recreation.

There are approximately 12 secondary roads that intersect POC 2975 between SR 31 and the Boundary Dam junction and extend eastward from POC 2975. These roads serve a variety of purposes, providing access to privately-owned lands, former and/or current mining operations, public lands administered by the USFS and BLM, and transmission lines operated by the Bonneville Power Administration (BPA). Lands within the study area and located south of Beaver Creek (approximately 5 miles north of SR 31) are predominantly in private ownership, and the roads serving these lands are typically private roads that are not open for dispersed recreation. Secondary roads and access conditions north of Beaver Creek are summarized as follows:

- FR 6200-301 intersects POC 2975 just north of Beaver Creek, approximately 3 miles from SR 31. Road 301 forms a loop to the east of POC 2975, rejoining POC 2975 just north of Ledbetter Lake. Virtually all of the land adjacent to Road 301 is in private ownership, although it does cross one small parcel of BLM-managed land and two short spurs extend into other BLM parcels. Another spur off this road passes through private lands onto SCL property in the Whiskey Gulch area, near the dispersed site coded as 5NR BLM-3. Road 301 does not access Boundary Reservoir, and is approximately one-quarter mile from the reservoir at its closest point.
- FR 6200-305 begins at POC 2975 north of Everett Creek, approximately 6 miles from SR 31. It passes through private forest lands and BLM-managed land to a terminus at the BLM Boundary Recreation Area on Boundary Reservoir. The total length of this road is estimated at approximately 2.3 miles. A timber harvest operation was using the first 0.1 mile of the road as a landing area in April 2007. The road has a native surface, is functionally classified as a local road, and has a USFS management objective of Level 2, indicating it is to be maintained as a primitive road suitable for use by high-clearance vehicles.
- FR 6200-306 begins at POC 2975 near Upper Lead King Lake, approximately 7 miles from SR 31. This road crosses primarily USFS-managed land before terminating in about 1 mile on BLM-managed land, at a point approximately 0.5 mile from Boundary Reservoir. The road has a native surface that is in poor condition. BLM real estate records also show “no authorization” for this road. The current USFS management objective is Level 2, Primitive, although USFS records indicate the long-term management objective for this road is closure.
- FR 6200-309 begins at POC 2975 south of a tributary of Peewee Creek, approximately 8 miles from SR 31. Road 309 crosses private and CNF lands before it terminates at about 1 mile on BLM-managed land. Road 309 does not access Boundary Reservoir, and is approximately one-quarter mile from the reservoir at its terminus. The road has a native surface. BLM real estate records also show “no authorization” for this road. The current USFS management objective is Level 2, Primitive, although USFS records indicate the long-term management objective for this road is closure.
- FR 6200-340 begins at POC 2975 just south of a tributary of Peewee Creek, approximately 8 miles from SR 31. It extends northeast for approximately 0.8 mile across CNF and private lands before terminating at SCL property approximately 0.2 mile above the Peewee Creek lobe of the reservoir. FR 6200-342 branches off from - 340 approximately 0.25 mile from POC 2975 and extends to the east for 1.2 mile, where it dead-ends at BLM-managed land. Road 342 does not access Boundary Reservoir, and is approximately one-half mile from the reservoir at its terminus. In 2007, the surface of 6200-340 beyond the junction with 6200-342 was littered with deadfall and appeared to be impassable to vehicle traffic. The current USFS management objective for FR 6200-340 is Level 2, Primitive, although USFS records indicate the long-term management objective for this road is closure to public access.
- FR 6200-344 begins at POC 2975 just south of Fence Creek, approximately 9 miles from SR 31. It extends for 0.3 miles across USFS-managed land and provides access to BPA transmission towers. The road is native-surfaced and has a current USFS

management objective of Level 2, Primitive, although USFS records indicate the long-term management objective for this road is closure to public access.

In summary, accessibility by road within the northwest quadrant of the study area is good in the area immediately adjacent to POC 2975. SCL land ownership maps indicate that between SR 31 and the Boundary Dam junction, POC 2975 crosses approximately 10 miles of private land and 2 miles of public (predominantly CNF) lands. Consequently, road access for dispersed recreation in this area depends primarily on use of secondary roads intersecting POC 2975. Roads in this area that are open to the public are generally primitive roads with native surfaces that are suitable for use by high-clearance vehicles. Accessibility for the general public is therefore limited. FR 6200-305 is the only public road in this area that extends to the shoreline of Boundary Reservoir.

5.3.2.1.2. *Northeast Quadrant*

SR 31 and POC Road 3990/FR 3165, the Boundary Dam/Crescent Lake Road, are the primary means of road access to the study area north of Metaline Falls and east of Boundary Reservoir. Both main roads are intersected by a number of public and private secondary roads that extend into various parts of the study area.

SR 31 extends for 26 miles from SR 20 at Tiger to the international border. This 2-lane paved highway has an asphalt surface, is classified as a rural arterial, and is managed to state highway standards by the Washington State Department of Transportation (WSDOT). The USFS has also designated this route as a Forest Highway, WA FH 22.

FR 3165 extends to the west for 2 miles from SR 31 to the Vista House near Boundary Dam. The road is maintained by Pend Oreille County. The roadway has two lanes and a 20-foot wide bituminous surface, and is signed and center striped. There is a gate at Milepost 1.7 to control public access to the Vista House and Boundary Dam.

There are a number of secondary roads that intersect SR 31 or FR 3165 and extend into various parts of the study area. These roads serve a variety of purposes, providing access to privately-owned lands, former and/or current mining operations, and public lands administered by the USFS. Lands within the study area located from Metaline Falls north to Threemile Creek (approximately 4 miles north of Metaline Falls) are predominantly in private ownership, and most of the roads serving these lands are private roads that are not open for dispersed recreation. Secondary roads and access conditions north of Threemile Creek are summarized as follows:

- The FR 3100-172 system is located to the east of the reservoir and west of SR 31. The entrance to this road system is on the west side of SR 31 approximately 0.5 mile south of Slate Creek. There is a gate at 0.1 mile from SR 31 that appears to always be open. FR 3100-172 is parallel to Boundary Reservoir and within about 0.25 mile for much of the 2.5-mile distance of the road, although the reservoir is considerably below the elevation of the road. Road 172 is blocked to vehicle travel by a USFS gate and road closure sign located a short distance south of the junction with Road 3100-160. Spur roads from FR 3100-172 are identified as FR 3100-160, -175 and -178. Road 172 and its spur roads are generally local, native-surfaced roads with USFS management objectives of Level 2, Primitive. A short segment of FR 3100-160 immediately west of SR 31 has an aggregate surface, but this road is effectively

- closed at the junction with FR 3100-175 because of erosion, rock fall and steep grades. (This location provides a good vista point overlooking the reservoir.) FR 175 is posted “Closed ½ Mile Ahead” at both ends, where it connects with FR160 and FR172.
- The FR 3100-190/310 system is located to the east of the reservoir and west of SR 31, and extends southward from near Lime Creek almost to Slate Creek. Road 190 forms a loop of approximately 4 miles in length in the southern portion of this area. Road 310 extends to the west from SR 31 near Lime Creek, intersecting Road 190 after approximately 2.3 miles. Several spur roads branch off from these two roads, including FR 3100-316 and -315 from Road 310 and FR 3100-191, -193, -195 and -197 from Road 190. None of the roads in the FR 3100-190/310 system provide direct access to Boundary Reservoir. The FR 3100-316 spur approaches to within approximately 100 yards of the reservoir, and a nearby unnumbered spur from Road 310 is located parallel to and above the shoreline at a similar distance. All of these road segments have native surfaces and have Level 2, Primitive, USFS management objectives. The initial segments of FR 190 and 310 west from SR 31 have road surfaces that are in reasonably good condition and usable by passenger vehicles. As these roads get into steeper terrain with increasing distance from SR 31, however, the surface condition worsens, brush has encroached on the roadway in places and there are several drainage dips that are difficult to cross. The FR 3100-197 spur is currently blocked by a berm. USFS records also indicate that closure to public access is also the long-term management objective for FR 3100-316.
 - An abandoned road extends to the south from FR 3165 and travels adjacent to the Crescent Lake shoreline for approximately 0.5 mile. This road served the former Crescent Lake campground and is identified on some maps as FR 3165-305. Shortly beyond this location, FR 3165-310 is a short spur loop that provides access to three picnic sites at the USFS Crescent Lake Recreation Area.
 - FR 3165-325 is a spur road system that extends to the south from FR 3165/POC 3990 at a point approximately half-way between SR 31 and the SCL Vista House. Road 325 has a total length of approximately 4 miles, ending at a point southwest of Lake Lucerne. Additional spur roads from Road 325 are identified as FR 3165-315 and -328. These are native-surfaced roads with Level 2, Primitive, USFS management objectives. The roads in the FR 3165-325 system do not provide access to Boundary Reservoir and are approximately one-half mile from the reservoir at the closest point.
 - FR 3165-330 extends to the north from Road 3165 opposite the FR 3165-325 junction. This road and spur FR 3165-331 both dead-end on USFS-managed land before reaching the international border. They do not provide access to Boundary Reservoir.
 - FR 3165-340 travels west from FR 3165 and parallels it to the south, becoming a track in the grass for much of its length before it terminates at the Project boundary. This road is shown on USFS inventories as closed with a locked gate, although no gate was noted during a 2007 field reconnaissance. This road approaches the shoreline of Boundary Reservoir. FR 3165-340 is not intended to be accessible to the general public; travel on this road would be difficult in any event because of the overgrown condition of the road surface and encroaching vegetation along the sides of the road.

- FR 3165-350 is single-lane, native-surfaced road that serves the east side of Boundary Dam and is maintained by SCL. There is a locked security fence at the dam and a road gate at the junction with FR 3165, and the road is closed to public entry.
- FR 3165-200 extends north from FR 3165 just east of the SCL Vista House. It parallels the Pend Oreille River on the east side from FR 3165 to the U.S.-Canadian Border, and is a very low-standard road with 15 percent grades. A narrow, low-standard spur road extends from FR 3165-200 to the south, back toward Boundary Dam. The road is gated and is not available for use by the general public.

In summary, accessibility by road within the northeast quadrant of the study area is good in the area immediately adjacent to SR 31 and POC 3990/FR 3165. SCL land ownership maps indicate that between Metaline Falls and Crescent Lake, SR 31 crosses approximately 8 miles of private land and 5 to 6 miles of public (predominantly USFS-managed land). POC 3990/FR 3165 crosses approximately 0.5 mile of private lands and 1.5 mile of USFS-managed land. While there are some opportunities for dispersed recreation adjacent to the main roads, road access for dispersed recreation in this area depends primarily on use of secondary roads. Most of the secondary roads in this area are open to the public, although they are generally primitive roads with native surfaces that are more suitable for use by high-clearance vehicles. Accessibility for the general public is therefore limited, and can be difficult. None of the public roads in this area extend to the shoreline of Boundary Reservoir, although in limited locations the roads provide elevated vantage points with views toward the reservoir.

5.3.2.1.3. Southeast Quadrant

The southeastern portion of the study area extends eastward from the reservoir shoreline to the public roads that provide north-south access in this area. POC 3669 (also designated as FR 3310) extends south from Metaline Falls for a total distance of 4.5 miles. An initial segment 1.4 miles long is a two-lane collector road 24 feet wide with a bituminous surface. This segment has a sustained 10 percent grade leaving Metaline Falls, is posted with a 25-mph speed limit, and has a Level 3 (improved and graded) USFS management objective. Proceeding southward, the second segment of this road is 18 feet wide with an aggregate surface and a 10 percent sustained grade, and is signed as a "Primitive Road." A third segment 2.2 miles long extends parallel to the reservoir to a former crossing at Sand Creek. This segment is narrow (approximately 10 feet wide), has been minimally maintained, and crosses the railroad line twice. The bridge at Sand Creek was removed by the USFS in 1988, following damage caused by an upland debris flow.

South of Sand Creek this road continues as FR 3310 for 1.5 mile. USFS records indicate this road segment has a native surface and a Level 2 (Primitive) management objective. South of the Box Canyon Dam area the road again continues as POC 3669, with a gravel surface initially and a paved surface for approximately the last 2.5 miles to POC 9345 at the Ione Bridge.

Because there is no longer a bridge across Sand Creek, access by vehicle along the east side of the reservoir is not continuous. Users seeking dispersed recreation opportunities can travel southward from Metaline Falls or northward from Ione for a few miles, in areas where the roads access primarily private land. In most of the southeast quadrant, the roads that do exist are not located close to the reservoir shoreline; road access near the shoreline is limited to the area

around Pocahontas and Wolf Creeks, which are served by a primitive road. Consequently, road access for dispersed recreation is quite limited in this portion of the study area.

5.3.2.1.4. *Southwest Quadrant*

SR 31, which generally defines the edge of the study area, closely parallels the west side of the reservoir throughout most of the southwestern quadrant. Because there is little land between the highway and the reservoir, secondary roads in this area are limited; they include the street system in Metaline, a small network of local roads serving the Lunch Creek area and Selkirk High School, and a few private roads or driveways. Based on universal proximity to SR 31, road accessibility throughout the southwest quadrant is high. Because of steep slopes in some locations and little public land (other than the state-owned SR 31 right-of-way and the riverbed), however, opportunities for dispersed recreation are limited in this area.

5.3.2.2. *Trail Access*

Managed recreational trail opportunities within the study area are quite limited. The short (approximately 0.5 mile) trail at Sweet Creek Falls is one such existing opportunity. This trail can be accessed at the rest area facilities on SR 31. From the parking area, there is a trail (paved at the beginning, then with a native surface) leading towards Sweet Creek Falls. This trail provides access for day-use activities, and does not connect with other routes that represent an entry point for extended dispersed recreation activities. SCL also maintains a short, gravel trail of approximately 500 feet that leads from the SCL Vista House to an overlook deck providing excellent views of Boundary Dam.

Other trails in the study area may have existed in the past, but are not now identifiable recreational trails. Anecdotal reports indicate that at one time it was possible to follow a trail from FR 6200-340 to Peewee Falls. A former trail that was later abandoned was located on the east side of the reservoir and south of FR 3165 that led to a point with a good view across the reservoir to Peewee Falls.

There may be any number of user-created paths within the study area that are functioning as informal trails that have limited use. Recent SCL aerial photography indicates the existence of several such paths, at least some of which appear to be associated with private residences near the reservoir. There are also some user-created paths associated with dispersed recreation sites in the study area. For example, there is a path leading from a dispersed recreation site near Lime Creek to an existing spur road several hundred yards from the site, as discussed in Section 5.3.1.

Based on the number, distribution, and extent of existing facilities, trail access within the recreation study area appears to be limited.

5.3.2.3. *Water Access*

Accessibility to dispersed recreation opportunities by water travel is primarily a function of three conditions – the availability of existing water access points and facilities, navigational considerations on the water, and the ability to access the shoreline from the water.

Three public water access points currently serve Project visitors and provide access for dispersed, water-based recreation. They include the boat launches at the SCL Forebay Recreation Area near the northern end of the reservoir, Metaline Waterfront Park near the middle of the Project, and Campbell Park at Box Canyon Dam at the southern end of the reservoir. The SCL Forebay Recreation Area has a paved boat ramp and boarding float, and is the most commonly used boat ramp at the Project. The Metaline Waterfront Park boat ramp also includes a paved ramp, and is the most accessible of the sites for the local user population. The boat launch at Campbell Park has a relatively long and steep gravel ramp approach that can be difficult to negotiate. Campbell Park boaters must also be aware of the currents below the tailrace.

There are several locations on Boundary Reservoir where private residents have constructed boat ramps for personal use, or where roads have been extended to the reservoir shoreline. While these facilities provide some degree of additional access for water travel, they are not available to the public and should not be regarded as general water access opportunities.

The Metaline Falls area of the reservoir, just north of the SR 31 bridge at the town of Metaline Falls, is likely an important navigational consideration for many or some boaters on Boundary Reservoir. Over a portion of the normal operating range for the reservoir, the Metaline Falls reach takes on the appearance and physical character of a river rapids. The fast current, turbulence, and the gradient between the upstream and downstream ends of the Falls can make travel through this reach in non-motorized boats difficult and can be a significant barrier for small motorized boats. Based on some respondent comments from both the Project-area visitor questionnaire and the area resident questionnaire and additional anecdotal reports from local residents during the 2007 sampling season, it appears that at least some users launch a boat at the SCL Forebay Recreation Area/Boat Ramp and stay in the northern portion of the reservoir; or they launch a boat at Metaline Waterfront Park and stay in the southern portion of the reservoir.

Reservoir pool levels can affect navigability and user behavior in other ways. When the pool level in the reservoir is relatively high, for example, it is generally easier to launch a boat than when the reservoir is lower. Similarly, at lower reservoir levels boaters must be more aware of submerged or partially exposed features such as sandbars, rock outcrops, stumps and snags. Pending complete evaluation of visitor survey responses, however, these navigational considerations are not expected to represent perceived limitations on water access for dispersed recreation.

Dispersed water-based recreation often involves use of shoreline areas; various studies have indicated that many boaters traveling along a water body enjoy the ability to beach their craft to fish from shore, picnic, swim and sunbathe, or camp. The ability to participate in those activities is affected by the condition of the shoreline, and whether the physical characteristics of the shoreline areas are conducive to these types of uses. In general, the gradient and substrate conditions along much of the shoreline in the southern part of Boundary Reservoir are such that there are numerous locations where boaters could beach their watercraft for temporary shore-based activities, particularly at lower reservoir levels where more beach or gravel bar area is exposed. By contrast, the shoreline in much of the northern part of the reservoir is bordered by steep, rocky canyon walls that provide little or no opportunity for shore-based activities. There

are a number of locations where it is possible to access the shoreline, as indicated by the Sector 5 dispersed recreation sites discussed in Section 5.3.1 of the report. Compared to the southern part of the reservoir, however, those opportunities are considerably more limited north of Metaline Falls.

5.3.3. Dispersed Recreation Use

The inventory of dispersed recreation sites (see Section 5.3.1 for a detailed discussion) identified a total of 25 individual dispersed sites within the study area.

Table 5.3-8 summarizes the sampling results with respect to observed occupancy of the sites. For all inventoried sites, there were 58 occasions on which an inventoried site was recorded as occupied. Most of these instances were observed camping activity, although in several cases day users were occupying a site that typically receives overnight use. The three USFS sites at Crescent Lake were consistently the most active sites, and the primary BLM site (5NRBLM-1) had a level of use only slightly lower. (These sites are essentially hybrid sites that are managed by federal agencies and are provided with some developed facilities, and are different in character from the dispersed sites monitored through the sampling program.) Two informal sites along the road on the Lake Crescent shoreline were also occupied relatively frequently.

Aside from these locations, the dispersed sites included in the inventory received little observed recreational use. Two informal campsites located within 0.5 mile of SR 31 (sites 4RD172-1 and 4RD190-1) were in use 3 times and 5 times, respectively, during the 2007 season. All of these observed uses occurred in September and October, and all appeared to be associated with hunting. The three dispersed sites in the South reservoir sector all received a low level of use, which consisted of fishing and other day-use activities. Boat-in camping use at the dispersed sites was rarely observed, and only occurred at sites 5NRBLM-2 and 5NRBLM-3 and, on one occasion, at 5NRBLM-4. Site 5NRBLM-1, which shows the greatest level of user-made facilities among the sites, was occupied only 1 time during the season and that was a temporary picnic stop by two visitors.

Table 5.3-8. Occupancy summary for dispersed recreation sites.

Site / Code	Weekdays			Weekends/Holidays			Season Total		
	No. of Observations	No. Times Occupied	Occupancy Rate (%)	No. of Observations	No. Times Occupied	Occupancy Rate (%)	No. of Observations	No Times Occupied	Occupancy Rate (%)
4RD172-1	11	1	9.1	21	2	9.5	32	3	9.4
4RD172-2	11	0	0	21	0	0	32	0	0
4RD190-1	11	1	9.1	21	4	19	32	5	15.6
4RD310-1	11	0	0	21	0	0	32	0	0
4RD305-1	11	3	27.3	21	6	28.6	32	9	28.1
4RD305-2	11	2	18.2	21	2	9.5	32	4	12.5
Crescent 1	11	2	18.2	21	5	23.8	32	7	21.9
Crescent 2	11	1	9.1	21	3	14.3	32	4	12.5
Crescent 3	11	2	18.2	21	5	23.8	32	7	21.9
4RD325-1	11	0	0	21	0	0	32	0	0
4RD325-2	11	0	0	21	1	4.8	32	1	3.1
5NRBLM-1	29	3	10.3	16	4	25	45	7	15.6
5NRBLM-2	29	0	0	16	2	12.5	45	2	4.4
5NRBLM-3	29	1	3.4	16	2	12.5	45	2	4.4
5NRBLM-4 ¹									
5NRDE-1	29	0	0	16	0	0	45	0	0
5NRDE-2	29	0	0	16	0	0	45	0	0
5NRDE-3	29	0	0	16	0	0	45	0	0
5NREI-1	29	0	0	16	0	0	45	0	0
5NREI-2	29	0	0	16	0	0	45	0	0
5NREI-3	29	0	0	16	0	0	45	0	0
5NRFI-1	29	0	0	16	0	0	45	0	0
5NRLC-1	29	0	0	16	1	6.3	45	1	2.2
5NRMB-1	29	0	0	16	0	0	45	0	0
3SR31SC-1	28	0	0	20	0	0	48	0	0
6SRWC-1	11	1	9.1	21	2	9.5	32	3	9.4
6SRSG-1	29	0	0	19	1	5.3	48	1	2.1
6SRSG-2	29	1	3.4	19	1	5.3	48	2	4.2
Total		18			41			58	

Note:

1 Site added to inventory in September 2007 after report from a visitor; no use observed in remainder of season.

5.4. Future Recreation Use Analysis

This study element is scheduled for implementation in 2008; the results will be reported in the USR.

5.5. Recreation Carrying Capacity Analysis

This study element is scheduled for implementation in 2008; the results will be reported in the USR.

6 SUMMARY

6.1. Recreation Surveys

6.1.1. Survey Coverage and Applicability

The Recreation Surveys activities for 2007 were implemented as planned, with the minor exceptions noted in Sections 4 and 7 of this report. Field sampling for the visitor counts and visitor questionnaire component of the study was implemented according to the schedule and level of effort indicated in the implementation plan, and resulted in the generation of large volumes of data concerning observed and self-reported visitor use patterns and visitor feedback on their characteristics, preferences, and satisfaction levels. Mail-based survey sampling for the area resident questionnaire component of the study was also implemented according to the process outlined in the implementation plan (Appendix 1), and resulted in the development of a large database of input from area residents concerning their use of the study area for recreation.

Section 5.1.2 provides a summary of the visitor count results from the 2007 sampling activity. That activity included the seasonal and geographic coverage required, as described in the RSP, and did not result in any gaps relative to the intended coverage. With respect to the types and volume of data collected, the records from the 2007 visitor counts will provide a sufficient basis for subsequent interpretation and analysis to meet the study objectives for the visitor count data.

The visitor questionnaire component of the study yielded a database compiled from 600 usable surveys returned by participants. The sample size for these questionnaires is large enough to allow researchers to make inferences about the visitor population within approximately a 5 percent margin of error at the 95 percent confidence level. Based on the apparent overall level of recreational use for the study area as indicated in the PAD, the RSP, the implementation plan, and the data presented in Section 5.1.2, there is cause for confidence that the visitor questionnaire sample represents a substantial portion of the total visitor population.

Similarly, the area resident component of the study, when completed, will yield a database compiled from at least 580 usable surveys returned by participants. The confidence and error levels for this sample remain to be calculated, because there appear to be differences in recreational use of the study area between area residents living in Washington and British Columbia. Even if the sample is divided between these two area resident components, the respective samples appear to be large enough to allow inferences about the respective

populations within a 10 percent margin of error. Therefore, the area resident questionnaire should be sufficient to address the objectives for this study component.

SCL is not aware of any set of conditions or events occurring during the 2007 sampling season that would limit the applicability of the 2007 study results. Weather, access, and related external conditions that can influence recreation use patterns and levels appear to have been “normal” during the 2007 recreation season. There were no major adverse weather, road construction, or forest fire events that prevented or inhibited access to or use of the study area in 2007. Therefore, the field sampling and survey data collected during 2007 appear to be fully applicable for characterizing recreational use conditions in the study area.

6.1.2. Recreation Use Patterns and Levels

As noted in the RSP and in Section 2.1, the objectives of the Recreation Surveys are to 1) quantify existing recreational use in the Project area and 2) quantify visitor perceptions relative to Project-related recreation facilities, uses areas and opportunities. The interim study results described in Section 5 of this report, and the supporting data included in Appendices 2 through 5, represent a substantial and important first step toward meeting those objectives.

The results from the visitor counts component of the Recreation Surveys will be the primary tool used to quantify existing recreational use in the Project area. Section 5.1.2 summarizes results from the field sampling activity during the 2007 recreation season at the developed recreation sites in the study area. A comparable summary for the inventoried dispersed recreation sites is provided in Section 5.3.3. As noted in Section 5.1.2.2, processing and analysis of visitor count data for activity on Boundary Reservoir is continuing and is not available for presentation in the interim report; these results will be provided in the USR. At this point in the study, the visitor count data collected in the field have been processed and analyzed sufficiently to provide an overview of activity levels at the various recreation use areas of interest. This has been done by focusing on key measures of recreational use on a seasonal basis, and with respect to the range of use levels for a given area on a daily basis.

A substantial amount of work remains to be done to synthesize the large volume of raw data from the field sampling and apply it to develop the recreation use measures needed to meet the quantification objectives of the study. The data that have been collected to date will be sufficient to meet those objectives, however, and the desired measures of recreational use will be available for the final report. SCL will be able to expand the results from the 2007 sampling to develop a thorough picture of recreation use levels and patterns for the individual use areas within the study area (i.e., each of the developed recreation sites, the reservoir surface, and the dispersed sites). Recreation use measures for these component parts can then be aggregated, taking care to account for overlapping use or interaction effects, to compile an overall use estimate for the Project area.

Data from the visitor questionnaires and area resident questionnaires will be the primary tool used to quantify visitor perceptions about recreation facilities, use areas and opportunities. Results from the questionnaires, particularly the visitor questionnaires, will also be valuable in quantifying important visitor characteristics such as trip frequency, party size, daytime and overnight use as a share of total use, activity participation, and the distribution of use among

specific sites in the study area. The questionnaire results that are presented in Sections 5.1.3 and 5.1.4 of the interim report are the basic tabulations of the responses to the survey questions (in the case of the area resident questionnaires, they are the tabulation of responses from the approximately 70 percent of the returned surveys that have been entered to date). The questionnaire responses comprise a voluminous database that provides a wide range of opportunities for in-depth analysis of the results. As work on the Recreation Surveys element of the RRS continues, specific data contained in the questionnaire responses will be extracted and applied to develop measures necessary to quantify recreation use levels and patterns for the study area. SCL also anticipates that the questionnaire results will be reviewed and synthesized as a component of the Recreation Needs Analysis.

6.2. Dispersed Recreation

The field inventory of the dispersed recreation sites in the study area resulted in documentation of applicable conditions at 25 such sites, as discussed in Section 5.3.1. The geographic distribution of the dispersed sites shows a strong concentration in the northern part of the study area, as 21 of the 25 sites are located north of Metaline Falls. Just over half of the sites (13 of 25) are located along or near the shoreline in the northern part of Boundary Reservoir, while another 8 sites are located along secondary roads away from the reservoir. The four dispersed sites in the southern part of the study area include three at shoreline locations along the reservoir and one road-accessible site away from the reservoir.

Key observations from the inventory of conditions recorded at the dispersed sites are summarized as follows:

- The most common access condition, observed for 11 of the dispersed sites, is access only by boat from the reservoir. Another seven sites have access from a road and no water access, six sites having both boat-in and some means of land access, and one site is accessible only on foot.
- The 25 inventoried sites have sufficient space to accommodate an estimated total of 57 tents. Depending on the average size of the tent assumed, the practical combined capacity of the 25 sites would be from approximately 170 to 230 people at one time.
- All but one of the sites inventoried had at least one user-made fire ring, and seven sites had two or more fire rings.
- While three quarters of the inventoried sites are located close to the shoreline of Boundary Reservoir or Crescent Lake (two sites), almost all of those are situated upland relative to the shoreline (i.e., on a terrace above a low or high bank to the water),
- Evidence of trash, human and animal waste, tree damage, vegetation trampling, and social trails found in or near the dispersed sites was typically characterized as high for only four or five sites, and was considered to be non-existent, low or moderate at 80 percent or more of the sites.
- Based on the observed site conditions and the lack of dispersed sites noted as being located near sensitive resources, the inventory did not identify notable issues of resource damage associated with the existing level and distribution of dispersed recreation activity.

The review of existing public access conditions, as summarized in Section 5.3.2, indicated that access for dispersed recreation is limited by terrain, land ownership and/or road conditions in much of the study area. Accessibility by road within the northwest, northeast and southwest portions of the study area is generally good in the areas immediately adjacent to the primary roads, such as SR 31, POC 2975 and POC 3990/FR 3165. While there are some opportunities for dispersed recreation adjacent to the main roads, road access for dispersed recreation in the area north of Metaline Falls depends primarily on use of secondary roads. Most of the secondary roads in this area are open to the public, although they are generally primitive roads with native surfaces that are best suited for use by high-clearance vehicles. Accessibility for the general public is therefore limited, and can be difficult.

Direct access to Boundary Reservoir itself via road is quite limited. While SR 31 parallels the western side of the reservoir for several miles south of Metaline Falls and provides good visual access, physical access to the reservoir is limited by extensive private land ownership and (to a lesser degree) steep slopes in some locations. Road access for dispersed recreation east of the reservoir and south of Metaline Falls is minimal because of land ownership, terrain and road conditions. Elsewhere, direct road access to Boundary Reservoir is available in only two locations. SCL's West-side Access Road and its spur to the Forebay Recreation Area provide access to the shoreline that is suitable for use by standard passenger vehicles. FR 6200-305, which provides land access to the BLM Boundary Recreation Area, is the only other public road that extends to the reservoir. This road is relatively long and rough, and is best suited for use by high-clearance vehicles.

Trail access for dispersed recreation within the study area is minimal. With the exception of the short trail from the Sweet Creek Falls Rest Area to the creek, the review did not identify any existing, designated and maintained trails in the study area.

Developed recreation facilities provide access points for dispersed, water-based recreation at three locations. Those are the boat launches at the SCL Forebay Recreation Area near the northern end of the reservoir, Metaline Waterfront Park near the middle of the Project, and Campbell Park at Box Canyon Dam at the southern end of the reservoir. On the reservoir itself, the gradient and substrate conditions along much of the shoreline in the southern part of Boundary Reservoir are such that there are numerous locations where boaters could beach their watercraft for temporary shore-based activities, particularly at lower reservoir levels where more beach or gravel bar area is exposed. Despite the physical conditions, however, access in this area for shore-based activities is constrained by the predominance of privately-owned land adjacent to the reservoir. The shoreline along much of the northern part of the reservoir is bordered by steep, rocky canyon walls that provide little or no opportunity for shore-based activities. There are a number of locations where it is possible to access the shoreline, as indicated by the existence of many of the dispersed recreation sites discussed in Section 5.3.1 of the report. Compared to the southern part of the reservoir, however, those opportunities are considerably more limited north of Metaline Falls.

The field sampling program for visitor counts and distribution of visitor questionnaires during the 2007 recreation season provided a record of observed recreation use at the inventoried dispersed sites in the study area, as discussed in Section 5.3.3. These observations document a

pattern of relatively low use of the dispersed sites during the 2007 season. For all 25 inventoried sites, there were a total 58 occasions on which an inventoried site was recorded as occupied, or an overall average of 2.3 occupancies per site during the season. Most of these instances were observed camping activity, although in several cases day users were occupying a site that appears to typically receive overnight use.

The recreation sites installed by the management agencies at Crescent Lake (USFS) and the BLM Boundary Recreation Area (which are not truly dispersed sites) accounted for 43 percent of the total occupancy observed during dispersed-site monitoring in 2007, as indicated in Table 5.3-8. In addition, the two dispersed sites on the Crescent Lake shoreline accounted for 13 observed occupancies, or another 22 percent of the total observed use. Aside from these locations, the remaining dispersed sites included in the inventory received little observed recreational use, totaling 20 observed occupancies over a 5.5-month season. Two informal campsites located within 0.5 mile of SR 31 were in use 3 times and 5 times, respectively, with all of the observed uses occurring in September and October. The three dispersed sites in the South Reservoir sector accounted for 6 total use observations, which consisted of fishing and other day-use activities. Boat-in camping use at the dispersed sites was rarely observed, amounting to 5 total occupancies, and only occurred at three sites along the northern portion of the reservoir. In summary, the field sampling of dispersed recreation use in 2007 indicated a low level of overall use and a pattern of use generally distributed among the respective sites and areas, with no concentration of heavy use at any specific sites.

7 VARIANCES FROM FERC-APPROVED STUDY PLAN AND PROPOSED MODIFICATIONS

Work on RRS elements during 2007 reflects two variances from the FERC-approved plan for Study 21. The schedule for Study 21 provided in the RSP indicates that all elements of the Recreation Surveys are to be completed by the end of the first quarter of 2008. The implementation plan for the Recreation Surveys notes that it would be advantageous to hold the focus group meetings relatively late in the 2007 recreation season, so that participants can base their input on relatively fresh recollections, and that attendance at the meetings will likely be higher if the meetings do not occur during a peak period for vacation activity. Consequently, when the implementation plan was issued, SCL was planning to hold the focus group meetings during the early to middle part of September. Following additional discussion of this study element at the June 13, 2007, meeting with relicensing participants, SCL proposed to defer the focus group meetings to the second quarter of 2008 (early May, tentatively). This changed scheduling for the focus group meetings was expected to fit more efficiently with related or similar activities for the regional recreation analysis and the carrying capacity analysis, and to provide a better opportunity to validate data collected during 2007. Based on the agreement of the relicensing participants, the Recreation Survey activity has been postponed to 2008, and the results of the focus group meetings will be documented in the USR.

In addition, SCL had planned to develop a new visitor registry form for use at the Forebay Recreation Area during the 2007 season. Because SCL and TtEC staff could not determine a suitable site and means to keep a registry at this location secure and protected from the elements,

there was no registry at the Forebay Recreation Area in 2007. However, this area was sampled heavily by TtEC staff during the 2007 season.

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Appendix 1. Recreation Surveys Implementation Plan

***Study 21 Recreation Resource Study
Final Implementation Plan
For Recreation Surveys
Boundary Hydroelectric Project***

**Prepared for
Seattle City Light**

**Prepared by
Tetra Tech, Inc.**

August 2007

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Study 21 Recreation Resource Study

Implementation Plan for Recreation Surveys

1 BACKGROUND

This document describes how Seattle City Light (SCL) proposes to implement the recreation survey component of the Recreation Resource Study (Study 21) at the Boundary Hydroelectric Project. The Recreation Resource Study is one of the 24 technical studies approved by the Federal Energy Regulatory Commission (FERC) that SCL will conduct in support of an application for a new license for the Project.

This implementation plan expands on the direction included in the Revised Study Plan (RSP) that SCL submitted to FERC, and that FERC approved in March 2007 (Study Plan Determination letter from FERC to SCL dated March 15, 2007). It provides a specific plan for implementing a recreation survey that will produce information on use of existing and potential recreational resources and visitor perceptions in the Boundary Project area. The remainder of this implementation plan is divided into six sections addressing study tasks and methods (Section 2), the field sampling program (Section 3), other (non-field) data collection activities (Section 4), data compilation and analysis (Section 5), implementation (Section 6) and references (Section 7).

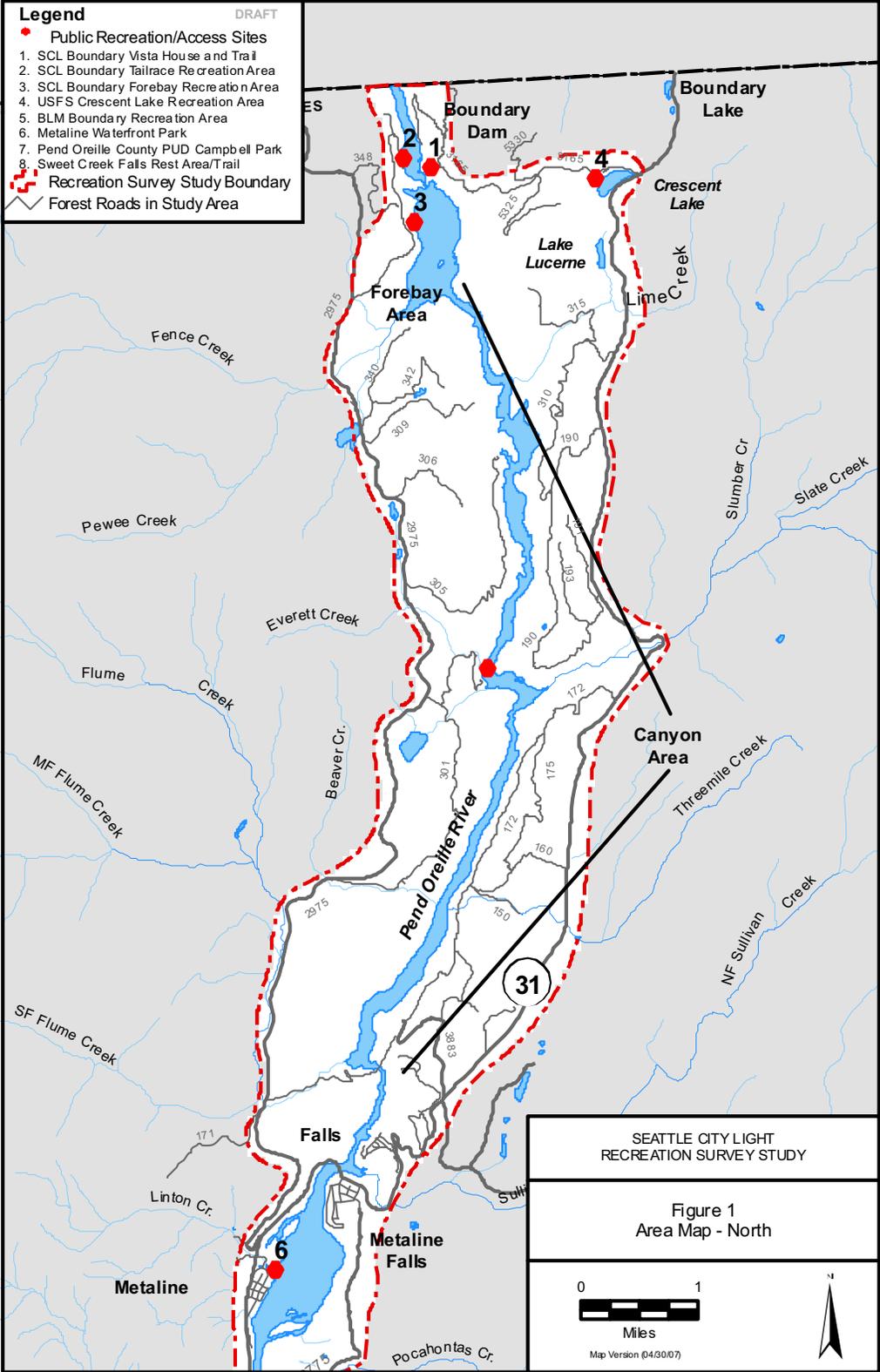
2 STUDY TASKS AND METHODS

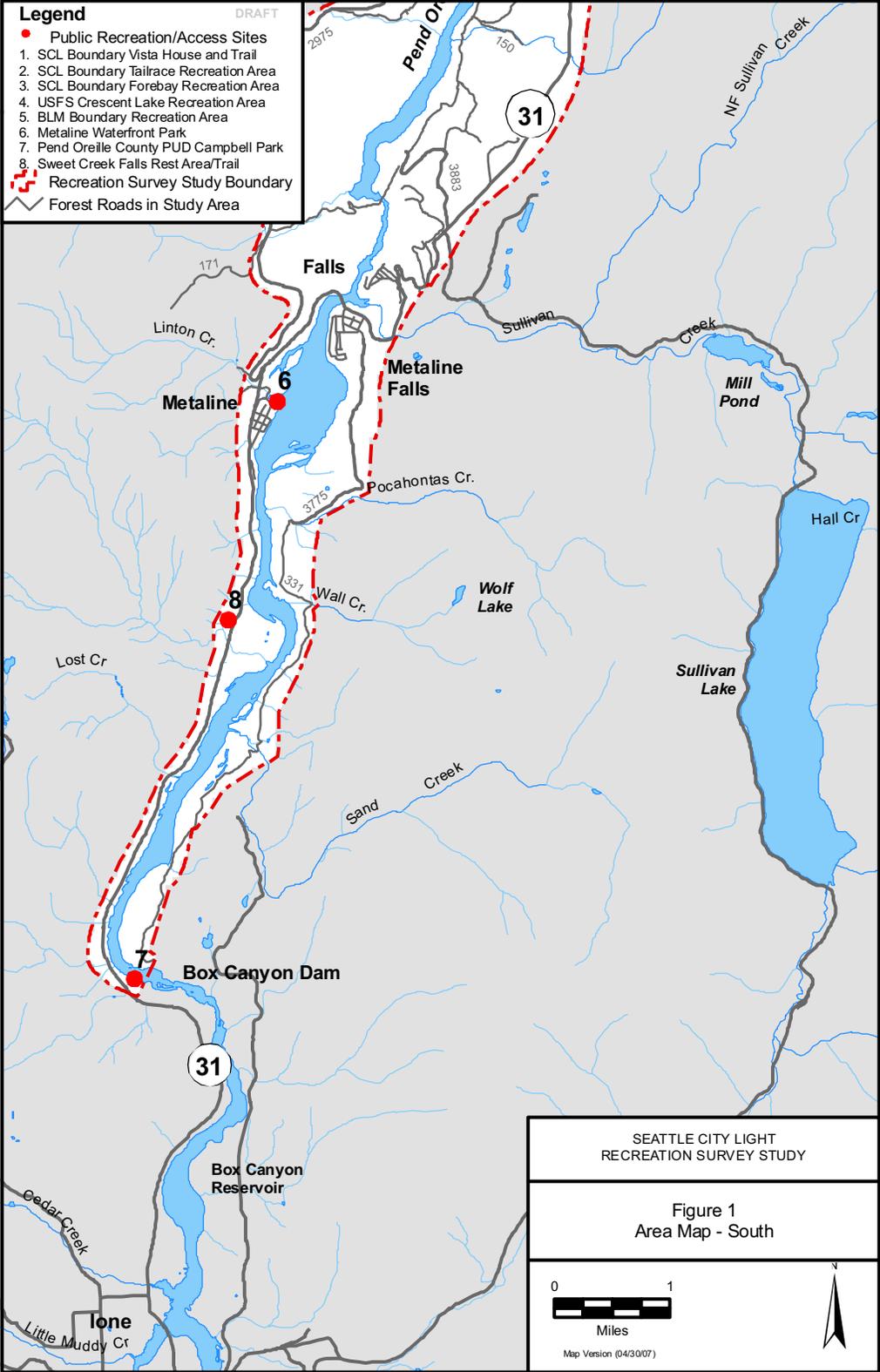
2.1 Study Area

For a definition of the study area, refer to page 13 in Study 21 of the RSP. Figure 1 provides a graphic representation of the study area; this same map will be included in the recreation survey instrument.

2.2 Tasks and Data Types

The RSP identifies four specific tasks included within the recreation survey component of Study 21. The tasks and the types of data associated with each task are summarized as follows (please see Section 2.4 in Study 21 of the RSP for additional information on each task):





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- **Review of Other Existing Regional Survey and Public Input Data** – This task involves making direct contact with agencies and other organizations in the general vicinity of the Boundary Project that may have respondent survey or other public input data that are relevant to the Boundary Project and Study 21. Applicable data from these sources are to be reviewed and used to help characterize visitor use levels and attributes for the Project area. The list of agencies and organizations that will be contacted is provided in Section 2.4 of the RSP.
- **Visitor Counts** – This task involves observing and recording visitor numbers and patterns at developed recreation sites, at dispersed recreation sites and use areas, and on the reservoir surface. This task also includes an informal survey of private-sector recreation providers and U.S. Forest Service campground concessionaires to obtain similar information for the facilities they operate. Section 2.4 of the RSP identifies the specific types of data to be obtained for each type of recreation site or area.
- **Project Area Visitor Questionnaires and Area Resident Questionnaires/Focus Groups** – This task involves use of pre-printed questionnaires to obtain response information from project area recreational visitors and local area residents. The task also includes convening three focus group meetings with area residents to obtain more detailed public input data from specific user groups.
- **Compile and Summarize Recreation Surveys Results** – This task involves assembling, synthesizing, interpreting and documenting the information derived through the three previous data collection tasks.

2.3 Data Collection Methods

The RSP prescribes six methods for the data collection tasks, as follows:

1. Sampling recreational users in the field through direct contact, with responses recorded on questionnaires by respondents (in which case completed questionnaires would be deposited in drop boxes and mailed back);
2. Sampling recreational users in the field through structured observations, with results recorded on visitor count forms;
3. Sampling recreational users in the field through self-recorded information on visitor registries provided at selected developed recreation sites;
4. Sampling area residents remotely, via distribution of questionnaires by mail;
5. Contacting recreation providers directly to obtain applicable data they may have; and
6. Convening focus group meetings in the local area and recording detailed input data provided by the participants.

For the purpose of effectively organizing data collection activities, these six methods are divided into two groups, consisting of sampling activities in the field and other (non-field) data collection. Specific plans for implementing the field sampling program are described in Section 3. Section 4 provides plans for the non-field data collection activities.

3 FIELD SAMPLING PROGRAM

The field sampling program will include the first two data collection techniques identified above to derive information on recreation use levels and patterns. Sampling visitors in the Project area to obtain respondent information will be conducted via a self-administered, drop-off questionnaire. In addition, sampling of visitors at the Project will include counts and structured observations recorded on standardized data forms. These methods will be used with visitors in all types of recreation settings at the Project, including developed recreation sites, dispersed recreation sites and use areas, and on the reservoir surface.

The visitor count and questionnaire components will be conducted through a single, integrated field sampling program. In the Boundary Project area, the visitor population is difficult to quantify because accurate and complete visitor use data are lacking. Certain subgroups, or clusters, can be identified, however. Clusters can be geographical, social, or temporal units. Cluster sampling involves a random sample of clusters with the complete census of objects, individuals, or groups in each cluster (Watson et al. 2000). The field sampling for Study 21 will employ a multistage cluster sampling method, as summarized below.

The first stage of the sampling design will involve selecting a random sample of weekdays and a complete census of weekends and holidays to ensure extensive coverage of the main recreation season. The sampled days provide clusters of time. Because the staff required to sample the entire Project Area during a given day would be prohibitively large, sampling will include a second stage with randomly selected combinations of sectors (geographic clusters) by day period (time clusters) to cover the various recreation sites and the early and late portions of each sampling day. When two field crews are working, two of these combinations, or clusters, will be drawn per sample day. When three crews are working, three clusters can be drawn per sample day. For any day of sampling, there are 12 possible clusters (i.e., six sectors multiplied by two day periods) to be sampled. The 12 possibilities will be numbered sequentially from 1 to 12, and a simple random sample will be drawn using a table of random numbers. Complete data, or a census, will be taken from each of the sampled clusters.

The advantages of cluster sampling (Watson et al. 2000) are (1) lower field costs because it requires the enumeration of individuals in selected clusters only; (2) the characteristics of clusters, as well as those for the population, can be estimated; (3) data can be combined with those obtained in subsequent samples because clusters are selected, rather than individuals (assuming the properties of the clusters do not radically change); and (4) field crews can perform multiple data collection tasks once they arrive on site, because they do not have to spend time systematically selecting individual visitors. The disadvantages of cluster sampling (Watson et al. 2000) include (1) a lower statistical efficiency than some other techniques, such as simple random sampling and (2) because visitors must be uniquely assigned to a cluster, the characteristics defining the clusters must be clear and unambiguous.

Study 13 in the RSP, Recreational Fishery Study, requires field sampling of anglers at the Project during the study period. The RSP indicates that anglers will be contacted at boat access points and bank-fishing areas, using questionnaires to record respondent information. Based on the

similarity in study locations and administration methods, sampling for the angler survey study will be integrated with the field program for Study 21. Anglers will be given the opportunity to complete the general Project Area Visitor Questionnaire and will be asked to respond to a targeted section of the questionnaire designed specifically to address the creel and angler survey information needs.

The RSP prescribes that visitor counts and questionnaire surveys will be conducted during a 12-month period beginning in 2007 and ending in 2008. (Surveying may need to be repeated if unusual events distort use patterns during the 2007 season). The RSP also indicates that sampling for the angler survey is to take place during both the 2007 and 2008 seasons. The integrated field sampling program for Studies 21 and 13 during 2007 will begin in mid-May 2007 and extend through the end of October 2007 (see Section 3.2 for additional discussion of scheduling). Assuming no additional field sampling for Study 21 is needed in 2008, sampling for the angler survey will continue independently in 2008; a parallel implementation plan for Study 13 will provide a complete discussion of the proposed delivery of this angler study.

The field sampling program for 2007 will conclude at the end of October, because of the logistical difficulties of sampling during the fall and winter period and the reduced efficiencies associated with generally low levels of recreational use during this period. Nevertheless, data collection related to fall and winter use of the study area will occur through a variety of other means. Specifically, (1) the Area Visitor Questionnaire includes a series of questions aimed at frequency and seasons of use; (2) the Area Resident Questionnaire (see Section 4.4) will provide a suitable vehicle for investigating activities and use patterns during the fall and winter seasons; (3) interviews with local area recreation providers (see Section 4.2) will include questions about activity patterns throughout the year; and (4) local area focus group meetings will provide an opportunity for in-depth discussions with user groups associated with fall and winter activities such as hunting and winter sports. Visitor registries (see Section 4.1) will also be maintained throughout the fall and winter at a select number of recreation sites in the study area, although these will be limited to sites that are open and accessible in the winter and will not likely provide information on dispersed recreation activities.

Pages 15 through 23 in Study 21 provide a discussion of information types, study locations, data forms and sampling methodology for the visitor count and Project Area Visitor Questionnaire components of Study 21. In several instances the RSP is not specific as to how information will be obtained, or it identifies options for specific data collection activities. Section 3.1 of this implementation plan discusses general objectives for the sampling program, primarily related to use numbers and patterns and their implications for how the sampling program should be conducted. Sections 3.2 and 3.3 provide additional implementation details concerning sampling activities by location within the study area (Section 3.2) and sampling frequency and effort (Section 3.3) to supplement the guidance provided in the RSP.

3.1 Sampling Objectives

Recreational use at the Boundary Project varies by season, week and day. Visitation to the Project is typically highest during approximately a 2-month period of the summer, extending from early July through the end of August or early September. Visitation at the project is

considered to be quite low from late fall through early spring, begins to increase in April or May, and generally continues to build up to peak-season levels before declining after Labor Day. Broad-based experience with typical patterns for most recreational uses and facilities of the type found at the Project indicate that visitor numbers on weekends and holidays are consistently higher than on weekdays, and overall activity levels within the day tend to peak in the early afternoon hours. Peak times for some specific pursuits, such as fishing, can vary from the more typical daily pattern.

Accurate estimates of the size of the user population at the Boundary Project in general or at specific sites are not available, so minimum sample sizes for each component of the population cannot be identified. The PAD indicates that total use for the SCL facilities at the Project (Vista House, Tailrace Recreation Area and Forebay Recreation Area) was reported at 20,251 recreation days for 1991, 21,741 recreation days for 1996 and 4,503 recreation days for 2002. The PAD explains that the 1991 and 1996 estimates are thought to be overstated due to methodological errors, while the 2002 estimate may be accurate but reflects a season in which security restrictions may have resulted in abnormally low use. SCL also reported a separate estimate of total use of the Forebay Recreation Area in 2002 at 3,833 visitors. Documented use estimates for Metaline Waterfront Park, Sweet Creek Falls Rest Area and dispersed recreation sites at the Project are not available (and will need to be developed through analysis of data obtained in Study 21). The PAD provides estimates of capacity utilization for Campbell Park in 2000 and 2001, but does not translate those ratios into actual visitor numbers.

Based on the incomplete and dated information currently available, it is conceivable that total annual use in the Boundary Project vicinity may be in the range of 3,000 to 5,000 visitors. Alternatively, if it assumed that total use of the SCL facilities is similar to the 1991 and 1996 estimates, and that Metaline Waterfront Park and Sweet Creek Falls receive substantial use (e.g., similar to the SCL figure for the Forebay Recreation Area), and all of that activity is included in the Project, total annual use could plausibly be 20,000 visitors or more.

Several aspects of the existing recreational use patterns, as described above, must be considered when determining the appropriate field sampling coverage for the study. The sampling program must obtain a sufficient number and distribution of data points to account for the variation in use geographically and over time. For both the visitor counts and the visitor questionnaires, the primary need is to ensure that the records for the respective types of sites span an appropriate time distribution; specifically, the pattern and frequency of observations should be representative of use conditions on a daily, weekly and seasonal basis. In other words, observations should be recorded at appropriate times of the day relative to the activities and sites, there should be adequate coverage of both weekend/holiday and weekday conditions, and sampling must occur during all months of the active recreation season. The sampling program presented in this implementation plan is designed to provide representative coverage of all key components of the user population, based on both the activities of interest, range of recreation settings and sites, and temporal variation in use patterns.

3.2 Sampling Sites and Activities

3.2.1 Geographic Sectors

Based on study-area geography, access considerations and the types and locations of recreational use, the study area will be divided into six sectors for scheduling and execution of cluster sampling in the field. The six geographic sectors are defined in Table 1.

Table 1. Geographic Sectors for Field Sampling Activities

Sector	Area/Sites
1. Northeast	Vista House, east bank of river below Boundary Dam and Tailrace Recreation Area*
2. Forebay	Forebay Recreation Area
3. SR 31 South	Sweet Creek Falls Rest Area and Campbell Park
4. Roaded Dispersed	Road-accessible dispersed recreation sites and Crescent Lake
5. North Reservoir	Dispersed sites and reservoir surface north of Metaline Falls
6. South Reservoir	Metaline Waterfront Park, dispersed sites and reservoir surface south of Metaline Falls

* The Preliminary Application Document [PAD] for the Project indicates that the Tailrace Recreation Area generally has a daily operating schedule of 10:30 a.m. to 4:30 p.m. during the primary recreation season. In addition, the Tailrace Recreation Area was closed during 2002 and 2003 for Project security reasons. Consequently, the sampling schedule will, at a minimum, need to account for the limited operating hours for the Tailrace site. If this area should be closed again in 2007 and 2008, the sectors and scheduling may need to be adjusted accordingly.

3.2.2 Sampling Activities by Sector

Field sampling activities will be accomplished by two-person survey crews based at a facility in Ione. A crew will conduct sampling activities within a specific sector each time the sampling calendar requires sampling to occur there on a given date and period of the day. For all six sectors, crews will record visitor counts and contact visitors to distribute questionnaires. In appropriate locations (primarily Sectors 2, 3, 5 and 6) survey crews will distribute questionnaires to anglers; a subset of questions intended specifically to address the needs of the creel and angler surveys described in Study 13 will be included in the visitor questionnaire.

3.2.2.1 Visitor Counts

Survey activities to support the visitor counts will vary somewhat by geographic sector, based on site and access conditions in each sector. For each sector, the crews will observe key characteristics of recreation use (e.g., the number of people present, the number of vehicles entering/exiting the site and types of recreation activities evident) and record this information on pre-printed forms. One version of the visitor count form will be used for recording observations at developed sites in Sectors 1 through 3 and 6. A second version will be used to record activities at road-accessible dispersed sites in Sector 4, while a third form will be used for visitor counts at shoreline dispersed sites and on-water counts for reservoir areas in Sectors 5 and 6 (see Appendix A for copies of the forms).

Survey crews will travel to Sectors 1 through 4 by car, while sampling in Sectors 5 and 6 will be accomplished primarily by boat. Boundary Reservoir has been divided into two sectors to facilitate travel and data collection in each sector within a 6-hour block of time that will be used as the basic sampling period (see additional discussion below). The North Reservoir (Sector 5) and South Reservoir (Sector 6) are similar in length, although the travel time for a circuit of the

South Reservoir is considerably less than for the North Reservoir. Existing information documented in the PAD indicates that known dispersed recreation sites are not numerous (approximately 10 or less) and are concentrated in the northern part of the reservoir, indicating that sampling activity in this sector could require stops at multiple on-shore locations.

Once on station, survey crews will generally remain stationary, or nearly so, while observing and recording visitor counts in Sectors 2 and 3; these sectors consist of developed sites and can easily be covered from a relatively central location at the site. It is anticipated that the survey crew will record a complete census of the site upon arrival and at the end of the sampling period, and will attempt to track visitor arrivals and departures during the period. Arrival/departure data will be important for post-field calculation of length of stay and/or turnover rates for day-use facilities.

The specific pattern of sampling activity will vary somewhat among the geographic sectors, based on conditions unique to each sector. The prescribed approach for sampling each sector is summarized as follows:

1. Sector 1, Northeast: A crew will approach sites in this sector by traveling north from Metaline Falls on SR 31, then turning west on FR 3165 and proceeding to the Vista House. The crew members will take a census of activity at the Vista House upon arrival. Then, they will continue to observe activity and contact visitors to distribute surveys for the remainder of the sampling period. The visitor count observations at Vista House will include visitors and activities at the Tailrace Recreation Area and on the east bank of the Pend Oreille River below Boundary Dam, both of which can be readily observed from the vantage point offered by Vista House. Crew members sampling at Vista House can also contact visitors using the river bank area via a secondary road from a junction near the Vista House. Due to access and logistical constraints, survey crews will not directly contact visitors using the Tailrace Recreation Area. SCL will have the tour guides distribute questionnaires to all visitors taking tours of the powerhouse/tailrace area, and questionnaires distributed when the Northeast sector is being sampled will be specifically marked. The registry at the Visitors' Gallery will provide an additional source of data for this site.
2. Sector 2, Forebay: A crew will approach the Forebay Recreation Area by traveling north from Metaline on County Road 2975, then turning east on the Boundary Dam access road. The crew will take a census of activity at the site upon arrival, then, will continue to observe activity and contact visitors to distribute surveys for the remainder of the sampling period. Depending on the level of activity, one crew member may remain at a central location from which arriving and departing visitors can be observed while the other circulates among people on site to distribute questionnaires.
3. Sector 3, SR 31 South: A crew will begin work in this sector by traveling north from Ione on SR 31 to Campbell Park, at the upstream end of Boundary Reservoir. The crew will make an initial census of visitors present and contact users to distribute surveys. Following a sweep at Campbell Park the crew will continue north about 4 miles to the Sweet Creek Falls Rest Area. The crew will remain at this site for most of the remainder of the sampling period, recording visitor count observations and distributing questionnaires. Depending on the level of activity, one crew member may walk the trail to the falls while the other remains at the rest area. Approximately 15 to 30 minutes

before the end of the sampling period, the crew will return to Campbell Park for another census at that site before ending the sampling period. (This approach may result in less precise information about length of stay and specific activities for Campbell Park visitors, compared to the other developed sites. This is not expected to jeopardize results, however, because Pend Oreille County PUD will presumably be able to provide additional information about use at Campbell Park, and information collected from the questionnaires and visitor registry will be used to supplement the visitor count data.)

4. Sector 4, Roaded Dispersed: Little is currently known about use of Forest Service roads by visitors attempting to access Boundary Reservoir. Consequently, a separate geographic sector for field sampling has been developed to address this question. This sector will include inventoried dispersed sites, Crescent Lake, and forest roads that are near Boundary Reservoir (see Figure 1). A survey crew will sample this sector by traveling north from Ione in a generally counter-clockwise loop. The typical travel route for this circuit will include SR 31 on the west side of the Pend Oreille River between Ione and Metaline Falls; continuing north via SR 31 to sample portions of key Forest Service road systems west of the highway; traveling west on FR 3165 to cover the area between Crescent Lake and Vista House; proceeding west across Boundary Dam to the Boundary Dam access road; and completing the circuit by traveling south on County Road 2975 and SR 31 again. Based on current knowledge of accessibility and dispersed use conditions, the plan for regular sampling of Sector 4 is to cover the following locations: (1) the SCL wildlife lands south of Sand Creek, to be observed from the Eagles' Nest viewpoint on SR 31; (2) the area between Pochontas Creek and Sand Creek, primarily the known dispersed-use area around Wolf Creek, to be observed from the unnamed pullout on SR 31; (3) an inventoried dispersed campsite on FR 3100-172 approximately ¼ mile west of SR 31; (4) an inventoried dispersed campsite at the junction of FR 3100-190 and 3100-193, approximately ½ mile west of SR 31; (5) the area along FR 3165, including 3165-325 to its junction with 3165-328 and the short spurs at Crescent Lake; and (6) the portion of FR 6200-340 (toward Pewee Creek) that can be traveled by vehicle. On alternate sampling occasions the crew will travel the same circuit in a clockwise direction, so that the respective road sections will not always be sampled at the same times and in the same sequence. In all sampling periods the crews will take instantaneous visitor counts at inventoried dispersed sites and will distribute questionnaires to visitors at those sites. The crews will count visitors that they encounter along the route during travel, but no vehicles in motion will be stopped. Based on the geographic distribution of these road systems and the time required to cover them in one circuit, this sector will need to be sampled as a roving census with no time available for extended observation at most specific locations. Exceptions to this condition are the pullouts along SR 31 opposite Sand Creek and Wolf Creek, where crews will make extended observations for approximately 1 to 2 hours at each location. (On three representative holiday or weekend days during the summer season, survey crews sampling Sector 4 will make a full circuit of FR 3100-172 and the loop formed by FR 3100-190 and 3100-310, including the -197 and -316 spurs. Early sampling results for Sector 4 indicated minimal dispersed recreation activity occurred had along these roads. Consequently, on June 13, 2007 SCL and stakeholders agreed to sample the full circuit of Sector 4 infrequently during the remainder of the study period, and to reallocate sampling time for Sector 4 as described above. Sampling activity on FR 3100-

172 and FR 3100-190/310 may be increased again in the fall if observations indicate these areas are being used for hunting or other late-season activities.)

5. Sector 5, North Reservoir: Survey crews will travel by boat to record water-based recreational activity and use at shoreline dispersed recreation sites in Sector 5. Due to access constraints, all sampling for Sector 5 will involve launching a boat at the Forebay Recreation Area ramp, with north-south travel to Metaline Falls and a subsequent return trip. (Survey crews will need to trailer a boat from their base in Ione to the Forebay ramp on each sampling occasion, and travel and launch time will unavoidably consume from 1 to 2 hours of each sampling period.) For each specified sampling period, a field crew will make a sweeping directional count of the northern reservoir zone and record progressive counts of watercraft operating within that area using pre-printed forms (see Appendix A). As indicated in the RSP, observations will include number of watercraft by type and location, number of people, types of activities, and other pertinent information. The same crew will also record dispersed recreation activity during the same circuit. Coverage of dispersed recreation activity will include (1) activity at defined sites identified through the dispersed site inventory (another component of Study 21) and (2) fishing, swimming, picnicking, camping, and other activities along the shoreline. To minimize the potential for double-counting of observations, survey crews will perform the sweeping watercraft counts and dispersed activity counts on opposing legs of the sampling circuit (e.g., take watercraft counts on the north-south leg and dispersed counts on the return trip).
6. Sector 6, South Reservoir: The sampling pattern for Sector 6 will be similar to that described for Sector 5, although sampling in this sector will include coverage of Metaline Waterfront Park. Survey crews may need to launch boats at Metaline Waterfront Park for sampling of the South Reservoir zone, or they may have access to an existing dock at Box Canyon Motel near the southern end of Sector 6. In either case, the basic sampling pattern will be for the crew to make a complete sweep of the South Reservoir zone (as described above for Sector 5) at both the beginning and end of the sampling period, with extended observation at Metaline Waterfront Park between reservoir sweeps. Based on access conditions for the Sand Creek area on the east side of the reservoir, this circuit will also include a stop at the SCL Boundary Wildlife Preserve and a pedestrian check of activity in the interior of the parcel, which would not be visible from the Eagles' Nest viewpoint on SR 31. This will result in two counts of boat activity for this sector in each sampling period. Survey crews will be trained to note distinguishing features of watercraft counted, so they can avoid counting boats that were previously counted. (Due to access and travel constraints, the time available for sampling in Sector 6 will be divided proportionally between the on-water counts and sampling at Metaline Waterfront Park.)

3.2.2.2 Visitor Questionnaires

Administration of the Project Area Visitor Questionnaire will follow a predetermined schedule designed to provide representative coverage of the types of visitors, recreation settings, and times of day at the Project area for the period May 19 through October 31, 2007. Survey crews will contact visitors for the purpose of distributing questionnaires in conjunction with visitor counts and observations. (As noted previously, when the Northeast sector is being sampled, security

guards will be instructed to distribute questionnaires to visitors traveling to the Tailrace Recreation Area, while survey personnel stationed at the Vista House will record visitor counts in the Tailrace area.)

The crews will attempt to contact all visitors encountered at each sampled sector during the corresponding time of day (e.g., Forebay Recreation Area from 6:00 a.m. to 12 p.m.) Clusters will be randomly selected from a list of all possible clusters for each sampling day. Upon arriving on site, survey crews will contact visitors, introduce themselves and the study while communicating the importance of participating to help understand recreation use at the site. After these introductions, crews will ask visitors if they would be willing to complete the survey booklet. It is anticipated that the survey crews will be able to contact every visitor at a site under most conditions. If a site is particularly busy during a given sampling period, and it is not possible for the two person crew to take a census, the crews will contact as many visitors as possible while trying to match the diversity of users present at the site. For example, if a census is not possible, for each type of user present (anglers, pleasure boaters, campers, day visitors, etc.) crews will contact both males and females and visitors of all age groups represented. Crowded conditions when only a portion of the visitors can be contacted are expected to be rare.

Visitors who are willing to participate will be handed a questionnaire, a small golf pencil, and a self-addressed, postage-paid envelope. Visitor names, addresses, and telephone numbers will be collected at time of distribution so that reminders can be mailed. When visitors refuse to accept a survey, the crew will ask them to quickly answer 1 or 2 key questions (such as their home ZIP or postal code, primary destination at the Project, or frequency of visits to the Project) to later check for non-response bias (i.e., are the people who refused different from those who completed and returned the survey). Visitors will be instructed to complete the survey based on their present visit to the Project area. Visitors will be instructed to return their completed survey directly to one of the crew members, deposit it in one of several drop boxes that will be installed at recreation sites, or return it by mail.

The method of administration proposed in this implementation plan allows for a somewhat longer survey instrument that provides more response data, compared to reliance on completing interviews on-site. Crews will be onsite for approximately six hours, which allows them to collect completed surveys without rushing visitors. Boaters and anglers will have ample time to complete the survey while on the water, and the drop boxes will be placed at the boat ramps and in other highly visible locations. The self-administered, drop-off approach is designed to avoid the pressure on the visitor to complete a lengthy survey in the field, and minimize potential bias due to interviewer effects. One potential disadvantage to use of drop boxes is that a visitor accepting a blank questionnaire may be less inclined to complete it on his/her own time, compared to a visitor being interviewed in the field. The survey crews will be instructed to monitor trash receptacles at recreation sites to see if excessive numbers of questionnaires are being discarded.

In addition to the mailed reminders designed to boost response rate, an incentive program will be used to increase participation. At the time of initial contact, visitors will be informed that if they return a completed survey, they will be entered into a drawing for a cash prize. Specifically, the questionnaire instructions say that completed surveys will be entered into a series of prize

drawings to occur during and at the end of the 2007 season. At the end of the questionnaire, a space will be provided for respondents to provide contact information so that they may be notified if they are selected for a prize. Pools of 5 respondents each will be selected for cash prizes in three separate drawings that will occur in July, September and November. Individual prize amounts in each drawing will range from \$10 to \$100. Visitors will be assured that their personal information will not be associated with their responses or shared with third parties. Visitor contact information will be detached from the questionnaire.

SCL will pre-test the Area Visitor Questionnaire in the field at least 2 weeks prior to the planned beginning of formal field sampling. Study staff will distribute copies of the draft survey instrument to a number of SCL Project employees and to visitors encountered at key recreation sites, such as the Forebay Recreation Area and Metaline Waterfront Park, to get their feedback on the instrument. Recipients will be asked to write comments about the questions or the survey approach in the margins, and will be questioned about the length of the survey and other key factors. Information gained from the pre-test will be used to refine the draft survey instrument as needed before the sampling program begins. In addition, the first week or two of actual sampling will be used as a test period to identify any issues with administration of the study (both visitor count and survey activity). If survey crews receive visitor resistance to taking or completing the questionnaire, or if they get negative feedback about the questions or means of returning completed questionnaires, SCL will attempt to make adjustments in response to the feedback.

Appendix B provides a draft Project Area Visitor Questionnaire.

3.2.2.3 Angler Surveys

In practice, administration of the angler survey component of Study 21 (to satisfy the information needs for Study 13) will be nearly identical to and incorporated within the description above for the visitor questionnaires. As indicated in Table 1, anglers will be contacted in Sectors 2, 3, 5 and 6. The objective will be to get anglers to complete the standard visitor questionnaire, so that anglers will not be underrepresented in that sample, and provide the response information desired for Study 13. Consequently, the questionnaire to be used for the angler survey will be treated as a subset of the basic survey instrument, to be provided to all anglers contacted during the study period with the Area Visitor Questionnaire. Appendix B is a draft questionnaire that includes the targeted questions for the angler survey.

Provision of drop boxes and self-addressed, postage-paid envelopes will increase the response rate for the angler survey component of the study, as will the incentive program discussed above.

3.3 Sampling Frequency and Effort

As discussed in Section 3.1, accurate estimates of the size of the user population at the Boundary Project in general and for specific sites are not available. Therefore, minimum sample sizes for the total user population or individual components of the population cannot be identified at this time. Because there is no reliable estimate of current use, the cluster sampling approach described in this plan is an appropriate method, as discussed previously. With the proposed approach, it is not necessary to define specific numerical targets for sample size based on

proportions of total current use. (Moreover, specifying a fraction of the population to be included in a sample is an inadequate basis for selecting a target sample size [Fowler 2002]. That is because the occurrence of sampling error primarily depends on the actual sample size and composition and the existence of non-response bias, and not on the proportion of a population represented in the sample).

The cluster sampling program described in this implementation plan will provide comprehensive sampling coverage of developed and dispersed sites, overnight and day users, and water-based and land-based activities within the study area. It is not foreseen that sample size considerations will indicate a need to continue sampling into the 2008 season for Study 21.

Sampling in the field for Study 21 will be scheduled based on a standard 6-hour block of time for sampling activity (including travel time and related activity, such as launching and trailering boats). For the entire survey period, the following daily sampling periods will be applied:

- 0600 – 1200 (6 a.m. to 12 p.m.)
- 1200 – 1800 (12 p.m. to 6 p.m.)

Because extended daylight hours occur during most of the summer, sampling from 1800 to 2000 hours (6 to 8 p.m.) is proposed during July and August. This will be achieved by extending the work day from 12 to 14 hours (i.e., two 7-hours periods) for July and August. Based on the number of sectors defined for the Project area, 2 daily time blocks, and the number of days in the season, a total of 274 sampling sessions are proposed as a means to yield adequate coverage of the variability of recreational use at the Project. This estimate ensures that field crews will have sufficient time to conduct visitor counts and observations in addition to administering the Project Visitor Questionnaire. Table 2 provides a summary of the distribution of sampling activity and effort that is planned for Study 21.

Table 2. Planned Distribution of Sampling Activity and Effort, 2007 Boundary Recreation Season

Month	Sampling Days	Weekend/Holiday Sampling Days (#sampling periods)	Weekdays (#sampling periods)	Field Crews/Personnel	6-hour Sampling Periods Per Day/(Month)	Sampling Hours/Month (personnel time in field)
May	7	5 (10)	2 (4)	2/4	2 (14)	168
June	23	9 (18)	14 (28)	2/4	2 (46)	552
July	23	10 (30)	13 (39)	3/6	3 (69)	828
August	23	8 (24)	15 (45)	3/6	3 (69)	828
September	23	11 (22)	12 (24)	2/4	2 (46)	552
October	15	6 (12)	9 (18)	2/4	2 (30)	360
Total	114	49 (116)	65 (158)	4-6	274	3,288

The sampling program summarized in Table 2 includes sampling on all weekend days and holidays (Memorial Day, July 4th and Labor Day) from May 19 through September 30, plus 6 weekend days in October 2007; this effort allocation will result in weekend/holiday sampling on 49 days. A simple random sample of 57 percent of all weekdays during this period will also be drawn, for a subtotal of 65 weekdays. The proposed sampling program will result in sampling

activity on 114 days from May 19 through October 31, or approximately 69 percent of all days in that period.

To provide the labor resources needed to cover the proposed number of sampling sessions, two full-time, 2-person field survey crews will work continuously from spring through fall, providing a baseline level of sampling activity for the entire study period. A third crew will be added for the peak summer season (late June through August). Field crews are assumed to work 8-hour days (one 6-hour sampling period in the field for each crew, plus time for preparation and follow-up, e.g., data entry before and after field work) during the study period. The proposed sampling program and staffing plan results in 3,288 total hours of labor time. (Time required to recruit and train field personnel, mobilize for the study and process study results is not included in this estimate.)

A detailed calendar of specific sampling locations (geographic sectors) by day period on individual dates will be developed during the mobilization period for the study. Table 3 summarizes the planned allocation of sampling periods and effort by sector for the 2007 season. Ongoing management of the sampling program will include accommodation for any unplanned sampling disruptions due to adverse weather or personnel availability. In general, the objective will be to replace missed sampling periods and locations with equivalent activity on days or periods that were otherwise not scheduled for sampling.

Because overnight camping and multiple day-use activities at the Forebay Recreation Area make it a key recreation site, this sector will be over-sampled, i.e., it will receive a level of sampling effort that is slightly larger than what would result from an even distribution among the six sectors (see Table 3). Likewise, Metaline Waterfront Park will also be over-sampled because it is highly accessible to visitors and appears to be a popular site (Table 3). Based on early indications of quite limited roaded dispersed use within the study area, SCL believes it would be advisable to delete sampling of FR 3100-310/190 and 3100-172 from all but 4 or 5 of the weekend sampling periods allocated to Sector 4, and to eliminate weekday sampling on these roads when Sector 4 work is scheduled. This change is now incorporated in the discussion of sampling for Sector 4.

Table 3. Effort Allocated to Sampling by Weekend, Weekday, and Sector

Sector	# Weekend Sample Periods	#Weekday Sample Periods	Total Effort (Workdays)	Crew Hours on Site
	(6-hr. periods)	(6-hr. periods)	(12-hr. periods)	
1. Northeast	18	25	21.5	258
2. Forebay	22	29	25.5	306
3. SR 31 South	20	27	23.5	282
4. Roaded Dispersed	16	23	19.5	234
5. North Reservoir	18	25	21.5	258
6. South Res./MWP	22	29	25.5	306
Total	116	158	137	1,644*

MWP = Metaline Waterfront Park

* Total personnel-hours are estimated at 3,288.

3.4 Staffing and Equipment

Two 2-person field crews working from spring through fall, with a third 2-person crew during July and August 2007, is required for this sampling program. The preferred option for staffing this field program is to hire 2-3 local residents, preferably from the northern part of Pend Oreille County so that each crew may have a member who is familiar with the area and the local population. This strategy is expected to increase visitor participation by reducing potential impressions on the part of the local visitors that the survey crews are outsiders who do not understand their needs. Job announcements for survey crew members and a crew chief will be published in local news media outlets and posted at suitable locations near the Project area. Announcements will also be circulated among SCL Boundary Project staff, as family members of Project employees are considered to represent a good potential source of personnel for this field effort. Organizations that frequently hire seasonal or temporary workers (such as the Colville National Forest) will be contacted to help identify and recruit potential candidates. If standard recruiting methods prove insufficient to supply the needed field personnel, other staffing options such as subcontracting with regional universities and colleges, research organizations or consultants will be considered.

Equipment and supplies needed to implement the recreation survey study are itemized as follows:

- High-clearance cars or trucks, preferably with 4-wheel drive and towing capacity (and related fuel)
- Boats and trailers (to accommodate relatively rare occasions when both north and south reservoir sectors are drawn at the same period on the same day), to be towed to various access points on Boundary Reservoir (and related fuel)
- Pre-printed visitor count forms and questionnaires, on both standard and write-in-the-rain paper
- Hand-held global positioning system (GPS) units
- Dispersed-site inventory logs and maps
- 6 drop boxes for receiving questionnaires at Vista House, Forebay Recreation Area, Tailrace Recreation Area, Metaline Waterfront Park, Sweet Creek Falls Rest Area and Campbell Park (pending agreement by Pend Oreille County PUD)
- Miscellaneous field supplies: golf pencils, clipboards, binoculars, radios, first-aid kit, etc.
- Computer and printer access for data entry, processing, and storage
- Photocopier access for copying forms and questionnaires completed on a daily basis

4 OTHER (NON-FIELD) DATA COLLECTION ACTIVITIES

The RSP describes several methods of data collection to be used in Study 21, other than the field sampling activities discussed above in Section 3. These include use of visitor registries,

interviews with local area recreation providers, a questionnaire-based survey of area residents and focus-group meetings with area residents.

4.1 Visitor Registries

As described in the RSP, visitor registries have recently been in use at the Vista House and Tailrace Recreation Area to encourage visitors to voluntarily report basic information about their use of the Project area. SCL is in the process of modifying the registry content for the Vista House and the Tailrace Recreation Area, and developing a new registry for use at the Forebay Recreation Area campground. New registries are not yet available, but are expected to be in place by approximately the middle of May.

4.2 Local Area Provider Interviews

The RSP prescribes conducting interviews with representatives of local recreation providers for two components of Study 21. Those include the initial review of existing regional survey and public input data and obtaining visitor count data from private-sector resort/campground operators, including concessionaires operating the Mill Pond and Sullivan Lake campgrounds administered by the U.S. Forest Service. The RSP describes the sources to be contacted and the types of information to be collected:

- Inventory of facilities, including any plans to expand or reduce facilities and services
- Facility use levels and capacity
- Season of operations
- Visitor information including origin, length of stay, party size, activities, etc.
- Anecdotal information about trends (in use levels or patterns)
- Fees charged and average funds expended by RV and tent campers

These efforts will involve initial contacts by telephone, possible transfer of information by mail or e-mail, and personal interviews with provider representatives in selected instances. Based on the relatively small number of potential sources and the varying types of information desired, this task will not require development of standard questionnaires or forms equivalent to the visitor questionnaire. Sheets will be prepared for recording these data based on the topic headings identified above.

4.3 Area Resident Mail Survey

Because there may be differences in perceptions, recreation activity patterns, and needs between local area residents and non-resident visitors to the Project, a separate questionnaire will be mailed to local residents in the Project vicinity. The Project vicinity as defined in Section 2.4 of the RSP is limited to the towns of Metaline, Metaline Falls and Ione in Washington and Salmo and Trail in British Columbia. The Area Resident Questionnaire (see Appendix C) will be developed to replicate most of the survey items used in the Project Area Visitor Questionnaire. Each household in the three Washington State towns will receive a questionnaire by mail; the

total population of these towns is approximately 800 persons, which means that the total number of households is conceivably less than 400. Drawing a sample from such a small population could produce unacceptable levels of response and sampling errors, so a census will be taken. For the two towns in Canada, residents will be randomly selected from a list of residents developed from county tax records, homeowners associations, and/or telephone directories. The total population of the British Columbia communities is estimated to be 10,000 people. Based on this population size, a target of approximately 370 completed surveys would achieve a 5% margin of sampling error at the 95% confidence level (Salant and Dillman 1994).

Four mailings are proposed for the Area Resident Questionnaire:

1. A personalized but short pre-notice letter will be mailed to tell people that the survey is coming and to inform residents that their participation in this important study is greatly appreciated.
2. One week after the first mailing, the cover letter, questionnaire, and stamped return envelope will be mailed.
3. Four to eight days after the surveys are mailed, each recipient will be sent a post card to thank those who have responded and to remind and encourage those who have not to please complete and return the questionnaire.
4. Three weeks after the second mailing, a new packet with a new personalized letter, questionnaire, and stamped return envelope will be sent out to everyone who has not returned the survey.

The draft Area Resident Questionnaire will be developed using the Area Visitor Questionnaire as a base. The introduction and specific questions in the survey instrument will be edited as necessary for adaptation as the Area Resident Questionnaire. When completed, this instrument will be included as Appendix C.

4.4 Local Area Focus Groups

The RSP indicates that focus group meetings will be held with area residents to obtain additional, detailed information about recreational use and preferences. The RSP anticipates a total of three focus group meetings, with selection of the groups to be defined by recreational activity types. Invitations to participate in focus group meetings will be based on information obtained from user organizations and other contacts within the local communities. The focus group meetings will occur in the vicinity of the Project and will cover discussions of use (or non-use) of the Project area and questions related to aesthetic considerations.

At this time, sufficient background information does not exist to provide specific details about the user types that will be identified to orient the focus group meetings or the agenda(s) that will be developed to guide discussion at the meetings. Pertinent scheduling considerations are that (1) it would be advantageous to hold the focus group meetings relatively late in the 2007 recreation season, so that participants can base their input on relatively fresh recollections and (2) attendance at the meetings will likely be higher if the meetings do not occur during a peak period for vacation activity. Consequently, the focus group meetings are proposed during the

early to middle part of September. Based on this scheduling, more detailed planning for the focus group meetings will be developed, based on additional background information developed through early study activities.

4.5 Regional Recreation Analysis

A separate study is to be conducted in 2008 to analyze current and future recreational use, opportunities and needs in the *region* of the Boundary Project area (see page 25 of the RSP). The objective of this Regional Recreation Analysis is to collect and analyze recreation information related to supply and demand of regional recreation resources. This is an important study element in planning for future recreation development, if needed, on or near Project lands. The boundary of the regional study area will be defined when planning for that study begins. Providers of recreation services within the defined region will be contacted and asked to provide relevant information. Potential questions include the types of inquiries that are being received from recreation enthusiasts in the region and what these recreation providers are currently telling people about the Project area. (For more detailed information on the Regional Recreation Study, see pages 25-32 in the RSP.)

5 DATA COMPILATION AND ANALYSIS

As discussed in Section 2.1, the fourth and final task in Study 21 is to compile and summarize the recreation surveys results. In summary, the survey crews will record visitor counts on the data forms included as Appendix A. Project-area visitors will record questionnaire responses on the survey instrument included in Appendix B. At the end of every sampling day, survey personnel will log, photocopy and file the original records (count forms and completed questionnaires) from that day's sampling activity at the local base of operations. On a weekly basis, field staff will forward packages of the original records to the Tetra Tech office in Bothell for custody, retaining the copies at the Project. Tetra Tech will maintain an up-to-date master file of completed field records, sorted by type of record (visitor count, visitor questionnaire, etc.) and date.

Data will periodically be tabulated for each type of visitor sampling activity, and a downstream analysis of the results will be performed according to guidance provided in the RSP. Separate databases will be developed to store results for each type of monitoring, and raw data will be entered into the databases periodically during the sampling season. Complete initial analysis of the results will be conducted after the survey work is concluded at the end of October, and used to support development of the interim report for the study. Supplemental analyses can be performed as needed to support other recreation tasks (such as the needs analysis). A final summary report documenting the implementation of the recreation survey study and its results will be prepared in 2008.

6 IMPLEMENTATION SUMMARY

A number of activities will need to be completed before implementing the field sampling program. Several other study activities will occur following the field sampling work to develop

and document the results of the study. The implementation activities for this study component are generally summarized as follows:

1. Recruit, interview and hire field crew personnel
2. Finalize visitor count forms and questionnaires
3. Assess actual field conditions applicable to the sites in the study area that will be monitored, to determine what (if any) adjustments to the sampling plan are needed
4. Train field personnel in study procedures
5. Make arrangements for vehicles, boats and other logistical needs
6. Field test proposed survey techniques, and adjust as necessary
7. Conduct field visits within the study area to implement the sampling plan
8. Process, store and evaluate field observation and questionnaire results (ongoing during the field sampling program, and after sampling is completed)
9. Analyze field and non-field survey data (following completion of data collection activities)
10. Prepare study report

7 REFERENCES

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Salant, P. and Dillman, D. A. 1994. How to conduct your own survey. New York: Wiley.

Watson, A. E., Cole, D. N., Turner, D. L., Reynolds, P. S. 2000. Wilderness recreation use estimation: A handbook of methods and systems. Gen. Tech. Rep. RMRS-GTR-56. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 198 p.

Appendix 2. Visitor Count Documentation

Appendix 2a. Visitor Count Forms

Appendix 2b. Visitor Count Tables by sector/site

Appendix 2c. Vista House Visitor Registry Data

Appendix 2a. Visitor Count Forms

**Boundary Hydroelectric Project
Study 21 Recreation Surveys
Visitor Count Data Form – Developed Sites
(Sectors 1, 2, 3 and 6 [Metaline Waterfront Park only])**

Observation sheet# _____	Sector/site/observation point: ____ / _____ / _____
---------------------------------	---

BEFORE START TIME

Observer arrival time _____ (official/military time)

Observer name _____

Date (mm/dd/yy) ____/____/____

Day of Week (circle): M T W R F S SU

Sampling period (circle): AM PM

Check visitor registry; record name, position, or number (if applicable) _____

AT START TIME

Weather: Gen temp _____ **Sky/precip** _____ **Wind** _____

Observation/count start time _____

Total number of people in view at start time _____

Number of parking spaces occupied _____ (Vehicles ____ Trailers ____ Veh. w/trailers ____)

Number of campsites occupied (if applicable) _____ (Camper Trailers/RV's ____ Tents ____)

Number of picnic sites occupied (if applicable) _____

DURING OBSERVATION INTERVAL (record counts with hash marks in groups of five)

Number of vehicles entering site during observation interval _____

Number of vehicles leaving site _____

Total number of boats launched _____

Total number of boats taken out _____

AT QUIT TIME

Observation quit time _____

Number of people in view at quit time _____

Number of parking spaces occupied _____ (Vehicles ____ Trailers ____ Veh. w/trailers ____)

Number of questionnaires handed out during interval _____

Number of questionnaires collected: Drop box ____ **From visitors** ____ **Total** ____

Check visitor registry, # of new entries since start time (if applicable) _____

**Boundary Hydroelectric Project
 Study 21 Recreation Surveys
 Visitor Count Data Form – Developed Sites
 (Sectors 1, 2, 3 and 6 [Metaline Waterfront Park only])**

Visitor Observations

Case #	Time	Party Info.		Gender (approx.)		Recreation Use			
		Size	Type ¹	#Male	#Female	Actv1	Actv2	Actv3	Actv4
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									

¹Type (party): F = family C = couple I = individual G = apparent non-family group

Activity Codes: C=camping P=picnicking SW=swimming/sunbathing VSP=viewing
 scenery/photography F=fishing H=hunting WV=wildlife viewing BL=boat
 launching/retrieving HW=hiking/walking B=bicycling DT=drive through/restroom stop
 MR=motorized recreation WP=walking/pets SP=sports O=other

OBSERVER COMMENTS (noteworthy events, facility issues, visitor conflicts, complaints, conversations overheard, etc.)

Boundary Hydroelectric Project
 Study 21 Recreation Surveys
Visitor Count Form
Sector 4: Dispersed Roaded Sites

Observation sheet# _____	Starting side of river (circle): West East
<u>BEFORE START TIME</u>	<u>AT OBSERVATION START TIME</u>
Observer name(s) _____	Weather: Gen temp _____ Sky/precip _____ Wind _____
Date (mm/dd/yy) ____/____/____	Start time _____ (official/military time)
Day of week (circle): M T W R F S SU	
Sampling period (circle): AM PM	

Site-specific Counts, Observer A (Record the number of visible people, tents, etc. per site using hash marks for each.)

Road Site	Site Occupied Y/N	# People at Site	# Cars/ Trucks	# Off-Road Vehicles (describe)	# Campers/ Pop-ups	# Tents	# Water Craft (describe)	# Camp Fires	# Other (describe)
SR31	Visitor Pullouts								
Eagles Nest									
Wolf Creek									
Hooknose									
3100	172								
4RD172-1									
4RD172-2									
3100	190/310								
4RD190-1									
4RD310-1									
3165	305 Crescent Lake								
4RD305-1									
4RD305-2									
3165	310 Crescent Lake Campground								
4RD310-1									
4RD310-2									
4RD310-3									
3165	325/315								
4RD325-1									
4RD325-2									
6200	340/342								
4RD340-1									
CR2975	Visitor Pullouts								
Met. Falls									
Totals	---								

Boundary Hydroelectric Project
 Study 21 Recreation Surveys
Visitor Count Form
Sector 4: Dispersed Roaded Sites

Observation sheet# _____

Recreation Activity Counts Observer B (Record the number of individuals visibly doing each activity along the route and at numbered sites, using hash marks.)

Road	Time in	Time out	C	P	SW	VSP	F	H	HW	B	Motorized Recreation (Code, #)	O (describe)	Total # People
Eagles Nest													
Wolf Creek													
Hooknose													
3100-172													
3100-190/310													
3165-305													
3165-310													
3165-325/315													
6200-340													
2975													
Totals	---	---											

Activity Codes: C=camping P=picnicking SW=swimming/sunbathing VSP=viewing scenery/photography
 F=fishing H=hunting WV= wildlife viewing/birding GP=gathering food/forest products
 HW=hiking/walking B=bicycling SP=sports O=other
 4X4=driving jeep/pickup/SUV ATV=driving quad/4-wheeler OHM=driving off-highway motorcycle

OBSERVATION QUIT TIME _____
NUMBER QUESTIONNAIRES HANDED OUT _____ **NUMBER COLLECTED** _____

OBSERVER COMMENTS (road issues, unusual vehicles/behaviors, concerns, visitor conflicts/complaints, conversations overheard, etc.):

Boundary Hydroelectric Project
 Study 21 Recreation Surveys
Visitor Count Form
Sector 5: On-Water Boat Counts/Shoreline Dispersed Use

Observation sheet# _____ <u>BEFORE START TIME</u> Observer name(s) _____ Date (mm/dd/yy) ____/____/____ Day of week (circle): M T W R F S SU Sampling period (circle): AM PM	<u>Sector (circle):</u> North Reservoir South Reservoir <u>AT OBSERVATION START TIME</u> Weather: Gen temp _____ Sky/precip _____ Wind _____ Put-in location/boat launch _____ Start time _____ (official/military time boat leaving launch)
--	--

DURING OBSERVATION INTERVAL
General Counts Observer A (Record the number of visible watercraft, people, etc. using hash marks.)

On-Water Sweep	# Boats (Total craft)	# Power Boats	# Non-power (i.e. Kayaks, Canoes, etc.)	# Personal Watercraft	# Water Skiers	# People on Board (Total, all craft)	# People on Shore (Total)	# other (describe)
Travel Dir. Out: _____								
Travel Dir. Back: _____								
Totals								
<u>Dispersed Site:</u>								
	# People at Site	# Tents	# Off-Road Vehicles (*describe)	# Camp Fires	# Boats/Watercraft Present (describe)	# Other (describe)	# Other (describe)	# Other (describe)
5NRFI-1								
5NRBLM-1								
5NRBLM-2								
5NRBLM-3								
5NREI-1								
5NREI-2								
5NREI-3								
5NRLC-1								
5NRMB-1								
5NRDE-1								
5NRDE-2								
5NRDE-3								
Totals								

*4X4=driving jeep/pickup/SUV ATV=driving quad/4-wheeler OHM=driving off-highway motorcycle

Boundary Hydroelectric Project
 Study 21 Recreation Surveys
Visitor Count Form
Sector 5: On-Water Boat Counts/Shoreline Dispersed Use

Observation sheet# _____

Recreation Activity Counts Observer B (Record the number of individuals visibly doing each activity on the water, shoreline, and at inventoried dispersed sites; use one leg of a square per person, and a diagonal mark for the fifth person.)

Sweep /Site	Time in	Time out	C	P	SW	VSP	FB	FS	PB	WS	PD	PWC	O (describe)	Total # People
South														
North														
5NRFI-1														
5NRBLM-1														
5NRBLM-2														
5NRBLM-3														
5NREI-1														
5NREI-2														
5NREI-3														
5NRLC-1														
5NRMB-1														
5NRDE-1														
5NRDE-2														
5NRDE-3														
Totals	---	---												

Activity Codes: C=camping P=picnicking SW=swimming/sunbathing VSP=viewing scenery/photography FB=fishing/boat
 FS=fishing/shore WV=wildlife viewing/birding PB=pleasure boating WS=water skiing PD=paddling canoe/kayak/other craft
 PWC=personal watercraft use O=other

QUIT TIME _____

NUMBER QUESTIONNAIRES HANDED OUT _____ **NUMBER COLLECTED** _____

OBSERVER COMMENTS (use issues, unusual watercraft/behaviors, concerns, visitor conflicts/complaints, conversations overheard, etc.):

Boundary Hydroelectric Project
 Study 21 Recreation Surveys
Visitor Count Form
Sector 6: On-Water Boat Counts/Shoreline Dispersed Use

Observation sheet# _____ <u>BEFORE START TIME</u> Observer name(s) _____ _____ Date (mm/dd/yy) ____/____/____ Day of week (circle): M T W R F S SU Sampling period (circle): AM PM	<u>Sector (circle):</u> North Reservoir South Reservoir <u>AT OBSERVATION START TIME</u> Weather: Gen temp _____ Sky/precip _____ Wind _____ Put-in location/boat launch _____ Start time _____ (official/military time boat leaving launch)
--	--

DURING OBSERVATION INTERVAL

General Counts Observer A (Record the number of visible watercraft, people, etc. using hash marks.)

On-Water Sweep	# Boats (Total craft)	# Power Boats	# Non-power (i.e. Kayaks, Canoes, etc.)	# Personal Watercraft	# Water Skiers	# People on Board (Total, all craft)	# People on Shore (Total)	# other (describe)
Travel Dir. Out: _____								
Travel Dir. Back: _____								
Totals								
Dispersed Site:	# People at Site	# Tents	# Off-Road Vehicles (*describe)	# Camp Fires	# Boats/Watercraft Present (describe)	# Other (describe)	# Other (describe)	# Other (describe)
6SRWC-1								
6SRGS-1								
6SRGS-2								
SCL-BWP								
Other 1								
Other 2								
Other 3								
Other 4								
Totals								

*4X4=driving jeep/pickup/SUV ATV=driving quad/4-wheeler OHM=driving off-highway motorcycle

Boundary Hydroelectric Project
 Study 21 Recreation Surveys
Visitor Count Form
Sector 6: On-Water Boat Counts/Shoreline Dispersed Use

Observation sheet# _____

Recreation Activity Counts Observer B (Record the number of individuals visibly doing each activity on the water, shoreline, and at inventoried dispersed sites; use one leg of a square per person, and a diagonal mark for the fifth person.)

Sweep /Site	Time in	Time out	C	P	SW	VSP	FB	FS	PB	WS	PD	PWC	O (describe)	Total # People
South														
North														
6SRWC-1														
6SRGS-1														
6SRGS-2														
SCL-BWP														
Other 1														
Other 2														
Other 3														
Other 4														
Totals	---	---												

Activity Codes: C=camping P=picnicking SW=swimming/sunbathing VSP=viewing scenery/photography
 FB=fishing/boat FS=fishing/shore WV=wildlife viewing/birding PB=pleasure boating WS=water skiing PD=paddling
 canoe/kayak/other craft PWC=personal watercraft use O=other

QUIT TIME _____

NUMBER QUESTIONNAIRES HANDED OUT _____ **NUMBER COLLECTED** _____

OBSERVER COMMENTS (use issues, unusual watercraft/behaviors, concerns, visitor conflicts/complaints, conversations overheard, etc.):

Appendix 2b. Visitor Count Summaries

Appendix 2b
Visitor Count Summary
Sector 1, Vista House

Observation Point	Date	Day	Period	Start Time	Quit Time	Duration (min)	Total Parties	Total People
Vista House	6/5/2007	T	AM	6:45	8:55	130	0	0
Vista House	6/5/2007	T	PM	13:20	15:50	150	0	0
Vista House	6/7/2007	R	AM	7:00	9:15	135	0	0
Vista House	6/19/2007	T	PM	13:10	16:15	185	2	6
Vista House	6/24/2007	SU	AM	7:45	10:40	175	0	0
Vista House	6/24/2007	SU	PM	12:45	16:00	195	4	9
Vista House	6/25/2007	M	PM	13:00	17:00	240	0	0
Vista House	7/2/2007	M	PM	14:00	19:15	315	3	5
Vista House	7/6/2007	F	AM	7:00	12:05	305	1	1
Vista House	7/7/2007	S	PM	14:00	18:00	240	9	25
Vista House	7/13/2007	F	AM	7:00	11:00	240	0	0
Vista House	7/14/2007	S	AM	7:00	12:00	300	0	0
Vista House	7/15/2007	SU	AM	7:00	12:00	300	4	8
Vista House	7/15/2007	SU	PM	14:10	19:00	290	6	12
Vista House	7/19/2007	R	PM	14:00	19:00	300	2	4
Vista House	7/24/2007	T	PM	15:00	19:00	240	3	7
Vista House	7/25/2007	W	AM	6:45	11:45	300	2	5
Vista House	7/28/2007	S	AM	6:45	11:45	300	2	6
Vista House	8/2/2007	R	AM	7:00	12:10	310	2	5
Vista House	8/6/2007	M	PM	14:23	19:08	285	4	9
Vista House	8/7/2007	T	AM	7:30	12:15	285	6	13
Vista House	8/8/2007	W	PM	14:15	18:20	245	2	4
Vista House	8/10/2007	F	AM	7:30	12:30	300	4	8
Vista House	8/12/2007	SU	PM	13:50	19:00	310	9	15
Vista House	8/17/2007	F	PM	13:55	19:00	305	5	9
Vista House	8/18/2007	S	AM	7:45	12:45	300	6	20
Vista House	8/18/2007	S	PM	12:30	19:10	400	10	25
Vista House	8/27/2007	M	AM	7:10	11:30	260	0	0
Vista House	8/28/2007	T	AM	7:00	12:00	300	1	2
Vista House	9/8/2007	S	PM	13:30	17:30	240	6	17
Vista House	9/9/2007	SU	AM	6:55	11:20	265	1	2
Vista House	9/15/2007	S	PM	13:00	17:10	250	8	22
Vista House	9/19/2007	W	AM	6:50	10:50	240	1	3
Vista House	9/21/2007	F	AM	7:10	11:00	230	1	1
Vista House	9/24/2007	M	AM	7:00	11:15	255	2	4
Vista House	10/3/2007	W	AM	7:00	11:00	240	1	1
Vista House	10/6/2007	S	PM	12:45	16:50	245	7	16
Vista House	10/8/2007	M	AM	7:00	11:00	240	0	0
Vista House	10/13/2007	S	AM	7:00	10:15	195	1	2
						10,040	115	266

Appendix 2b
Visitor Count Summary
Sector 3, Sweet Creek Falls Rest Area

Site	Date	Day	Period	Start Time	Quit Time	Duration (min)	Total Parties	Total People
Sweet Creek	5/19/2007	S	PM	15:30	17:30	120	4	12
Sweet Creek	5/20/2007	SU	AM	8:48	8:48	124	1	1
Sweet Creek	5/28/2007	M	AM	6:25	8:33	128	1	1
Sweet Creek	6/3/2007	SU	AM	6:30	8:45	135	2	4
Sweet Creek	6/7/2007	R	AM	6:30	8:50	140	5	6
Sweet Creek	6/10/2007	SU	PM	13:00	15:25	145	5	11
Sweet Creek	6/12/2007	T	PM	14:35	17:05	150	3	3
Sweet Creek	6/16/2007	S	AM	6:35	9:00	145	1	2
Sweet Creek	6/23/2007	S	PM	15:40	18:25	165	5	15
Sweet Creek	6/25/2007	M	PM	12:30	15:00	150	8	20
Sweet Creek	7/2/2007	M	AM	6:30	9:15	165	2	3
Sweet Creek	7/5/2007	R	AM	6:33	9:33	180	5	7
Sweet Creek	7/8/2007	SU	PM	13:30	16:15	165	15	32
Sweet Creek	7/9/2007	M	PM	16:30	19:10	160	3	4
Sweet Creek	7/10/2007	T	PM	13:44	16:02	138	7	18
Sweet Creek	7/17/2007	T	AM	6:20	8:50	150	3	4
Sweet Creek	7/17/2007	T	PM	13:21	18:21	300	7	15
Sweet Creek	7/19/2007	R	PM	13:48	16:42	174	10	22
Sweet Creek	7/22/2007	SU	PM	13:27	16:35	188	13	26
Sweet Creek	7/24/2007	T	PM	16:25	19:15	170	5	7
Sweet Creek	7/24/2007	T	AM	6:15	9:15	180	6	11
Sweet Creek	7/26/2007	R	PM	13:44	16:22	158	8	12
Sweet Creek	7/29/2007	S	AM	6:25	9:08	163	1	1
Sweet Creek	7/31/2007	T	PM	13:30	16:15	165	6	15
Sweet Creek	8/3/2007	F	AM	6:45	9:15	150	1	1
Sweet Creek	8/4/2007	S	PM	16:40	19:35	175	9	25
Sweet Creek	8/5/2007	SU	PM	13:35	16:35	180	17	38
Sweet Creek	8/6/2007	M	AM	6:44	9:30	166	4	7
Sweet Creek	8/9/2007	R	PM	16:40	19:35	175	4	6
Sweet Creek	8/11/2007	S	AM	7:30	10:05	155	6	9
Sweet Creek	8/12/2007	SU	PM	16:42	19:30	168	5	14
Sweet Creek	8/21/2007	F	PM	17:00	19:20	140	4	7
Sweet Creek	8/26/2007	SU	PM	16:30	19:00	150	8	23
Sweet Creek	8/26/2007	SU	AM	6:30	8:35	125	0	0
Sweet Creek	8/28/2007	T	AM	6:45	9:20	155	2	3
Sweet Creek	8/31/2007	F	PM	13:32	16:35	183	10	25
Sweet Creek	9/1/2007	S	PM	15:00	17:30	150	23	65
Sweet Creek	9/6/2007	R	AM	6:50	8:40	110	3	4
Sweet Creek	9/18/2007	T	PM	15:00	17:30	150	5	8
Sweet Creek	9/20/2007	R	AM	6:30	9:15	165	5	6
Sweet Creek	9/21/2007	F	PM	12:30	14:55	145	7	11
Sweet Creek	9/22/2007	S	PM	15:05	17:30	145	5	15
Sweet Creek	9/27/2007	R	AM	6:30	8:55	145	3	4
Sweet Creek	9/29/2007	S	PM	12:50	15:15	145	11	25
Sweet Creek	10/5/2007	F	PM	12:30	14:45	135	3	5
Sweet Creek	10/6/2007	S	PM	14:45	17:15	150	5	8
Sweet Creek	10/7/2007	SU	AM	7:15	9:15	120	3	6
Sweet Creek	10/16/2007	T	PM	11:30	13:45	135	5	9
Sweet Creek	10/26/2007	F	PM	14:50	16:50	120	0	0
						7,595	274	576

Appendix 2b
Boundary Security 2007 Recreation Log,
Forebay Recreation Area

Date	# Overnight Campers	# Vehicles	# Boats	# Picnickers	Total People
5/6/2006	2	3	1		4
5/9/2006	2	3	1		4
5/12/2006	3	9	1		10
5/13/2006	2				6
5/14/2006	0	2		6	9
5/15/2006					
5/17/2006	1	1			2
5/24/2006	2	3			
5/25/2006	5	7			13
5/26/2006	7	9	4		16
5/27/2006	16	10	4		25-30
5/28/2006	17	18	4		30-35
5/29/2006	6	19	3	2	15
5/30/2006	1		1		
5/31/2006	1	2	1		2
6/1/2006	2	3	1		4
6/2/2006	3	5	1		8
6/6/2006		1	1		
6/9/2006	2	2			3
6/10/2006	6	11	2	30+	30+
6/12/2006	6	3			6
6/17/2006					
6/18/2006	1			4	15
6/20/2006	2	2			15
6/21/2006	1	2			2
6/22/2006	4	6	3		9
6/23/2006	5	8	2		12
6/24/2006	22	11	10	10	33
6/25/2006	18	9	2		18
6/26/2006	5	6	3		15
6/27/2006	4	6	2		15
6/29/2006	4	5			
6/30/2006	6	10	3	1	30
7/1/2006	9	15	6	6	27
7/2/2006	14	14	5	3	45+
7/3/2006	13	15	6	31	40
7/4/2006	10	11	9	6	30
7/5/2006	4	6			10
7/6/2006	4	5	2		8
7/7/2006	3	10	2		20
7/9/2006	12	10	3		24
7/10/2006	3	8	3		11
7/11/2006	2	2	3		6
7/12/2006	3	4	3		10
7/14/2006	5	6	3		12
7/15/2006	9	9	5		20
7/16/2006	11	14	3		30
7/17/2006	2	2			5
7/18/2006	4	5			8

Appendix 2b-4
Boundary Security 2007 Recreation Log,
Forebay Recreation Area

Date	# Overnight Campers	# Vehicles	# Boats	# Picnickers	Total People
7/19/2006					
7/21/2006	7	6	5	4	23
7/22/2006	9	25	12	20	40+
7/23/2006	9	8	4		24
7/24/2006	8	4	1		20
7/25/2006	7	3	3		20
7/26/2006	11	9	5	6	40
7/27/2006	20	15	5	3	50+
7/28/2006	22	22	6	10	55+
7/29/2006	36	28	12		100
7/30/2006	36	20	6		40+
7/31/2006	8	6	2		15
8/1/2006	15	14	4		35
8/2/2006	11	11	5		20
8/4/2006	22	15	5	15	37
8/5/2006	35+	38	12	40+	75+
8/6/2006	7	8	11		16
8/7/2006	8	9	10		16
8/8/2006	7	10	6		20
8/9/2006	12	12	4		30
8/12/2006	20	16	6		45
8/13/2006	20	18	6		40+
8/14/2006	15	7	2		15
8/15/2006	4	4	2		8
8/17/2006	7	4	2		15
8/18/2006	9	12	3		9
8/19/2006	30	18	8	6	36+
8/20/2006	30	21	5		30+
8/24/2006	15	12	3		30
8/25/2006	30	17	6		30+
8/26/2006	35+	22	6		35+
8/27/2006	12	8	2		12
8/28/2006	19	10	1		19
8/29/2006	19	2	10		19
8/30/2006	10	2	1		10
8/31/2006	16	9	2		30+
9/1/2006	65+	33	13		65+
9/2/2006	65	40	16		75
9/3/2006	40	40	20		100
9/4/2006	17	20	15		35
9/5/2006	7	9	6		20
9/6/2006	7	10	5		20
9/7/2006	8	10	4		15
9/9/2006	12	10	3		20+
9/20/2006	8	7	2		10
10/1/2006	8	8	1		12

Appendix 2c. Vista House Visitor Registry Data

Table A.2c-1. Vista House registry of visitors from Washington.

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	Primary Destination
Ellensburg	WA	98926	5/11/2007	11:30	2	1	1	1	
Collville	WA	99114	6/1/2007	13:30	2	1	1	1	vista point
Colville	WA	99114	6/2/2007	17:30	2	1	1	1	unknown
Kennewick	WA	99336	6/2/2007	16:20	2	1	1	1	
Medical Lake	WA	99022	6/8/2007	17:38	2	1	1	1	will spend the night close to Metaline Falls
Spokane	WA	99205	6/8/2007	11:30	2	2	0	1	SR 31
Ione	WA	99139	6/10/2007	14:00	2	1	1	1	Sunday drive (Ione)
Colville	WA	99114	6/12/2007		3	2	1	1	scenic drive
Ephrata	WA	98823	6/14/2007	12:55	2	1	1	1	Boundary Dam
Spokane	WA	99205	6/16/2007	14:20	4	2	2	1	Grandpa's house in Metaline
Metaline Falls	WA	99153	6/16/2007	14:10	3	1	2	1	view point
Ione	WA	99139	6/16/2007	15:20	3	1	2	1	all of it
Spokane	WA	99212	6/16/2007	13:30	4	2	2	1	
Seattle	WA		6/18/2007	18:30	2	1	1	1	out on viewing deck
Spokane	WA	99206	6/19/2007	14:30	3	2	1	1	Sullivan Lake
Rice	WA	99167	6/21/2007	15:30	2	1	1	1	Home
Ione	WA	99139	6/22/2007	14:30	3	0	3	1	Home
Fairchild AFB	WA	99011	6/23/2007		4	1	3	1	Sullivan Lake
Colbert	WA	99005	6/23/2007	13:15	2	1	1	1	
Metaline Falls	WA	99153	6/23/2007	14:15	2	1	1	1	
Arlington	WA	98223	6/24/2007		4	1	3	1	Metaline Falls
Centralia	WA	98531	6/27/2007	8:50	2	1	1	1	road trip
Colville	WA	99114	6/29/2007	15:00	2	1	1	1	Crawford State Park
Spokane	WA	99205	6/29/2007	18:00	2	1	1	1	everywhere
Metaline Falls	WA	99153	6/29/2007	11:00	2	1	1	1	Home
Suquamish	WA	98392	6/30/2007	14:44	2	0	2	1	Metaline Falls
Seattle	WA	98144	7/1/2007	15:55	2	1	1	1	Priest Lake, Idaho
Chewelah	WA	99109	7/1/2007		2	1	1	1	
Spokane	WA		7/1/2007	12:30	5	3	2	1	Sullivan Lake
Spokane	WA	99201	7/1/2007	13:45	2	1	1	1	Sullivan Lake
Rosalia	WA	99170	7/2/2007	13:37	2	1	1	1	Sullivan Lake East Campground

Table A.2c-1, continued...

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	Primary Destination
Colbert	WA		7/2/2007	12:45	2	1	1	1	
Colville	WA	99141	7/2/2007	14:30	2	1	1	1	
Spokane	WA		7/3/2007		2	1	1	1	
Liberty Lake	WA	99019	7/4/2007	17:00	2	1	1	1	Mt. Linton Campground
Spokane	WA	99208	7/5/2007	12:15	16	11	5	4	just touring
Malden	WA	99149	7/5/2007		4	2	2	1	
Spokane	WA	99205	7/5/2007	18:17	2	1	1	1	Boundaru Dam Campground
Federal Way	WA	98001	7/6/2007	13:46	2	1	1	1	Ione
Spokane	WA	99201	7/6/2007	12:17	2	1	1	1	Boundary Campgrounds
Spokane	WA	98208	7/6/2007	13:05	2	1	1	1	Sullivan Lakw
Medical Lake	WA	99022	7/6/2007	13:10	6	3	3	1	Cusick/Medical Lake
Mead	WA	99021	7/7/2007	21:00	2	1	1	1	Z Canyon
Ione	WA		7/7/2007	14:00	4	2	2	1	
Chewelah	WA		7/8/2007	15:55	4	2	2	1	
Seattle	WA	98133	7/10/2007		2	1	1	1	In the information house
Metaline Falls	WA	99153	7/10/2007		10	3	7	1	Out in the information house
Spokane	WA	99207	7/10/2007	14:16	5	4	1	1	Leo Lake
Ione	WA	99139	7/11/2007	11:05	5	2	3	1	
Spokane	WA	99208	7/12/2007	late	2	0	2	1	in the Vista House
Spokane	WA	99224	7/12/2007	14:00	5	2	3	1	
Spokane	WA		7/13/2007	17:40	1	1	0	1	Spokane
Rice	WA	99167	7/13/2007	19:30	2	1	1	1	Kaslo, BC
Everett	WA	98203	7/14/2007		2	1	1	1	
Spokane	WA		7/14/2007		2	0	2	1	
Cashmere	WA	98815	7/14/2007	14:41	2	1	1	1	Boundary Dam Campground
Port Townsend	WA	98368	7/14/2007	15:15	4	3	1	1	
Colville	WA	99114	7/15/2007	15:15	1	0	1	1	Sullivan Lake/Boundary Dam
Spokane	WA	99208	7/16/2007	12:00	3	2	1	2	
Zillah	WA	98953	7/16/2007	12:25	5	2	3	1	Fruitvale, BC
Metaline Falls	WA	99153	7/19/2007	19:00	5	3	2	1	here
Ione	WA	99139	7/19/2007	20:20	3	2	1	1	Driving
Kettle Falls	WA	99141	7/23/2007	12:15	1	1	0	1	Vista House

Table A.2c-1, continued...

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	Primary Destination
Ione/Metaline Falls	WA	99139	7/23/2007	12:30	17	7	10	2	
Uniontown	WA	99179	7/24/2007		3	1	2	1	
Bremerton	WA	98310	7/26/2007	15:15	12	6	6	1	Caves
Mead	WA		7/26/2007		2	1	1	1	general area
Yakima	WA	98902	7/27/2007	14:00	1	0	1	1	General area
North Bend	WA	98045	7/27/2007	15:00	2	1	1	1	Ione
Spokane	WA	99207	7/27/2007		4	4	0	1	Crescent Lake
Spokane	WA	99205	7/27/2007		4	4	0	1	Bigfoot's lair
Richland	WA	99352	7/28/2007	16:00	4	2	2	1	Mill Creek
Spokane	WA	99206	7/28/2007	17:15	7	3	4	1	Lake Sullivan
Spokane	WA		7/28/2007		4	2	2	1	Sullivan Lake
Springdale	WA	99173	7/28/2007	12:30	2	1	1	1	just driving
Colville	WA	99114	7/29/2007	18:00	2	1	1	1	Gardner Cave
Spokane	WA	99212	7/29/2007	12:55	2	1	1	1	Ione
Spokane	WA	99218	7/29/2007		1	0	1	1	
Spokane	WA	99218	7/29/2007		2	1	1	1	
Collville	WA	99114	7/29/2007		2	1	1	1	
Nine Mile Falls	WA	99026	8/7/2007	12:30	5	1	4	1	Lake Sullivan
Ephrata	WA	98823	8/7/2007	15:10	4	2	2	1	North Idaho
Spokane	WA	99217	8/7/2007		4	2	2	1	Vista House
Spokane	WA	99203	8/7/2007	11:31	3	1	2	1	passing through: Nelson BC to Spokane
Vancouver	WA	98665	8/7/2007	12:15	2	1	1	1	Ione
Moses Lake	WA	98837	8/7/2007	15:10	4	2	2	1	North Idaho
Deer Park	WA	99006	8/8/2007	11:30	4	3	1	1	Ione, Metaline
Kennewick	WA	99337	8/9/2007	13:32	4	3	1	1	
Federal Way	WA	98023	8/9/2007	14:50	4	2	2	1	Sun Valley
Enumclaw	WA	98022	8/9/2007	11:50	4	2	2	1	
Addy	WA	99101	8/10/2007	12:25	11	6	5	1	
Addy	WA	99101	8/10/2007	12:30	11	6	5	1	Sullivan Lake
Kirkland	WA	98033	8/10/2007	15:00	3	1	2	1	Banff, Canada
Kirkland	WA	98033	8/10/2007	15:02	3	1	2	1	Banff, Canada

Table A.2c-1, continued...

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	Primary Destination
Newport	WA	99156	8/10/2007		4	2	2	1	
Colville	WA	99114	8/11/2007	13:15	3	1	2	1	Scenic loop/WA, Canada, WA
Chattaroy	WA	99003	8/11/2007	20:00	4	2	2	1	
Colville	WA	98844	8/12/2007	16:52	8	3	5	2	Everywhere, Sullivan Lake
Spokane	WA	99218	8/14/2007	14:15	4	2	2	1	
Cheney	WA	99004	8/16/2007	19:30	6	3	3	1	Mill Pond
Spokane	WA	99208	8/16/2007	13:30	4	2	2	1	
Colville	WA	99114	8/16/2007	14:10	4	2	2	1	
Seattle	WA	98125	8/16/2007	15:02	2	1	1	1	Creston, BC
Spokane	WA	99205	8/16/2007	16:00	6	1	5	2	Sullivan Lake
Spokane	WA	99206	8/16/2007		6	4	2	2	Crescent Lake, Lookout
Spokane	WA	99201	8/17/2007		2	1	1	1	Box Canyon Motel
Spokane	WA	99208	8/18/2007	14:25	4	2	2	1	
Spokane	WA	99207	8/18/2007	16:38	2	1	1	1	Weekend Drive
Spokane	WA	99207	8/18/2007	14:22	3	1	2	1	Ione WA
Metaline Falls	WA		8/19/2007	8:00	2	0	2	1	
Elk	WA	99009	8/19/2007	16:30	4	2	2	1	Sullivan Lake
Deer Park	WA	99006	8/19/2007	14:31	4	2	2	1	
Spokane	WA	99207	8/20/2007	15:45	5	3	2	1	Sullivan Lake
Kirkland	WA	98034	8/22/2007	11:25	2	2	0	1	Edgewater Campground
Spokane Valley	WA	99206	8/22/2007	17:40	5	0	5	1	Beaver Lodge
Rockford	Wa	99030	8/22/2007		1	0	1	1	Beaver Lodge
Colville	WA		8/23/2007	10:55	6	5	1	1	
Spokane Valley	WA	99216	8/25/2007	10:20	2	1	1	1	just looking at the beauty of the surrounding area
Bridgeport	WA	98813	8/25/2007	14:00	2	1	1	1	
Seattle	WA	98112	8/26/2007	8:45	2	1	1	1	Metaline Falls
Deer Park	WA	99006	8/29/2007	18:00	10	4	6	1	E. Sullivan Campground
Colville	WA	99141	8/31/2007	13:45	4	2	2	2	Crescent Lake
Seattle	WA	98103	9/1/2007	9:40	3	2	1	1	Banff, Canada
Newport	WA	99156	9/1/2007		3	2	1	1	
Spokane	WA	99006	9/1/2007	15:30	6	3	3	1	

Table A.2c-1, continued...

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	Primary Destination
Mead	WA	99021	9/1/2007	16:10	2	1	1	1	Metaline Falls
Cheney	WA	99004	9/1/2007	19:40	3	1	2	1	Gardner Caves and Metaline Falls
Odessa	WA	99159	9/1/2007	17:45	4	2	2	1	Metaline Falls
Usk	WA	99180	9/1/2007	17:50	2	1	1	1	home
Marcus	WA	99151	9/1/2007		4	2	2	2	Only God knows where
Medical Lake	WA	99022	9/2/2007		2	1	1	1	Ione
Spokane	WA	99206	9/2/2007		9	2	7	2	Ione
Spokane	WA	99212	9/2/2007		9	2	7	2	
Moses Lake	WA	98837	9/2/2007	16:00	2	1	1	1	
Olympia	WA	98512	9/2/2007	17:30	5	3	2	1	Sullivan Lake
Newport	WA	99156	9/3/2007	11:30	2	1	1	1	
Newport	WA	99156	9/3/2007	13:25	2	1	1	1	Residence
Spokane	WA	99223	9/3/2007	17:30	2	2	0	1	Metaline
North Bend	WA	98045	9/5/2007	15:00	3	2	1	1	
North Bend	WA	98045	9/5/2007	15:00	1	1	0	1	
Spokane	WA	99203	9/6/2007	11:45	2	1	1	1	Just travelling through
Enumclaw	WA	98022	9/7/2007	14:30	2	1	1	1	
Plain	WA	98826	9/8/2007	12:00	2	1	1	1	Ione
Everett	WA	98208	9/8/2007	14:20	3	1	2	1	Ione
Kent	WA		9/9/2007	15:00	2	1	1	1	Colville
Vancouver	WA	98661	9/9/2007	12:00	2	1	1	1	Blanchard, ID
Laurier	WA	99146	9/10/2007	15:00	2	1	1	1	Camping
Proctor	WA	26055	9/11/2007	15:00	4	2	2	1	Ione
Spokane	WA	99203	9/11/2007	15:45	2	1	1	1	
Spokane	WA	99208	9/11/2007	17:27	2	1	1	1	
Tacoma	WA	98466	9/13/2007	13:00	2	2	0	2	
Bellevue	WA	98007	9/13/2007	13:00	7	4	3	4	Princeton, BC
Spokane	WA	99202	9/13/2007	14:20	2	2	0	1	Boundary Dam Campground
Colville	WA	99114	9/13/2007	15:55	3	1	2	1	Sullivan Dam
Spokane	WA	99207	9/14/2007	12:30	1	1	0	1	Sullivan Lake
Spokane	WA	99223	9/18/2007	16:38	2	1	1	2	Sullivan Lake
Seattle	WA	98116	9/20/2007	9:10	1	1	0	1	

Table A.2c-1, continued...

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	Primary Destination
Seattle	WA	98199	9/20/2007	9:10	4	4	0	1	Boundary Dam
Chehalis	WA	98532	9/23/2007	11:20	2	1	1	1	wandering
Colville	WA	99114	9/23/2007	12:00	3	1	2	1	sightseeing
Naselle	WA	98638	9/23/2007	15:45	3	2	1	1	
E. Wenatchee	WA	98802	9/25/2007	14:00	2	1	1	1	
Deer Park	WA	99006	9/26/2007	14:25	1	0	1	1	Metaline Falls
Spokane	WA	99207	9/27/2007	14:40	4	1	3	1	Spokane, WA
Spokane	WA	99207	9/27/2007	16:45	3	1	2	1	Spokane, WA
Seattle	WA	98125	9/29/2007	13:00	2	1	1	1	
Federal Way	WA	98003	9/29/2007	12:00	1	0	1	1	Metaline Falls
Seattle	WA	98119	9/29/2007	14:45	2	1	1	1	Whole area - Selkirk Loop; on to Kellogg, ID.
Spokane	WA	99208	9/30/2007	14:15	2	2	0	1	camping
Cheney	WA	99004	10/1/2007	16:00	1	1	0	1	Sullivan Lake
Kennewick	WA	99338	10/9/2007	17:00	2	2	0	1	out on a hunting trip
Brewster	WA	98812	10/11/2007	17:20	2	1	1	1	Metaline
Spokane Valley	WA	99216	10/12/2007	14:30	4	2	2	1	Metaline
Seattle	WA		10/12/2007	15:00	2	1	1	1	Boundary was our destination
Pasco	WA		10/14/2007	11:30	3	0	3	1	Sullivan Lake/Metaline Falls
Metaline Falls	WA	99153	10/14/2007	11:30	3	0	3	1	
Metaline Falls	WA	99153	10/14/2007	15:20	2	0	2	1	Sullivan Lake
Metaline Falls	WA	99153	10/14/2007	15:20	2	0	2	1	
Westport	WA	98595	10/15/2007	12:20	2	1	1	1	Colville, WA
Carlsborg	WA		10/18/2007		2	1	1	1	
Spokane	WA				2	1	1	1	
Spokane	WA				2	1	1	1	
Metaline Falls	WA	99153			2	0	2	1	
Spokane	WA	99216			1	0	1	1	
Friday Harbor	WA				2	1	1	1	
Metaline Falls	WA	99153			2	1	1	1	
Ione/Cusick	WA	99119			3	1	2	1	Ione
Enumclaw	WA	98022			2	1	1	1	

Table A.2c-1, continued...

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	Primary Destination
Spokane	WA	99223			2	1	1	1	Ione
		98640	6/25/2007	11:00	2	1	1	1	Ione
		99223	6/25/2007	14:00	4	2	2	1	
					1	0	1	1	
					2	1	1	1	
					1	0	1	1	
					1	0	1	1	
Totals					626	302	324	212	

Table A.2c-2. Vista House registry of visitors from Idaho.

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	# of Watercraft	Primary Destination
Oldtown	ID	83822	6/20/2007	15:55	2	1	1	1	0	
Dalton Gardens	ID	83815	7/10/2007	18:30	2	1	1	1	0	
Post Falls	ID	83854	7/12/2007	16:00	1	0	1	1	0	
Bonnars Ferry	ID	83805	7/12/2007	12:30	3	1	2	1	0	
Coeur d'Alene	ID	83814	7/29/2007	16:30	2	1	1	1	0	Sullivan Lake
St. Maries	ID	83861	7/29/2007	11:00	4	2	2	1	1	Boundary Dam Campground
Hayden Lake	ID	83835	8/7/2007	12:20	2	1	1	1	0	Sullivan Lake
Sagle	ID	83860	8/10/2007	15:30	2	1	1	1	0	
Priest River	ID	83856	8/11/2007	12:00	4	2	2	1	0	Ione (our cabin)
Coeur d'Alene	ID	83814	8/13/2007	15:23	1	0	1	1	0	Inside looking around & taking photos
Post Falls	ID	83854	8/16/2007	19:30	17	7	10	2	0	
Post Falls	ID	83854	8/16/2007	19:45	17	7	10	2	4	Boundary Dam
Hayden Lake	ID	83835	8/16/2007		2	1	1	1	0	Boundary Dam
Priest Lake	ID	83856	9/8/2007		5	1	4	1	0	Canada
Hauser	ID	83854	9/14/2007	12:00	2	1	1	1	0	Boundary Dam Campground
Council	ID	83612	9/23/2007	12:05	3	1	2	1	0	Boundary Dam
Oldtown	ID	83822	9/23/2007		3	1	2	1	0	
Moscow	ID	83843	10/4/2007	11:10	2	1	1	1	0	Nelson, BC
Post Falls	ID	83854	10/7/2007	11:00	2	1	1	1	0	on the way home from Ainsworth, BC.
Kellogg	ID	83837	10/16/2007	8:22	6	6	0	2	0	Working on the power line
Laclede	ID				4	2	2	1	0	
Hayden	ID	83835			2	1	1	1	0	
					88	40	48	25	5	

Table A.2c-3. Vista House registry of visitors from the U.S.

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	# of Watercraft	Primary Destination
Birmingham	AL	35213	7/17/2007	16:29	2	1	1	1	0	Bicycle trip
Birmingham	AL	35209	8/16/2007	12:30	6	4	2	2	0	Lookout & Dam, Crescent Lake
Vostivic Hills	AL	35216	8/16/2007	12:30	6	4	2	2	0	
Hot Springs Village	AR		9/2/2007	8:45	2	1	1	1	0	
Green Valley	AZ	85614	6/12/2007	14:05	4	2	2	1	0	
Surprise	AZ	85374	9/1/2007	16:00	4	2	2	1	0	
Prescott Valley	AZ	86314	9/9/2007	11:15	2	1	1	1	0	Nelson BC
Phoenix	AZ	85020	10/6/2007	16:00	2	1	1	1	0	Ione, WA
Palermo	CA	95968	6/2/2007	17:30	3	1	2	1	0	
San Diego	CA	92126	6/8/2007	14:00	2	1	1	1	0	just driving around from Ione to Canadian border
Van Nuys	CA		6/21/2007		1	0	1	1	0	
Burbank	CA		6/21/2007		1	0	1	1	0	
South San Francisco	CA	94080	7/11/2007	18:00	51	30	21	11	0	Sand Point, Idaho
Newport Beach	CA	92660	7/11/2007	11:40	2	1	1	1	0	
Imperial	CA	92251	7/24/2007	15:00	2	1	1	1	0	Vista view
Pacific Grove	CA	93950	7/26/2007	18:30	3	2	1	1	0	Metaline Falls WA
Palmdale	CA	93551	7/29/2007	11:50	4	1	3	1	0	
Chico	CA	95926	8/7/2007	12:15	2	1	1	1	0	Ione
Newport Beach	CA	92660	8/20/2007	13:40	2	1	1	1	0	Priest Lake - Nelson
Denair	CA	95316	9/7/2007	18:40	2	1	1	1	0	Washington side of Selkirk Loop
La Canada	CA	91011	10/16/2007	14:00	4	2	2	1	0	
Ojai	CA	93023			1	0	1	1	0	
Steamboat Springs	CO	80487	6/20/2007	16:50	1	1	0	1	0	
Breckenridge	CO	80424	7/11/2007	14:12	1	1	0	1	0	
Longmont	CO	80504	9/12/2007	11:15	3	1	2	1	0	
Denver	CO	80465	10/8/2007	15:00	5	3	2	1	0	visiting Spokane, WA
Middleburg	FL	32068	7/11/2007	10:00	2	1	1	1	0	Metaline Falls
Edgewater	FL	32141	9/14/2007	16:00	2	1	1	1	0	Nelson, BC
Ringgold	GA	30736	6/7/2007		1	1	0	1	0	

Table A.2c-3, continued...

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	# of Watercraft	Primary Destination
Brunswick	GA	31520	9/21/2007	9:00	1	1	0	1	0	Heaven
Bloomington	IL	61704	7/1/2007	14:00	2	1	1	1	0	Selkirk Loop
Bourbonnais	IL	60914	8/14/2007		2	1	1	1	0	
Mt. Sterling	IL	62353	9/27/2007	14:50	2	0	2	1	0	Spokane, WA
Lakin	KS	67860	6/3/2007		3	2	1	1	0	
Wichita	KS	67217	8/8/2007	11:45	4	2	2	1	0	Ione, WA
Baton Rouge	LA		6/17/2007	14:00	4	2	2	1	0	
Baton Rouge	LA	70817	10/15/2007	9:20	2	1	1	1	0	
Dartmouth	MA	02748	6/21/2007		1	0	1	1	0	
Spring Lake	MI	49456	9/25/2007	16:30	5	2	3	1	0	Ione, WA
Prinsburg	MN	56281	6/23/2007	16:15	2	1	1	1	0	
Centerville	MN	55038	7/3/2007	14:30	2	1	1	1	0	Ione
Eagle Lake	MN	56024	7/16/2007	11:43	3	2	1	1	0	
Salol	MN				1	1	0	1	0	
St. Charles	MO	63303	6/23/2007	14:20	1	1	0	1	0	Working on dam elevators
Villa Ridge	MO	63089	9/27/2007	14:50	2	1	1	1	0	Nelson, BC
Columbia	MS	39429	7/29/2007	13:37	4	3	1	1	0	Metaline Falls WA
Belgrade	MT	59714	9/28/2007	11:30	2	1	1	1	0	
Indian Trail	NC	28079	7/4/2007	15:20	2	1	1	1	0	Touring the N. W.
New Bern	NC	28562	7/6/2007	13:00	6	2	1	4	0	Sullivan Lake
Henderson	NV	89012	6/27/2007	13:30	2	1	1	1	0	
Battle Mountain	NV	89820	7/29/2007	17:20	4	3	1	1	0	Ione
Gardnerville	NV	89410	8/6/2007	14:15	1	1	0	1	0	
Henderson	NV	89012	8/11/2007	13:12	3	1	2	1	0	Canada
Ardmore	OK	73401	7/7/2007	12:00	2	1	1	1	0	Metaline Falls
Tualitin	OR	97062	6/19/2007	17:20	5	4	1	2	0	Boundary Dam
Tualitin	OR	97062	7/19/2007	12:50	2	1	1	1	0	Colville
Ione	OR	97843	8/18/2007	12:45	4	2	2	1	0	Metaline Falls WA
Eugene	OR	97405	8/26/2007	17:00	4	2	2	1	0	Driving home from Canada
Portland	OR		9/4/2007	16:45	3	0	3	1	0	
Portland	OR	97221	9/9/2007	12:20	2	1	1	1	0	Ione
Hillsboro	OR	97123	9/11/2007	14:30	2	1	1	1	0	Vista House

Table A.2c-3, continued...

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	# of Watercraft	Primary Destination
Springfield	OR	97478	9/27/2007	15:00	6	4	2	1	0	Metaline
Eugene	OR	97402	10/14/2007	11:30	3	0	3	1	0	
Johnston	RI	02919	6/24/2007		5	2	3	1	1	Cusick, WA
Lebanon	TN	37087	8/18/2007		2	1	1	1	0	Canada
Collinwood	TN		8/31/2007	14:00	2	1	1	1	0	just out cruisin and lookin
Wichita Falls	TX	76306	6/2/2007	15:30	4	1	3	1	0	Here - Spokane
Fritch	TX	79036	6/18/2007	18:06	4	2	2	1	0	Metaline
Frich	TX	79036	6/18/2007	18:06	4	2	2	1	0	Metaline
New Braunfels	TX	78130	7/16/2007	9:20	2	1	1	1	0	
Wichita Falls	TX	76309	7/26/2007		4	2	2	1	0	Metaline Falls
Tyler	TX	79703	7/29/2007	12:30	5	2	3	1	0	Nelson, BC
Livingston	TX	77399	8/10/2007		2	1	1	1	0	
Portland	TX	78374	8/28/2007	16:00	2	1	1	1	0	
San Antonio	TX	78163	10/6/2007	16:30	3	2	1	1	0	Liberty Lake, WA
Kearns	UT	84118	9/9/2007		0	0	0	1	0	
Huntington	UT	84528			7	4	3	1	0	here
Fredericksburg	VA	22508	8/31/2007	15:00	10	4	6	2	0	
Crawford	WV	26343			1	0	1	1	0	
Totals					274	141	130	96	1	

Table A.2c-4. Vista House registry of visitors from Canada.

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	# of Watercraft	Primary Destination
Medicine Hat	AB	T1A7B1	6/7/2007		4	2	2	1	0	
Cold Lake	AB	T9M1P1	6/8/2007	19:00	2	1	1	1	0	
Edmonton	AB	T5A1V8	7/16/2007		2	1	1	1	0	
Airdrie	AB	T4A1R8	9/22/2007		2	1	1	1	0	Home
Oasis	BC	V1R4U6	6/16/2007	17:30	2	1	1	1	0	
Fruitvale	BC		6/19/2007	10:39	2	1	1	1	0	inside house vista
Fruitvale	BC		7/1/2007		4	2	2	1	0	Pend Oreille River
Castlegar	BC	V1N4M6	7/12/2007	15:00	1	1	0	1	0	Hope, Idaho
Nelson	BC		7/13/2007	16:30	2	1	1	1	0	
Salem	BC	V0G1Z0	7/18/2007	17:00	3	2	1	1	0	Boundary Dam
Trail	BC		7/28/2007		2	0	2	1	0	
Salmo	BC	V0G1Z0	7/29/2007		3	0	0	1	0	
Montrose	BC		8/29/2007		3	1	2	1	0	
Castlegar	BC		9/30/2007		0	0	0	1	0	Metaline
Castlegar	BC	V1N2Z8	10/4/2007	17:00	4	3	1	1	0	Metaline
Castlegar	BC		10/14/2007		4	0	0	0	0	
Rossland	BC	V0G1Y0	10/14/2007	16:30	2	1	1	1	0	Ione - train excursion
Fort Langley	BC	V1M2R9			0	0	0	0	0	
Saskatoon	Canada	S7H4W8	8/12/2007	15:10	2	1	1	1	0	here
Totals					44	19	18	17	0	

Table A.2c-5. Vista House registry of visitors from other countries.

City	State	Zip Code	Date	Time	Group Size	# of Males	# of Females	# of Vehicles	# of Watercraft	Primary Destination
Kebah	Malaysia	06000	6/24/2007	11:30	0	0	0	0	0	
Kedah	Malaysia		6/24/2007		4	1	3	1	0	
Sydney	Australia		8/11/2007	13:15	3	1	2	1	0	Scenic loop/WA, Canada, WA
	China		8/20/2007	18:20	2	1	1	1	0	Sullivan Lake
Sao Paulo	Brazil				0	0	0	0	0	
Totals					9	3	6	3	0	

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Appendix 3. Visitor Survey Documentation

- Appendix 3a. Visitor Questionnaire and Survey Map
- Appendix 3b. Sampling Log for Recreation Surveys (sectors sampled, by date)
- Appendix 3c. Complete List of ZIP/Postal Codes Identified in Visitor Survey Responses
- Appendix 3d. Question 21, Importance/Satisfaction Ratings for Recreation Facilities/Opportunities
- Appendix 3e. Verbatim Responses to Visitor Survey Questions

Appendix 3a. Visitor Questionnaire and Survey Map



Seattle City Light

SURVEY

of Recreation Visitors to the
Boundary Reservoir Area

Northern Pend Oreille County, Washington

Site Name _____

Date _____

Introduction to Boundary Visitor Survey

Dear Visitor,

Seattle City Light (SCL) operates Boundary Dam and Reservoir and provides several recreation sites in the area. SCL is conducting a survey to learn about your opinions and experiences concerning recreation in the Boundary Reservoir Area and nearby areas in northern Pend Oreille County.

By completing this survey you will help SCL and other resource managers maintain and improve the recreation opportunities available at Boundary Reservoir. Your participation in the survey is completely voluntary and your answers will be kept in strict confidence. We estimate that it may take up to 15 minutes to complete.

To show our gratitude, all visitors completing a questionnaire will be entered into a prize drawing to occur at the end of the study. A pool of 10 people who complete the survey will be selected at random to receive cash prizes ranging from \$20 to \$150. There is a space at the end of the questionnaire for you to provide contact information so that we may notify you if you are selected for a cash prize. Your name and contact information will not be provided to a third party and will be destroyed after the drawing.

We encourage you to take time now to complete the questionnaire and hand it back to one of our crew members. If you complete your survey after we have left, please place it in one of the labeled drop boxes provided at the Vista House, the Boundary Dam Visitors' Gallery, the campground or the boat ramp at the Forebay Recreation Area, the boat ramp at Metaline Waterfront Park, the campground below Box Canyon Dam (Campbell Park), or at Sweet Creek Falls Rest Area. If you cannot complete the questionnaire during your visit, please place it in the stamped, self-addressed envelope provided and send it to us by mail within the next week.

Most of the questions ask you about your current visit to the Boundary Reservoir Area as opposed to visits that you have made in the past.

If you have any questions regarding this survey, please contact me at

509-446-3083 or **lonnie.johnson@seattle.gov**

or Michele Lynn, SCL's Recreation Resources Coordinator, at

206-386-4578 or **michele.lynn@seattle.gov**.

Thank you for your cooperation with this important recreation study!

Sincerely,

Lonnie Johnson

Boundary Powerhouse Supervisor

Information on Your Visit

1. Is this your **first** visit to the Boundary Reservoir Area? (Please see map for extent of area. Circle one.)

1 No → Skip to Question 3

2 Yes

2. Do you think that you would visit the Boundary Reservoir Area again? (Circle one.)

1 No

2 Yes

3 I'm not sure

3. How many people, including yourself, are in your group for this visit? (Your group is all the people you arrived with and/or planned to meet here.)

____ People # ____ Males # ____ Females

4. On this visit to the Boundary Reservoir Area, are you staying overnight? (Circle one.)

1 No, just passing through on the way to somewhere else → Skip to Question 6

2 No, just here today for a total of ____ hours (Write number of hours.) → Skip to Question 6

3 Yes, staying overnight for a total of ____ nights (Write number of nights.)

5. Where are you staying overnight? (Circle all that apply if you are staying more than one night.)

1 Campground at Boundary Dam (Forebay Area) in a tent ____ or in an RV/camper ____ (Check one)

2 Campground at Box Canyon Dam (Campbell Park) in a tent ____ or in an RV/camper ____ (Check one)

3 U.S. Forest Service campground (Please name.) _____

4 Privately-operated campground (Please name.) _____

5 Hotel, motel, resort or bed & breakfast (Please name the town.) _____

6 Private home of family or friends

7 Other (Please describe.) _____

6. What is the ZIP code or postal code at your primary residence? (where you live on a permanent basis)

ZIP/Postal Code _____



Recreation Activities

7. Please indicate which of the following activities you plan to do or have done during this visit to the Boundary Reservoir Area. (Circle all that apply.)

- | | |
|---|---|
| 1 Fishing | 14 Photography |
| 2 Swimming | 15 Nature study (bird/wildlife watching, flowers/rocks) |
| 3 Picnicking | 16 Collecting edible fruits, berries, mushrooms |
| 4 Motor boating for pleasure | 17 Car/tent/RV camping (developed facilities, services, people present) |
| 5 Water skiing | 18 Car/tent/RV camping on back roads (secluded, no services, fewer amenities) |
| 6 Canoeing/kayaking | 19 Boat-in camping along river shoreline |
| 7 Personal watercraft (jet ski) | 20 Socializing |
| 8 Viewing scenery/sight seeing | 21 Spending time alone |
| 9 Viewing/visiting the dam(s) | 22 Off-roading (dirt bike, ATV, 4X4) |
| 10 Traveling State Route 31 North Pend Oreille Scenic Byway | 23 Hunting |
| 11 Day hiking/nature trails | 24 Attend a special event/festival |
| 12 Walking/jogging | 25 Other (Please specify.) _____ |
| 13 Bicycling | |

8. Which one of the activities that you circled in the list above was your primary recreation activity for this visit to the Boundary Reservoir Area? (Your primary recreation activity is the one that you spent the most time doing. Please write the number from the list on the previous page.)

I spent most of my time doing activity # _____ during this visit.

9. Overall, how would you rate the quality of your recreation experience for this visit to the Boundary Reservoir Area? (Circle one number on the scale.)

1	2	3	4	5	6	7	8	9
Very Poor			Average			Excellent		



IMPORTANT - PLEASE READ

The Fishing Section is only for visitors who are fishing on this visit to the Boundary Reservoir Area. If you did not circle fishing in Question 7 and your party does not plan to fish on this visit, please skip to Question 16 (on page 7).

10. How much time did/will you and others in your party spend fishing on this visit to the Boundary Reservoir Area? *(Please write the number.)*

Number of people fishing _____

Number of days fished _____

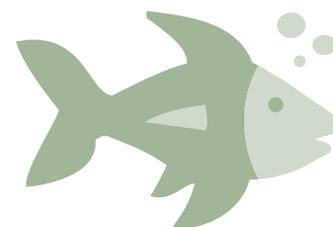
Average/typical number of hours fished per day _____

11. How did you go fishing during this visit to the Boundary Reservoir Area? *(Circle all that apply.)*

- 1 Boat/watercraft *(Please specify type.)* _____
- 2 Shore/bank
- 3 Both
- 4 Other means *(Please specify.)* _____

12. In what area(s) did/will you fish during this visit to the Boundary Reservoir Area? *(See map to identify areas. Circle all that apply.)*

- 1 Forebay area of Boundary Reservoir (Boundary Dam to north end of canyon)
- 2 Canyon area of Boundary Reservoir
- 3 Boundary Reservoir between Metaline and Metaline Falls
- 4 Boundary Reservoir between Metaline and Box Canyon
- 5 Mouth of creek(s) entering Boundary Reservoir *(Please specify.)* _____
- 6 Creek(s) entering Boundary Reservoir (above creek mouth) *(Please specify.)* _____
- 7 Other creek/stream in the area *(Please name.)* _____
- 8 Box Canyon Reservoir
- 9 Sullivan Lake
- 10 Mill Pond
- 11 Other lake/pond *(Please name.)* _____



Fishing

13. While fishing in the Boundary Reservoir Area, what species of fish do you want to catch? (Circle all that apply.)

- 1 Triploid rainbow trout
- 2 Other trout
- 3 Smallmouth bass
- 4 Largemouth bass
- 5 Other species (Please identify.) _____

14. Please tell us about the fish you and your party caught during this visit to the Boundary Reservoir Area. (Please write your responses in the blanks.)

Type of Fish	Number Caught	Size Range (inches)
Triploid rainbow trout	_____	_____
Other trout	_____	_____
Smallmouth bass	_____	_____
Largemouth bass	_____	_____
Other: _____	_____	_____
Other: _____	_____	_____

15. Overall, how would you rate your satisfaction with the fishing opportunities at Boundary Reservoir? (Circle one number on the scale.)

1	2	3	4	5	6	7	8	9
Very Poor			Average			Excellent		



Boat Launches and Reservoir Use

16. Did you operate or ride in a boat or other watercraft on Boundary Reservoir during this visit? (Circle one.)

- 1 No → Skip to Question 19
- 2 Yes

17. Which boat launch did you use during this visit to the Boundary Reservoir Area? (See map. Circle all that apply.)

- 1 Launch at Boundary Dam (Forebay Area)
- 2 Metaline Waterfront Park launch
- 3 Launch below Box Canyon Dam (Campbell Park)
- 4 Private boat launch (Please specify.) _____
- 5 Launched directly from shore with no boat launch (Specify.) _____ → Skip to Question 19
- 6 I'm not sure

18. Did the boat launch or launches that you circled in Question 17 adequately meet your needs for this visit to the Boundary Reservoir Area? (Circle one.)

- 1 Yes
- 2 No (Describe below any boat launch problems you encountered.)

19. Whether you used a boat or not, did the water conditions of the reservoir/river cause any problems for you during this visit to the Boundary Reservoir Area? (For example, rising or falling water levels, fast currents, or rapids. Circle one.)

- 1 I did not use or access the reservoir/river or its shoreline on this visit
- 2 No problems
- 3 Minor problems
- 4 Major problems, but this would not keep me from returning in the future
- 5 Major problems that would keep me from returning in the future
- 6 I'm not sure

(Please describe any problems with water conditions you encountered.)

Recreation Facilities and Service

20. Different people look for different recreation facilities and opportunities. Some of the items listed below may be found at the Boundary Reservoir Area and others may not be available. Thinking about your recreation needs, please rate how **important** it is to you to have each of these items available when you recreate. Then, rate your **satisfaction** with each item at the Boundary Reservoir Area. (Circle one number for **IMPORTANCE** on the left and one number for **SATISFACTION** on the right. If something is not at all important to you or does not apply, you may circle NA.)

	IMPORTANCE					SATISFACTION					Does Not Apply
	Not at all Important			Extremely Important		Not at all Satisfied			Extremely Satisfied		
Tent campsites	1	2	3	4	5	1	2	3	4	5	NA
RV campsites	1	2	3	4	5	1	2	3	4	5	NA
RV hookups/utilities	1	2	3	4	5	1	2	3	4	5	NA
Campsite fees	1	2	3	4	5	1	2	3	4	5	NA
Parking area	1	2	3	4	5	1	2	3	4	5	NA
Road access to recreation areas	1	2	3	4	5	1	2	3	4	5	NA
Access for the disabled	1	2	3	4	5	1	2	3	4	5	NA
Drinking water	1	2	3	4	5	1	2	3	4	5	NA
Flush toilets	1	2	3	4	5	1	2	3	4	5	NA
Vault/portable toilets	1	2	3	4	5	1	2	3	4	5	NA
Trash containers/collection	1	2	3	4	5	1	2	3	4	5	NA
Picnic sites	1	2	3	4	5	1	2	3	4	5	NA
Swimming/beach access	1	2	3	4	5	1	2	3	4	5	NA
Historic sites/information	1	2	3	4	5	1	2	3	4	5	NA
Scenic views/viewpoints	1	2	3	4	5	1	2	3	4	5	NA
Wildlife viewing/nature trails	1	2	3	4	5	1	2	3	4	5	NA
Interpretive/education programs	1	2	3	4	5	1	2	3	4	5	NA
Hiking trails	1	2	3	4	5	1	2	3	4	5	NA
Boat ramps	1	2	3	4	5	1	2	3	4	5	NA
Boat docks	1	2	3	4	5	1	2	3	4	5	NA
Boating safety information	1	2	3	4	5	1	2	3	4	5	NA
Navigation hazard marking	1	2	3	4	5	1	2	3	4	5	NA
River/shore access for fishing	1	2	3	4	5	1	2	3	4	5	NA
Fishing opportunities	1	2	3	4	5	1	2	3	4	5	NA
Hunting opportunities	1	2	3	4	5	1	2	3	4	5	NA
Boat-in campsites	1	2	3	4	5	1	2	3	4	5	NA
Canoe/kayak access facilities	1	2	3	4	5	1	2	3	4	5	NA
Other: _____	1	2	3	4	5	1	2	3	4	5	NA
Other: _____	1	2	3	4	5	1	2	3	4	5	NA

21. Based on your experiences during this visit, are there any improvements to the existing recreation opportunities at the Boundary Reservoir Area that you think are needed? *(These could be recreation ACTIVITIES that you would like to do here that are not currently available, or specific recreation FACILITIES that are not currently available or that do not adequately meet your needs. These should be activities or facilities THAT YOU WOULD USE YOURSELF if they were present. Circle one.)*

- 1 No, I am satisfied with the recreation activities/facilities currently available here
- 2 I'm not sure
- 3 Yes, I would like other recreation activities/facilities at this destination *(Please list.)*



Your Primary Destination

22. For this visit, what specific sites in the Boundary Reservoir Area do you intend to visit or have you already visited? (See map. Circle all that apply.)

- | | |
|--|--|
| 1 Vista House | 7 Metaline Waterfront Park |
| 2 Boundary Dam Visitors' Gallery | 8 Campground below Box Canyon Dam (Campbell Park) |
| 3 Picnic area below Boundary Dam (Tailrace Area) | 9 Sweet Creek Falls Rest Area/Trail |
| 4 Campground at Boundary Dam (Forebay Area) | 10 Small boat-in campsite or day use site on the reservoir/river |
| 5 On the water in a boat/other watercraft | 11 Other (Specify) _____ |
| 6 Crescent Lake | _____ |

23. Which one of the places that you circled in the list above was your primary destination for this visit to the Boundary Reservoir Area? (Your primary destination is the site where you spent the most time during this visit. Please write the number from the above list.)

I spent most of my time at site # _____ during this visit.

24. Please indicate whether or how much you felt crowded on this visit to your primary destination listed in Question 23. (Circle one number on the scale.)

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

25. During this visit to the destination you listed in Question 23, did you experience any problems or conflicts with other visitors or their behaviors that detracted from your enjoyment of being there? (Circle one.)

- 1 No
- 2 Yes (Please describe what occurred.)

Your Primary Destination

26. Based on your experiences during this visit at the destination you listed in Question 23, do you intend to adjust your recreation plans to avoid the presence or behaviors of other visitors at this site in the future? *(Circle one.)*

- 1 No → Skip to Question 28
- 2 Yes

27. How do you intend to adjust your recreation plans? *(Circle all that apply.)*

- 1 Move my activity to a different site in the Boundary Reservoir Area
- 2 Go to a different site in the region outside the Boundary Reservoir Area
- 3 Visit this same site earlier or later in the year to avoid busier times of year
- 4 Visit this same site on weekdays instead of weekends or holidays
- 5 Visit this same site at a different time of day to avoid busier times of day
- 6 Other *(Please specify.)* _____

28. For this visit, did you find the facilities at your primary destination that you listed in Question 23 to be adequately maintained? *(Circle one.)*

- 1 Yes
- 2 No *(Describe any maintenance needs you thought were not currently met.)*

Past Visits

29. How many times have you visited the Boundary Reservoir Area within the past 12 months? *(Write the number. Do not include this visit.)*

_____ Visits in the past 12 months If this is your first visit → Skip to Question 32

30. About how many years have you been visiting the Boundary Reservoir Area? *(Write the number.)*

_____ Years

31. In what seasons of the year do you visit the Boundary Reservoir Area? *(Circle all that apply.)*

Spring Summer Fall Winter

32. What do you particularly like about visiting the Boundary Reservoir Area or what is it that attracted you to come here? *(Circle all that apply.)*

- | | |
|---|---|
| 1 The scenery/I like the views | 7 It's quiet/peaceful |
| 2 It's close to home/easy to get to | 8 It's a good place to explore/I wanted to see a new area |
| 3 It's a good place for fishing | 9 Other reason <i>(Please specify.)</i> _____ |
| 4 It's a good place to go boating/recreate on the water | _____ |
| 5 I like the small/low-key camping areas | _____ |
| 6 I like the cost/it's affordable | |

33. Which other lakes or rivers in the region do you frequently visit for recreation? *(Please name up to three.)*

Lake/river _____ State/Province _____
Lake/river _____ State/Province _____
Lake/river _____ State/Province _____

34. Which other places or features in the region do you intend to visit or have you already visited during this visit to the Boundary Reservoir Area? *(Circle all that apply.)*

- | | |
|--|--|
| 1 North Pend Oreille Scenic Byway (State Route 31) | 10 Little Pend Oreille Lakes |
| 2 Selkirk International Loop | 11 Sullivan Lake/Mill Pond area |
| 3 British Columbia, Canada | 12 Salmo-Priest Wilderness |
| 4 Northern Idaho | 13 Box Canyon Reservoir |
| 5 Spokane, Washington | 14 Columbia River/Lake Roosevelt |
| 6 Colville, Washington | 15 Gardner Caves/Crawford State Park |
| 7 Newport, Washington | 16 Other places <i>(Please specify.)</i> _____ |
| 8 Little Pend Oreille National Wildlife Refuge | _____ |
| 9 Colville National Forest | _____ |

35. Overall, please rate the visual quality of the scenery at the Boundary Reservoir Area. (Circle one number on the scale.)

1	2	3	4	5	6	7	8	9
Very poor			Average			Excellent		

36. During this visit to the Boundary Reservoir Area, have you seen any facilities or structures associated with the Boundary Hydroelectric Project? (E.g., the dam itself, maintenance buildings, utility lines and towers near the dam, SCL recreation facilities, etc. Circle one.)

- 1 No → Skip to Question 39
- 2 I'm not sure
- 3 Yes

37. Where were you when you saw these facilities? (See map. Circle all that apply.)

- 1 Vista House
- 2 Picnic area below Boundary Dam (Tailrace Area)
- 3 Campground at Boundary Dam (Forebay Area)
- 4 On the water/river (Boundary Reservoir surface)
- 5 Roads near reservoir
- 6 Other (Please specify.) _____

38. How did seeing these facilities affect your enjoyment of the scenery at the Boundary Reservoir Area on this visit? (Circle one.)

- 1 These facilities greatly enhanced my overall enjoyment of the scenery here.
- 2 These facilities slightly enhanced my overall enjoyment of the scenery here.
- 3 These facilities had no effect on my overall enjoyment of the scenery here.
- 4 These facilities slightly detracted from my overall enjoyment of the scenery here.
- 5 These facilities greatly detracted from my overall enjoyment of the scenery here.

(Please explain your response.)



Trip Expenses

39. Please estimate the total amount of money that you spent or will spend in Pend Oreille County for this visit to Boundary Reservoir Area for the following types of purchases. *(Please write the approximate amounts in U.S. dollars that you paid for yourself, for others in your group, and any portion of your shared expenses.)*

Someone else paid my expenses *(Circle one.)*

1 No 2 Yes → Skip to Question 40
↓

	Amount Spent
Hotels, motels, bed & breakfast, other lodging	\$ _____
Camping/RV hookup fees	\$ _____
Eating/drinking establishments	\$ _____
Grocery/food and beverage purchases	\$ _____
Gasoline, oil, other auto supplies and services	\$ _____
Rentals of boats or recreation vehicles (including fuel/oil)	\$ _____
Hunting/fishing supplies (bait/tackle, ammunition)	\$ _____
Shopping/souvenirs	\$ _____
Recreational services (e.g., excursions, guided tours)	\$ _____
Other expenses <i>(Please specify.)</i> _____	\$ _____

About You and Your Party

40. Are you? *(Circle one.)*

Male Female

41. What is your age? *(Check one.)*

____ under 16 ____ 16-19 ____ 20-29 ____ 30-39 ____ 40-49 ____ 50-59 ____ 60-69 ____ 70 and up

42. What are the ages of the other people in your group? *(Please write the number of people for each.)*

____ under 16 ____ 16-19 ____ 20-29 ____ 30-39 ____ 40-49 ____ 50-59 ____ 60-69 ____ 70 and up

Seattle City Light would like to thank you for your time. You have helped us to learn more about the people who visit and recreate at the Boundary Reservoir Area. We welcome any additional input or comments from you about how we can improve the management of the Boundary Reservoir Area. (Please feel free to write any additional comments below.)

Thank you for participating in this important study!

.....

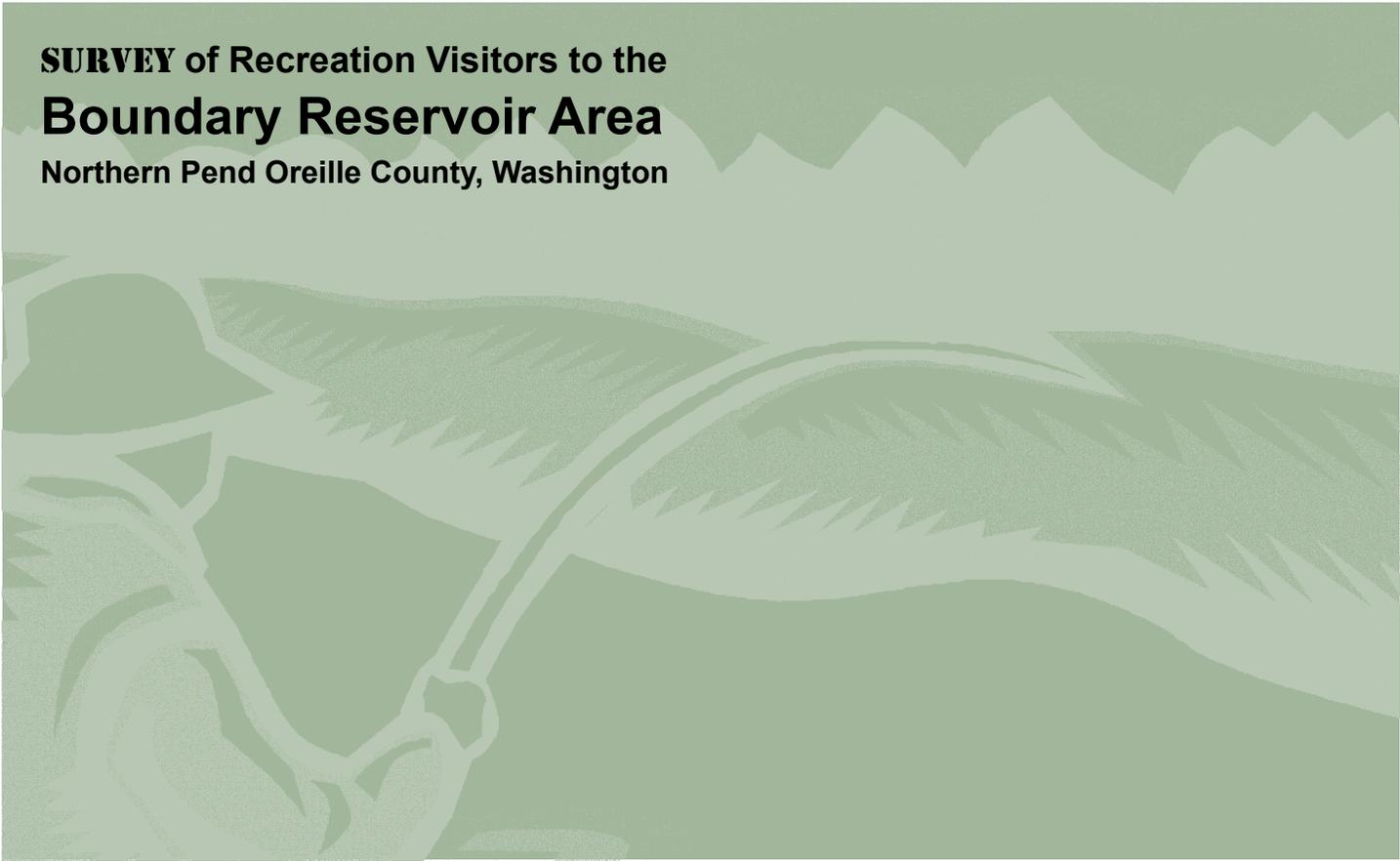
Please remember to provide your contact information so that we may enter your name in a drawing for a cash prize. (Fully completed questionnaires will be considered for a cash prize. We will detach your contact information from your answers and will not share it with a third party.)

Name _____

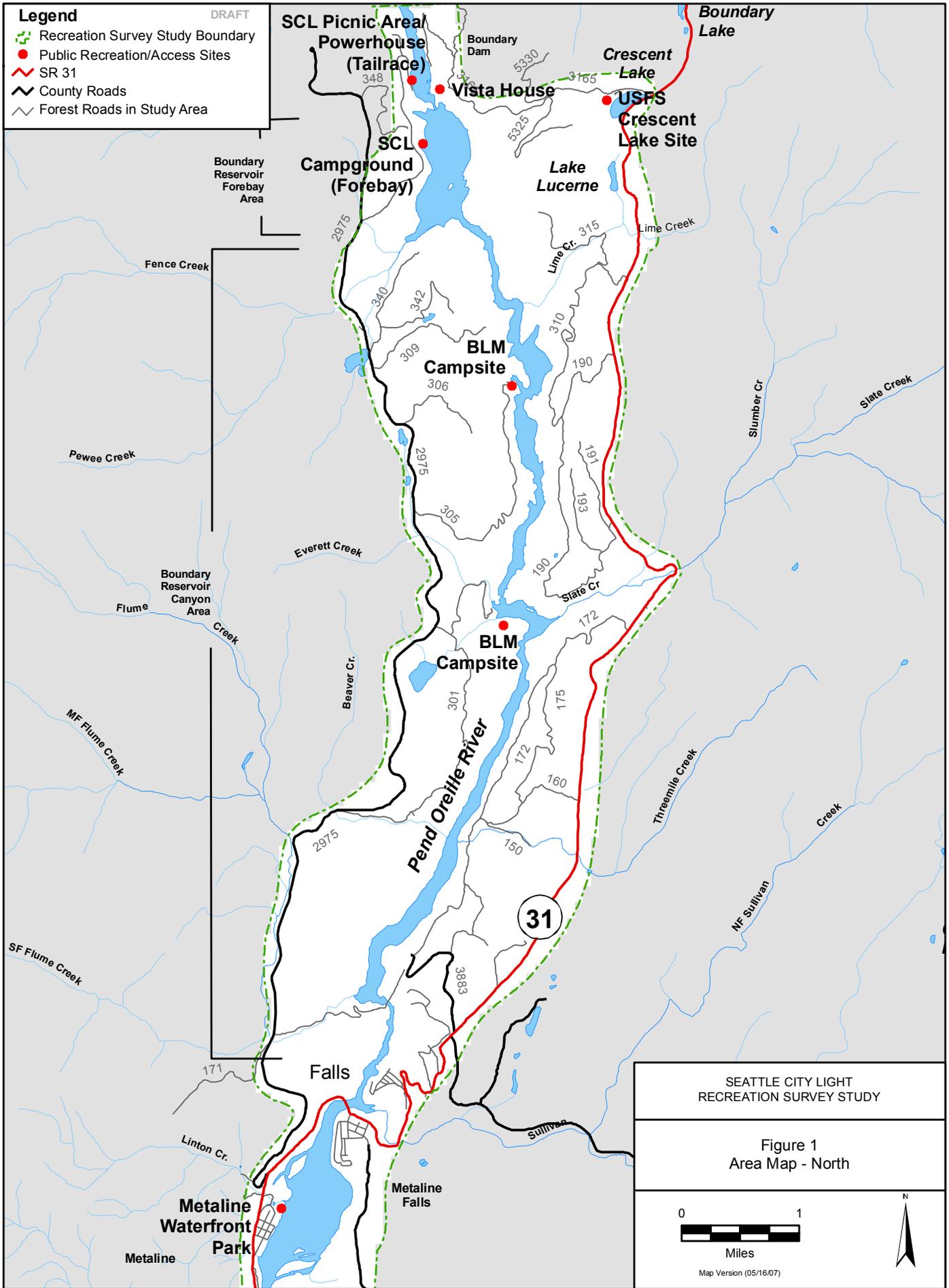
Address _____

Telephone # _____

**SURVEY of Recreation Visitors to the
Boundary Reservoir Area
Northern Pend Oreille County, Washington**



**P.O. Box 604
Ione, WA 99139**

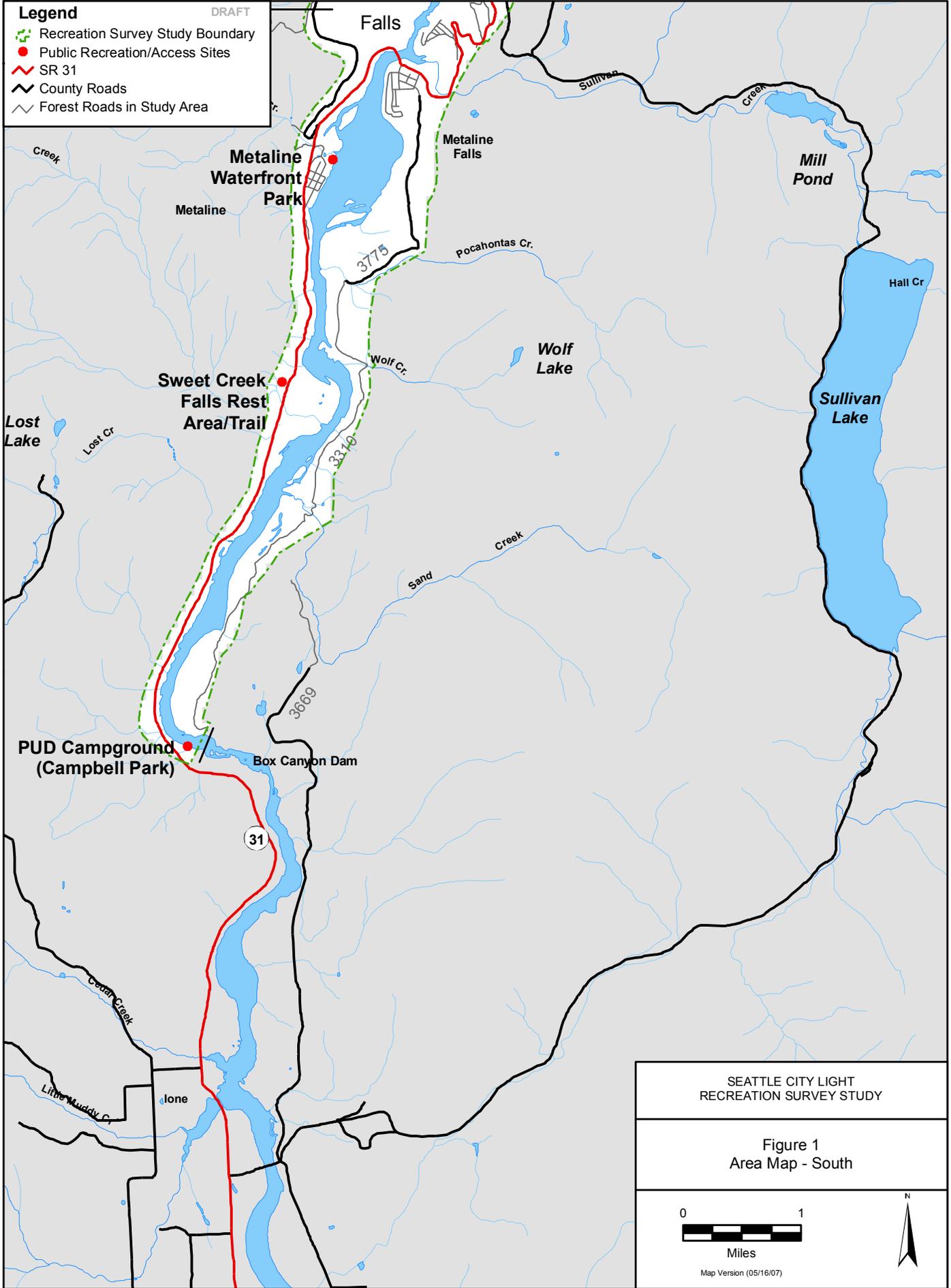


SEATTLE CITY LIGHT
RECREATION SURVEY STUDY

Figure 1
Area Map - North

0 1
Miles

Map Version (05/16/07)



Appendix 3b. Sampling Log for Recreation Surveys

Appendix 3b Sampling Log for Recreation Surveys

Sector	Location	Date	Day	AM/PM
		May		
3	Sweet Creek and Box Canyon	5/19/2007	S	PM
6	Metaline Park	5/19/2007	S	PM
6	South Reservoir	5/19/2007	S	PM
3	Sweet Creek and Box Canyon	5/20/2007	SU	AM
5	North Reservoir	5/20/2007	SU	PM
2	Forebay	5/24/2007	R	AM
6	Metaline Park	5/24/2007	R	PM
6	South Reservoir	5/24/2007	R	PM
2	Forebay	5/26/2007	S	PM
6	Metaline Park	5/26/2007	S	PM
6	South Reservoir	5/26/2007	S	PM
4	Roaded Dispersed	5/27/2007	SU	AM
2	Forebay	5/28/2007	M	PM
3	Sweet Creek and Box Canyon	5/28/2007	M	AM
2	Forebay	5/31/2007	R	AM
6	Metaline Park	5/31/2007	R	PM
6	South Reservoir	5/31/2007	R	PM
		June		
6	Metaline Park	6/2/2007	S	AM
6	South Reservoir	6/2/2007	S	AM
5	North Reservoir	6/2/2007	S	PM
3	Sweet Creek and Box Canyon	6/3/2007	SU	AM
4	Roaded Dispersed	6/3/2007	SU	PM
6	Metaline Park	6/4/2007	M	PM
6	South Reservoir	6/4/2007	M	PM
4	Roaded Dispersed	6/4/2007	M	PM
1	Vista House	6/5/2007	T	AM
1	Vista House	6/5/2007	T	PM
1	Vista House	6/7/2007	R	AM
3	Sweet Creek and Box Canyon	6/7/2007	R	AM
4	Roaded Dispersed	6/9/2007	S	AM
5	North Reservoir	6/9/2007	S	AM
4	Roaded Dispersed	6/10/2007	SU	PM
3	Sweet Creek and Box Canyon	6/10/2007	SU	PM
3	Sweet Creek and Box Canyon	6/12/2007	T	PM
6	Metaline Park	6/12/2007	T	AM
6	South Reservoir	6/12/2007	T	PM
2	Forebay	6/13/2007	W	AM
5	North Reservoir	6/13/2007	W	AM
3	Sweet Creek and Box Canyon	6/16/2007	S	AM
4	Roaded Dispersed	6/16/2007	S	AM
2	Forebay	6/17/2007	SU	AM

Sector	Location	Date	Day	AM/PM
5	North Reservoir	6/17/2007	SU	PM
1	Vista House	6/19/2007	T	PM
2	Forebay	6/19/2007	T	PM
2	Forebay	6/20/2007	W	AM
6	Metaline Park	6/20/2007	W	PM
6	South Reservoir	6/20/2007	W	PM
2	Forebay	6/22/2007	F	AM
4	Roaded Dispersed	6/22/2007	F	AM
3	Sweet Creek and Box Canyon	6/23/2007	S	PM
4	Roaded Dispersed	6/23/2007	S	PM
1	Vista House	6/24/2007	SU	AM
1	Vista House	6/24/2007	SU	PM
1	Vista House	6/25/2007	M	PM
3	Sweet Creek and Box Canyon	6/25/2007	M	PM
6	Metaline Park	6/26/2007	T	PM
6	South Reservoir	6/26/2007	T	PM
5	North Reservoir	6/26/2007	T	AM
2	Forebay	6/27/2007	W	AM
6	Metaline Park	6/27/2007	W	AM
6	South Reservoir	6/27/2007	W	AM
6	Metaline Park	6/28/2007	R	PM
6	South Reservoir	6/28/2007	R	PM
4	Roaded Dispersed	6/28/2007	R	PM
6	Metaline Park	6/29/2007	F	PM
6	South Reservoir	6/29/2007	F	PM
6	Metaline Park	6/29/2007	F	AM
6	South Reservoir	6/29/2007	F	AM
2	Forebay	6/30/2007	S	AM
6	Metaline Park	6/30/2007	S	PM
6	South Reservoir	6/30/2007	S	PM
		July		
2	Forebay	7/1/2007	SU	AM
2	Forebay	7/1/2007	SU	PM
5	North Reservoir	7/1/2007	S	PM
1	Vista House	7/2/2007	M	PM
2	Forebay	7/2/2007	M	PM
3	Sweet Creek and Box Canyon	7/2/2007	M	AM
2	Forebay	7/4/2007	W	AM
6	Metaline Park	7/4/2007	W	PM
6	South Reservoir	7/4/2007	W	PM
4	Roaded Dispersed	7/4/2007	W	AM
2	Forebay	7/5/2007	R	PM
3	Sweet Creek and Box Canyon	7/5/2007	R	AM
5	North Reservoir	7/5/2007	R	AM
1	Vista House	7/6/2007	F	AM
2	Forebay	7/6/2007	F	PM

Sector	Location	Date	Day	AM/PM
6	Metaline Park	7/6/2007	F	PM
6	South Reservoir	7/6/2007	F	PM
1	Vista House	7/7/2007	S	PM
2	Forebay	7/7/2007	S	AM
6	Metaline Park	7/7/2007	S	PM
6	South Reservoir	7/7/2007	S	PM
3	Sweet Creek and Box Canyon	7/8/2007	SU	PM
6	Metaline Park	7/8/2007	SU	AM
6	South Reservoir	7/8/2007	SU	AM
6	Metaline Park	7/8/2007	SU	PM
6	South Reservoir	7/8/2007	SU	PM
2	Forebay	7/9/2007	M	AM
3	Sweet Creek and Box Canyon	7/9/2007	M	PM
5	North Reservoir	7/9/2007	M	PM
3	Sweet Creek and Box Canyon	7/10/2007	T	PM
6	Metaline Park	7/10/2007	T	PM
6	South Reservoir	7/10/2007	T	PM
5	North Reservoir	7/11/2007	W	PM
1	Vista House	7/13/2007	F	AM
2	Forebay	7/13/2007	F	AM
5	North Reservoir	7/13/2007	F	AM
1	Vista House	7/14/2007	S	AM
6	Metaline Park	7/14/2007	S	PM
6	South Reservoir	7/14/2007	S	PM
4	Roaded Dispersed	7/14/2007	S	PM
1	Vista House	7/15/2007	SU	AM
1	Vista House	7/15/2007	SU	PM
2	Forebay	7/15/2007	SU	PM
3	Sweet Creek and Box Canyon	7/17/2007	T	AM
3	Sweet Creek and Box Canyon	7/17/2007	T	PM
6	Metaline Park	7/17/2007	T	PM
6	South Reservoir	7/17/2007	T	PM
5	North Reservoir	7/17/2007	T	PM
2	Forebay	7/18/2007	W	AM
5	North Reservoir	7/18/2007	W	AM
1	Vista House	7/19/2007	R	PM
3	Sweet Creek and Box Canyon	7/19/2007	R	PM
5	North Reservoir	7/19/2007	R	PM
6	Metaline Park	7/20/2007	F	PM
6	South Reservoir	7/20/2007	F	PM
4	Roaded Dispersed	7/20/2007	F	PM
5	North Reservoir	7/20/2007	F	AM
2	Forebay	7/21/2007	S	AM
4	Roaded Dispersed	7/21/2007	S	AM
5	North Reservoir	7/21/2007	S	PM
2	Forebay	7/22/2007	SU	PM
3	Sweet Creek and Box Canyon	7/22/2007	SU	PM

Sector	Location	Date	Day	AM/PM
6	Metaline Park	7/22/2007	SU	PM
6	South Reservoir	7/22/2007	SU	PM
1	Vista House	7/24/2007	T	PM
3	Sweet Creek and Box Canyon	7/24/2007	T	PM
3	Sweet Creek and Box Canyon	7/24/2007	T	AM
1	Vista House	7/25/2007	W	AM
2	Forebay	7/25/2007	W	AM
5	North Reservoir	7/25/2007	W	AM
3	Sweet Creek and Box Canyon	7/26/2007	R	PM
6	Metaline Park	7/26/2007	R	AM
6	South Reservoir	7/26/2007	R	AM
5	North Reservoir	7/26/2007	R	PM
1	Vista House	7/28/2007	S	AM
6	Metaline Park	7/28/2007	S	AM
6	South Reservoir	7/28/2007	S	AM
5	North Reservoir	7/28/2007	S	PM
3	Sweet Creek and Box Canyon	7/29/2007	S	AM
6	Metaline Park	7/29/2007	SU	AM
6	South Reservoir	7/29/2007	SU	AM
4	Roaded Dispersed	7/29/2007	SU	PM
3	Sweet Creek and Box Canyon	7/31/2007	T	PM
6	Metaline Park	7/31/2007	T	AM
6	South Reservoir	7/31/2007	T	AM
6	Metaline Park	7/31/2007	T	PM
6	South Reservoir	7/31/2007	T	PM
		August		
1	Vista House	8/2/2007	R	AM
2	Forebay	8/2/2007	R	PM
6	Metaline Park	8/2/2007	R	PM
6	South Reservoir	8/2/2007	R	PM
2	Forebay	8/3/2007	F	AM
3	Sweet Creek and Box Canyon	8/3/2007	F	AM
6	Metaline Park	8/3/2007	F	PM
6	South Reservoir	8/3/2007	F	PM
2	Forebay	8/4/2007	S	AM
3	Sweet Creek and Box Canyon	8/4/2007	S	PM
5	North Reservoir	8/4/2007	S	PM
3	Sweet Creek and Box Canyon	8/5/2007	SU	PM
5	North Reservoir	8/5/2007	SU	PM
1	Vista House	8/6/2007	M	PM
2	Forebay	8/6/2007	M	PM
3	Sweet Creek and Box Canyon	8/6/2007	M	AM
1	Vista House	8/7/2007	T	AM
6	Metaline Park	8/7/2007	T	PM
6	South Reservoir	8/7/2007	T	PM
5	North Reservoir	8/7/2007	T	AM

Sector	Location	Date	Day	AM/PM
1	Vista House	8/8/2007	W	PM
2	Forebay	8/8/2007	W	AM
5	North Reservoir	8/8/2007	W	AM
2	Forebay	8/9/2007	R	PM
3	Sweet Creek and Box Canyon	8/9/2007	R	PM
6	Metaline Park	8/9/2007	R	AM
6	South Reservoir	8/9/2007	R	AM
1	Vista House	8/10/2007	F	AM
5	North Reservoir	8/10/2007	F	PM
2	Forebay	8/11/2007	S	PM
3	Sweet Creek and Box Canyon	8/11/2007	S	AM
6	Metaline Park	8/11/2007	S	AM
6	South Reservoir	8/11/2007	S	AM
1	Vista House	8/12/2007	SU	PM
3	Sweet Creek and Box Canyon	8/12/2007	SU	PM
5	North Reservoir	8/12/2007	SU	PM
2	Forebay	8/14/2007	T	PM
2	Forebay	8/14/2007	T	AM
4	Roaded Dispersed	8/14/2007	T	AM
2	Forebay	8/16/2007	R	AM
6	Metaline Park	8/16/2007	R	PM
6	South Reservoir	8/16/2007	R	PM
5	North Reservoir	8/16/2007	R	AM
1	Vista House	8/17/2007	F	PM
6	Metaline Park	8/17/2007	F	AM
6	South Reservoir	8/17/2007	F	AM
1	Vista House	8/18/2007	S	AM
1	Vista House	8/18/2007	S	PM
2	Forebay	8/18/2007	S	PM
2	Forebay	8/19/2007	SU	PM
6	Metaline Park	8/19/2007	SU	PM
6	South Reservoir	8/19/2007	SU	PM
4	Roaded Dispersed	8/19/2007	SU	PM
3	Sweet Creek and Box Canyon	8/24/2007	F	PM
6	Metaline Park	8/24/2007	F	PM
6	South Reservoir	8/24/2007	F	PM
5	North Reservoir	8/24/2007	F	AM
2	Forebay	8/25/2007	S	AM
6	Metaline Park	8/25/2007	S	AM
6	South Reservoir	8/25/2007	S	AM
4	Roaded Dispersed	8/25/2007	S	PM
3	Sweet Creek and Box Canyon	8/26/2007	SU	PM
3	Sweet Creek and Box Canyon	8/26/2007	SU	AM
5	North Reservoir	8/26/2007	SU	PM
1	Vista House	8/27/2007	M	AM
2	Forebay	8/27/2007	M	PM
4	Roaded Dispersed	8/27/2007	M	PM

Sector	Location	Date	Day	AM/PM
1	Vista House	8/28/2007	T	AM
2	Forebay	8/28/2007	T	AM
5	North Reservoir	8/28/2007	T	AM
3	Sweet Creek and Box Canyon	8/29/2007	W	AM
2	Forebay	8/29/2007	W	PM
6	Metaline Park	8/29/2007	W	AM
6	South Reservoir	8/29/2007	W	AM
3	Sweet Creek and Box Canyon	8/31/2007	F	PM
5	North Reservoir	8/31/2007	F	PM
5	North Reservoir	8/31/2007	F	AM
		September		
3	Sweet Creek and Box Canyon	9/1/2007	S	PM
5	North Reservoir	9/1/2007	S	PM
2	Forebay	9/2/2007	SU	AM
4	Roaded Dispersed	9/2/2007	SU	AM
2	Forebay	9/3/2007	M	PM
4	Roaded Dispersed	9/3/2007	M	PM
2	Forebay	9/4/2007	T	PM
2	Forebay	9/4/2007	T	AM
3	Sweet Creek and Box Canyon	9/6/2007	R	AM
6	Metaline Park	9/6/2007	R	AM
1	Vista House	9/8/2007	S	PM
4	Roaded Dispersed	9/8/2007	S	AM
1	Vista House	9/9/2007	SU	AM
6	Metaline Park	9/9/2007	SU	AM
6	South Reservoir	9/9/2007	S	AM
2	Forebay	9/13/2007	R	PM
4	Roaded Dispersed	9/13/2007	R	PM
1	Vista House	9/15/2007	S	PM
4	Roaded Dispersed	9/15/2007	S	AM
6	Metaline Park	9/16/2007	SU	PM
6	South Reservoir	9/16/2007	SU	PM
5	North Reservoir	9/16/2007	SU	AM
2	Forebay	9/18/2007	T	AM
3	Sweet Creek and Box Canyon	9/18/2007	T	PM
1	Vista House	9/19/2007	W	AM
5	North Reservoir	9/19/2007	W	PM
3	Sweet Creek and Box Canyon	9/20/2007	R	AM
4	Roaded Dispersed	9/20/2007	S	AM
1	Vista House	9/21/2007	F	AM
3	Sweet Creek and Box Canyon	9/21/2007	F	PM
3	Sweet Creek and Box Canyon	9/22/2007	S	PM
4	Roaded Dispersed	9/22/2007	S	PM
2	Forebay	9/23/2007	SU	AM
2	Forebay	9/23/2007	SU	PM
1	Vista House	9/24/2007	M	AM

Sector	Location	Date	Day	AM/PM
5	North Reservoir	9/24/2007	M	AM
3	Sweet Creek and Box Canyon	9/27/2007	R	AM
5	North Reservoir	9/27/2007	R	AM
2	Forebay	9/29/2007	S	AM
3	Sweet Creek and Box Canyon	9/29/2007	S	PM
4	Roaded Dispersed	9/30/2007	SU	PM
5	North Reservoir	9/30/2007	SU	AM
		October		
2	Forebay	10/1/2007	M	PM
5	North Reservoir	10/1/2007	M	AM
1	Vista House	10/3/2007	W	AM
5	North Reservoir	10/3/2007	W	PM
2	Forebay	10/5/2007	F	AM
3	Sweet Creek and Box Canyon	10/5/2007	F	PM
1	Vista House	10/6/2007	S	PM
3	Sweet Creek and Box Canyon	10/6/2007	S	PM
3	Sweet Creek and Box Canyon	10/7/2007	SU	AM
5	North Reservoir	10/7/2007	SU	PM
1	Vista House	10/8/2007	M	AM
4	Roaded Dispersed	10/8/2007	M	AM
2	Forebay	10/9/2007	T	AM
6	Metaline Park	10/9/2007	T	AM
6	South Reservoir	10/9/2007	T	AM
5	North Reservoir	10/11/2007	R	PM
5	North Reservoir	10/11/2007	R	AM
1	Vista House	10/13/2007	S	AM
4	Roaded Dispersed	10/13/2007	S	AM
3	Sweet Creek and Box Canyon	10/16/2007	T	PM
6	Metaline Park	10/16/2007	T	AM
6	South Reservoir	10/16/2007	T	AM
5	North Reservoir	10/17/2007	W	AM
4	Roaded Dispersed	10/18/2007	R	AM
4	Roaded Dispersed	10/20/2007	S	AM
6	Metaline Park	10/22/2007	M	AM
5	North Reservoir	10/22/2007	M	PM
6	South Reservoir	10/22/2007	M	AM
6	Metaline Park	10/23/2007	T	AM
6	South Reservoir	10/23/2007	T	AM
4	Roaded Dispersed	10/23/2007	T	PM
3	Sweet Creek and Box Canyon	10/26/2007	F	PM
6	Metaline Park	10/26/2007	F	AM
6	South Reservoir	10/26/2007	F	AM
4	Roaded Dispersed	10/27/2007	S	PM
6	Metaline Park	10/29/2007	M	AM
6	South Reservoir	10/29/2007	M	AM
5	North Reservoir	10/29/2007	M	PM

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Appendix 3c. Complete List of ZIP/Postal Codes Identified in Visitor Survey Responses

Appendix 3c

Complete list of ZIP/postal codes identified in visitor survey responses

Postal code	City/Town	State/Province	Country	Frequency	Percent of sample ¹
V0B1G7	Creston	British Columbia	Canada	1	0.2
V1N4S4	Castlegar	British Columbia	Canada	1	0.2
V1L2S4	Nelson	British Columbia	Canada	1	0.2
V9V1B6	Nanaimo	British Columbia	Canada	1	0.2
V7V1A5	West Vancouver	British Columbia	Canada	1	0.2
V5A1B6	Burnaby	British Columbia	Canada	1	0.2
V4A9E9	Surrey	British Columbia	Canada	1	0.2
V3H2L4	Port Moody	British Columbia	Canada	1	0.2
V1R3X3	Trail	British Columbia	Canada	1	0.2
V1R1A7	Trail	British Columbia	Canada	1	0.2
V1N4T1	Castlegar	British Columbia	Canada	1	0.2
V1N3C9	Castlegar	British Columbia	Canada	1	0.2
V1N2K3	Castlegar	British Columbia	Canada	1	0.2
V1L6J2	Nelson	British Columbia	Canada	1	0.2
V1L6J1	Nelson	British Columbia	Canada	1	0.2
V1L6X9	Nelson	British Columbia	Canada	1	0.2
V1C5C5	Cranbrook	British Columbia	Canada	1	0.2
V0H1H0	Grand Forks	British Columbia	Canada	1	0.2
V0G2K0	Ymir	British Columbia	Canada	1	0.2
V0G1Z0	Salmo	British Columbia	Canada	5	0.8
V0G1Y0	Rossland	British Columbia	Canada	1	0.2
V0G1V0	Procter	British Columbia	Canada	1	0.2
V0B1Y0	Lister	British Columbia	Canada	1	0.2
V0B1G3	Creston	British Columbia	Canada	1	0.2

Postal code	City/Town	State/Province	Country	Frequency	Percent of sample ¹
T9E2X1	Leduc	Alberta	Canada	1	0.2
T7X3V4	Spruce Grove	Alberta	Canada	1	0.2
T6E1B2	Edmonton	Alberta	Canada	1	0.2
T2E6E4	Calgary	Alberta	Canada	1	0.2
T0K0X0	Foremost	Alberta	Canada	1	0.2
DE5 8JD	Ripley	Derbyshire	England, UK	1	0.2
CH 7540	Pontresina	Graubunden (Canton)	Switzerland	1	0.2
BT 38 8RL	Carrickfergus	County Antrim	Northern Ireland	1	0.2
99654	Wasilla	Alaska	USA	1	0.2
99352	Richland	Washington	USA	2	0.3
99323	Burbank	Washington	USA	1	0.2
99307	not valid			1	0.2
99224	Sunset Hill	Washington	USA	2	0.3
99223	Manito	Washington	USA	12	2.0
99218	Spokane	Washington	USA	1	0.2
99217	Spokane	Washington	USA	5	0.8
99216	Spokane	Washington	USA	14	2.3
99213	Spokane	Washington	USA	1	0.2
99212	Spokane	Washington	USA	10	1.7
99210	Spokane	Washington	USA	1	0.2
99208	Spokane	Washington	USA	19	3.2
99207	Spokane	Washington	USA	13	2.2
99206	Spokane	Washington	USA	11	1.8
99205	Spokane	Washington	USA	23	3.8
99203	Manito	Washington	USA	9	1.5
99202	Liberty Park	Washington	USA	6	1.0
99201	Spokane	Washington	USA	10	1.7
99185	Wilbur	Washington	USA	1	0.2
99181	Valley	Washington	USA	1	0.2
99180	Usk	Washington	USA	6	1.0
99170	Rosalia	Washington	USA	1	0.2
99169	Ritzville	Washington	USA	2	0.3
99166	Republic	Washington	USA	2	0.3
99163	Pullman	Washington	USA	1	0.2
99156	Newport	Washington	USA	19	3.2
99153	Metaline Falls	Washington	USA	36	6.0

Postal code	City/Town	State/Province	Country	Frequency	Percent of sample ¹
99152	Metaline	Washington	USA	25	4.2
99150	Malo	Washington	USA	2	0.3
99148	Loon Lake	Washington	USA	2	0.3
99141	Kettle Falls	Washington	USA	2	0.3
99139	Ione	Washington	USA	49	8.2
99131	Gifford	Washington	USA	1	0.2
99126	Evans	Washington	USA	2	0.3
99122	Davenport	Washington	USA	4	0.7
99119	Cusick	Washington	USA	16	2.7
99114	Colville	Washington	USA	25	4.2
99111	Colfax	Washington	USA	1	0.2
99110	Clayton	Washington	USA	1	0.2
99109	Chewelah	Washington	USA	8	1.3
99037	Veradale	Washington	USA	2	0.3
99031	Spangle	Washington	USA	1	0.2
99029	Reardan	Washington	USA	2	0.3
99027	Otis Orchards	Washington	USA	5	0.8
99022	Medical Lake	Washington	USA	2	0.3
99021	Mead	Washington	USA	6	1.0
99020	Marshall	Washington	USA	1	0.2
99019	Liberty Lake	Washington	USA	2	0.3
99018	Latah	Washington	USA	1	0.2
99016	Greenacres	Washington	USA	3	0.5
99009	Elk	Washington	USA	7	1.2
99006	Deer Park	Washington	USA	11	1.8
99005	Colbert	Washington	USA	5	0.8
99004	Cheney	Washington	USA	5	0.8
99003	Chattaroy	Washington	USA	9	1.5
99001	Airway Heights	Washington	USA	1	0.2
98944	Sunnyside	Washington	USA	1	0.2
98937	Naches	Washington	USA	1	0.2
98902	Yakima	Washington	USA	1	0.2
98857	Warden	Washington	USA	1	0.2
98855	Tonasket	Washington	USA	1	0.2
98851	Soap Lake	Washington	USA	1	0.2
98844	Oroville	Washington	USA	1	0.2
98816	Chelan	Washington	USA	1	0.2

Postal code	City/Town	State/Province	Country	Frequency	Percent of sample ¹
98812	Brewster	Washington	USA	1	0.2
98802	East Wenatchee	Washington	USA	1	0.2
98801	Wenatchee	Washington	USA	1	0.2
98685	Vancouver	Washington	USA	1	0.2
98674	Woodland	Washington	USA	1	0.2
98671	Washougal	Washington	USA	2	0.3
98584	Shelton	Washington	USA	1	0.2
98569	Ocean Shores	Washington	USA	1	0.2
98508	Olympia	Washington	USA	1	0.2
98506	Olympia	Washington	USA	1	0.2
98466	Tacoma	Washington	USA	1	0.2
98444	Tacoma	Washington	USA	1	0.2
98366	Port Orchard	Washington	USA	1	0.2
98363	Port Angeles	Washington	USA	1	0.2
98362	Port Angeles	Washington	USA	2	0.3
98342	Indianola	Washington	USA	1	0.2
98282	Camano Island	Washington	USA	1	0.2
98273	Mount Vernon	Washington	USA	1	0.2
98272	Monroe	Washington	USA	1	0.2
98241	Darrington	Washington	USA	1	0.2
98240	Custer	Washington	USA	1	0.2
98237	Concrete	Washington	USA	1	0.2
98233	Burlington	Washington	USA	1	0.2
98229	Bellingham	Washington	USA	1	0.2
98204	Everett	Washington	USA	1	0.2
98177	Seattle	Washington	USA	1	0.2
98126	Seattle	Washington	USA	1	0.2
98119	Seattle	Washington	USA	1	0.2
98112	Seattle	Washington	USA	1	0.2
98103	Seattle	Washington	USA	2	0.3
98056	Renton	Washington	USA	1	0.2
98042	Kent	Washington	USA	2	0.3
98040	Mercer Island	Washington	USA	1	0.2
98036	Lynnwood	Washington	USA	1	0.2
98020	Edmonds	Washington	USA	1	0.2
98003	Federal Way	Washington	USA	1	0.2
98001	Auburn	Washington	USA	1	0.2

Postal code	City/Town	State/Province	Country	Frequency	Percent of sample ¹
97701	Bend	Oregon	USA	1	0.2
97405	Eugene	Oregon	USA	1	0.2
97229	Portland	Oregon	USA	1	0.2
97218	Portland	Oregon	USA	1	0.2
97113	Cornelius	Oregon	USA	1	0.2
97071	Woodburn	Oregon	USA	1	0.2
97062	Tualatin	Oregon	USA	1	0.2
96743	Kamuela	Hawaii	USA	1	0.2
96704	Captain Cook	Hawaii	USA	1	0.2
96135	Vinton	California	USA	1	0.2
96080	Red Bluff	California	USA	1	0.2
95356	Modesto	California	USA	1	0.2
95139	San Jose	California	USA	1	0.2
94044	Pacifica	California	USA	1	0.2
93442	Morro Bay	California	USA	2	0.3
93001	Ventura	California	USA	1	0.2
92321	Cedar Glen	California	USA	1	0.2
92309	Baker	California	USA	1	0.2
92057	Oceanside	California	USA	1	0.2
92004	Borrego Springs	California	USA	1	0.2
89121	Las Vegas	Nevada	USA	1	0.2
89041	Pahrump	Nevada	USA	1	0.2
89012	Henderson	Nevada	USA	1	0.2
89002	Henderson	Nevada	USA	1	0.2
85743	Tucson	Arizona	USA	1	0.2
85735	Tucson	Arizona	USA	1	0.2
85364	Yuma	Arizona	USA	1	0.2
85020	Phoenix	Arizona	USA	1	0.2
83873	Wallace	Idaho	USA	1	0.2
83869	Spirit Lake	Idaho	USA	2	0.3
83864	Sandpoint	Idaho	USA	2	0.3
83861	Saint Maries	Idaho	USA	1	0.2
83858	Rathdrum	Idaho	USA	1	0.2
83856	Priest River	Idaho	USA	4	0.7
83854	Post Falls	Idaho	USA	7	1.2
83845	Moyie Springs	Idaho	USA	1	0.2
83837	Kellogg	Idaho	USA	1	0.2

Postal code	City/Town	State/Province	Country	Frequency	Percent of sample ¹
83835	Hayden	Idaho	USA	2	0.3
83822	Oldtown	Idaho	USA	1	0.2
83815	Coeur D’Alene	Idaho	USA	4	0.7
83805	Bonnars Ferry	Idaho	USA	1	0.2
83804	Blanchard	Idaho	USA	2	0.3
83801	Athol	Idaho	USA	2	0.3
83537	Kendrick	Idaho	USA	1	0.2
83501	Lewiston	Idaho	USA	1	0.2
83404	Idaho Falls	Idaho	USA	1	0.2
80906	Colorado Springs	Colorado	USA	1	0.2
80487	Steamboat Springs	Colorado	USA	1	0.2
80215	Denver	Colorado	USA	1	0.2
80012	Aurora	Colorado	USA	1	0.2
78163	Bulverde	Texas	USA	1	0.2
75803	Palestine	Texas	USA	1	0.2
73170	Oklahoma City	Oklahoma	USA	1	0.2
73077	Perry	Oklahoma	USA	1	0.2
64114	Kansas City	Missouri	USA	1	0.2
60040	Highwood	Illinois	USA	1	0.2
59935	Troy	Montana	USA	1	0.2
59923	Libby	Montana	USA	1	0.2
59868	Seeley Lake	Montana	USA	1	0.2
59844	Heron	Montana	USA	1	0.2
59602	Helena	Montana	USA	1	0.2
59327	Forsyth	Montana	USA	1	0.2
57108	Sioux Falls	South Dakota	USA	1	0.2
55192	not valid			1	0.2
53593	Verona	Wisconsin	USA	1	0.2
51355	Okoboji	Iowa	USA	1	0.2
49456	Spring Lake	Michigan	USA	1	0.2
39429	Columbia	Mississippi	USA	1	0.2
37087	Lebanon	Tennessee	USA	1	0.2
37040	Clarksville	Tennessee	USA	1	0.2
34223	Englewood	Florida	USA	1	0.2
31521	Brunswick	Georgia	USA	1	0.2
30252	McDonough	Georgia	USA	1	0.2
29313	not valid			1	0.2

Postal code	City/Town	State/Province	Country	Frequency	Percent of sample¹
27613	Raleigh	North Carolina	USA	1	0.2
22180	Vienna	Virginia	USA	1	0.2
21401	Annapolis	Maryland	USA	1	0.2
Refused				8	1.3

Note:

1 600 respondents

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Appendix 3d. Question 21, Importance/Satisfaction Ratings for Recreation
Facilities/Opportunities

Appendix 3d
Question 21, Importance/Satisfaction Ratings
for Recreation Facilities/Opportunities

Opportunity	% Importance ¹			% Satisfaction ²		
	Low	Moderate	High	Low	Moderate	High
Tent campsites	21.0	16.5	62.5	2.3	24.8	72.9
RV campsites	24.6	14.7	60.7	6.4	27.6	66.0
RV hookups/utilities	45.9	23.1	31.0	25.1	34.3	40.6
Campsite fees	26.0	25.8	48.2	5.2	20.8	74.0
Parking areas	5.6	21.5	72.9	1.9	16.3	81.8
Road access to recreation	4.6	15.6	79.9	2.7	14.1	83.3
Disabled access	30.8	20.6	48.6	7.6	26.4	66.0
Drinking water	7.8	15.9	76.3	8.6	22.4	69.0
Flush toilets	21.7	18.9	59.4	11.5	20.5	68.0
Vault/portable toilets	17.9	29.4	52.8	12.7	28.1	59.2
Trash containers/collection	5.3	13.9	80.7	3.8	13.6	82.6
Picnic sites	7.9	23.4	68.7	4.2	15.8	79.9
Swimming/beach access	10.0	16.9	73.1	6.0	17.7	76.2
Historic sites/information	15.5	29.2	55.3	3.4	25.6	71.0
Scenic views/viewpoints	5.0	17.8	77.2	2.9	13.4	83.6
Wildlife viewing/nature trails	6.6	20.2	73.2	4.7	22.5	72.7
Interpretation/education	25.5	31.3	43.2	12.5	30.3	57.2
Hiking trails	12.4	22.7	64.8	8.6	25.7	65.5
Boat ramps	19.6	11.6	68.8	8.6	17.8	73.6
Boat docks	23.3	15.5	61.2	13.0	23.1	63.9
Boating safety information	27.9	23.5	48.6	10.1	35.1	54.8
Navigation hazard marking	18.5	10.3	71.2	9.9	26.3	63.8
River/shore access for fishing	19.9	18.7	61.4	10.5	26.6	62.9
Fishing opportunities	17.8	12.8	69.5	8.1	25.7	66.1
Hunting opportunities	40.9	12.8	46.2	9.1	30.0	60.9
Boat-in campsites	31.1	19.7	49.2	16.3	33.1	50.6
Canoe/kayak access facilities	26.1	21.9	52.0	10.4	25.7	63.9

Notes:

Table entries are valid percentages of respondents and account for missing responses.

- 1 Importance was measured using a 5-point Likert scale ranging from 1 = “not at all important” to 5 = “extremely important”. Valid percentages were collapsed so that Low = 1 and 2, Moderate = 3, and High = 4 and 5.
- 2 Satisfaction was measured using a 5-point Likert scale ranging from 1 = “not at all satisfied” to 5 = “extremely satisfied”. Valid percentages were collapsed so that Low = 1 and 2, Moderate = 3, and High = 4 and 5.

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Appendix 3e. Verbatim Responses to Visitor Survey Questions

Appendix 3e

Verbatim Responses to Visitor Survey Questions

Many questions in the Project area visitor survey included “Other” as a possible response, and/or provided space for respondents to enter open-ended responses to a question. In most cases, the space for open-ended responses was intended to allow respondents to explain or identify those additional responses that did not fit a pre-defined category. Appendix 3e documents the open-ended responses that were provided for the respective items on the questionnaire, as they were stated by the respondents (i.e., verbatim). Entries in these tables reflect possible misspelling in the responses and limitations on the ability to read or interpret some of the responses.

Question 5: Locations for overnight stays. Question 5 asked those respondents who indicated they were staying overnight in the Boundary Reservoir Area to name the facility or town in which they were staying. Open-ended responses entered for this category are listed in alphabetical order in Table A.3e-1.

Table A.3e-1. Responses for overnight stay locations for visitors to the Boundary Reservoir Area.

Type of Facility or Location	Frequency
<u>U.S. Forest Service campgrounds</u>	
Campbell Park	1
Crescent Lake	10
East Sullivan Lake	6
Edgewater Campground	1
Kettle River, Deer Creek	1
Mill Pond Campground	3
Riverside	1
Sullivan Lake	5
Sullivan Creek	1
Both Sullivan Lake and Crescent Lake	1
TBD	1
<u>Private Campground</u>	
Blue Slide Campground, resort, Circle, WA	3
Circle Motel RV Park	3
Mount Linton RV Park	6
RV park in Metaline (hookups)	1
<u>Town for hotel stay</u>	
Ainsworth Hot Springs, resort in British Columbia, Canada	1
Box Canyon Resort, Ione, WA	4
Circle Motel, Metaline Falls	1
Colville	1
Ione	2

Table A.3e-1, continued...

Type of Facility or Location	Frequency
Metaline	1
Metaline Falls	6
Sandpoint	1
Spokane	1
Washington Motel, Metaline	2
<u>Other Places Stayed Overnight</u>	
1 night on Forest Service road by campground	1
Also going to Crescent & Boundary	1
Apartment in Metaline Falls	1
BLM campground between Metaline Falls & Boundary Dam	1
BLM Campsite- Forest Service Road 305	1
BLM Lakeside Canoe-in	1
Boat	1
Boat Camping	1
Box Canyon Resort	1
Colville National Forest (Slate Creek)	1
Crescent	1
Dead end of Forest Service Road 193 (trailer)	1
Don't know which yet (campground)	1
Headed back home to Spokane	1
Home	1
Home	2
Home, we live in Colville.	1
I live here.	2
I live here, local.	1
I live here, and we expect 10 family members this week.	1
I live in Metaline.	1
I live north of here on Sullivan Lk Rd.	1
Live in area	1
Live in Metaline, just used boat launch	1
Local	1
Local hotel	1
Local resident	1
Metaline Chamber of Commerce parking	1
Moved here permanently	1
Mt. Linton RV Park in trailer	1
My house	1
My house in Ione	1
My mother's home	1
My sister's	1
NFS land out by Usk	1

Table A.3e-1, continued...

Type of Facility or Location	Frequency
Not staying, went home to Spokane	1
Our home	1
Our home south of Ione	1
Own home on river	1
Own property	1
Passing through, going back home	1
Pend Oreille Apartments, working at dam	1
Private home, we live in this area.	1
Private property	1
Private property (camper)	1
Rental home, moving to the area	1
Set up camp outside on private land	1
Slate Creek area	1
Sullivan Creek campsite	1
Tent camp on river between dam and Metaline Falls	1
USFS dispersed camping east of Sullivan Lake	1
We are fulltime residents of Metaline.	1
We are residents.	1
We have a cabin on Tiger Inlet.	1
We live here.	1
We live here (Metaline Falls).	1
We own property here.	1
Your designated BLM campsite across from Slate creek just south of Everett Creek	1

Question 7: Participation in recreation activities while visiting the Boundary Reservoir Area. Many respondents selected the “Other” activity category on the list of responses for this question and wrote in a specific activity. Those responses are listed in Table A.3e-2.

Table A.3e-2. Visitors responses for other recreation activities while visiting the Boundary Reservoir Area.

-
- 4th in park at Metaline
 - 4th of July
 - 4th of July event
 - Beading Group
 - BLM recreation site check, and shoreline clearing by boat.
 - Camp
 - Celebrated the 4th of July out on the beautiful water
 - Church Camp
 - Church Family Camp Out (about 60 people)
 - Crawford state park, Gardner caves
 - Cycle touring Selkirk Loop

Table A.3e-2, continued...

Dad and sons enjoying the great outdoors
Down River Days- Ione
Down River Days
Drinking
Evaluate site for possible school function use
Family Camping
Family gathering
Family Reunion
Family Time
Firewood cutting
Fireworks in Metaline
Flying R/L Airplanes
Gardener Caves (4)
Geo Caching
Geocaching
Get dogs away from fireworks (city)
Golf
Honeymoon
I've lived here since 1948 and have done all of these things.
Lion's Train, Ione (October 7)
Lions Train Ione
Looking at Fall Color
Looking for property to buy
Meeting friends
Moved here to live
Off road site seeing and fishing
Panning for gold on Sullivan Creek
Paper service
Passing through
Play at park
Play on toys
Playing Games
Pretending I'm Pochahantas
Read Bible
Relaxing
Relaxing
Relaxing!
Ride Train
Rock Hounding
Romancing
RV Campground property
Sand play
Scuba Diving
See Cave

Table A.3e-2, continued...

See Gardner Cave & Park
 Seeing the Gardner Caves
 Shopping
 Sister lives here
 Sleep
 Snow mobile in winter
 Snow shoeing
 Summer Job Site
 Sweating
 To breath & Releive stress :) Also tanning
 To get away
 Train Ride
 Traveling thru to British Columbia
 Visisting friends
 Visit Gardner Cave
 Visited Nelson, B.C.
 Wakeboarding
 Will return
 Work

Question 11: Means of fishing in the Boundary Reservoir Area. People who responded to the fishing questions were asked how they went fishing on this visit to the Boundary Reservoir Area. Open-ended responses provided for the type of boat or watercraft used are listed in Table A.3e-3. Several respondents also specified “Other means” for fishing; these are listed in Table A.3e-4.

Table A.3e-3. Types of boats/watercraft used by visitors for fishing in the Boundary Reservoir Area.

Type of boat used while fishing	Frequency
12' aluminum boat	1
12' Rubber raft	1
12ft. Port-a-bote and 5 hp outboard	1
14'	1
14' boat	1
14' mirrow craft boat	1
14 ft aluminum	1
15'Runabout (open boat 25hp)	1
16' Hewes Craft & Kayak	1
16' Runabout	1
18 ft Jet boat	1
19' open bow boat	1
19' open bow boat	1
20' Pontoon Boat	1

Table A.3e-3, continued...

Type of boat used while fishing	Frequency
8 ft	1
Aluminum Fishing Boat	1
Aluminum 14'	1
Aluminum boat	1
Aluminum Boat	1
Bass Boat	3
Boat - 15ft smoker craft	1
Boat	17
Boat & Kayak	1
Boat Duckworth	1
canoe	1
Canoe	3
Canoeing	1
Duck worth Jet Boat 22 ft	1
Duckworth 19' IO	1
Fishing Boat	1
Glastron GX 185	1
Jet Boat	3
Kayak/Boat-electric Motor	1
Motor Boat	1
Motorboat	1
Not in water	1
Open boat	1
Outboard boat	1
Paddle Boat	1
Pontoon	1
Pontoon	3
pontoon boat	3
Pontoon boat	1
Pontoon Boat	3
Pontoon Power boat	1
Power Boat	1
Power boat (19') and personal pontoon boats	1
Ranger 20' bass boat	1
Reniel 185 Power Boat	1
Runabout	1
Ski power boat	1
Small fishing boat w/ motor	1
Sports boat	1
Sports fishing boat	1
Starcraft	1
Tracker	1

Table A.3e-3, continued...

Type of boat used while fishing	Frequency
Triton Bass Boat	1
Trolling	1
Weldcraft 18' Jet Boat	1

Table A.3e-4. Other means of fishing used by visitors for fishing in the Boundary Reservoir Area.

Other means of fishing	Frequency
From a dock	2
Kayak	1
Pontoon	1
Walking	1
Did not fish	1

Question 12: Areas fished in the Boundary Reservoir Area. Question 12 included four spaces for respondents to provide open-ended input. They were asked to specify the locations if they fished the mouths of creeks entering Boundary Reservoir, if they fished creeks entering Boundary Reservoir above the creek mouth, or if they fished other creeks/ streams or lakes/ponds in the area. These open-ended responses are listed in Table A.3e-5.

Table A.3e-5. Specific areas fished during the visit to the Boundary Reservoir Area.

Mouth of creeks entering Boundary Reservoir	Frequency
At Metaline	1
I don't know names yet	1
Both Lime Creek and Slate Creek	2
Lime Creek, Slumber Creek, and S.F. Flume Creek	1
Lime, Slate, and Three Mile Creeks	1
Peewee Falls	3
Peewee, Slate, Sullivan, and Sweet Creeks	1
Slate Creek	12
Both Slate Creek and Everett Creek	3
Slate, Everett, and Fence Creeks	1
Slate and Flume Creeks	1
Slate and Peewee Creeks	1
Slate and Sullivan Creeks	1
Sweet Creek	2
Three Mile Creek	1
Creeks entering Boundary Reservoir (above creek mouth)	
SF Flume Creek	1
Flume Creek	1

Table A.3e-5, continued...

Slate Creek	2
Slate and Everett	1
La Clair Creek	1
Metaline	1
Sweet Creek	1
Bottom of the dam	1
Other creek/stream in the area	
Crescent Lake	1
Flume Creek	1
Pend Oreille at Ione	1
Pend Oreille south of Ione, 8 mile	1
Pend Oreille River	1
Sullivan Creek	1
Three Mile Creek	1
Other lake/pond in the area	
All shallow bays and flats 30' and less, lay downs between Boundary Reservoir and Metaline Falls	1
Boundary Dam Boat launch and swimming area	1
Boundary pond	1
Can't tell you, it's a secret, but last night I caught an 18 lb. trout.	1
Crescent Lake	8
Ione	1
I just tied up along the shore in several places.	1
Lime Creek	1
Lost Lake	1
Not fishing this trip	1
Pend Oreille	1
We live here. We fish all areas an unknown amount of days or hours, but it is a lot.	1
Yokum and Leo Lakes	1

Question 13: Fish species targeted in the Boundary Reservoir Area. Question 13 asked respondents to identify the species of fish they wanted to catch while fishing in the Boundary Reservoir Area. The open-ended responses for “Other species” are listed in Table A.3e-6.

Table A.3e-6. Other species of fish residents usually try to catch in the Boundary Reservoir Area.

"Cat Fish"
Any fish (3)
Any wood have been fine
Anything for the kids
Anything that bites! (2)
Browns

Table A.3e-6, continued...

Caught none
 Crappie (3)
 Crappie, perch
 Crappie, suckerfish
 Crappie, lake trout
 Kokaneey
 Native rainbow
 No specific goal
 None, still a great day
 None
 Northern's Walleye
 Northern Pike (3)
 Not triploid rainbow trout
 Pea mouth and suckers
 Perch, we do catch and release, so enjoy catching all fish.
 Perch (8)
 Perch, sunfish (3)
 Perch, whitefish (2)
 Perch, squawfish
 Salmon, sturgeon
 Squawfish
 sunfish, bluegill
 That's what is cool, there are many species, they are all fun to catch and except the scrap fish.
 Trout
 Tuna
 Walleye (7)
 Walleye, Northern pike (2)

Question 14: Fish species caught in the Boundary Reservoir Area. While Question 13 asked respondents the species of fish they *wanted to catch*, Question 14 asked them what they *actually catch* while fishing in the Boundary Reservoir Area. The open-ended responses for “Other” species are listed in Table A.3e-7.

Table A.3e-7. Other species of fish residents typically catch while fishing in the Boundary Reservoir Area.

Bull trout
 Crappie
 German brown trout
 Kokanee (3)
 Lake trout (2)
 Northern pike
 Pike Minnow (2)
 Perch (27)

Table A.3e-7, continued...

Squawfish (7)
 Sucker (3)
 Sunfish (3)
 Tench
 Walleye
 Whitefish (3)
 Scrap fish
 None

Question 18: Boat launch adequacy. Respondents who reported boat launches had not met their needs were asked to describe the problems they encountered. The open-ended responses to this part of Question 18 are listed in Table A.3e-8.

Table A.3e-8. Visitors' descriptions of launch problems they encountered.

Boundary good; Metaline due to depth & lack of dock; Box due to lack of dock & lack of breakwater to slow current
 2 Cleats loose; missing bolts to the dock
 Be nice with a jetty to cut down on current
 Cement all broken up; no dock, no tie ups; too steep and gravel road
 Could use some repairs to launch pad
 Except it would be nice if one in Metaline did not have so much dog poop and garbage around.
 Fishing opportunities could be a lot better doesn't care for game department.
 Fluctuating water levels, lack of enough docks, people in water at and around launch, not able to leave boat in water tied to the dock.
 It was ok. Boat ramp is very broken up, and wasn't there a dock at one time?
 Metaline needs lots of work, no dock, no pilings that are big enough, and the road and ramp are bad.
 Metaline Park boat launch is very poorly designed- no dock, steep access, Quite a challenge with large boat, especially. at lower water level!
 Metaline park launch needs some serious work!
 More sand, less big rocks (fiberglass canoe)
 No dock, high water and current made loading boat very hard.
 No docks
 Not easy access
 Not significant docks for boat mooring, west channel along current docks could be improved to accommodate additional docks for mooring.
 Ok, water low for launch and fishing
 Radical water fluctuation, moorage would be great! Small dock flood light for early and late launch.
 Ramp needs to be fixed up, where are the docks that were there a few years ago?
 Rough approach and cement slab is broken up/ no dock to tie off; water drops enough at night to cause real problems getting out.
 Small - need overnight mooring.
 The dock is missing. The ramp is in dire need of repair.
 The ramp at Metaline has seen better days. The ramp is all broken up and there is no dock for safe load and unloading of water crafts. We need a new ramp and dock for safe launching (please help).

Table A.3e-8, continued...

The water fluctuates too much.

Very rough and broken up.

Wanted to put boat in at Box Canyon but too shallow and narrow

Water fluctuation makes all reservoir area ramps very hard to depend on - Ramps need deeper jetty type channeled access to river channel.

Water is sometimes too low; Difficult to launch

Water was down too low to use for several days.

Water was extremely low making it more difficult to launch, muddier & lots of milfoil

Question 19: Problems with water conditions when boating on Boundary Reservoir. In addition to indicating whether they experienced problems with water conditions and the degree of those problems, visitors were asked to describe any problems with water conditions they had encountered. The verbatim responses to this part of Question 19 are listed in Table A.3e-9.

Table A.3e-9. Visitors' descriptions of problems with water conditions during the visit to Boundary Reservoir.

"Low Water"

Capsized kayak in Deadman's Eddy

Decreasing water elevation beached our boat while we were eating lunch in Metaline. In the afternoon we spent several hours downstream of the falls. When we returned the falls much faster and higher. Both problems were minor and expected.

Did not realize we would have to launch & load our boat every time we used it; first time to Forebay & was unaware; hard to break "camp" in camper & re-set it up just to launch/load. (Camper is a "pop-up" & we have to lower it to launch/load. We would (continues) ...

Due to the daily changing water levels which affects the quality of fishing especially the trout!! When children can't even catch fish on a bait and bobber over a 3 day try is just "squaw" fish; its very poor fishing.

Extreme Milfoil

Extremely low levels during the week days

Getting in & out of kayaks on shore line down canyon

Hard to control boat at times with current (electric trolling motor)

Hard to fish from shoe; water level was low

I was going to access downstream shoreline, and the next day the water level was up and I could not access the shoreline downstream.

I wish it wasn't being lowered.

Large amounts of debris and fluctuations of water

Large floating timber in river

Large fluctuation in water level from Mon-Fri for re-licensing studies.

Launching boat requires care to ensure it does not bottom out with low water.

Low water-steep banks-unsteady rocks

Low water afternoon/evening

Many people make comments.

Milfoil

Milfoil upstream is likely to cause problems in Boundary Reservoir in the future.

Table A.3e-9, continued...

Mostly falling water levels tend to make all Boundary Reservoirs useless.
 My access is to muddy!
 No sand only gravel on beach
 One of the people with me can't swim here at Box Canyon Pond, because she gets a rash.
 Only on the water noon to 3pm. Were apprehensive about lower water due to limited sites along shore to beach (put in) our kayak.
 Our only concern was the litter (bottles & cans).
 P.M. falling water levels forces us to come back early and miss the "late bite"!
 Rapids at Metaline Falls
 Smoke from a forest fire
 Sometimes the water is too low and lose a lot of fishing gear.
 Stayed after 6 P.M. was afraid to leave boat close to land because of water going down and leave the boat dry docked.
 Testing
 The water level fluctuations!
 This visit
 Too much milfoil, waste, scum, etc.
 Unsure of draw down times, and how they affected Metaline Falls for access for kayaking
 Very low water (cool), doing test with lowering water level
 Wake of power boats causing rocks to fall, erosion, and collision
 Water level being raised up and down; fish wouldn't bite.
 Water levels fluctuate too much, too fast.
 Water low, muddy beach, milfoil
 Water was very slow had to paddle kayaks more than expected
 We were aware of the changing water levels from previous visits, so we were prepared.
 Wind blew in our face on the way back, but that's hard to canoe (canoe trip up river); water level up and down

Question 21: Desired improvements to the existing recreation opportunities at the Boundary Reservoir Area. Respondents who indicated they thought improvements to existing recreation opportunities were needed were asked to list the activities or facilities they would like to see. The verbatim responses to this part of Question 21 are listed in Table A.3e-10.

Table A.3e-10. Visitors' descriptions of other recreation activities or facilities that they would like.

(Boat moorage) Due to fluctuating water levels you have to load your boat up every night.
 1 additional vault toilet on North end of Campground. More access to water
 1) We loved how the grassy area around the Forebay Picnic/Camp Area used to actually be green grass. Now it is all dead grass and knapweed. Would like to see the area irrigated from the reservoir to keep grass green. (would also reduce fire danger.) 2) We can camp without hookups, but it would be great to have potable water spigots at each campsite. If SCL ever decides to irrigate the grass maybe they could put in some additional water spigots at each campsite. Again, it would reduce fire danger. 3) The dust around the Forebay Launch Ramp is becoming a bigger problem. People drive too fast and it is so dusty it drifts over the campsites. Needs to chip seal the area or pave it. 4) Thanks for providing this great recreation area!

Table A.3e-10, continued...

1) Not enough privacy between camp sites or RV sites. I like trees for shade & for a more private area since we go to sleep relatively early & rise early. Since we arrived on Labor & folks were leaving, privacy wasn't a problem but since the parking area has been clear-cut, we wouldn't have stayed here if there were more folks. I'd suggest replanting trees between campsites. 2) Hot Showers would be great, even 2 for all campers to share since there are just 2 toilets.

1. Extend the dock further out so that at lower water levels the dock may be used. 2. Spraying for weeds and thistles in the campsites is needed. Maybe water the grass.

1.) Campsites could be better distinguished as overnight campsites. 2.) Grass areas could be watered. 3.) Broaden the visit (tours) to Boundary Dam. After Labor Day. Do weekend tours possibly.

A better boat launch facility with trailer parking and turn around spot. Better shoreline fishing area.

A better ramp and a boat/fishing dock.

A dock for fishing or a food bridge to the other side of the river

A golf driving range

Bigger garbage cans available for trash.

A rest room close to the beach in Sullivan Lake West Campground. The only vault toilet is at least 3 blocks from the beach and there is evidence of people using the beach area for bathroom needs. Water available to wash hands near restroom.

A slide, playground, picnic tables on the grass by water, ramp down from parking to walk easier, maybe 1 more fountain

A) Some type of playground equipment for younger children! B) power hookups & dumpsites

Also- just curious about whether or not tap water is potable.

Always more water activities

An area where motorized boats are not allowed, where only paddling canoe and kayak are permitted

Another boat launch, trash can closer to beach, more recycling containers, more sand on the beach

Another section of boat docking added to the present setup

ATV trails, Bathrooms need maintained better :)

Backstop/bases, volleyball sandpit/ net, picnic tables/trash cans by beach(right next to it), diving board on dock

Better ATV access to town for fueling purposes and food

Better bathroom facilities would be nice.

Better facilities at launch points: bathrooms launch ramps

Better fishing for adults

Better garbage disposal.

Better landing and access at existing boat-in campsites for kayaks; more campsites

Better launching for boaters.

Better restroom facilities are definitely needed. The rest stop restroom is horrible. It is dirty and smells horrible.

Flushing toilets are a must and running water for hand washing etc.

Better signage & more flush toilets. More descriptive & current info on activities available.

Better signage. Maps available online would be helpful, we looked at your site, does not give any lake boat launch areas where the waterfall is not trails marked, no campground marked. Patrol the campground; people know no one checks on them so they party with no rules to be enforced, so they trash a nice area. We were pleased with what mother nature has here; we were not pleased with how you have kept it up and let people know what is there. Water was not clean enough to swim in.

Bicycle trails

Bigger bathrooms/more stalls Showers graveled/leveled tent sites

Boat ramp in Metaline needs to be fixed- concrete ramp is significantly broken up. The dock @ Metaline boat ramp is gone- it would help greatly with handicap access to boats. Also- tourists' info (Peewee falls info etc.) would be neat to have @ each boat ramp.

Table A.3e-10, continued...

Boat rental, cleaner bathroom facilities

Boat rentals

Buoyed swim area and floating dock.

Buoyed/marked off swim area. Larger beach area. Shade by beach area. Floating dock.

But- roads could be paved or repaved to lower dust & eliminate potholes All camper sites could be paved, graveled or re-graveled Security request dog owners (whose dogs are not on leash, to do so) & provide doggy cleanup bags & disposal so its not messy for others.(For a Free campground, its great)

Canoe & kayak rental?

Clean the windows at the dam viewing site.

Designate narrow channels as "No wake zones" so that boaters will respect paddlers more. Consider limits on horsepower/noise from boats & jet skis

Don Walter was an excellent guide at Boundary Dam - Very friendly and informative! We loved our visit to Boundary Dam, campsite and surrounding areas!!

Establish kayak (paddle-in only) picnic sites on island and/or shore. Identify number of tent-sites at boat-in campground(presuming the SCL Forebay campground is not car camping). Plant some trees. Disperse the tent sites- or limit group size - or establish group sites. Establish some jet-ski speed and proximity limitations in vicinity of canoes & kayaks - like < 5 knots within 50 yards of paddlers. - Of course that would "go with" notification & presence of authority or more frequent presence of any existing - even buoys marking areas. More picnic tables at Forebay are needed. Is there a map posted showing auto parking, RV parking, tent sites, RV overnight sites (are there any?) , picnic only [at the northern-most site there was one table, several auto spots (all not being used) and a motor home that appeared to have claimed all] etc.

Fish cleaning stayed by dock

Flush Toilets

Flush toilets w/ running water

Flushable toilets, water fountain/hand washing areas

Frisbee golf is a good all around activity to be created and can be created with little or low cost and is good exercise. With all the forest area Mountain bike trails could be cut and routed through the area. A rental facility for Canoes or Kayaks could be added to generate more revenue. This is a beautiful area and I have enjoyed my visit.

Great everybody from this area are friendly I really enjoy all the time they spend up here. Thanks on for the place where all family love to come. :)

Handy caped fishing dock at S.E. end of fence assessable from picnic area. Put up brochure packets at bathrooms at boundary camp sight local business should then post activities and events. Canyon should be a no wake zone because of erosion and to stop near collisions.

Hiking trails along the river. Mt. bike/ ski loops to views of Z canyon area. Be sure to keep the facilities free of user fees. This is at least some compensation for the loss of the natural environment. Prohibit jet skies in Z canyon.

Hiking trails for camping area would be great.

Horse shoe pits would be nice

Horse trails & Trail Head access seems poor from what I saw and heard.

Horse trails along river and more view sites from shore along river and reservoir.

Horseshoe pits- maybe volleyball

I'd like to see a ORV trail head & trail established

I'm a 100% disabled Vet. Walking & hiking is one of my passions, but I can't do it anymore. I have on ATU, and it has become my extended legs. Maybe some ATU trails, with good rules and no hot rodders. Other states area having great success with these types of trails and good revenue also to those areas that cater to them... food for thought! :)

I have used over 100 facilities in the Western @ Southern States. Using this guide Boundary Reservoir is #1. Then include Free/can't be beat/Free stoked Firewood Unheard of! Thank You.

I love it here!

Table A.3e-10, continued...

I would like more rest areas along the roads
I would like more trees and shade in camping area and more and better defined camp sites.
I would like some power hook ups so I don't have to listen to my generator and would be willing to pay for a spot. I love this campground and will continue to come for many years I'm sure. Power or not!!!
I would like the bathrooms open longer in the season.
I would like to see a boat launch for canoes, kayaks, and small boats below Metaline falls. Early in the season it is impossible for these watercrafts to navigate the rapids so there is a lot of lost opportunity to float the canyon.
I would like to see a few more pieces of playground equipment for 4 or 5 yr olds.
I would like to see a more efficient boat launch & dock system located in the Metaline Park so that there is better access from the South end of the Boundary Reservoir as well as the North end.
I would like to see more hunting access
I would think having campsites would increase volume of visitors. There is land not used by park that could be used for this.
It's beautiful it's great....please keep it clean & as untouched as possible!
It would be great if there were a trail along the shoreline that led to the cove. 2.) Also, if there were an easier access to the Vista House look out that didn't require the drive around. 3.) As there are several smaller children that came here, a single play area would be cool. 4.) Water and Power to sites would be cool, but it might take away from the uniqueness of the site
It would be nice if the motor boats & personal water craft would slow down when they pass Kayaks or Canoes.
It would be nice to have a Volleyball court at the Box Canyon Campground! (Campbell Park)
It would be nice to have an ATV access from the western forest trails to preclude our illegal travel on paved road to get to the trails.
Jogging trail around Metaline park, trail to pee wee falls.
Just showers
Longer boat ramp to accommodate water fluctuations. More docking space More trout. More camping sites are needed. Please don't institute a camping reservation system. Keep first come, first serve.
Maybe a designated swimming/fishing dock. The boat launch dock can be difficult to use sometimes because of kids fishing and swimming on and around dock.
Maybe add some hook-ups for RVs, to a select number of campsites. We would gladly pay a nightly fee if hook-ups were available.
Maybe restroom @ the BLM Campsite and a fish cleaning station
Metaline better boat ramps, board walk along frontage road in Metaline, and all through the park also improve area at inlet and point north of boat launch.
Metaline launch area could use a water wall to ease heavy current. There is no dock at this time 6-5-07
Metaline park boat launch needs some serious work!
Moore boat docking/for overnight. Power to some campsites & RV sites in more wooded areas, not so open. Put a few more RV spots in the center of the drive thru camping area.
More 4X4 / off road trails. Compared to Western Washington, they are extremely lacking. Outdoor concerts, wine tasting, festivals. Outdoor celebrations. i.e. Outdoor summer theater, movie viewings.
More attention to the campground. need daily person checking bathrooms and stocking, cleaning. Need daily person to take care to trash. Monitor night time campus activities.
More Bathrooms
More boat-in campsites
More boat in Campsites
More boat-in facilities (Kayak or Canoe) Power & water hookups for RV (with a dump site) Reserveable campsites online. Camping fees to help pay for maintained of campground-
More boat in Facilities

Table A.3e-10, continued...

More camping sites along river & lake
 more campsites if possible
 More campsites, because more people are coming here.
 more designated bass fishing ponds
 More dock access e.g. overnight docks& tie-ups.
 More drinking water locations. More road and campsite signs.
 More Fish
 More forest service rd/boat access/ private campsites
 More garbage spots!!!
 More hiking trails
 More Hiking Trails
 More kids play equipment, kid's events, more shaded spots, golf cart rentals.
 More kids play equipment, swings, jungle gym, tether ball, water fountain to play in. Sports activities, baseball, volleyball, horse shoes, etc.
 More level tent spots with parking
 More Parking
 More restrooms- like one on the opposite side of the park by the camping sites.
 More RV camping sites. It is usually full in the summer. Hookups & utilities would be nice. Tent campers are camping where RV's should camp.
 More RV dumps with drinking water like Roosevelt area. Free facilities are best but if you must pay the fees should be based on how much you are dumping or getting water. I don't like rate fees because I have a small RV and feel discriminated against.
 More RV sites. Dump station. Ability to leave boat docked overnight (realize this is unrealistic due to need to draw down for power needs, but as long as we're dreaming. . .
 More sites for longer RV's
 More sites, kill knap weed & water grass. site could be made more level. New picnic tables at all sites
 More tent camping sites
 More trash containers needed at box canyon dam
 More Walleye in lake, didn't catch 1
 More water taps to access
 multiple private enterprise offering kayak/canoe rental
 My family and I would appreciate more campsites. But, this is a pretty awesome place just like it is.
 Need better signs for where the view point is. i.e., at the turn to Sullivan Lake if you had a sign & mileage stating where the view point was, we were there years ago & knew it was somewhere on this road.
 Need more shade trees for picnics
 Need RV dump station
 New boat ramp and dock at Metaline waterfront park. Better markings of islands hazards in the river.
 No fishing in box Canyon swimming hole. It is dangerous. I have had to take kids to the hospital with hooks in their feet. It is a swimming hole. Better access to the swimming hole from beaches for disabled. No sharp rocks off the point at the swimming hole. Dead fish floating in the swimming hole is nasty & stinky.
 No this area, but- More tress on the large camping area at Boundary Dam. Otherwise, all are great. (where we were)- Bathrooms closer to day use beach at Sullivan - North. It's been moved quite a way from the beach. New swimming facilities - -enlarged - are wonderful.
 On July 2 we attempted to hike the trail Mt. but we had to turn back b/c of downed trees on the road to the trailhead
 One thing it needs is a cleaning station for fish

Table A.3e-10, continued...

you should provide life guards (to be returned when finished) I've seen sigh w/hooks & life jackets. Very simple to "display" & make available small price to pay-even if the jackets are stolen. Maps that show all hiking, biking, horseback riding, campsites, etc... If these exist I don't know that so maybe they need to be more "available" Those maps can cover some other items such as wildlife, berries, flowers just some basic. Campgrounds in Alaska provide bear boxes at remote campsites which is like for backpacking. These are usually places where we pay after to be there. Look at the website for Alaska to get additional ideas.(State parks/National Parks)

Our camping experience was the best. The kids really enjoyed themselves & made some new friends. The only concern we had was the drug bust they had. Only because we had our kids with us. We were glad they were dealt with.

Outside shower for after swimming

Paved parking; shade trees

Perhaps, nature hikes, guided, perhaps more bathrooms and even a shower would be awesome! but other than those few things, this place is awesome!

Permanent type rest room facilities not Port-a-potties

picnic area

Picnic sites improved/expanded

Play area for kids, Water slide, concessions or vending machines

Play ground equipment slide into water

play ground type structures

Play grounds equipment for kids power Hook ups for RVs or general power.

Please bulldoze in additional RV parking spaces for crowded weekends, as we spent the night on the boat trailer parking area.

Possibly a sign board showing different species of fish and animals in area to look for.

Potable water needs visual improvement, way too milky in color.

Potable water, longer boat dock, Swimming area away from boat dock/ ramp, longer launch ramp.

Programs for young children. Protecting environment/ Roped off swimming area, small playground for children.

R.V. Dump Water Hazard Markings

Rain Shelter in Picnic Area

Ramp repair and dock at Metaline Park. Clean up (or out) small boat launch area at mill pond by Sullivan Lake.

Ramp repair and docks at Metaline Park

Re-open crescent lake campground that was closed

Recreational reader board with maps History of area, Better definition of parking & camping areas. Certainly more areas for tent trailers & small, medium, & large RV's such as Heyburn Park in Idaho.

Remote camps up the canyon

Road access-lots of roads closed off hiking trails need to be cleared

RV Hookups

RV hookups at Box canyon for power

RV hookups, box canyon

RV parking with or w/o Utilities Dump Stations

RV sites with hookups campsite fees to pay for those sites. Upper level at Forebay Campground could be used for additional sites. Portable or vault toilets at some of the boat in sites. Pay Phones!

Seeing little Security I think people wanting to hurt our country Could do damage and disrupt life in America by breaking the dam

Shade in the camp ground more privacy

Should have hot water in restrooms. Should have showers.

Showers

Table A.3e-10, continued...

Showers at Boundary

Showers at Campsite!

Signing potable water better

Since I own a tent camper (pop- up camper), I would like to see more electric hook ups. Water hook- ups would be nice too but of less importance. Bathroom showers would also make the campground more appealing to me.

Small dock light (fore early and late fishing). Enforce 10 PM noise control. No generators! 4-wheelers and motorcycles for entering and leaving only! Not for riding laps around camp grounds. And licensed, of age riders, not little kids! I don't want to be liable for their inexperience and lack of knowledge of the road, and respect of others!

Somewhere to shower would've been fantastic. I think if we would've been able to shower, instead of just washing vital parts, we'd stay longer- The only other thing I'd really like to see is a noise curfew. Swimming at night is awesome, however people are yelling & being loud into wee hours of the morning - If someone could monitor the campsite periodically for noise & under age drinking that would improve the camping environment quite a bit- Thanks!

Speed limit on river or motor size limit

Swimming areas!!!

Thank you! We had a great time!

The dock needs to be there. The ramp needs repair badly. The concrete is broken up.

The lawn needs to be watered so people can picnic more comfortably. There were a lot of people here. There was not enough RV camping spots. Maybe reservations need to be an option so people don't travel so far to get here only to find place filled.

The Metaline Park restrooms are very run-down and filthy; no boat dock at park.

The only other thing is with this much lawn area and the water that's here, why there is no irrigation system to keep it watered and have it nice and green for kids and there other sporting activities on shore when not in the water.

Other than that a very beautiful place.

The only thing I can think of would be a dock at the boat launch in Metaline.

The picnic table needs improvements

The swimming is great! Meets all our needs from ages 3mo to 16. The dock is great. Free camping, that I feel safe enough to camp here by myself with two small children, with fire wood! So I am not sure if I want to ask for shower facilities, as much more than what we have at Box Canyon and camping may not be free. I've been taking my boys here to camp for about 6+ yrs.

There could be more sites as this place gets very busy. - less gravel in the tent area. Rocks are hard to sleep on. More comfortable if area was more grassy.

This is the best river area in P.O Co - Keep enhancing fishing opportunities and keep it as primitive as possible

This was a beautiful area. A little more privacy between camps spots would be nice, however overall we were very satisfied. Campground was very clean. Thanks much we will come again! Jayme Brien

up the hill toward guard station, could have more spaces!

Utilities

Volleyball court, Badminton court, basketball court, horse shoes, mini golf, gondola to hooknose, soccer field, more shore boat-in camping with restaurants and cabins, live wide grass (mowed and irrigated), bike trails, hiking trails, beer and restaurants

Walk way around the Metaline park hiking trail to Pee Wee falls.

Warning buoys on rock bars near Metaline, improved boat launch and a quality dock at Metaline. Please!

We appreciated the facilities and were grateful to stay there.

We are at a power dam and the power to the bathroom is great - However it would be nice to have power to the sites, even if there was a charge for it. We travel with s small dogs and we clean up behind them. It's too bad others don't do the same. Maybe if you supplied doggie doo bags people would get the message. We were very surprised to find fire wood at the site - nice touch- keep it up.

Table A.3e-10, continued...

We are concerned about the safety of the trail to Sweet Creek falls. steep drop off, slimy when wet, big hole in trail by pipe. The falls is beautiful and picnic areas/ parking/ restroom were all in great condition. The kiosk information was delightfully informative.

We are pleased with present facilities.

We heard walleye fish could be found in this area, the habitat is perfect condition for this specie-maybe something to consider stocking

We need good dependable boat ramps and docks you can go to most any other reservoirs and learn how to make ramps and dock walkways that work fine with rising and falling water levels Its not rocket science its just a matter of doing it right once instead of wrong a half dozen times

We need mote bicycle trails. More camp units. Child play area.

We visited on a Tuesday/ Wed. & stayed in the Boundary Forebay campground. The only access to the Vista House interpretive Center would have required a 25+ mile journey by auto when the site is a 1/4 mile across the river. If access from across the dam is not possible, a trailhead & hiking trail access from boating across would be nice. It would require a dock to accommodate the changing water levels.

We were uncertain as to whether the water provided be the boat launching was potable water. The sign appeared to have been defaced and perhaps someone had removed part of the sign to make it look like it was potable. Sign needs to be checked as it is confusing.

Would like Box Canyon Dam's visitor center open Saturdays.

Yes when we drove up to the Boundary Dam I didn't see the sign saying how many miles to dam. So Friday we went 3/4 of the way to the Dam and turned around. Sat. we saw sign that said 11 mile (I think) so we drove up again. We have Toy Hauler and 1 ATVS- we need to drive up without trailer and check out area more before pulling trailer that far,-Sweet Creek is a nice little rest area.

You need people to care to the garbage & bathrooms during the weekends. But I had a great time :)

Your map showing one BLM campsite is wrong. Our official campsite is approximately 2 miles north of the red-dotted site on your map. It's at the end of Forest Service road # 305, where it shows a large peninsula. This is actually on island 909 of the map. We have a fire-ring and two picnic tables at this primitive site. My name is Steve Ellensick - Call me if you would like more info. The survey is a great idea this part of the P.O river is a tremendous asset.

Question 22: Specific recreation sites in the Boundary Reservoir Area visited. Question 22 included 10 pre-defined responses for specific sites or types of sites people might visit for recreation. The verbatim entries for the "Other" response to this question are listed in Table A.3e-11.

Table A.3e-11. Other sites in the Boundary Reservoir Area respondents visited or intended to visit.

All are beautiful

All!

BLM campsite at Everett Island

BLM campsite in the Boundary Reservoir Canyon Area

Blue Slide resort area, Scenic View points, Metaline Falls

Boat ramp area.

Boundary boat launch and on river

Boundary Dam camp

Box Canyon Dam

Box Canyon Dam & Gardner Caves (2)

Box Canyon Dam campground

Table A.3e-11, continued...

Box Canyon Dam train - enjoyed very much, scenic
Box Canyon Motel
Box Canyon view point (2)
Camp at Mill Pond
Campbell Park waterhole
Caves, Waterfall
Chalet w/ beer (Western Star)
Crawford State Park
Crawford State Park, Metaline Falls (Affair on main street)
Crescent Lake USFS Campground
Dam Tour
Down River Days
East Lake Sullivan
Edlenated
Family property (2)
Fishing below Box Canyon Dam
FS road 310
Gardner Caves, Crawford Park State Park (20)
Gardner Caves, Metaline Falls, Metaline, Ione, Tiger Store
Guard shack
Hiked trail on backside of Sullivan Lake
Hiking, gathering, hunting
Hunting local area-camped on Forest Service Road 193
Hunting this day
I live here
Ione
Ione Park, Sullivan Lake, Big Meadow Lake
Ione River Park
Lake Sullivan
Lime Stone Cave
Live in the area so we see/use all the time
Metaline Falls (2)
Metaline Falls golf course
Metaline Falls Visitor Center
Mill Pond (2)
Mill Pond interpretative area
Mountains
Mouth of Slate Creek
Mt. Linton RV park
Muddy beach and skipping rock heaven
N/A
National forest roads and trails
Off road hunting
One of the campsites, don't know which one yet

Table A.3e-11, continued...

Parking lot
 Pewee Falls (8)
 Private Home
 Rd 190-191 Wood Cutting
 River bank, fishing
 RV Park in Metaline Falls; visited all above numerous times
 Season not conducive for some activity
 Sullivan Creek/Lake
 Sullivan Lake (5)
 Sullivan Lake Campground
 Sullivan Lake Day use (North) - not reservoirs (we frequently go to #8)
 Sullivan Lake, Mill Pond, Lake Leo, Metaline Falls
 Sullivan Lake, Lime Lake
 Swim pond at Box Canyon (3)
 The Apple (Campbell Park) boat launch (shore fishing)
 Touring/fishing the area
 Towns of Ione, Metaline, and Metaline Falls
 Trails, Hall Mtn.
 We travel through here as a scenic route into Washington
 We enjoy the outdoors we would be interested in all.
 We were going to visit dam, but large group had gone in before us.

Question 25: Problems or conflicts with others at the primary recreation site. Respondents who indicated they had experienced problems or conflicts with other people or their behaviors at the place they listed in Question 23 (as their primary recreation site) were asked to describe what had occurred. The verbatim responses to this part of Question 25 are listed in Table A.3e-12.

Table A.3e-12. Visitors' descriptions of conflicts or problems they experienced at the Boundary Reservoir Area.

A dog without leash
 At picnic site slob left their garbage in the fire pit.
 Boats pulling water-skiers up the canyon produce big wakes that are hazardous to kayakers. I don't think the canyon above the Forebay is an appropriate place to water-ski/wakeboard.
 But I have in the past. Last Labor Day weekend there was an extremely rowdy, drunk, noisy , music playing group. They did not respond to security. Police should have been called in sooner.
 Campers in RV at one sight were noisy late at night 11PM
 Did have a drunk camper stumble down to dock while fishing w/our small children- but he didn't cause any problems.
 Dogs fighting - was dangerous to the kids.
 Dogs in restrooms, again someone needs to enforce rules.
 Dogs not on leash bother us and get into our food.
 dogs off leash & poop not being cleaned up
 Dogs running lose. Dog poop not being cleaned up. Dogs harassing wild life. Dogs attacking our leashed dog and

Table A.3e-12, continued...

almost killing it. Sheriff should of been called in case these dogs so it again or hurt a human. Full garbage cans. Running out of TP. Speed through camp ground should be reduced. Horse shoe pits stakes should be fixed so people wont trip over them in the dark. Camping in play area at center of camp ground should be prohibited, More tables in the tent area should help with this.

Drunks and Meth/ pot heads Parents and Children alike

For Labor Day weekend it wasn't crowded like most places. Our neighbors was close, friendly(happens to be from same area-and knows friends of our's-small world) Our visit was extraordinary!

Foul language from very young teens

Good this trip. Past visits marred by noise from jet skis in the narrow canyon areas

Guys kids walking around at night, 2 dogs yelping& barking

Haven' met a single person No people at all

I actually listed is on question 21. Sorry!

I have four dogs myself so it's important to control my animals, for sound, picking up after them, walking and so on, I don't want this to have a negative effect, but some don't curb them or stop them from barking, I witnessed a dog relieving himself on grass and they did not pick it up I did. BBQ pits were over filled, so we cleaned them. Thank you for your work at keeping this so friendly to camp.

In all the years we've been coming here this was the only time we have had a neighbor that was not respectful of other campers. (loud adults, loud uncontrolled children, drunks, loud radio until 3 AM)!

It was only crowded (somewhat, not badly) because it was the 4th of July picnic!

Jet Skis- Loud and annoying

Kids throwing rocks, pushing kids off dock.

Kids using bad language

Large party drinking being loud, drinking very loud after 10pm - until 1:30am & 1am Had spot lights on facing out into the camp ground until 1:30am and 1am as well when asked to be quite did so after a few hours. Would recommend quiet time from 10pm to 6am POSTED

Loose dogs

Lots of cursing/ swearing in one group but it was actually entertaining.

loud music after 11:00pm

Loud music late at night

Loud party passed 11:00pm at Box Canyon

Loudness at a late hour (unsupervised children)

Motor bikes kicking up dust & noisy generators (noise level) loud vehicles in the early AM

Motor boats speeding past Kayaks.

[SCL Project Manager] has a particular beef about boaters using the dock to moor their boats. We understand that the water levels, can make the dock unusable, but it is still the best & safest place to leave boats during the day. We have used this dock for 10 years. We know when to get the boat off the dock due to low water. It is unsafe to ask us to tie/anchor our boats in front of swimming beach just to get them off the dock! Additional comments at in of survey.

My father and several other people we talked to were harassed by another hunter who was trying to kick people off of National Forest property by intimidating and threatening them

need to have a noise curfew

Neighbors were very noisy inconsiderate to other visitors w/ their noise levels, riding motorcycles and 4-wheelers late at night,

No but garbage did not get dumped from cans!

Noise - Motorcycles and ORV's in campground, jet skis at beach and boat launch area. Would love to see motorcycles and Orv's banned in campground (i.e. - no riding in campground). Would love to see riding of jet skis banned in swimming and boat launch area. Would love to see dogs required on leash and owners pick up after them

Table A.3e-12, continued...

(a station at beach area with doggie do-do bags or ban dogs on beach).

Noisy campsite next to us who kept it going way to late! & lack of security checkups that we've become used to. Not at all!

On Thursday night after 1030PM a group of people came in with several dogs and were very noisy. They had friends or family on both sites next to us and the next day they went back and forth continually.

One night loud group (drinking and probably drugs)

Only temporarily a few people in fishing access area not fishing

Other fishermen crowding into our fishing hole. Nimrods unfamiliar with how to launch a boat.

People at Sullivan always low-key, pleasant

People bringing their boats in the swimming area.

People can be very rude & say "smart-alecky" remarks, but for the most part everyone else was pleasant & friendly- there always seems to be one that ruins it for everyone else...

People from other camps stealing wood. Dogs being loud throughout the night.

People let their children run crazy/ unattended in the campground. Too noisy. Bears trying to eat me

People weren't putting their trash in the garbage can in the bathroom. My husband said the bathroom ran out of toilet paper.

People would come and ask us when we were leaving because they wanted the campsite we were in. Had this happen Saturday and Sunday both. I cam here to enjoy myself no to have people lined up to take our spot when we leave.

Pit bull dogs off leash barking & coming up face to face w/our 3-year & friends 3 year-old

Power boat wakes; inconsiderate jet-skiers

Pushing and shoving on the dock area when small children were present.

Recommend some sort of patrol to keep the crack heads out.

River ran generator too 12:30am. Had to tell them to turn it off.

Saturday there was a lot of kids hot rodding cars. Making it dusty

Summer months get very crowded - a testament to this great place- However some, usually in motor homes monopolize the beach area- Park crosswise & hoard the area- very inconsiderate considering this camping is free

The campsite felt crowded when we arrive but everyone left for home that day since it is Labor Day. We are enjoying the peace and solitude. You may want to a small camping & RV area with water access but no jet skis in the area. The boat ramp would be away from campers & RV'S and swimmers

The motor boats speeding through the canyon while kayaking. Also the skiers and water boarders. It makes big wakes that makes you feel like you will capsize the kayak.

the obnoxious people next to us were loud/ shouting Fire works late into the night It would be nice if there was a regular quiet time like 10pm- 6 am

The other campers here arrived at about 1AM

There is a danger to small unmotorized craft in the narrow parts of upper river from larger speed boats. Although most we encountered were cautious.

There were 9 dogs with a group of people, none were on leashes. One dog went under our boat trailer and we could not get the dog to come out. I had to physically drag the dog, so we could move our trailer.

There were people smoking in the bathrooms.

Truck & boat trailer parked in front of toilets while setting up camp. Even witnessed a child leave his bike in the otherwise barely passable road, and indignant response to horn by adult.

Unleashed dog urinating in ours and others campsites while owner on dock. And fluctuating water levels (just kidding).

Very fast moving power boat; disrupted quiet setting, stirred up clear water at shore, created heavy wake

Wake boarders not slowing down for us in kayaks. Boats towing skiers not slowing down either. Felt like we

Table A.3e-12, continued...

would capsize when they speed by!!!

Water skiers and tubing - reckless driving boats need a speed limit The beauty is destroyed by the inconsiderate water skiers & tubing boats.

Wave Running! Reckless behavior on a watercraft!

We were the only people in the campground. We would have stayed next to the water but the goose droppings were too numerous!

We were uncomfortable the first night with someone walking in our campsite after we were in bed.

With the group of young adults that furnished the wood and collected the trash at 7:20 am---8:30am, they had the vehicle Radio/Stereo turned up so "Loud" it woke up several campsites. The trio (2males,1 female) acted like it was nothing. However, as you know most people that take time to visit areas such as these would rather, sleep in late or just enjoy the sounds of nature rather than "Head Banging Music" in the morning.

Question 28: Maintenance needs at primary recreation site. Respondents who indicated they had not found the facilities at their primary recreation site to be adequately maintained were asked to describe the maintenance needs they perceived. The verbatim responses to this part of Question 28 are listed in Table A.3e-13.

Table A.3e-13. Describe any maintenance needs you thought were not currently met.

Water the grass area.
 A shower would be nice.
 As good as possible, given the heathen neighbors this trip. "Normally", they are well kept.
 Less gravel and more grass in tent areas.
 Bathroom facilities were not maintained. No toilet tissue, dirty facility, very bad smell, flies and other insects made it unusable.
 Bathroom was very dirty.
 Bathrooms need better maintenance
 Bathrooms could be cleaned and stocked more often
 Bathrooms could be cleaner.
 Bathrooms not clean and restocked frequently enough
 Bathrooms not maintained
 Bathrooms were dirty and trashcans were full
 Bathrooms and garbage
 Beautiful!
 Beautifully maintained
 But we ran out of paper in men and women's bathroom
 But was out of toilet paper last night. We come early for a spot.
 Campground has been closed for awhile, although we still go because we love it up there.
 Comment on Question #21 addresses day use, but not a problem of maintenance. We saw two different trucks of workers when we were on our outing, one cleaning/checking bathrooms and one collecting trash.
 Corner cleat is loose due the dock wood rotting away
 Did not use any facilities
 Didn't use them, don't know what the bathrooms are like.
 Dirty, smells horrible (restroom), no running water.
 Dock needs to be there. Ramp needs repair
 Done Well!
 We drove a long ways and weren't sure if there would be room, worried it would be too dark to find another place.
 Due to the amount of personnel utilizing and staying at this site the restrooms were "Not" maintained with even the basic essentials toilet paper, clean floors and soaps for all comers!! Also, whoever is in charge of replenishing the firewood showed up the day before the holiday and placed just enough wood in each campsite for a small fire for overnight and part of the next day for some sites. We had to go and collect some firewood from other areas outside of campground.
 Needs RV power hookups
 Extremely satisfied!
 Fire pits appeared to be broken down.
 Gate at Crescent Lake was locked on Labor day weekend. If it is locked for fire reason's maybe a sign and a fine would be better than penalizing everyone for a few people who don't follow the rules.
 Grass in picnic area beachfront at Forebay is dead or dying with lots of knapweed
 I've fished here for 34 years. I've never had as much trouble as the last few years with people trashing the area around the water. It was nice when you could get around the end of the lake to the old campsites at Crescent Lake.

Table A.3e-13, continued...

People would put their trash away instead of leaving it spread about.

I think that it was actually better kept than some of the other campgrounds that we had to pay fees to stay and they did not offer free firewood either.

It was fairly well maintained but the toilets could have been cleaner and the garbage should be picked up more often.

I was happy with the experience here.

Lawn care not good. Mostly weeds need mowing. Other than that, it was beautiful!

Locking stall door in men's restroom is broken

Maintenance is ok, but upgrading of trails needed.

Metaline Waterfront Park needs more maintenance and repair of existing facilities and more parking for boat trailers. We don't use the boat ramp but they look to be in need of repair.

Need another bathroom on picnic side.

Need more trash cans

Need to mow more often at Box Canyon

Needs RV hookups

No garbage pick up daily, ran out of toilet paper in toilets

No paper towels in women's restroom

No toilet paper

No toilet paper in bathrooms

No toilet paper

Not enough garbage cans

Noxious weed control (knapweed, thistle, mullen) and litter along shoreline

Picnic tables and covers are really old. They need to be replaced.

Picnic tables very dirty, and no toilet paper in restrooms

Please dump garbage daily when campground is full or at least check them.

Please spray the knapweed on the lawns as required by state law.

Please water lawn

Poor restrooms, everything else is great.

Restrooms were filthy

Restroom needed maintenance attention. Boat ramp needs improvement. Boat dock missing.

Sink in restrooms to wash hands after using the facilities

Stinky outhouses

Thanks for the free campsite and firewood!

The bathroom had no toilet paper in it and smelled real bad.

The bathrooms were clean. Thanks for providing garbage cans, the tables and barbeques are very handy. The rope across the wading pool is cool. I've been coming here for 10 yrs and every year you improve little things. You should get a pat on the back for keeping this so clean. Thank you for the firewood. I'm disabled so that was a plus. I wouldn't be here if you charged a fee, because I can't afford to take all of us and the dogs camping for a week.

The dock never seems to be in at Metaline Park and the ramp itself is in need of repair. However, unless it is done right it would be mostly senseless.

The fire wood was provided, split and dry, which was a great surprise/amenity!

The launch getting on the water is rough.

The trash needed to be emptied a little more often

Trash and no toilet paper.

Very clean and well maintained

Very dry and grass, Sprinklers?

Very nice and clean.

Table A.3e-13, continued...

Watering the grass areas!

We have been camping in our camper for 2 weeks at many campgrounds and the number one problem for us was overcrowding. I'd like to see dogs left at home since folks don't pick up poop, in general. Also, unattended children and noise at night and too much drinking by adults create a less than peaceful situation. I'd say "no alcohol & no dogs" on beaches, and a quiet hour set. RV owners starting generators are awful, when they start up early in the morning.

We, as a party, have been maintaining that campsite for several years, our party discovered it, created tent spaces, fire pits, and brought in a picnic table. We do all that is necessary to maintain a primitive campsite bringing in and taking out all we need.

Well maintained most of the time, (bathroom was out of toilet paper on more than one occasion).

Would like to see something done to remove knapweed

Question 32: Attributes of the Boundary Reservoir Area that visitors particularly liked or that attracted them to the area. Respondents who selected the "Other reason" category for this question were asked to specify those reasons. The verbatim responses to this part of Question 32 are listed in Table A.3e-14.

Table A.3e-14. List of other reasons visitors gave for being attracted to the Boundary Reservoir Area.

Beauty

Best reason is no boat launch fees!

Big game animals here!

Birds and animals

Canoeing

Canoeing

Canoeing should be free...

Close to Crawford Caves

Close to friends who live Metaline Falls

Coeur d'Alene Lake

Come because of a job and love of the area.

Company picnic

Crawford

Crawford State Park, Gardner Caves

Dad lives close

Dam and facilities are very educational

Dam tour, sponsored by motorcycle store. 20 dams are chosen to visit each year. Last year was Boundary and this year was Box Canyon.

Easy for kids, dock is great. Keeps kids close so you can see them from campsite.

Easy set up for a 35' fifth wheel. We arrived during a time when there were many campsites available.

Easy to get to on paved road

Easy to take the kids on day trip

Family and friends

Family lives here

Family property

Family time

Firewood

Table A.3e-14, continued...

Free firewood
 Friend highly recommended
 Friendly people!
 Gardner Caves
 Gardner Cave
 Gardner Caves Crawford State Park and Sweet Creek Falls/Trail
 Good area for small children
 Good swimming area
 Good view of current fire (Pend Oreille)
 Great for kids to play and swim
 Great hiking. Great place to take children (when ours were young and living at home)
 Great staff
 Has not yet been discovered by the butt snakes from the big cities who ruin everything for everyone else. Don't tell anyone!
 Hunting
 Hunting toilets
 I enjoy taking people up and down the river so they can see the scenery and enjoy the river.
 I like the real bathrooms
 I live here
 I live locally so we utilize our surroundings.
 I was exploring the northern part of WA State, scenic drives etc.
 I was on route to BC but fell in love and stayed two nights
 I was raised in Metaline Falls and Ione, its nice to come back too.
 I work at Box Canyon so I can vacation at Campbell anytime and still work. We enjoy boating throughout the canyon.
 Initial visit recommended, subsequent visit to kayak.
 It's beautiful.
 It's friendly and clean.
 It's personable and not crowded. It's comfortable.
 It's free!
 It's on the highway to Canada where I'm traveling to.
 Just love the area
 Kayak trip
 Less crowded, more undeveloped
 Lots of wildlife, good hunting.
 Meet friends
 Most of the time it isn't very busy.
 Moved due to fishing and hiking. Fishing has disappeared over last 1/2 year.
 My wife was born in Metaline and it's a nice place to spend retirement.
 Need to check it out more
 Nice place to ride ATV's
 Nostalgia
 Not many people
 Not too many good forested areas like Western WA, but this comes close.
 Old friends live here.

Table A.3e-14, continued...

On the way to other destinations
Our church campout is here every year.
Part of the Selkirk Loop
Passing through to destination in Canada
Peewee Falls
People are friendly and courteous
People are nice in area.
Playground equipment for little one to play on
Quiet break from traveling
Referred by another person.
Rural charter, family friendly
Safe swimming
Sentimental reasons
Snowmobiling, hunting
Socializing
Staff very accommodating, helpful
State Route 31 is my preferred route to Canada because of Pend Oreille River view
Swimming
Swimming access
Swimming area! Warm water in kid area.
Swimming for the kids
Swimming in Sullivan Lake
The air is clean
The beauty of the canyon
The caves
The kids like to play here
The people I've meet during past and present visits has made a lot of the trips to the reservoir.
The staff looking after us tourists. Very nice.
there is no cost
This camp is the best I've seen
This is my home town, I been living 5 years in Alaska
This is our favorite! It's clean!
Very kid friendly low depth wading pool means safety.
Well rounded for the children and easy access to the water front
Visit Dam
Visit friends
Visiting the dam
Was recommended by a relative from Spokane
Waterfalls
We enjoy touring the dam.
We have a cabin on the Pend Oreille River
We heard it was good for fishing.
We love the area. Can't get enough.
We never use the other facilities in the area. We are always just passing through on the highway.

Table A.3e-14, continued...

We pass through going from the Spokane airport to the Kootenays in British Columbia
 We really like that there aren't a lot of people. Would hate to see that change.
 When we are here we appreciate that we are not bombarded with rules and regulations.
 Work
 Work at Mine
 Work for Colville National Forest
 Work for BLM and personal reasons

Question 33: Other lakes and rivers visited. Respondents were asked to list up to three other (than Boundary) lakes or rivers in the region that they visit for water-based recreation. Only part of this sample provided three responses to this question, but over 400 respondents identified at least one other place in the region that they visit for water recreation. These respondents provided a total of 830 responses. The most frequent responses are summarized in Section 5.1.3 of the report. A complete list of all responses received for this item is provided in Table A.3e-15 below, generally in alphabetical order.

Table A.3e-15. Other lakes or rivers in the region frequently visited for recreation.

Other lake or river in region	Frequency of response	State/Province
Armee Lake	1	ID
Arrow	2	BC
Ashley Lake	1	MT
Badger	2	WA
Banks Lake	5	WA
Bead Lake	6	WA
Big Meadow Lake	7	WA
Box Canyon Reservoir	11	WA
Brown Lake	6	WA
Beatty Lakes	1	WA
Black Lake	1	WA
Blake Lake	1	WA
Boundary Dam	3	WA
Cain Lake	1	
Cauldwell Lake	1	WA
Cedar River	1	WA
Chain Lake	1	WA
Champion	1	BC
Christina Lake	1	BC
Clark Fork River	4	MT
Clear Lake	2	WA
Cowlet	1	WA
Coogalla	1	ID
Columbia River	52	WA, OR

Table A.3e-15, continued...

Other lake or river in region	Frequency of response	State/Province
Cougall Slough	1	ID
Crater Lake	1	
Crescent Lake	13	WA
Curlew Lake	4	WA
Davis Lake	6	WA
Deep Lake	4	WA
Deer Lake	4	WA
Deschutes River	2	OR
Detroit Lake	1	OR
Diamond Lake	15	WA
Downs	1	WA
Eloika Lake	1	
Evans	1	WA
Fan Lake	1	
Fish Trap Lake	1	WA
Fernan	1	ID
Fisher River	1	MT
Flathead Lake	1	MT
Frater	2	WA
Freeman Lake	1	ID
Gillette Lake	4	WA
Grand Ronde	1	OR
Hayden Lake	4	ID
Hells Canyon	1	ID, WA, OR
Hood Canal	1	WA
Horseshoe Lake	1	WA
Idaho River	1	ID
Kalama River	1	
Kalamalka	1	BC
Kasho	1	BC
Kookanusa River	2	MT
Kilarney	1	ID
Kettle Falls	3	WA, BC
Kettle River	7	WA, BC
Kings Lake	2	
Klamath Lake	1	OR
Kokanee Lake	1	BC
Kootenai River	3	ID
Kootenay Lake/River	13	BC
Lake Berryessa	1	CA
Lake Casitas	1	CA

Table A.3e-15, continued...

Other lake or river in region	Frequency of response	State/Province
Lake Chelan	6	WA
Lake Coeur d'Alene	45	ID
Lake Cushman	2	WA
Lake Ellen	3	WA
Lake Elsie	1	
Lake Kookanusa	1	MT
Lake Pend Oreille	11	ID
Lake Roosevelt	51	WA
Lake Shasta	1	CA
Lake Whatcom	1	
Ledbetter Lake	5	WA
LeClerc Creek	2	WA
Leo Lake	9	WA
Liberty Lake	2	WA
Little Pend Oreille Lakes	14	WA
Little Spokane River	5	WA
Little Twin Lakes	1	WA
Long Lake	9	WA
Loon Lake	2	WA
Lost Lake	3	ID
Marsgek Lake	1	WA
Marshall Lake	6	WA
Meadow Lake	3	WA
Metaline Falls	1	WA
Mill Pond	17	WA
Moses Lake	1	WA
Moyie River	1	
No Name Lake	1	WA
Noxon Reservoir	1	MT
Newman Lake	1	WA
North Fork of Clearwater	2	ID
Okanagan Lake	2	WA, BC
Pack River	2	WA
Palmer	1	WA
Pend Oreille River	94	WA, ID, BC
Peyette River	1	ID
Pot Holes Lake	2	WA
Pierre Lake	2	WA
Priest Lake/ River	46	ID
Rogue River	1	
Rosebud Lake	1	WA, BC

Table A.3e-15, continued...

Other lake or river in region	Frequency of response	State/Province
Sacheen Lake	5	WA
Salmo River	1	BC
San Poil	1	WA
Satsop	1	WA
Silver Lake	1	
Slocan	1	BC
Staratia Lake	1	
Tahoo	1	
Skagit River	1	WA
Skaha Lake	1	BC
Slochs	1	BC
Sherry Lake	1	WA
Skookum Lake	3	WA
Snake River	6	WA
Spirit Lake	1	ID
Spokane River	12	WA
St. Joe River	4	ID
St. Maries	1	ID
Sullivan Creek	3	WA
Sullivan Lake	138	WA
Swan Lake - Republic	1	WA
Tarchanun	1	
Tacoma Creek (North of Cusick)	1	WA
Thomas Lake	4	WA
Twin Lakes	3	WA, ID
Two Rivers	1	WA
Waitts Lake	3	WA
Washington River	2	WA
Wenatchee River	2	WA
Willamette River	1	
Williams Lake	4	WA
Whiskey Towa	1	CA
Wolf Creek	1	MT
Yokum Lake	10	WA
Many in eastern Washington	1	WA
Most of them	1	N/A
None	1	N/A
Miscellaneous ¹	5	N/A
Missing	16	N/A
Total	830	N/A

Question 34: Other places or features in the region visited. Respondents were asked which other (than Boundary) places or features in the region that they had already visited or intended to visit on this trip. Fifteen choices were listed for selection. Responses enter by visitors who selected the “Other places” item are provided in Table A.3e-16 below.

Table A.3e-16. Other places or features in the region visited.

Train Ride (Ione)
 Alberta Canada and Glacier NP
 All, we live here and its what we do
 Athol ID- Silverwood Theme Park
 Back roads to small lakes and streams.
 Boundary Dam and Box Canyon Dam
 Boundary Dam tour and Vista Point
 Boundary Tour
 Boundary Dam
 Cathy's Cafe
 Coeur d' Alene
 Lake Chelan
 Creston Wildlife Refuge
 Dam Tour
 Davis Lake
 I do not feel welcome in Colville National Forest
 Down River Days, Ione.
 Dry Falls, Boundary Dam, Soup Lake etc. - Like them all.
 Gardner Caves always closed
 Gardner Caves, tried to go it was closed.
 Have visited them all on previous outings but none today.
 Home in Spokane
 I've been to all of them
 I am a local resident
 I live in Usk so have seen most all up here that interest me
 Ione, Metaline Falls
 Kettle Falls, WA
 Lime Lake, Sullivan Lake, Serendipity Golf Course
 Lions Club NOPV Train Ride
 Live in area
 Metaline Falls
 Metaline, Metaline Falls, Ione
 Nelson BC
 Northern Idaho
 Pend Oreille River
 Pend Oreille River

Table A.3e-16, continued...

Priest Lake
 Priest lake and Bead lake
 Scouting general area for hunting
 Smack out pass road
 Spokane and Chewela, Usk, Ione, Sullivan Lake, Metaline Falls, Boundary Dam, Vista House and Canadian border
 Spokane River
 Sullivan Lake and Mill Pond
 Sweet Creek Falls/Trail
 The big waterfall down river
 The Dam
 Tiger, private home on Pend Oreille River.
 Too many to list.
 Towns of Metaline Falls, Metaline, Ione
 Trails in area
 Tri-city area, campground on Snake River.
 We live in North Idaho

Question 37: Visitor locations when they viewed Project facilities. Respondents who indicated they did had seen facilities or structures associated with the Boundary Hydroelectric Project when visiting the area were asked to indicate where they were when they saw the facilities. The verbatim entries for the “Other” responses to this part of Question 37 are listed in Table A.3e-17.

Table A.3e-17. Visitors’ descriptions of where they saw views of Boundary Project structures.

Asleep in my tent
 At the dam (tour)
 Boundary Dam Gallery
 Box Canyon
 Box Canyon Dam
 Box Canyon Dam bank
 Box Canyon overlook
 Campbell Park
 Campbell park
 Campbell Park
 Campbell Park
 Here, but they were unobtrusive, attractive.
 My husband works at dam
 I helped build the dam
 I live here, so I've seen everything about the dam.
 Moved here
 My brother in law runs Box Canyon
 My sister Peggy K., gave my friends and myself a wonderful tour of the dam.

Table A.3e-17, continued...

On the dam bridge (bridge on the dam).
 Power lines in Colville National Forest
 State Route 31
 The dam
 Took a tour with a friend who works for the Dam.
 Took the tour of Boundary Dam
 Took tour of Boundary Dam
 Tour
 Tour of Dam
 Tour of the Dam
 Trails
 Visitors Center
 We toured the dam

Question 38: Effect of views of Project facilities on enjoyment of the scenery. Respondents who indicated they did had seen facilities or structures associated with the Boundary Hydroelectric Project when visiting the area were asked to describe how that affected their enjoyment of the scenery. The verbatim responses to this part of Question 38 are listed in Table A.3e-18.

Table A.3e-18. Visitors' explanations for how views of Boundary Project structures affected their enjoyment of the scenery.

A dam is a beautiful sight.
 Access to water for kayaking views of dam
 Although it is very important to view the dam, I have conflict about it, fish ladders that are absent. I think, isn't there a better way than to greatly disrupt the natural way? I do, however use the power generated. I didn't like hearing that Seattle uses over 50% of the power generated from the resources in my area!
 An enjoyable visit and surprise at the amount of power generated by this facility for Seattle's use.
 Breathtaking scenery!
 Dam
 Don't necessarily like seeing tension power lines everywhere, but I understand this is a facility created for a purpose and maintained by power, gas and dollars.
 Enjoyed Vista House, dam tour, campground, boat launch (Boundary area) clean and well kept. Pickle Forks are impressive.
 For these things to function you have to have some kind of structure. The Box Canyon Dam site is very pleasant to the eye.
 For what I enjoy it fits me well. Problem is there are many people finding the same thing
 Gods Country
 Greatly appreciated overall care. People of area friendly.
 I didn't visit the facilities but they didn't detract from my experience.
 I don't mind seeing Dam related structures because I understand the importance of hydro-electric power
 I enjoyed the tour of the Dam and the people and facilities are excellent
 I find it fascinating that the dam was built.

Table A.3e-18, continued...

I find these structures interesting

I love hydropower; man would and could not do a lot without it. It's our future.

I work at a rural Electric Coop and appreciate hydroelectric power.

I work here.

If facilities didn't exist, neither would lake or campground.

If they were there, I didn't notice.

Industrial development, while needed, rarely improves a wilderness/wildlife experience.

Information provided on trail to access viewing platform.

It's always interesting to see the dam!

It's great to see man and nature working together to provide clean/renewable energy (unlike the morons who voted that hydropower isn't a renewable resource in WA)

It's nice to know how all of this beauty works in harmony as a tool for mankind

It doesn't bother me to see these facilities, and we enjoyed the tour of the dam

It is nice to see the workings at the dam- nice and educational for the kids.

It is something that has always been here. It would be weird if it wasn't. It is part of this place.

It is very beautiful

It was a pleasant stop with good information.

It's a power plant I expected to see towers and lines etc.

Just because I enjoyed the opportunity to easily paddle a canoe in both directions through a beautiful river canyon doesn't mean I've lost sight of the substantial negative impacts of hydropower. Hydro is NOT green power because it is not sustainable. So rather than spend more on mitigation of existing projects, I would much rather see more resources for wind and solar power projects.

Kids and us enjoyed seeing such a great creation, and hydro-electricity we need more.

Let's face it, without Boundary Dam we could not get in the Canyon and that is the most scenic thing in the study area.

Nature's beauty and man made wonder, both mouth dropping.

No explanation needed.

It was interesting to see how the dam works but I am more interested in the time spent with family and friends while visiting the Reservoir.

Prefer nature, but this Dam in part creates the area.

Power lines and structures are not natural.

Power lines through natural areas and roads to access power lines.

Stopped at Picnic Area to use facilities

Taking pictures, need to avoid power lines.

The Box Canyon Dam and control gates create the reservoir; so who could complain? The rusted steel transmission poles and associated right-of-way clearing are not aesthetically "pleasing" but necessary and not "objectionable" in my opinion.

Vista House has great views of the dam.

The dam itself is most unusual and pretty spectacular. The scenery is average for this northwest area.

The scenery is beautiful. I don't really notice power lines, only when I specifically looked for lines.

The dam is amazing, beautiful in its own way.

The view in Z canyon and from the Boundary Visitors Gallery are beautiful

There is potential for them to seem offensive in the natural setting, however, I think. Overall, facilities have been dealt with appropriately as to not inhibit the experience of the natural scenery too much.

They add something to see, that's interesting.

They are there for a reason. I don't pay attention to them.

Table A.3e-18, continued...

They seem to fit fine at these locations.

Understandably, a lot of people rely on the power produced, as well as the local economy needs for recreation as a whole. Conflicts will be at the forefront of these issues. All attempts to maintain some natural and holistic appeals for all concerned and keeping the urban from taking over such beautiful visual and fantastic values from being over developed and more natural resources for future generations to enjoy!

Very unique/ interesting project.

Vista House and the dam itself are impressive, although a necessary evil as far as scenery goes. Too bad views of the mine are visible from sections of Z Canyon. It makes one wonder how polluted the water falling into the river near there really is. Yin and Yang without the dam, a recreation area accessible to so many would not be possible, so thank you.

We enjoy visiting dams and learning of their history.

We knew that the facilities were present before this visit.

We were here to fish and had seen the support facilities before, they are needed so who's to complain.

We were visiting to see the nature. However to see a dam at work is quite impressive.

Without the dam there would be no reservoir. Without the dam the river would not be navigable for our boating and fishing enjoyment. Without Seattle City Light we would not have this wonderful, free campground at Boundary.

Question 39: Trip expenses. Respondents were asked to estimate their total expenses in Pend Oreille County for this visit to the area. The verbatim entries for the “Other expense” responses to this part of Question 39 are listed in Table A.3e-19.

Table A.3e-19. Visitors’ entries for other expenses incurred on their trip to the Boundary Reservoir Area.

Alcohol

Cameras, clothing, bug spray, etc.

Camping supplies

Day fees

Day park

Donation to boxes in area

Donations

Fuel

Fireworks

Food

Expenses for four people

Gas, food, drinks, for 10 days was \$1000

Hardware

I work construction so I've spent a lot more than usual. I've been living at Metaline RV Park for some time.

Just going home from work and stopped for a little while.

Licenses

Licensing tabs

Miscellaneous expenses

Movie at Metaline Falls

Only here for a few hours

P.O.V. Railroad

Table A.3e-19, continued...

Swap meet

We camp 2 - 4 times per year in this area. We have spent more than this typically

Wood cutting permit

Worked here 7 months and played.

The following are open-ended comments that visitors provided on the last page of the questionnaire. With rare exceptions, they are unedited.

Table A.3e-20. Additional comments.

Having an awesome time. Great idea for a swimming hole. Looking forward to many more visits.

Being a local resident, I and other local residents have a big objection to having to pay at Sullivan Lake to park and enjoy swimming or boating activities while there. There is also a gripe of camping fees and the closing of gates in and out at night. Also the day use fees do not include the barbeque pits anymore so what's the point? We all realize that it takes upkeep, we a lot of residents, don't feel we should pay for day use of a place we grew up at.

"Great Job" I think the only thing I see is more access for the disabled, may God Bless and Keep you!

A balance between nature and man, but the amount of droppings all over from wildlife gave me cause for concern!

A few more rest stop areas on Highway 31 would be appreciated

A few more RV sites would be good. Thanks for a wonderful Labor Day weekend! Appreciate the firewood and security checks.

A leash requirement for dogs would be nice and the bathrooms need more upkeep.

A very nice area will spend more time here and we'll bring the boat next time. Thanks for providing access to a very well kept area.

A wonderful kayak experience. We will be back. Would be great if there were a few camp areas on the reservoir.

Add a more efficient boat launch and dock system in the Metaline Park. Other than that our limited lodging and restaurants could not accommodate a major increase in tourist activities that more campgrounds and RV parks could bring.

After a big holiday make sure campsites are cleaned up. There are people who abuse nature and it's very upsetting to those of us who see the after effects. I'm referring to a boat-in campsite fast up from the dock. There were trash bags full of beer cans hanging from at least a dozen trees.

Although I didn't show any interest in camping/recreation, it's because I'm an international student here, and as such I simply drove through the area. If I lived here, I'm sure I'd be more interested in recreational activities that I checked as being interested in question 20. It's an extremely beautiful area and whatever you do to make it better, don't stop. P.S. I wish there was a bridge closer connecting the east and west side of the dam (for cars).

Although I have not seen them on the last few trips, I really enjoy the Heritage marker overlooking the bald eagles nest, just south of the Sweet Creek Rest Area. This was my first stay at the Crescent Lake Campground. The sites were very well maintained and I look forward to staying there again.

As you consider improvements and access to the region, look to quiet and eco-reverent visitation to retain the character and balance. This region is so incredible "because" it's an escape from a more hectic lifestyle. An eco-resort would be a good fit but "not" standard cut and run tourism. Birding, photography, biking, hiking canoeing and kayaking, quiet endeavors

Beautiful campground, we plan to do our next annual family camp-out here next Aug. (approx 12 people)

Beautiful scenery, green, with the fresh water sparkling blue everywhere. You are so lucky to live in such an area. Hope you can keep it unspoiled for the future generations to enjoy. Thank you.

Because of security, I did not realize that the picnic area, Tailrace was still open. I think better signage would let visitors know that area is still open.

Boundary Reservoir is amazingly beautiful and I enjoy it very much!!! The only additional comments about how we can improve the management of the Boundary Reservoir Area, is to just do your best and keep it beautiful!!!

Box Canyon was very kid friendly very enjoyable.

Campground is in excellent condition, security very polite and helpful; employees of Boundary Dam are very polite and helpful too. We really enjoy our stays here and will definitely return. Thank you.

Camping costs seem rather high, although understand it takes money to maintain the upkeep and pay employees for such duties to keep areas clean and presentable. Thank you for your concern of the sights and people who use them.

Church group ranged from 2yrs to 70yrs all at Blueslide

Table A.3e-20, continued...

Dam tours 7 days a week from early spring through late Fall.

We had a church camp out overnight, ages 10months to 75 years. About 50 people, several people fished, I was the only one that caught anything because I walked down to the river to fish. Several people played horseshoes. All the kids swam. We had an inspirational speaker Friday night. Breakfast and pot luck dinner on Saturday-clean up and ready to leave about 3:30-4:00. Thank you for making this possible.

Enjoyed the good roads with pullouts, guardrails etc.

Fantastic all the way around. Thank you.

Fish ladder needed here and at other dams

Flushing toilets, clean bathrooms and "SHOWERS"!! Noise curfew.

For the future, consider making a short trail from the launch area at Boundary Dam Reservoir to a view site of Peewee Falls.

Free camping and swimming is wonderful. To see so many more people use it. It would be nice to see more free sights like this. It would be a great service to humanity forever.

Good questions and good survey. Thanks for the effort. By far the best improvement anyone could make to this area is the complete and careful deconstruction and removal of the dams. Since the silting problem is as of yet unresolved, it will likely lead to the failure of all dams eventually, and this is what worries me the most. (Silting : Hydropower, Spent fuel: nuclear power) I can only naively dream that the same care that went into constructing the dams will go into their deconstruction, but given the historical absence of corporate responsibility for the environment in corporate America, I have no hope that this will be the case. So at this point, what would make the area better for me would be the acknowledgement by Seattle City Light that dams have limited life spans and that the company has a responsible plan for eventually returning the area to it's natural state once that lifespan has been completed. Dams or no dams, people will still recreate in this area, but hopefully it won't be with power boats, but with healthier, more sustainable means.

Great area! Loved our stay here!

Great place - Good job. Thanks for the no fee.

Great place thank you!!

Great place, keep it going

Had the opportunity to drive across the dam towards the Vista House. Employees were very personable and helpful. Great, thanks! I would recommend to others.

Have maps like the ones that were with this survey available at the different sites. I will keep this map to check out the area- Thank your for caring what we like Bob.

Haven't been here long. Seems isolated, but great scenery.

Thousands use the Metaline Park as access to the Boundary Reservoir. (Events, weddings, reunions and celebrations). Funds spent on improving the park would benefit all. Due to extreme fluctuations in water levels in the reservoir the impacts affects all involved in recreation. I would encourage better access to the river. The Boundary Dam access is very well built and maintained. However, the Metaline access is at times unusable. The ramp is affected due to severe water levels. There are not adequate pylons or docks for boat launching. (Look at Cusick; they have a beautiful area for launch!) The river level fluctuations severely affect fish spawn; therefore game fish should be planted and encouraged more often for sport fishing. Please! Realize your potential to improve your impact in favorable manner.

I'd like to see more river access areas

I've addressed several things but to reiterate 1. Water grass 2. Better parking designation as there were more camping signs then tent and tents had more space than RVs and trailers etc. 3. Buoyed off swimming area. Kids wouldn't move out of way to incoming boats.

I've lived most of my life in Metaline. It's beautiful, quiet etc, a great place to live, this survey is for visitors!

I am retired and the wife and I moved to Metaline in June 1997. We both retired from Pacific Bell in Chico CA. My wife was born in Metaline, we like it here and have spent all of our vacations here with our family. When we retired we moved up here and remodeled the old family home. Now our children, grand children and great grandchildren like to spend their vacations in Metaline.

Table A.3e-20, continued...

I feel you folks are doing a great job! Keep up the great work!

I had a great time thank you.

I live here and would really appreciate any improvements.

I love the area, my family and I moved here 1.5 years ago from Libby MT. Being a resident made answering some of the questions a bit difficult. Maybe a separate survey for people that live locally with questions tailored to their experiences might help with your study.

I love the park, I would like to see more fishing areas that are marked. Overnight would be good!

I love the wood supply! It's beautiful. Visitors' area usually very nice. I also appreciate the free campsites.

I love this place. Don't change anything, except maybe cell phone service, just kidding!

I noticed some serious erosion taking place near Peewee falls. Maybe charging fees would keep out undesirable types and no wake zones to prevent erosion. Would also like to see campsites developed both at the dam and along the river. Reservations would be nice since I live 2 1/2 hours away and would not like to find the campground full.

I really appreciated the quiet low-key feel of the campground area (Forebay) and would look forward to an overnight camping trip there. We all agreed that we would love to have even more larger trout stocked! The bathrooms at the campground were well taken care of and clean- Thank You

I really love everything about this area. I will continue to come back year after year. Thank-you!

I very much encourage someone who cares and has the pull to get things done to visit the Kettle Falls campground on Lake Roosevelt and the campground at Boyer Park on the Snake River just below Lower Granite Dam and see how to build ramps and docks that work in rising and falling water level reservoirs and Seattle City Light makes plenty to do it in Metaline Park. Do they really care what the growing numbers of people who can use and enjoy for years and years to come, or do they just want their permits renewed?

I was not here very long, so I will be back to take advantage of all the opportunities near Boundary Dam. I had no idea there was so much to do in this area.

I work for a water utility and was wondering the number of services Seattle City Light has and its service area. Thanks.

I would encourage the Boundary Dam/Seattle City Light to maintain/provide the boat access and ramp system at Metaline Waterfront Park. Flush toilets near the launch and better trash cans would be beneficial. Thank you.

I would like to see Crescent Lake opened back up with limited campsites.

I would like to see more campsites at the Forebay Campground. I would also like to see the reservoir level not fluctuate during the times of the year when fish are spawning and during weekends. I would also like to see a boat moorage dock at the Forebay Campground. A shower at the Forebay Campground would also be nice but not a must.

I would like to see the survey results. I am mostly ignorant of available activities here i.e. back-roads and other than Forebay.

Identification signs along the river would be nice. Signs identifying creeks, Z- Canyon, Historic mines, etc. would make river travel a lot more enjoyable.

If you have focus groups please let me know.

If you have signs up that say use dock at your own risk, it should be adequate liability protection for Seattle City Light. You could also prohibit boats from being left tied up to the ramp side of the dock for ease of launching. Your security guards are truly embarrassed when they come to enforce the "no boats on dock" rule. They know it makes no sense.

In past years some trailers are parked in RV spots with no apparent campers present.

It is a family and friend tradition to camp at "Crescent Lake" every summer and there was not a time when we have encountered any sort of problem. We love it there and there is nothing that we would change about it. Thank you

It is a great place to do family fishing and camping, also beautiful scenery and getting out of the city. Thank You

It was a bit difficult to get food accurate information about the area, including a good map.(i.e. –campgrounds, river access areas, river fluctuation times and levels, the map included with this survey was the best one.)

Table A.3e-20, continued...

It would be nice if someone was responsible (a job) and checked on the people who were at Campbell park. Sometimes, people don't follow the guide-lines, which makes it uncomfortable for other guests.

It would be nice if you can clear the weeds along the north side of Crescent Lake, moss too! Thank You

It would be nice to have one more bathroom on the facility, as it can be quite crowded.

It would be nice to see a few more RV sites established. Along with a sprinkler system, to provide a healthy grass look to the area instead of a weed patch, a RV dump station would be a great addition to the camp ground. Thank You to Seattle City Light and Employees for making every stay relaxing and memorable. I've met many people from different areas, beautiful sceneries and clean facilities and grounds. The canyon is one of the most beautiful places I've ever visited. It would be virtually inaccessible without the reservoir. Thanks again.

It would be nice to see someone monitor the campground. We would hate to see one of our favorite spots for a summer getaway.

It would be really nice to have hiking trails within walking distance from Boundary Dam camping

It's kind of sad to see so many people coming from other counties and bringing more and more people and making it full for those of us that have been coming for years to find a spot. There is always someone who brings a dog and no shovel. Pack it in, pack it out. Sad to see people burning garbage in the fire pits (cans etc.)

June 17, 2007 Our visit to Boundary Dam was wonderful, our only regret was that we did not have more time to enjoy the lovely surroundings and free camping! The complimentary firewood is an appreciated touch of hospitality. We especially enjoyed the informative tour and educational displays. We shall definitely recommend this trip to our family and friends! Thank You!

Just keep up the great work at this location; it has always been a jewel!

Just maintain it the way it is, keep it clean and please don't "improve" the charm and beauty of it.

Keep enhancing the fishing opportunities. Keeping it a no charge campground is fantastic. Keep the motor homes from parking on the beach area. Keep it primitive. Keep it the water clean, avoid pollution, something comes in the river from the mine. This is an excellent facility.

Keep the area just like you are doing.

Keep the entire area as pristine and primitive as possible. That is the attraction! Don't advertise. Word of mouth brings in enough people as it is. Thank You for allowing us to comment!

Keep this place as wild as possible. It is one of the last places we can truly preserve!!!

Leave with all in the area

Love visiting the area! Majestic views and viewing. Have been looking for property here.

More boat docks, nothing else.

More drinking water locations. More road signs to campgrounds.

Mostly just driving through on the way to BC (Ainsworth Hot Springs). We do love the drive though.

Re-evaluate the policy of forcing boats to anchor away from the dock (in swimming area even) This is potentially very unsafe.

My family, friends, and relatives have camped at Boundary Dam Campground several times and have thoroughly enjoyed the facilities except once in the fall of 2006 (Labor Day) There was one large party there that was destroying it for everyone camped. They parked their vehicles everywhere on the grass and were loud (music) and were partying every night. There response was that was what they were here to do and anyone who didn't like it could go somewhere out. Several campers did leave because of them. It was very difficult for the security guards to control until the Border Patrol arrived. These people made it clear they came often and really do ruin it for other families and didn't care.

Need better signs on Highway 31 to Vista House and Vista Point.

Nice launch we would never have gone without that, nice dock. Put information on your web-site. Photos, maps directions, history, etc.

Nice, tranquil area, good weather and warm hospitality

No it's great!!

Not necessary, everything's just gorgeous.

Table A.3e-20, continued...

Oh, I would very much like to see ideal biking areas, close to or from camp! Even if it went in a circle, not very far. One of the main reasons we moved to this area is the Boundary Reservoir Area Outstanding facilities i.e. firewood, dock, beach, washrooms etc.

Overall the scenic beauty of the area is part and parcel of what the real draw to this area is plentiful wildlife and habitat. Without the wildlife, the scenic beauty would seem much less significant; as amazing as it is. Boundary Reservoir is well managed and adds to the community in a meaningful way. Thank you for your efforts. Patty W. People were very friendly and very conscientious about visitors

Please contact me about what I can do to help get the boat ramp and dock replaced at Metaline Riverfront Park. I have talked to a lot of local people that use this ramp and would like to see it replaced. I would like to see a more regular fish planting program. Boat trailer wash not working at Boundary launch. Better marking of hazards in water ways.

Please keep up the good area. Don't change a thing. We enjoy boating, swimming and kayaking. Thank you.

Please put a sign that requests people recycle for the benefit of ecology and put larger signs near recycling bins and also at garbage dumps to remind people to recycle, I saw a large garbage can filled with recyclable glass bottles. Please help educate the people to recycle more. Thank you for free firewood.

Please put up no swimming signs at the dock there are lots of kids and parents watching in harms way. Install swimming area.

Please stabilize this river so it is able to maintain a fishery. Maintain quality launches and accesses. North Pend Oreille County has very little to offer other than North Pend Oreille County. It is beautiful and needs to stay that way so it can allow the local business's to survive and grow. I moved up here 5 yrs. ago when I retired and have used this area for going on 40 years. Since I have been up here I have seen a decline in the draw to the area due to in my personal opinion of the management of the River.

Regarding the cash prize. I would like it to stay in the city of Ione, Metaline etc.

RV dump station? Wonderful time, great tour of the dam.

Seattle bathrooms are ok, but Box Canyon needs to update.

Seattle City Light has been a great partner to the area helping with many different projects.

Security staff could be more friendly and knowledgeable. Would like easier access to and below Boundary Dam, for visiting the dam and fishing. An RV dump without any hassle. We have to go to Metaline now.

Since I live here, this survey does not really fit. Give me one for locals.

Sorry this survey is so late. Our jeep Cherokee broke down on our way home to Colville after leaving Sweet Creek. Your survey stayed in our jeep over a week while it was being repaired.

Speed bumps along the road in the area between the turnoff into Box and the sub- station. Some people go really fast! A water facet closer to the north end of the campground would be nice. We like the way you are fixing up the pond, it's much easier to get into and cleaner.

Stock more fish in all the lakes.

Surveys are important; this survey is 15 pages long and pretty expensive could have been done on a couple of pages.

Sweet Creek Falls rest stop is a very beautiful recreation spot. I love the short walk on the trail to the waterfall. I was very pleased when the rest stop opened and it has added considerable value to the area. I have visited this area for over 6 years. I wanted to share my experience with friends who were also visiting. They also loved the falls. But, we tried to use the bathroom facility after our hike and found it to be miserably dirty, smelly and with no supplies. Unfortunately my friends will remember the bathroom more than the beauty of the falls.

Thank you, we are enjoying our visit/ vacation very much. It's nice to know there are people curious about the consumers' reaction/ needs here.

Thank You.

Thank you for having a great place and not charging a dime for it, that is rare today.

Thank you so much for having such a nice place for families to go to. It's so clean and nice. And I feel very safe when we're here. It's also a nice place to meet other people. Thanks again, Barb

Table A.3e-20, continued...

Thanks for the campground and facility. Seattle City Light does a great job providing and maintaining the Forebay area.

Thanks for the wood and a great place to camp.

Thanks to all of the employee's at Box Canyon Dam. It is clean, comfortable and a great place for the kids.

The Box Canyon camping facilities are just great plus it is free! You can't beat that.

The entire weekend was a blast! The scenery was out of the world! The campground was very well kept! The bathrooms clean and fully stocked (even toilet seat covers!)- It was a great experience. I love the small campgrounds with private areas, and it's all free which is the best! Don't change anything, the Boundary Dam campground is the best! It's my favorite in WA so far! (I've only lived here for 4 years, originally from AZ.) Thank you!!! I will be visiting again soon!!

The facilities were very well maintained. The tour guide for the dam was friendly and informative. We have friends visiting us later in the summer and we'll probably bring them here on a day outing.

The milfoil problem needs to be solved.

The only disappointment we had was not the fault of Seattle City Light but, we missed having a camp fire. Thanks for the swimming buoy's for the children and the light in the bathroom at Campbell Park

The only thing I would like so see improved is a shower area with hot water. I know that's a lot to ask for, but it sure would be sweet.

The people of the Box Canyon Dam were very friendly and very knowledgeable. The children's fishing pond is great fun for the kids. Just wish the weather was nicer!

This facility is very well run and maintained we have enjoyed it for many years and hope to in the future, the effort is greatly appreciated.

This has been the most beautiful place I have ever seen!

This is a great place. Could charge money if you need to help maintain bathrooms and water lawn, and make more RV sites.

This is a very beautiful and exciting area There is so much to see and do I will be back many times with my family and friends. I hope we are not bothered by a passport. We think of Canada and United States as one, our country to enjoy and protect.

This is our favorite place to RV, boat and fish. It is at least a 2 hour drive one way to get here. We try to leave early on Friday to get a spot. Wish there were more RV sites but don't want to crowd it up either. Some RV sites need to be a bit more level. Wish there were handicap sites close to boat ramp since we always have my 90 year old mom with us. It was quite a hike for her to get to the boat. She still walks but with difficulty. We will probably bring a wheel chair next time to transport her back and forth. We love this area and love to bring visitors to experience it also. Would enjoy hookups and a dump station but we would probably never be able to get a spot then.

This survey is not applicable to us because we live in the area.

This was hard to fill out, I live here and love the area

This was my first visit to the Boundary Reservoir area. As we were heading out to the boat dock. I did not realize this happened until we returned (quite a few hours later) and to my surprise my wallet with nothing missing had been placed on the front seat of our jeep. I believe that one of your employees was responsible for this good deed. I wish I knew who to thank. This could have been a disaster being that we are here vacationing from California. Thank you, very much! This comment was from our guest that was up to see us and we took to Boundary.

To my dismay, more and more of the general public are "finding" this area. We enjoy it the way it is now. Quiet and peaceful! Your Dam people are good house keepers.

Too much alcohol, too many people could lead to horrible things but none here.

Totally enjoyed the camping facilities at the Dam. We do wish we could tour the Dam this time; however, the weekend here was fun and the weather beautiful. Thank you for a fun, free weekend!

Tour guide at boundary dam was a very pleasant and informative guide. He enhanced the visit to the dam and lake. What hunting is available?

Tour of the whole dam as the tour was previous to 9/11.

Trash pick up and toilet cleaning!

Table A.3e-20, continued...

Trim trees at Sweet Creek to enhance view of falls. I was disappointed that I couldn't get a better view and pictures of the falls because of trees beside the trail.

Unbelievably beautiful, please leave it pristine and not over advertise. It will ruin it eventually for the few that really appreciate it for what it is. Thanks, I was born and raised here since 1955.

Very clean and met nice people at Dam and campsites. Beautiful area.

Very enjoyable. Enjoyed the quietness of the lake. Thank you.

Very nice area. Very clean and neat.

Very nice recreational area. For the size of the hydro-project, not very many recreational opportunities. For this remote area, would like to see destination attraction, with tours from Seattle. Need upscale music, social opportunities with good food etc.

Very nice tour of dam

We appreciate that you don't act like [].

We are local summer residents who use the Pend Oreille River for recreational purposes. The water level is too low by early August to Make this practical due to various weeds and the level, this problem is particularly true in the Usk, Cusick, and Newport area of the river.

We couldn't tell if there was a launch fee. More signage such as " provided free of charge by Seattle City Light-Enjoy" would have been nice.

We enjoy this campground/recreation area just the way it is. We especially enjoy the light crowds.

We enjoyed our visit very much. Tour guide was a great help to us when we planned our trip. Thank You. God Bless.

We had no idea we now live in such a beautiful area. We've lived in Newport for just a year. Thanks for your facilities.

We have property south of Ione on the river. We are in the area weekly and enjoy the recreational opportunities in the area frequently and year round.

We like to visit places where motorized vehicles are restricted, especially ATVs, jet skis and snowmobiles. Keep forests and wilderness wild. Thanks.

We love it here, my husband was born and raised here until he was 15 years old.

We love Sullivan Lake and the surrounding area. We have been visiting every other summer for the past 8 years.

We love this area just the way it is. We grew up here and don't want to see it commercialized or overcrowded. We come here for the beautiful scenery and wildlife and want to see our children enjoy it just the same as we do!

We love you guys! Thanks for the free firewood and the campground security!

We missed having a campfire but understand it is out of anyone's control due to the drought conditions of the area.

We moved to this area 10 years ago. We needed to spend our vacations (annual) in and around northern Washington and Idaho. Now we spend all year long enjoying what was only two to three weeks a year before and we still have so much to see. We still like to camp and enjoy all the camping areas we can access. Usually we do day trips, with occasional two to three day trips, due to our age and some difficulty getting around we appreciate the trails, camping areas, picnic areas and toilet facilities.

We really like the wild country.

We spent two nights at Campbell Park, at Box Canyon Dam in late September. We plan to explore and camp in the Boundary Reservoir area next spring/summer. We have been to Sullivan Lake several times. This area is great! Very scenic and peaceful with many recreational opportunities that we enjoy.

We took our 9 yr old granddaughter for her vacation. It was wonderful.

We totally enjoyed our time here. We plan on bringing our kids and grand kids next time. Thank you for a great experience!

We very much appreciate being allowed to visit Boundary Dam! We over-nighted once in a camper and were impressed with the care and concern by the park attendants. This is a place we are happy to take our visitors to enjoy Eastern Washington beauty. Thank you for providing us with this great place.

We very much enjoy our visits here. It's a "laid back" feel with few rules and friendly employees.

Table A.3e-20, continued...

We want free electricity! Thanks.

We were checking out the facilities on this trip. We have friends fishing while they are here. We will be using the campground while we are there. We plan on fishing and boating a lot at this site. So would love to see a better boat launch area. We visited Mill Pond and really liked the way you have set up the campsites. We didn't see any portable toilets, but may have just missed them.

We were extremely impressed by the courtesy of all the employees of Seattle City Light that we encountered from the security officers to the camp attendants. They were informative as it was our first time visiting this area, we will certainly come again. The tour guide at the dam was a pleasure to be with. In general our stay here was one that we will remember and recommend to our friends.

We were so impressed with everyone we encountered. The security guards and Tour guide were very friendly and made us feel at home! Free wood too! We were astounded. Thank you. What a wonderful time! We fully intend to return!

We would be willing pay \$10 per night fee for camping and for supplies. Nice to have a camp host to enforce camp ground rules, buy licenses, ask questions. Quiet time posted from 10pm to 6 am. No alcohol allowed. Really enjoyed Box Canyon Dam Visitors Center and tour guide did a nice job. That was a great time!

What a beautiful place! I like that it is not overpopulated. I would like it to remain that way! What I am looking for are: available campsites with out reservations months before (I think already in place) Dog access (responsibly) Please do not over- advertise this place! That is what creates over-crowding! Thank You.

What a really truly wonderful place this is.

When visiting the reservoir behind Boundary Dam below Gardner Caves, there was a very large party, drinking, boating, jet skiing and motorcycling in campground being very loud and disruptive. Maybe no alcohol and no motorized vehicles allowed in campground, accept boats of course.

While kayaking the shore of the reservoir looking at the shoreline I noticed recent damage caused by boat wakes. Several of the slides have occurred since my last visit. It was a weekend when draw down occurs quite slowly compared to weekdays. My recommendation is to draw the reservoir down a couple of feet prior to 9:00 when most of the boats get started. That way the wakes wouldn't have their erosive power on the dry soil.

Wonderful to know this wilderness gem is so close to home and to know it will be here for generations to come. Boundary Campground was clean, quiet and easy access for a variety of adventures. Thank you for the firewood, much appreciated. I will recommend this area to all my camping friends and relatives.

You guys kick ass! I love this area!

You may want to assign or keep a closer eye on replenishing the campground adequately in the future. Please feel free to contact me for additional input if needed!!

You people do a great job providing a Beautiful place to camp or just play for a day. Don't tell anybody about it! My wife only had one "issue" and that she said the water was cold when she had to go overboard to "check the Prop" Life is so not fair!

You pull into a yard-sale and always look at the free box. Boundary Dam (Free) what a gold-mine!

Your crew who did this survey was very nice and great attitudes, friendly and all about the survey here at recreation site. Thank you for your time.

Your keep me coming back year after year I brought 12 kids, this place has made many memories for many family's and I cannot tell you how much this place means to us, I just found out we are going to have 4 more to our party, so more fun for kids, thanks again for all you do. It means a lot to our growing group

Your map leaves off the BLM campsite at Everett island, behind island, and your other one by Slate Creek is off, it's further south, and that road is not accessible that close.

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Appendix 4: Area Resident Survey Documentation

Appendix 4a. Blank Resident Questionnaire and Survey Map

Appendix 4b. Verbatim Responses (currently coded as “other”)

Appendix 4a. Blank Resident Questionnaire and Survey Map



Seattle City Light

SURVEY

**Recreation Survey of
Residents Living Near the**

Boundary Reservoir Area

1234

Your Recreation Use at Boundary

1. Have you visited the Boundary Reservoir Area for the purpose of recreation? (This area includes the Pend Oreille River between Boundary and Box Canyon Dams and some of the lands next to the river. Please see map for extent of area.) (Circle one.)

1 Yes → Skip to Question 3

2 No, I have not visited this area for recreation

2. If you answered "No" to Question 1 (you have not visited the Boundary Reservoir Area for recreation), please indicate why you have not done so. (Circle all that apply.)

1 Not enough time for recreation activities

2 Not interested in the types of activities available in the area

3 Lack of adequate facilities/opportunities for the activities I'm interested in

4 Prefer other areas with similar opportunities

5 Poor health or physical condition

6 Other reason (Please specify.)

Please skip to Question 41 if you do not use the Boundary Reservoir Area for recreation.

3. When you visit the Boundary Reservoir Area for recreation, what is your main reason for choosing this area? (Circle only one.)

1 Because I live here and it is so close by

2 Because this area is a good place to do the recreation activities that I enjoy

3 I come to the area to spend time with my family/other companions

4 I come to the area for the scenery/the views

5 I come to the area because it is a good place to relax outdoors

6 Other reason (Please specify.)

4. When you visit the Boundary Reservoir Area for recreation, how many people, including yourself, are usually in your group? (Your group is all the people you arrive with and/or generally meet there.) (Write number of people.)

___ People # ___ Males # ___ Females

5. Do you usually stay overnight somewhere other than your home when you visit the Boundary Reservoir Area for recreation? (Circle one.)

1 No, I usually go for the day and return home at night → Skip to Question 7

2 Yes, I usually stay overnight a total of ___ nights (Write number of nights.)

6. Where do you usually stay overnight? (Circle all that apply.)

1 Campground at Boundary Dam (Forebay Area) in a tent ___ or in an RV/camper ___ (Check one.)

2 Campground at Box Canyon Dam (Campbell Park) in a tent ___ or in an RV/camper ___ (Check one.)

3 U.S. Forest Service campground (Please name.)

4 U.S. Bureau of Land Management Boundary Recreation Site (Please name.)

5 Privately-operated campground (Please name.)

6 Hotel, motel, resort or bed & breakfast (Please name the town.)

7 Other (Please describe.)

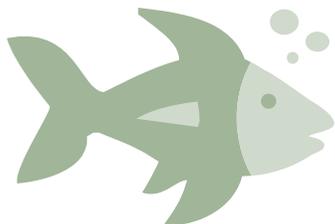
Fishing

15. Please tell us about the fish you and your party typically catch while on a fishing trip at the Boundary Reservoir Area. (Please write your responses in the blanks.)

Type of Fish	Number Caught	Size Range (inches)
Triploid rainbow trout	_____	_____
Other trout	_____	_____
Smallmouth bass	_____	_____
Largemouth bass	_____	_____
Other: _____	_____	_____
Other: _____	_____	_____

16. Overall, how would you rate your satisfaction with the fishing opportunities in the Boundary Reservoir Area? (Circle one number on the scale.)

1	2	3	4	5	6	7	8	9
Very Poor				Average				Excellent



Boating and Reservoir Use

17. Do you often operate or ride in a boat or other watercraft for pleasure/travel on Boundary Reservoir when you visit the area for recreation (this includes motor boats, personal watercraft, and craft that are paddled)? (Circle one.)

- 1 No → Skip to Question 23
- 2 Yes

18. How long have you been boating on Boundary Reservoir? (Please write the number of years.)

_____ Years

19. About how many days per year do you usually boat on Boundary Reservoir? (Write the number of days for each season.)

Spring (Mar – May) _____ # Days Fall (Sep – Nov) _____ # Days
 Summer (Jun – Aug) _____ # Days Winter (Dec – Feb) _____ # Days

20. Which boat launch or launches do you usually use at Boundary Reservoir (see map)? (Circle all that apply.)

- 1 Launch at Boundary Dam (Forebay Area)
- 2 Metaline Waterfront Park launch
- 3 Launch below Box Canyon Dam (Campbell Park)
- 4 Private boat launch (Please specify.)

5 I launch directly from shore with no boat launch (Specify.)

_____ → Skip to Question 22

6 I'm not sure

21. Do the boat launches that you have used at Boundary Reservoir usually meet your needs? (Circle one.)

- 1 Yes
- 2 No (Describe any boat launch problems you have encountered there.)

22. When you go boating on Boundary Reservoir, do you ever experience problems with water conditions (for example, rising or falling water levels, fast currents, or rapids)? (Circle one.)

- 1 No problems → Skip to Question 23
- 2 Minor problems
- 3 Major problems, but this would not keep me from returning in the future
- 4 Major problems that would keep me from returning in the future
- 5 I'm not sure

Please describe any problems with water conditions you have encountered.

Recreation Facilities and Services

23. Different people look for different recreation facilities and opportunities. Some of the items listed below may be found at the Boundary Reservoir Area and others may not be available. Thinking about your recreation needs, please rate how **important** it is to you to have each of these items available when you recreate. Then, rate your **satisfaction** with each item at the Boundary Reservoir Area. (Circle one number for **IMPORTANCE** on the left and one number for **SATISFACTION** on the right. If something is not at all important to you or does not apply, you may circle NA.)

	IMPORTANCE					SATISFACTION					Does Not Apply
	Not at all Important		Extremely Important			Not at all Satisfied		Extremely Satisfied			
Tent campsites	1	2	3	4	5	1	2	3	4	5	NA
RV campsites	1	2	3	4	5	1	2	3	4	5	NA
RV hookups/utilities	1	2	3	4	5	1	2	3	4	5	NA
Campsite fees	1	2	3	4	5	1	2	3	4	5	NA
Parking area	1	2	3	4	5	1	2	3	4	5	NA
Road access to recreation areas	1	2	3	4	5	1	2	3	4	5	NA
Access for the disabled	1	2	3	4	5	1	2	3	4	5	NA
Drinking water	1	2	3	4	5	1	2	3	4	5	NA
Flush toilets	1	2	3	4	5	1	2	3	4	5	NA
Vault/portable toilets	1	2	3	4	5	1	2	3	4	5	NA
Trash containers/collection	1	2	3	4	5	1	2	3	4	5	NA
Picnic sites	1	2	3	4	5	1	2	3	4	5	NA
Swimming/beach access	1	2	3	4	5	1	2	3	4	5	NA
Historic sites/information	1	2	3	4	5	1	2	3	4	5	NA
Scenic views/viewpoints	1	2	3	4	5	1	2	3	4	5	NA
Wildlife viewing/nature trails	1	2	3	4	5	1	2	3	4	5	NA
Interpretive/education programs	1	2	3	4	5	1	2	3	4	5	NA
Hiking trails	1	2	3	4	5	1	2	3	4	5	NA
Boat ramps	1	2	3	4	5	1	2	3	4	5	NA
Boat docks	1	2	3	4	5	1	2	3	4	5	NA
Boating safety information	1	2	3	4	5	1	2	3	4	5	NA
Navigation hazard marking	1	2	3	4	5	1	2	3	4	5	NA
River/shore access for fishing	1	2	3	4	5	1	2	3	4	5	NA
Fishing opportunities	1	2	3	4	5	1	2	3	4	5	NA
Hunting opportunities	1	2	3	4	5	1	2	3	4	5	NA
Boat-in campsites	1	2	3	4	5	1	2	3	4	5	NA
Canoe/kayak access facilities	1	2	3	4	5	1	2	3	4	5	NA
Other: _____	1	2	3	4	5	1	2	3	4	5	NA
Other: _____	1	2	3	4	5	1	2	3	4	5	NA

Recreation Facilities and Services

24. Based on your experiences, are there any improvements to the existing recreation opportunities at the Boundary Reservoir Area that you think are needed? (These could be recreation activities that you would like to do there that are not currently available, or specific recreation facilities that are not currently available or that do not adequately meet your needs. These should be activities or facilities that you would use yourself if they were present.) *(Circle one.)*
- 1 No, I am satisfied with the recreation activities/facilities currently available
 - 2 I'm not sure
 - 3 Yes, I would like other recreation activities/facilities *(Please list.)*

Recreation Sites

25. What specific sites *in the Boundary Reservoir Area* do you usually or often visit for recreation? (See map.) *(Circle all that apply.)*
- 1 Vista House
 - 2 Boundary Dam Visitors' Gallery
 - 3 Picnic area below Boundary Dam (Tailrace Area)
 - 4 Campground at Boundary Dam (Forebay Area)
 - 5 On the water in a boat/other watercraft
 - 6 Crescent Lake
 - 7 Metaline Waterfront Park
 - 8 Campground below Box Canyon Dam (Campbell Park)
 - 9 Sweet Creek Falls Rest Area/Trail
 - 10 Small boat-in campsite or day use site on the reservoir/river
 - 11 Other *(Specify.)*

26. At which *one* of the places that you circled above do you usually spend the most time when you visit the Boundary Reservoir Area? *(Please write the number from the above list.)*

I spend most of my time at site # _____ when I visit the area.

27. Please indicate whether or how much you feel crowded on a typical recreation visit to the place that you listed in Question 26. *(Circle one number on the scale.)*

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

28. Have you ever experienced any problems or conflicts with other people or their behaviors at the place you listed in Question 26 that detracted from your enjoyment of being there? *(Circle one.)*

- 1 No
- 2 Yes *(Please describe what occurred.)*

Recreation Sites

29. Based on your experiences visiting the destination you listed in Question 26, do you intend to adjust your recreation plans to avoid the presence or behaviors of other visitors at this site in the future? *(Circle one.)*

- 1 No → Skip to Question 31
- 2 Yes

30. How do you intend to adjust your recreation plans? *(Circle all that apply.)*

- 1 Move my activity to a different site in the Boundary Reservoir Area
- 2 Go to a different site in the region outside the Boundary Reservoir Area
- 3 Visit this same site earlier or later in the year to avoid busier times of year
- 4 Visit this same site on weekdays instead of weekends or holidays
- 5 Visit this same site at a different time of day to avoid busier times of day
- 6 Other *(Please specify.)*

31. When you visit the place that you listed in Question 26, do you find the facilities there to be adequately maintained? *(Circle one.)*

- 1 Yes
- 2 No *(Describe any maintenance needs you think are not currently met.)*



Your History in the Area

32. When was the last time you visited the Boundary Reservoir Area for recreation? (Write the date.)
 Month _____ Year _____
33. How many times have you visited the Boundary Reservoir Area for recreation within the past 12 months? (Write the number. Do not include your last visit.)
 # _____ Visits in the past 12 months
 If your last visit was your first time → Skip to Question 35
34. In what seasons of the year do you visit the Boundary Reservoir Area for recreation? (Circle all that apply.)
 Spring Summer Fall Winter
35. Are there any sites or locations in the Boundary Reservoir Area that are really special or meaningful to you or your family as a place for recreation? (Circle one.)
 1 No
 2 Yes (Please list/describe your special places at Boundary Reservoir Area.)

36. Which other lakes or rivers in the region do you frequently visit for recreation? (Please name up to three.)
 Lake/river _____ State/Province _____
 Lake/river _____ State/Province _____
 Lake/river _____ State/Province _____

Scenery

37. Overall, please rate the visual quality of the scenery at the Boundary Reservoir Area. (Circle one number on the scale.)
- | | | | | | | | | |
|-----------|---|---|---------|---|---|-----------|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| Very Poor | | | Average | | | Excellent | | |
38. When you visit the Boundary Reservoir Area, do you ever notice or pay attention to the facilities or structures associated with the Boundary Hydroelectric Project? (That is, the dam itself, maintenance buildings, utility lines and towers near the dam, SCL recreation facilities, etc.) (Circle one.)
 1 No → Skip to Question 40
 2 I don't know
 3 Yes
39. How does seeing or noticing these facilities affect your enjoyment of the scenery at the Boundary Reservoir Area when you visit? (Circle one.)
 1 These facilities greatly enhance my overall enjoyment of the scenery.
 2 These facilities slightly enhance my overall enjoyment of the scenery.
 3 These facilities have no effect on my overall enjoyment of the scenery.
 4 These facilities slightly detract from my overall enjoyment of the scenery.
 5 These facilities greatly detract from my overall enjoyment of the scenery.
 Please explain your response above.



About You and Your Companions

40. When you visit the Boundary Reservoir Area, what are the ages of the other people that are typically in your group? (Please write the number of people for each age group.)

- # ___ under 16
- # ___ 16-19
- # ___ 20-29
- # ___ 30-39
- # ___ 40-49
- # ___ 50-59
- # ___ 60-69
- # ___ 70 and up
- ___ Check here if you usually visit by yourself

41. What is your age? (Check one.)

- ___ under 16
- ___ 16-19
- ___ 20-29
- ___ 30-39
- ___ 40-49
- ___ 50-59
- ___ 60-69
- ___ 70 and up

42. Are you? (Circle one.)

- Male Female

43. How long have you lived at this address? (Write the number.)

- # ___ Years # ___ Months

44. How many people, including you, live at this address? (Write the number.)

- # ___ People



Thank You for Participating!

Seattle City Light would like to thank you for your time. You have helped us to learn more about the people who live in the Boundary Reservoir Area. We welcome any additional input or comments from you about how we can improve the management of the Boundary Reservoir Area. (Please feel free to write any additional comments below.)

Thank you for participating in this important study!

Please remember to provide your contact information so that we may enter your name in a drawing for a cash prize. (Fully completed questionnaires will be considered for a cash prize. We will detach your contact information from your answers and will not share it with a third party.)

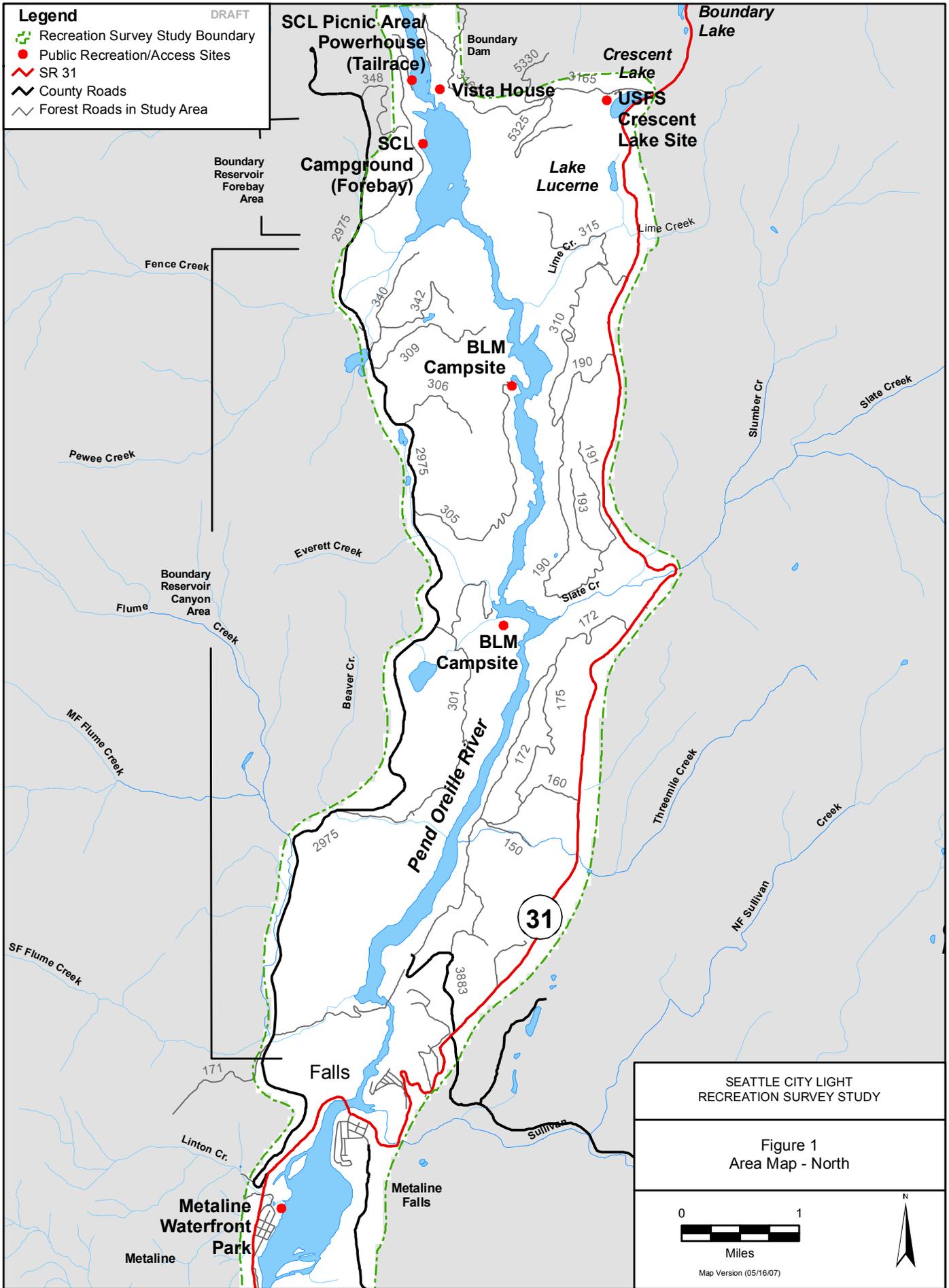
Name _____

Address _____

Telephone # _____

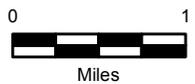


The Boundary Reservoir Area and You

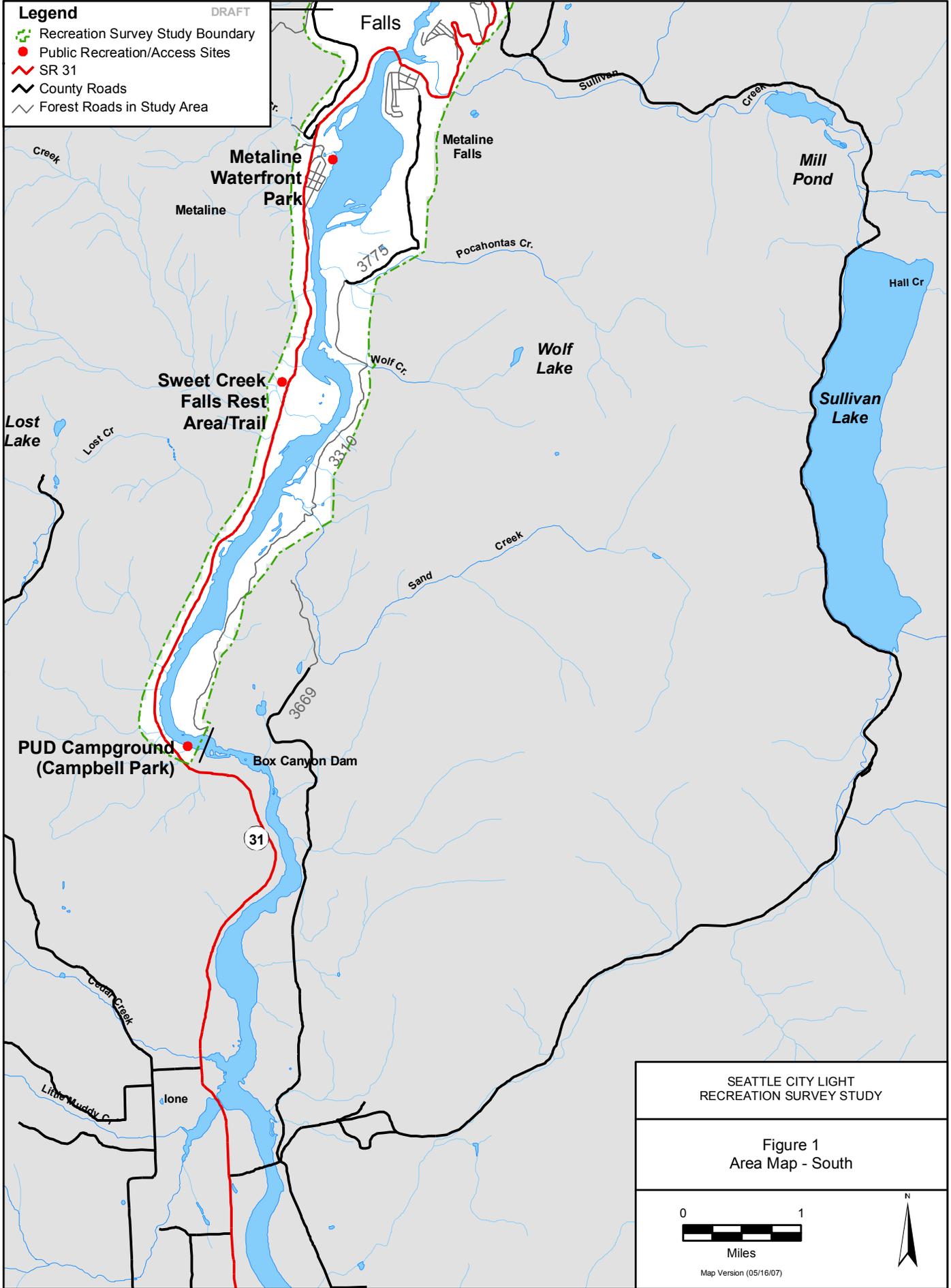


SEATTLE CITY LIGHT
RECREATION SURVEY STUDY

Figure 1
Area Map - North



Map Version (05/16/07)



Appendix 4b. Verbatim Responses to Resident Survey Questions

Appendix 4b Verbatim Responses to Resident Survey Questions

Many questions in the area resident survey included “Other” as a possible response, and/or provided space for respondents to enter open-ended responses to a question. In most cases, the space for open-ended responses was intended to allow respondents to explain or identify those additional responses that did not fit a pre-defined category. Appendix A.4b documents the open-ended responses that were provided for the respective items on the questionnaire, as they were stated by the respondents (i.e., verbatim). Entries in these tables reflect possible misspelling in the responses and limitations on the ability to read or interpret some of the responses.

Question 2: Reasons for not visiting the Boundary Reservoir Area for recreation. Those respondents who answered “No” to Question 1, that they have not visited the Boundary Reservoir Area for recreation, were asked why they have not done so. Response 6 to this question was stated as “Other reason (Please specify).” All open-ended responses entered for this category are listed in alphabetical order in Table A.4b-1.

Table A.4b-1. Other reasons respondents gave for not visiting the Boundary Reservoir Area for recreation.

When I travel I go further South in the U.S.
91 years old
Age 70
Age and health keep us home
As it is across the line, and I also have the lower 7mile reservoir.
Border crossing too much hassle
Can not afford to go on any holidays
Discovered Golf
Didn't know it was there
Did not know about them
Did not know it existed
Did not know what is offered in this area
Didn't know about it.
Didn't realize there were so many good facilities in this area. The kids are grown now and we don't camp much anymore.
Do not do camping
Do not drive
Do not travel to the USA.
Don't go to the states.
Don't go camping anymore
Don't know where it is
Due to security concerns I prefer not to go across the border
Have a place on the lake in Canada
Have my own place at Christina Lake BC
Have not been down Metaline way
Have permanent recreation spot on Kootenay Lake near Nelson BC

Table A.4b-1, continued...

Have property at Christina Lake so that's our recreation area
Haven't camped in years
Husbands poor health
I'm from another country and can't afford it.
I don't camp or fish
I don't camp or go boating
I don't drive that direction.
I don't have a vehicle
I don't know the area well enough but would like to know more.
I live in Metaline and my boat motor is not running properly
I only fish anymore and prefer the lakes.
I use the Canadian side of region
I was not aware of what was happening
I work away from home 3 weeks a month
I work there
In BC we have all
Just doesn't fit into plans
Just moved here getting settled in first.
Just moved to the area
Live in Canada so I have to cross border
Live in Canada visit Canadian Side
My husband is not into camping
Never thought of the area
New to area and unfamiliar of details on what recreation area offers.
New to area 6 months
No car
No need to
No Time!
No vehicle
No vehicle to get there
Not a camper
Not aware of the area, many trips in our area.
Not campers at all
Not familiar with facilities
Not in my area
Not interested
Not on my normal travel routes
Old age
On a day trip around area
Out of our way
Own summer home on Kootenay Lake
Personal!
Pete passed away in 1998
Recently moved to area

Table A.4b-1, continued...

Rode train from Ione to Metaline, I usually pass through headed for Silverwood
 Same opportunities exist closer to home
 Seniors do not go to recreation area anymore
 Sir This survey is not really applicable to me or my family. We do not use this area
 Suitable occasion has not arisen
 Taking care of seniors and a handicapped person
 Too busy working to pay for blood sucking government
 We camped with friends who preferred the warmer water of Christina Lake.
 We go somewhere else
 We have a spot at Crescent Beach BC
 We no longer camp
 We own lake property
 We use the Pend Oreille River on the Canadian side.
 We utilize other recreational facilities.
 Why cross the border when we have opportunities in CANADA.

Question 3: When you visit the Boundary Reservoir Area for Recreation, what is your main reason for choosing this area?

Table A.4b-2. Other reasons residents gave for recreating at Boundary.

All of the above
 Boating
 Great swimming (Pend Oreille)
 All of the above
 Have not been recently
 Passing through stop for rest/lunch
 Played slow pitch softball
 The river access I stopped there
 To swim
 Usually passing through

Question 6: Location(s) for overnight stays. Respondents who indicated they stayed overnight when visiting the Boundary Reservoir Area were asked where they usually stayed. Verbatim responses to portions of this question are listed in Table A.4b-3.

Table A.4b-3. Specific places residents reported for overnight stays.

Name of town for hotel, motel, resort or bed & breakfast stay
 Metaline
 Spokane
Other places residents stayed overnight
 At friends in Coeur 'd' Alene

Table A.4b-3, continued...

Campsites on side of river
 Home
 My friends place
 My own home
 Usually return back to Canada

Question 7: Participation in recreation activities while visiting the Boundary Reservoir Area. Eight respondents selected the “Other” activity category on the list of responses for this question and wrote in a specific activity. Those responses are listed in Table A.4b-4.

Table A.4b-4. Resident responses for other recreation activities while visiting the Boundary Area.

Caves
 Collecting Rocks
 Firewood gathering, exploring, appreciating historical sites and associations
 Golfing
 Great for everyone
 Passing through
 Slow pitch softball
 Viewing wildlife

Question 12: Means of fishing in the Boundary Reservoir Area. People who responded to the fishing questions were asked how they usually go fishing in the Boundary Reservoir Area. Open-ended responses were provided for the type of boat or watercraft used, and are listed in Table A.4b-5; no respondents specified “Other means” for fishing.

Table A.4b-5. Types of boats/watercraft used by residents for fishing in the Boundary Reservoir Area.

12' Aluminum
 14' Boat
 14" fishing boat (Hewescraft)
 15' boat or personal pontoon float
 20' cabin I/O (usually)
 Boat (3)
 Boat Duckworth
 Canoe (2)
 Fishing boat
 Flat bottom boat
 Inflatable Zodiac
 Motorboat
 Outboard
 Outboard Skiff
 Pontoon Boat
 Row

Table A.4b-5, continued...

Row boat and Speed boat
Small boats

Question 13: Areas fished in the Boundary Reservoir Area. Question 13 included four spaces for respondents to provide open-ended input. They were asked to specify the locations if they fished the mouths of creeks entering Boundary Reservoir, if they fished creeks entering Boundary Reservoir above the creek mouth, or if they fished other creeks/ streams or lakes/ponds in the area. These open-ended responses are listed in Table A.4b-6.

Table A.4b-6. Specific areas fished when visiting the Boundary Reservoir Area.**Mouth of creeks entering Boundary Reservoir**

7Mile Dam
Any and all creek mouths.
Beaver and Three Mile Creek areas
Slate Creek (2)
Slate, Sullivan and Peewee Creeks
Slate Creek and Flume Creek
Slate Creek and Wolf Creek
Sullivan Creek (2)
Sullivan, Flume, Slate and Sweet Creeks
Sweet Creek (2)

Creeks entering Boundary Reservoir (above creek mouth)

Flume Creek (2)
Slate Creek
Sullivan Creek
Sweet Creek

Other creek/stream in the area

Above 7 Mile Dam
Below Box Canyon Dam
Cedar Creek
Sullivan Creek

Other lake/pond in the area

Crescent Lake (3)
Ione Park
Lake Leo
Lake Leo and Crescent Lake
Like to fish Beatty Lake
Meadow and all others

Question 14: Fish species targeted in the Boundary Reservoir Area. Question 14 asked respondents to identify the species of fish they usually try to catch while fishing in the Boundary Reservoir Area. The open-ended responses for “Other species” are listed in Table A.4b-7.

Table A.4b-7. Other species of fish residents usually try to catch in the Boundary Reservoir Area.

Any fish that will eat a worm or night crawler. I would like western cutthroat trout put in the river, its native.
 catfish
 crappie, perch, bullheads, whitefish and squawfish (pike minnow)
 northern pike, perch and walleye
 perch or anything that bites
 perch and sunfish
 pike
 pike minnow
 We usually catch perch and sunfish.

Question 15: Fish species typically caught in the Boundary Reservoir Area. While Question 14 asked respondents the species of fish they usually *try to catch*, Question 15 asked them what they *typically catch* while fishing in the Boundary Reservoir Area. The open-ended responses for “Other” species are listed in Table A.4b-8.

Table A.4b-8. Other species of fish residents typically catch while fishing in the Boundary Reservoir Area.

northern pike/pike (2)
 perch
 pike minnow
 rainbow trout
 squawfish (3; same as pike minnow)
 suckers
 eastern brook
 tench
 walleye
 whitefish

Question 20: Boat launch(es) typically used in the Boundary Reservoir Area. Respondents who reported they used a private boat launch or launched directly from shore were asked to specify where they launched. There were only four open-ended responses to these parts of Question 20; they are listed in Table A.4b-9.

Table A.4b-9. Residents who specified either a private launch or direct launch location.

Type of Launch	Location
Private	Berckley campgrounds
Private	Trading Post Resort
Direct	Beside the old Grandview Powerhouse near Pend Oreille Village
Direct	Kayak

Question 21: Boat launch adequacy. Respondents who reported boat launches had not met their needs were asked to describe the problems they encountered. The open-ended responses to this part of Question 21 are listed in Table A.4b-10.

Table A.4b-10. Residents' descriptions of launch problems they encountered.

1. Need more docks to meet lake level fluctuations. 2. Current problems and no dock at Metaline. 3. Current problems and no dock at Box Canyon
 Boundary Dam Launch is great. Badly need some sort of dock in Metaline
 Box Canyon launch is dangerous
 Broken concrete hard on equipment!
 Campbell Park could use a jetty to cut the side flow down to make it easier to launch.
 Due to varying water levels it makes it very difficult to re-trailer at times.
 Have trouble walking to boat
 I'm very cautious and don't cross Metaline Falls, usually put in above or below.
 Launch at Metaline sucks. It is in the current and has no dock etc. It needs moved out of current.
 Metaline city launch is sure to damage boat, very poor. Boundary needs to be deeper, very slippery when cold.
 Metaline launch is in very poor shape
 Metaline Launch not usable when water is extremely low.
 Metaline Park Launch (ramp) is very broken up, and no dock (to load people in boat) is available. Without a dock, handicapped or elderly relatives cannot join in boating.
 Metaline Park Launch is often unusable for the boat (afternoons) Boundary launch is excellent
 No dock
 No docks and bad launch area
 Sometimes water level is too low
 Sometimes we have not been able to get our boat out because the water level dropped.
 The launch at Metaline needs a dock and needs to be re-graveled. Low water levels at Boundary Dam
 Water levels variations

Question 22: Problems with water conditions when boating on Boundary Reservoir. In addition to indicating whether they experienced problems with water conditions and the degree of those problems, residents were asked to describe any problems with water conditions they had encountered. The verbatim responses to this part of Question 22 are listed in Table A.4b-11.

Table A.4b-11. Residents' descriptions of problems with water conditions when boating at Boundary Reservoir.

Boat dock and launch sometimes is out of water.
 Water levels change daily
 Dragging bottom unexpectedly
 Falls gets a little rough
 Fluctuating water levels and conditions at the site of the former falls. Occasional wakes from motorboats that fail to slow down when passing canoes.
 Had to leave our boat over night as we could not get it out.

Table A.4b-11, continued...

Launch a problem at Metaline

Low water

Low water at Metaline

Milfoil, just being aware of depths, we're learning!

On occasional rise and fall of water at the falls area but has not been a big deal

The rapids in spring provide a real rush

Variable depths at launch have caused damage to boat.

Water level changes daily

Water level changes hamper launches

Water level was so low that the boat was grounded

Water levels fluctuates so much you have to be careful of sandbars and passing through rapids (rapids can change before you travel back through)

We have to call and find out when they are going to drop the water level. If it is too low we wouldn't go boating or fishing

When the falls are rough I do not run them! We will Launch at Boundary to fish and boat the north area and Metaline to access south of falls.

Question 24: Desired improvements to the existing recreation opportunities at the Boundary Reservoir Area. Respondents who indicated they thought improvements to existing recreation opportunities were needed were asked to list the activities or facilities they would like to see. The verbatim responses to this part of Question 22 are listed in Table A.4b-12.

Table A.4b-12. Residents' descriptions of other recreation activities or facilities that they would like.

A few more hiking/walking trails

Additional docks for swimming and mooring

Better access to creeks in the area.

Better access to the river to fish especially from Metaline Falls to Boundary Dam.

Better boat launch at Metaline

Better boat ramps

Better fire pits in campsites. More garbage cans. Marked swimming area by boat launch. Larger docks to accommodate more boats.

Boat dock at Metaline Riverfront Park

Boat in campsites with limited developments, fire pits. Trails to viewpoints, e.g. Peewee Falls viewed from the east shore.

Boat launch and docks other than at Boundary Dam

Boat launch east side of river between Box Canyon and Boundary

Boat ramp improved in Metaline, Boat dock installed in Metaline.

Boat ramps should be made usable at all water levels

Campground at Boundary gets full. More campsites, picnic tables and toilets would be nice

Docks need attention. Seattle City Light does no other recreation on their reservoir except at the dam. They should put the docks back in at the Metaline Waterfront Park.

Greener grass

If facilities were made better it would get crowded.

Improve boat ramps at all three areas, develop groomed cross country ski trails

Improved docking and better access or disabled

Table A.4b-12, continued...

Improved motor vehicle access to river from Metaline Falls to Boundary Dam
 It would be nice to develop the boat in campsites. Also a dock to leave your boat in the water overnight would increase convenience.
 Maintain more consistent water levels, keep out jet skis and personal watercraft
 Maybe there can be a time set for lowering the river.
 More access sites, but the cliff and steep terrain would make this very difficult
 More ATV Trails
 More RV campsites
 More trails for horses with places to park horse trailers
 More wheel chair access would be nice.
 No fishing at Box swimming hole, because of hooks and the smell
 Open access to the North section of the river below the dam (Canadian side)
 Overnight docking for boats
 Paved areas for better handicap access
 Places for 4-wheelers to go
 Shallow roped off areas for families with children would be great.
 Stock more fish
 Very nice and large swimming/day use area. Commercial enterprise would be ok- use fees expected.
 Viewpoint for Peewee Falls
 Visitor center depicting pre-dam, historic human uses in the project area.
 Volleyball net poles and net if possible
 Walking and biking trails made along Boundary Dam Road
 We need a dock at Metaline. Warning Buoys on gravel bars.
 Would like to see more trees at the Boundary Campsites

Question 25: Specific recreation sites in the Boundary Reservoir Area visited. Question 25 included 10 pre-defined responses for specific sites or types of sites residents might visit for recreation. The verbatim entries for the “Other” response to this question are listed in Table A.4b-13.

Table A.4b-13. Other sites in the Boundary Reservoir Area visited for recreation by residents.

BLM Campsite
 Box Canyon Lake
 Metaline Campground
 Peewee Falls, Picnic beach south of Boundary Dam
 Pend Oreille River
 Specific viewpoints and areas of historical associations
 Sullivan Lake
 Swimming hole at Box Canyon Dam

Question 28: Problems or conflicts with others at the primary recreation site. Respondents who indicated they had experienced problems or conflicts with other people or their behaviors at the place they listed in Question 26 (as their primary recreation site) were asked to describe what had occurred. The verbatim responses to this part of Question 28 are listed in Table A.4b-14.

Table A.4b-14. Residents’ descriptions of conflicts or problems they experienced at the Boundary Reservoir Area.

Another party had moved into one of the few sites for a ten day stay. A limit would be nice.
 Parking on occasion is difficult for cars and trailers. Large RV's may park in area making it difficult to turn around or back in.
 Boating is crowded
 Children not properly supervised by parents.
 Children poking out fish eyes etc. Leaving them on beach and frogs etc.
 Cigarette butts/empty packs, soda and beer cans
 Dogs biting and fighting. Drunks. Teen parties.
 Dogs not on leashes and people not picking up after their dogs
 Drunken behavior and out of control pets.
 I am Canadian, at that point in time, it was if I was put up with for the ball tournament
 I don't go until after school starts.
 Loud music
 Loud young kids
 Noise
 On one visit there was an American fellow that yelled and screamed at his wife that escalated with other campers. This turned extremely confrontational and there was no policing in the area. As most Americans are gun nuts, we were a little worried.
 People getting drunk and foul mouths.
 People swimming at dog beaches at Sullivan Lake, taking up the whole beach with their kids, and they have no dogs!!!
 Plugging launch with moored boats and swimmers
 A man owns property on the river and threatens people lives literally for using existing road to access river, which I've been doing for 30 yrs until incident 2 yrs ago.
 The game warden is no fun. The trout limit (2)
 Too noisy at night
 Twice in 10 years, the Forebay parking area was over full. Not a big deal.
 Unsupervised children. People bringing their dogs during large functions (4th July, fireman picnic)

Question 30: Intent to adjust recreation plans. Question 30 included five pre-defined responses for specific types of adjustments residents might make to their recreation plans in response to their experiences. The verbatim entries for the “Other” response to this question are listed in Table A.4b-15.

Table A.4b-15. How residents specifically intended to adjust their recreation plans.

Watch for warden and laugh when people dump fish
 We usually avoid weekends use the area Mon-Fri

Question 31: Maintenance needs at primary recreation site. Respondents who indicated they had not found the facilities at their primary recreation site to be adequately maintained were asked to describe the maintenance needs they perceived. The verbatim responses to this part of Question 31 are listed in Table A.4b-16.

Table A.4b-16. Describe any maintenance needs you think are not currently met.

Bathrooms not clean, not stocked with toilet paper, and garbage overflowing. Grass not watered, dry only weeds, no area to play. Bad rodent problem!

Bathrooms run out of toilet paper and can get pretty messy when there is a full camp ground. Quarter operated showers would be nice.

Boat launches at Metaline Park need replacement

Boat ramp not usable at low water levels

Boat ramps could be better

Could use more shade

Don't know if it could be any better, but if there was more shore line access for wheel chairs.

I have been in area when toilets were locked.

Improve facilities by adding more camping sites, picnic and walking areas. Make better use of the historic cabin and maintain it better. Provide more local information. Provide better signage on fire conditions.

Large amount of garbage thrown out lately with bears in area.

Maybe the boat ramp could be repaired. We tried to fill in some of the broken areas. But we are quite pleased with the launch.

Metaline Park needs new grass also needs dog leash law enforcement. Signs would be great.

No docks, boat launch needs work, picnic area rundown.

Picnic tables need work

Re-open campground at Crescent Lake

Restrooms need cleaning

SCL has nothing to do with my visit to Metaline Waterfront Park. Seattle City Light does nothing for our communities since the retirement of Jim Collen. Current manager refuses to assist our small community. Metaline does a fine job maintaining their park.

[Excrement] on bathroom floor but no butt wipes

Soap and hot water would be nice, clean facilities

The bathrooms are always disgusting but everything else is fine.

The parking lot and the way to the boat launch needs to be leveled nicer.

There are no boat ramps, and poor shore access. The campground is very small.

Toilet paper and trash

Town of Metaline is financially unable to fully maintain their park. The park is very popular by all types of boaters and fisherman. The shelter is used by many people and groups, Seattle City Light should support this park.

Trash along trail

Very hard to answer as we are seniors and do not expect the very best of everything!

Question 35: Sites or locations in the Boundary Reservoir Area that are special or meaningful as a place for recreation. Respondents who indicated they did have sites or locations that were really special or meaningful to them as a place for recreation were asked to list or describe those places. The verbatim responses to this part of Question 35 are listed in Table A.4b-17.

Table A.4b-17. List of special places for recreation at the Boundary Reservoir Area reported by residents.

(Sweet Creek Area) My mom lives there, so we spend a lot of time swimming and fishing there.
 A pond with frogs that only we know of.
 All
 All along the river between Metaline and the dam
 All of it
 All this is all we have and we love it. We don't need to go too far.
 BLM Campsite
 BLM Campsite below Lead King, boating the canyon
 Boundry Dam Campground
 Box Canyon has always been a family environment, very well maintained and "homey"
 Box Canyon lake and Sullivan Lake, we love to drive through the whole scenic area.
 Buckley camp site
 But the whole system is great as I am a lifelong resident of Metaline Falls/Metaline and the dam opened the area for great recreational opportunities that without the dam the river would be "iffy"
 Campbell Park and the canyon between Metaline and Boundary Dam
 Canyon areas, boat in campsites
 Carl Harvey's Cabin, various placer mining sites associated with Flume, Three Mile, Everett, Beaver and Peewee Creeks. The Falls (when water level drops 20+ feet). The entire river, pre-dam.
 Crescent Lake
 Crescent Lake. Spent a lot of time there when younger. But beach and campsites are wrecked.
 Flume Creek at river area below Boundary to Canada
 Forebay is a very pretty setting
 Hoagy's
 I live in Pend Oreille County and fish a lot of the lakes.
 Metaline
 Metaline Park- kids going fishing when they were little
 Metaline Park
 Metaline Park all the family events we've held
 My husband and I got married in Metaline Park
 Peewee Falls Picnic site on beach several miles south of Boundary Dam. (Beach w/table, firepit)
 Peewee Falls
 Peewee Falls, across from the High School, Metaline area, Slate Creek mouth, Boundary Dam and Vista House.
 Pend Oreille Valley
 Pend Oreille River between Forebay and falls. We like the numerous small falls along this section of river.
 Slate Creek, Peewee Creek, Campground across from Slate (BLM)
 Small water fall going down river on right side. Slate creek area
 Sullivan Lake

Table A.4b-17, continued...

Sweet Creek
 Sweet Creek Trail is a favorite
 The campgrounds
 The hiking trails and skiing trails.
 The kids really like swimming at Box Canyon
 The old mine sites, waste ore piles
 Three Mile creek, BLM campsites, graveyard, Crescent Lake, SLL campgrounds
 Very beautiful trip up the river from the dam by Kayaking. Just love it. Pretty spot just down the river at 9mile dam, but too many riff-raf-low-class hell-raisers go there. Haven't run into that problem at boundary dam camp.
 Washington Rock
 We are from Salmo, so it is just 25 miles away.
 We just drive around occasionally to different places
 Yes, the whole reservoir. Camping by boat in only areas.
 Z-Canyon

Question 36: Other lakes and rivers visited. Respondents were asked to list up to three other (than Boundary) lakes or rivers in the region that they visit for water-based recreation. The most frequent responses are summarized in Section 5.1.4 of the report. A complete list of all responses received for this item is provided in Table A.4b-18 below, generally in alphabetical order.

Table A.4b-18. Other lakes or rivers in the region frequently visited for recreation.

7Mile Dam
 Above Boundary Dam
 All local
 Arrow
 Beaver Creek
 Box Canyon
 Box Canyon Reservoir
 Buckley
 Champion
 Champion Lakes
 Christina Lake
 Clark Fork River
 Coffin
 Columbia
 Columbia River
 Crescent
 Crescent Lake
 Deep lake
 Flathead Lake
 Forebay
 Kootenay
 Kootenay River

Table A.4b-18, continued...

Kootenay
Lake Leo
Lake Roosevelt
LeClerc Creek
Meadow Lake
Mill Pond
Pend Oreille River
Pend Oreille
Pend Oreille, Ione both up and down river
Pend Oreille
Pend Oreille River
Pend Oreille River upriver
Pend Oreille
Priest Lake
Priest Lake
Rosebud Lake
Round Lake
South Skookum
Sullivan
Sullivan Creek
Sullivan Lake
Swan Lake
Thomas Lake
Trout Lake
Arrow Lakes
Beatty Lakes
Big Meadow Lake
Box Canyon Dam
Buckleys Camp Site
Coeur d' Alene
Champion Lakes
Christina Lake
Columbia
Columbia River
Crescent Lake
Cristina
Davis Lake
Erie
Fruter
Gillette
Gillette Lake
Kooconusa
Kootenay
Kootenay Lake
Lake Leo
Lake Roosevelt

Table A.4b-18, continued...

Ledbetter
Leo Lake
Meadow Lake
Mill Pond
Nile Lake
Pend Oreille River
Pend Oreille
Pend Oreille River
Pend Oreille
Pend Oreille River
Priest Lake
Priest River
Riverfront State Park
Rosebud Lake
Salmo River
Slate Creek
Slocum
Snake/Columbia River
South Pend Oreille River
Sullivan
Sullivan Lake
Swan River
Two Rivers
Yokum Lake
Yocum
Arrow Lake
Black Lake
Bonaparte
Cedar Lake
Champion Lake
Clark Fork
Columbia
Columbia River
Flathead Lake
Frazier River
Gyro Park (Trail)
Kettle River
Leo Lake
Loon Lake
Mill Pond
Mill Pond
Nancy Greene
Nile
Okanagan Lake
Pend Oreille
Pend Oreille

Table A.4b-18, continued...

Pond Oreille Lake
 Pend Oreille River
 Priest Lake
 Spokane River
 Sullivan Creek
 Sullivan Lake
 Thomas Lake
 Yokum
 Yocum Lake

Question 39: Effect of views of Project facilities on enjoyment of the scenery. Respondents who indicated they did had seen facilities or structures associated with the Boundary Hydroelectric Project when visiting the area were asked to describe their response about how that affected their enjoyment of the scenery. The verbatim responses to this part of Question 39 are listed in Table A.4b-19.

Table A.4b-19. Residents' explanations for how views of Boundary Project structures affected their enjoyment of the scenery.

Boundary Dam is one of the most interesting forms of dam construction I have seen also the powerhouse generation (inside rock)
 Don't care
 Educates my kids
 Electricity is a beautiful thing and clean renewable energy!
 Garbage, dead grass
 I accept them as necessary
 I have worked in hydropower for many years. I check rusty steel and crumbling concrete
 I am in awe of the engineering aspect of the dam and the towers and lines.
 I appreciate having a great access to the area, boat launch, facilities, and No Fee is great. Water the lawn in late summer would enhance the experience.
 I considered working on the Dam when it was being built.
 I enjoy viewing all aspects of the dam and area. The river is nice, but the reason for it is the dam and power plant.
 I enjoyed them the first time and show them to visitors.
 I know they are there to take the dam running, so it doesn't take away from the scenery.
 I like the fact that we are using a clean energy source to create electricity for so many people. It makes me feel like we are all a part of trying to preserve and conserve natural resources.
 I like to see the birds that hang around the trash catcher.
 I realize that without these facilities, access and recreation all opportunities wouldn't be what they are. Also they provide important jobs to the area
 I spend most of my time up the river. I can't imagine many spot being as lovely as this one. Just gorgeous I would love to kayak from the bridge in Metaline Falls down to the dam but not sure if current is too strong from the bridge down the first bit of the journey???

I worked at Box Canyon Dam for 22 years so I am used to seeing the different structures. I do like looking at how things work there as opposed to Box Canyon Dam.
 I would rather see the Dam than houses, one after another like we see on the Ione side of the river
 If the dams weren't here the scenery would be different maybe nicer. I didn't live here before dams. I hear and see from old pictures it was spectacular at times. It is still spectacular at times.

Table A.4b-19, continued...

It's a saw off, without the facilities there would be much less to see

It's as truly enjoyable to get out to that sort of area for the beauty.

It is all part of the dam and what it is about like a town needs businesses and homes to be a town.

Looks cool to me knowing the hydroelectric operation is a source of renewable energy fascinates me. I love the way it looks.

Man made structures such as dams impress me.

My wife worked at the dam from 1964-67. Seattle City Light has been great addition to our area since their entrance in 1967. I only wish the Forest Service had a 1/3 of your expert work as far as the recreation is concerned. Not natural! No fish ladders! Noisy!

Spillways in spring. Generator port holes in rock wall of generator rooms very, very impressive

That's partly what we go for. Just to check things out.

The dam itself is an impressive structure, no reservoir without dam.

The Seattle City Light dam is a wonderful energy source. I enjoy seeing how it was built into the spectacular rock formation. The dam performs its function and at the same time fits in its place without ruining the natural scenery. The unique underground mountain mechanical structure. The dam itself.

These facilities provide access. Security is overdone.

They add to my amazement of what man can do to help insure the beauty God placed here on earth.

They are eyesores

They are interesting.

They are necessary

They remind me of what we have chosen to forego by converting the Pend Oreille River into a lake. They are also less than aesthetic.

We have a family connection to the dam since the 60's. We have history in this area and appreciate all aspects of Boundary Reservoir.

We like the dams. Bridges are cool too. Kids are especially impressed to see Vista House from the Reservoir.

We love the great outdoors

We love to take camping trips up to the dam. They are always so impressive!!!

We own Property nearby that has some "wildness" left, structures rarely detract as does powerboat use and the danger sign and net nearby.

We take visitors on the river up to see the reservoir & the dam, its very interesting.

Well maintained; touring available, interesting

You guys do a good job always.

You need power!!!

The following are open-ended comments that area residents provided on the last page of the questionnaire. With rare exceptions, they are unedited.

Table 4b.20. Resident additional comments.

A 650% increase in property tax. How much will electricity go up to feed you blood suckers!!!

Although my husband and I aren't campers. We do take day trips and have enjoyed traveling through some of the areas. We are lookie-lous. We don't hike or anything like that, but we have car binoculars. Thank You and please do not enter us in any contest.

Being new to the area I have been quite disappointed with the current business practices of PUD who provide electric service to the community from the public hydro plant at Box Canyon. Seems PUD is more concerned with income than in providing electric service to the local community. I am disabled and was told that without \$14,000 PUD would not install electric to my property....As there is no way for me to get 14K guess I'm screwed.....

Better boat launch facilities are necessary. It shouldn't be an adventure to launch. The daily dam fluctuation should be posted at the launches in both the Forebay and Metaline Park.

Boundary Reservoir reaches from Boundary Dam to Box Canyon Dam. Seattle City Light needs to partnership with the town of Metaline to improve recreation on the river. There's no longer access to the river at Flume Creek. Do something to open this road again. The reservoir isn't just at Boundary Dam. The current manager refuses to help with any community projects. [Prior manager] couldn't do enough for our towns.

Can Boundary do anything about the milfoil in River?

Dear SCL: At this time in our lives, we do not fish or camp in the Boundary Reservoir Area. When we were young and had young children, we loved camping at Sullivan Lake.

Do not camp

Do not drop the water level of the river, the clouds need the water to accumulate moisture to create rain. I believe our spring and summers have been extremely dry because of falling river levels. My 30yr neighbor agrees. Post no hunting signs on dam and river areas on all Seattle City Light lands. Do as Yellowstone National Park. With the price of property and the cutting of trees, I hope all your land is surveyed, I suggest it should be all fenced. Plant apple (red) trees where you want the bears to stay. Thanks for hearing us.

Do you feel that the changes you may make to the operation of your reservoirs may not affect our experience in this watershed as well? If you ask for my assistance, you should try to make it relative to my experience.

E.I.S.analysis for FERC relicensing of the dam has failed to address impacts from power-boat wakes on shorelines and their habitats. This is becoming a problem for many shore owners along the river.

Fishing in the swimming hole at Box is dangerous. Hooks get in feet and the water. It causes dead and floating fish that stink. There are a lot of other places for kids to fish. This is the swimming hole!

Fishing is lousy at Mill Pond

For your information I did return the first survey.

Forest Service P.R. stinks!! And please don't ask the Indians for any help with management on fishing or fish selection. Note: I don't care if you share any of the enclosed information. I only hope it helps your survey.

Have had a number of friends who both camp and enjoy the day swimming in the area. Most of our friends with whom we camped enjoyed the warmer water of Christina Lake.

His is the first time I have Heard of the B.R. Area. I have lived in the Trail BC area for over 50 years.

I'd really like to see some more access sites to the river between Metaline Falls and Canada. I'd also like them to be easily accessible for "old" guys like me, where we can fish from shore. I'd also like to sell the big island across the river from Metaline for wildlife refuge. The BLM cadastral survey at Portland Oregon says I own it. If you need to do some mitigation that would be a good project. Please contact me. I am botanist and it disturbs me that in recent years you have destroyed almost all the habitat and several hundred plants of a very rare endangered species of fern. It is on the Endangered Species list. Wasting opportunities is terrible especially since the introduction of triploid rainbow trout.

I am not a camper or fisher as I have no time. This is a waste of your money sending this to me and a waste of my time to finish filling something out I don't do. Many others can help you but not me. Sorry

Table A.4b-20, continued...

I am very angry that the Columbia river no longer has salmon coming to spawn. The river has been dammed and they can't navigate any more. What in the hell is the matter with those in charge? Do they or you have any clue as to how many jobs it would create in the fisheries? How was this allowed to happen? Give us back our salmon!!!!

I haven't been in the States in over 10 years so do not feel I can properly answer this questionnaire.

I love the map of the area. Thank-you

I only fish anymore and prefer the lakes to the river. Too much milfoil.

I sent the first survey as well but didn't put postage on it, so maybe post office sat on it, didn't send it on postage due.

I understand that the Pend Oreille Valley supports a varied bat population and that there are some important bat habitats just south of US/Canada Nelway border. Even though I haven't visited the area myself. I have attended lectures on this subject. Any hydro electric activities should respect and protect these habitats

I waited for this survey to come to see what information you wanted. I have never visited the Boundary Area, sorry I can't help you.

I wasn't aware these facilities existed - will definitely be checking them out next summer!

I would like to see Seattle City Light participate financially in more community programs. Seems like I always see Teck Cominco donating to projects here but seldom see Seattle City Light doing so.

I would say you guys do a very good job. Hoped I helped

If I had more time I would enjoy visiting your recreation area. Thank You

If we didn't live so close we would camp there. We bring all our visitors to see it.

It has been awhile since we have been to the dam and lookout. We will be going down for a round trip pretty soon.

I found the tour of the dam very noisy.

It would be real easy to dig a channel at low water to make the Metaline Launch usable at all levels.

I've lived in Trail and area since 1934. I'm 94 years old and think it's a great idea to canvas this area, we are so short of places for recreation, and my husband did go fishing etc and now have a grandson. I'm in favor of this great place, Trail is 5 miles away and it's a great place. So go ahead with your plans, The young families will realize what a great place it is.

Many years ago we (my husband & I) drove through Metaline Falls. My husband golfed at a small course near there. Due to my age I do not participate in any recreation this far from my hometown of Trail BC. Other than walking along the Columbia at Gyro Park, Trail BC and participation in functions at Gyro Park and enjoying walking along our river.

My husband worked for City Light, he passed away Jan '91

No thank you

Now that I know the recreation site exists I plan to visit

P.S. We moved here from Seattle in 1993. Being in the Boundary area makes us feel more at home.

Please do not pass this on to a third party. Thanks.

Please enforce speeding laws!

Please remove my husband's initials from your registry as it has been a year since his passing. Thank You and Please DO NOT send me anymore of these things.

Really enjoy and appreciate the no fee campsites always were maintained one of my favorite places to go camping fishing, paddling.

Seattle City Light has always supported the area communities financially by providing manpower and equipment. They are a great neighbor, but town of Metaline needs on-going support for their parks.

See attached sheets on Diamond-host rocks. Kimberlite and hampiohyre in the Pend Oreille Valley. I am a rock hound

Since 9/11 my visits to the USA have been minimal it has become Fortress America, the border is no longer open to Canadians as I have lived in this area my lifetime and have several American friends. I find it an unwelcoming Border with " " Border Guards

Sorry I can't be more accurate with my answers...time passing and my recollections aren't clear.

Table A.4b-20, continued...

Sorry we are not very helpful

Thank-you but I only use the Boundary area for crossing the border at Ulanete when going to visit in the US. Thanks Again

Thanks for all you do. We support the clean local Industries like Seattle City Light and specifically Boundary Dam.

Thanks for caring!!!

That will be \$15.00 please...

The area in question is a beautiful recreation area and visited by several people I know. I would have no problems using it but I just don't go there.

There are more and more people in wheel chairs every year. The more wheel chair access the better. Thank you

This is the 2nd time I filled out this questionnaire.

We are relatively new comers, bought property in 2000, but snow birded until 2005, now built a house. I have this year operated two net pens rearing 20,000 rainbow under the Washington Fish and Wildlife as a volunteer. I have been assisted in this by Boundary Dam personnel.

We love our fishing time

We travel through the Boundary Reservoir Area from time to time for hockey or baseball trips with my boys. If I had more time for outdoor activities I would definitely come to this area too.

We use the Canadian portion of the river.

We would like to see improvements in the camping/rec area. Such as: more campsites, better fire pits, green grass, better garbage storage, and maintaining bathroom cleanliness and keeping it stocked. Also, posting information on: reservoir hazards, dock area rules and campground rules. Metaline boat launch needs improvements, maybe docking facilities and longer ramp into the water.

We, my husband and I moved from the West Kootenays in August 2007. We have moved into a senior's residence in Ashcraft. Ashcraft is situated in the Caribou Region of BC. It is situated on the famous Gold Trail of the Caribou. We lived in Nebuay Custers North of Metaline Falls and of course we are going to miss your lovely region.

When I was growing up I frequently visited the area, several times a month for the purpose of preaching the good news of God's Kingdom Witnesses. The area is quite beautiful and perhaps my wife and I will visit again in the summer. Thank You for the opportunity I'm sorry I couldn't be more helpful.

When my husband was alive and my children were small we used to go down often. My children are grown and my husband died and my friends in Metaline are gone. I don't go down much anymore. I miss it. Thank you and I did fill out the other question sheet.

Will building a dam effect the Canadian side of the border, and will you put in fish ladders?

Would be nice to have a few more campsites and some trees for shade

You guys rock, all we need is more fish and less people...Thank you.

Appendix 5: Dispersed Site Inventory Documentation

Appendix 5a. Blank Site Inventory Form

Appendix 5b. Site Inventory Entries

Appendix 5a. Blank Site Inventory Form

**Boundary Hydroelectric Project
Study 21 Dispersed Recreation Analysis
Site Inventory Form**

5. Site Facilities	NOTES
<p>toilets _____ no. _____ condition</p> <p>trash cans: _____ no. _____ condition</p> <p>picnic tables: _____ no. _____ condition</p> <p>signs: _____ no. _____ condition</p> <p>fire pits: _____ no. _____ condition</p> <p>tent pads: _____ no. _____ condition</p> <p>other: _____</p> <p>other: _____</p>	
<p>6. Visual Setting</p> <p>6.1 Predominant views from site: _____ reservoir _____ creek/stream _____ mountain _____ enclosed</p> <p>6.2 Evidence of development: _____ roads _____ powerlines/dam _____ mining operations _____ harvest _____ other</p> <p>6.3 Other recreation sites in view (number/type): _____</p> <p>6.4 Screening around site: _____ high _____ mod _____ low _____ none</p> <p>7. Shoreline Conditions</p> <p>7.1 Is there surface water shoreline within/adjacent to the site? _____ Yes _____ No If YES, continue; if NO, skip remaining items.</p> <p>7.2 Type of shoreline: _____ low bank _____ high bank _____ vegetated _____ rock outcropping _____ sand/silt _____ gravel</p> <p>7.3 Type of access to shoreline: _____ vehicle _____ foot _____ none</p> <p>7.4 Boat launching access at shoreline: _____ trailer _____ hand launch only _____ easy _____ difficult _____ none</p> <p>7.5 Boating hazard/boat landing difficulty: _____ high _____ mod _____ low _____ none</p> <p>7.6 Type of substrate at shoreline: _____ sand/silt _____ gravel _____ cobble _____ boulders</p>	

(page 3)

**Boundary Hydroelectric Project
Study 21 Dispersed Recreation Analysis
Site Inventory Form**

Sketch Map of Site



**Boundary Hydroelectric Project
Study 21 Dispersed Recreation Analysis
Site Inventory Form**

Site Photos

A large, empty rectangular box with a thin black border, occupying most of the page below the 'Site Photos' label. It is intended for the user to paste or upload photographs of the site.

**Boundary Hydroelectric Project
Study 21 Dispersed Recreation Analysis
Site Inventory Form**

Site Photos

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Appendix 5b. Site Inventory Entries

Appendix 5b Site Inventory Entries Sections 1-3

Site/Code	1.4 Est		2.1 Site		2.2 Distance to Site	2.3 Access Conditions	3.1 Cover Type	3.2 Shade Cover %	3.3 Location re Shoreline	3.4 Distance to Water	3.5 Name of Water
	Capacity	Tent Capacity	Access Means	Vehicle Capacity							
3SR31SC-1	1		rd/w; t/h	0	600' rd; 2' t	easy byft	o for	51-75	NA	40'	Sweet Ck
4RD325-1	1		rd	1	5' r	2wd; 4wd	old for; y for	0-25	na	3000'	res
4RD325-2	2		rd	2	45' r	2wd; 4wd	y for; grass/sh	0-25	na	5280'	res
4RD305-1	3		rd	3	1' r	2wd	o for; rip	0-25	upland	2'	crescent
4RD305-2	1		rd	2	1' r	2wd	o for; rip	0-25	upland	2'	crescent
4RD310-1	2		rd	2	3' r	2wd; 4wd; atv	y for; grass/sh	0-25	na	2810'	res
4RD190-1	3		rd	3	150' r	2wd	o for	26-50	na	1000'	na
4RD172-1	5		rd	4	159' r	2wd	o for; y for; grass/sh	0-25	na	5280'	res
4RD172-2	1		rd/w; boat	0	40' r; 400' res	easy by ft; boat	o for	26-50	set back; upland	400'	res
6SRWC-1	0		rd/w; boat	0	200' r; 0' res	4wd; atv; boat			below f	0'	res
6SRSG-2	1		bt	0	20' res	boat	grass/sh	0-25	upland	25'	res
6SRSG-1	1		rd; bt	5	200' rd; 15' res	2wd; 4wd; bt	o for; grass/sh	0-25	upland	15'	res
5NRFI-1	2		bt	0	15' res	bt	o for; grass/sh	0-25	upland	15'	res
5NRFC-1	8		bt	0	5' res	diff ft; bt	o for; y for; grass/sh	0-25	upland	5'	res
5NREI-1	4		bt	0	5' res	bt	o for; y for; grass/sh	0-25	upland	5'	res
5NREI-2	1		bt	0	25' res	bt	o for; y for; grass/sh	0-25	upland	25'	res
5NREI-3	1		bt	0	30' res	bt	o for; y for; grass/sh	0-25	upland	30'	res
5NRBLM-1	6		rd; bt	3	15' r; 25' res	4wd; easy ft; bt	o for	0-25	upland	25'	res
5NRBLM-4	1		bt	0	10' res	bt	o for; y for	51-75	set back; upland	10'	res
5NRMB-1	5		bt	0	40' res	atv; easy ft; bt	o for; y for; grass/sh	51-75	set back	50'	res
5NRBLM-2	2		bt	0	25' res	bt	o for; y for	26-50	set back; upland	25'	res
5NRBLM-3	4		bt	0	20' res	bt	o for; y for	51-75	upland	20'	res
5NRDE-1	1		bt	0	20' res	bt	o for	0-25	upland	20'	res
5NRDE-2	4		rd; bt	2	40' res	4wd; atv; boat	o for; grass/sh	0-25	upland	40'	res
5NRDE-3	1		bt	0	100' res	bt	o for	51-75	upland	100'	res

Appendix 5b Site Inventory Entries Sections 4-6

Site/Code	4.1 # User Made Fire Rings	4.2 Evidence of Use	4.3 Trash	4.4 Human/Animal Waste	4.5 Vegetation Loss	4.6 User- Made Trails	4.7 Tree Damage	5 Toilets	5 Trash Cans	5 Picnic Tables	5 Signs	5 Fire Pits	5 Tent Pads	5 Other	6.1 View Type	6.2 Evidence of Devel.	6.3 Rec Sites In View	6.4 Screeni ng at Site
3SR31SC-1	1	Low	Low	None	Low	Mod	None	0	0	0	0	1	0	0	Ck/SV/Encl	none	none	Low
4RD325-1	1	Low	low	mod	low	none	none	0	0	0	0	1	0	0	mt/encl	rd	none	none
4RD325-2	1	low	Low	None	none	none	None	0	0	0	0	1	0	0	mt/encl	rd	none	low
4RD305-1	2	high	mod	none	high	low	none	0	0	0	0	2	0	0	mt/encl	rd	4rd-2	none
4RD305-2	3	high	low	None	high	low	None	0	0	0	0	3	0	0	mt/encl	rd	4rd-30S-1	none
4RD310-1	1	mod	mod	None	low	none	None	0	0	0	0	1	0	0	mt/encl	rd	none	none
4RD190-1	1	high	mod	high	mod	none	None	1	0	0	0	1	0	0	encl	rd	none	mod
4RD172-1	1	mod	high	None	low	none	low	0	0	0	0	1	0	0	mt/encl	rd	none	mod
4RD172-2	1	low	low	low	low	none	low	0	0	0	0	1	0	0	res/encl	rd	none	mod
6SRWC-1	0	none	none	none	none	none	none	0	0	0	0	0	0	0	res/encl	rd/powerline	none	none
6SRSG-1	1	low	none	low	low	low	None	0	0	0	0	1	0	0	res	none	6sr-sg1	none
6SRSG-2	2	mod	mod	low	low	low	None	0	0	0	0	2	0	0	res/encl	rd	6sr-sg2	Low
5NRFI-1	1	low	low	low	Low	mod	None	0	0	0	0	1	0	0	res/encl	rd	Bcampgr	Low
5NRLC-1	2	mod	low	high	mod	mod	low	1	0	0	0	2	4	0	res	rd	5NRREI-1	low
5NREI-1	2	low	mod	low	low	low	None	0	0	0	0	2	1	0	res	none	LC	none
5NREI-2	2	low	none	none	low	none	None	0	0	0	0	2	1	0	res/encl	none	EI1/BLM1	mod
5NREI-3	1	mod	mod	low	low	low	None	0	0	0	0	1	0	0	res	rd	BLM1	mod
5NRBLM-1	1	high	high	high	low	low	low	1	0	2	0	2	2	0	res	rd	EI1/EI3	mod
5NRBLM-4	1	mod	mod	None	low	none	mod	0	0	0	0	1	0	0	mt/res	none	none	mod
5NRMB-1	1	mod	low	high	mod	mod	mod	1	0	0	0	1	0	0	res/encl	none	none	mod
5NRBLM-2	1	mod	mod	None	low	low	high	0	0	0	0	1	4	0	res	none	none	high
5NRBLM-3	1	high	high	high	mod	mod	None	1	0	1	0	1	2	0	res/encl	none	none	mod
5NRDE-1	1	mod	high	low	low	low	None	0	0	0	0	1	4	0	res/encl	none	none	high
5NRDE-2	4	high	high	low	low	low	None	0	0	0	0	1	0	0	res/encl	mine	none	low
5NRDE-3	1	mod	low	None	loww	low	None	0	0	0	0	4	0	0	res/encl	mine	none	mod
												1	0	0	res/ckst	none	yes	high

**Appendix 5b
Site Inventory Entries
Section 7**

Site/Code	7.1 Shoreline Present	7.2 Type of Shoreline	7.3 Type of Access	7.4 Boat Launch Access	7.5 Boat Hazard	7.6 Type of Substrate
3SR31SC-1	No	NA	NA	NA	NA	NA
4RD325-1	no	NA	NA	NA	NA	NA
4RD325-2	no	NA	NA	NA	NA	NA
4RD305-1	yes	low b; veg	veh; ft	hand l; easy	low	gravel
4RD305-2	yes	low b; veg	veh	hand l; easy	low	gravel
4RD310-1	no	na	na	na	na	na
4RD190-1	no	na	na	na	na	na
4RD172-1	no	na	na	na	na	na
4RD172-2	yes	high b; rock out	ft	hand l; easy	low	gravel; cobble
6SRWC-1	yes	lowb; sand/silt; grav	veh	hand l; easy	low	sand/silt; cobble
6SRSG-2	yes	high b; veg; sand/silt	ft	hand l; easy	low	sand/silt
6SRSG-1	yes	low b; veg; sand/silt	veh; ft	hand l; easy	low	sand/silt; cobble
5NRFI-1	yes	h bank; l bank; rock out	ft	hand l; easy	low	cobble
5NRLC-1	yes	l bank; veg; gravel	ft	hand l; easy	low	sand/silt; grav
5NREI-1	yes	l bank; grav	ft	hand l; easy	low	sand/silt; grav
5NREI-2	yes	l bank; grav	ft	hand l; easy	low	sand/silt; grav
5NREI-3	yes	l bank; veg; rock	ft	hand l; easy	low	grav/boulders
5NRBLM-1	yes	l bank; grav	veh; ft	hand l	low	grav/cobble
5NRBLM-4	yes	l bank; veg; grav	ft	hand l	low	cobb/bould
5NRMB-1	yes	l bank; sand/silt; rock	ft	hand l; easy	low	sand/silt; grav
5NRBLM-2	yes	h bank; rock	ft	hand l; diff	mod	boulders
5NRBLM-3	yes	h bank; grav	ft	hand l; easy	low	grav
5NRDE-1	yes	h bank; veg	ft	hand l; easy	low	boulders
5NRDE-2	yes	h bank; veg; grav	veh; ft	hand l; easy	mod	cobble
5NRDE-3	yes	h bank; rock	ft	easy	mod	sand/silt

