# Shuswap Lake Integrated Planning Process (SLIPP)

# Recreation Management Plan (RMP) Intercept Survey Results Final Report

April 2013

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# I. Introduction

## Background

The Shuswap Lake Integrated Planning Process (SLIPP) process was initiated in 2008 to identify issues facing the Shuswap watershed. One of the three main goals of the SLIPP process is to facilitate the development of desirable recreational experiences that are safe and sustainable. This goal is to be accomplished through the completion of a Recreation Management Plan (RMP) for British Columbia's Shuswap, Mara and Adams Lakes region (the study area).

## The Research Agenda

In order to inform the RMP planning process, the following four research priorities were identified:

- To develop a profile of the recreational user,
- To gather information on their knowledge about recreational management,
- To understand their attitudes and values concerning recreation use, and
- To assess their recreation behaviour.

## Methods

An intercept survey of recreational users in the study area was identified as the most efficient and economical tool for surveying large samples of respondents in short time periods. In addition, the findings can be generalized to the larger population to build a complete and full 'picture' of the recreational situation to prioritize the goals and objectives for the RMP.

The intercept survey combined quantitative and qualitative survey questions to improve the reliability and validity of the results. Questions were generated based on input from local stakeholders participating in the SLIPP planning process and from a secondary review of literature focused on lake based management planning. The survey was pre-tested for accuracy and submitted to the ethics review board at Thompson Rivers University (TRU) for approval.

## Data Collection and Analysis

The *2012 Lake User Survey* was administered during the summer season of 2012 at various locations around the Shuswap Lake System. These locations included parks, beaches, marinas, access points, as well as locations on the lake. The link below identifies the areas where surveys were completed around the lakes on a map
https://maps.google.com/maps?q=http://www.scribblemaps.com/getkml.aspx%3Fid%3DWC5ql3uAgV%26g%3DF7F9012.

Respondents were selected through a random convenience sample. Those who were selected, and agreed, to participate in the project were asked a series of questions pertaining to their use of, and experience at the lake environment (see Appendix A). Questions were grouped into four major themes designed to illicit responses regarding: (1) general demographics, (2) knowledge of and (3) values associated with recreation use and (4) recreational behaviour in the study area.

Responses were recorded by the researcher on a paper survey attached to a clipboard. Completed surveys were numbered and then manually entered into a Vovici program. Quantitative questions were

analysed by frequency analysis. Responses to qualitative questions were entered into an Excel program. Three researchers individually identified a series of emergent themes, which were then compared and summarized in descending order based on most frequent mentions.

The following section summarizes the findings of the research.

# II. Respondent Characteristics

## Respondent Demographics

The *2012 Lake User Survey* yielded 723 respondents of varying gender, ages, and group size (Table 1). Among the respondents 260 (36.1%) were male while the remaining 460 (63.9%) were female. Four hundred and eighty of the respondents were between the ages of 20 and 50 years old. This subgroup included the categories of 20 – 35 and 36 – 50 which had 225 and 255 responses respectively. Fifty-one to sixty-five was the third largest user group showing 171 respondents (23.8%). The remaining 68 participants were under the age of 20 (2.1%) or over 65 (7.4%). While visiting the lake area, 294 (40.8%) respondents were found to be with a group size of 3 to 5 people. While a group size of two was the next most common with 152 responses (21.1%). This was very closely followed by group sizes of 6-10 people (20.8%).

**Table 1 Summary of respondent gender, age, and group size**

| Respondent Characteristic | Response | Frequency (N=723) | Percent (%) |
|---|---|---|---|
| **Gender** | | | |
| | Male | 260 | 36.1 |
| | Female | 460 | 63.9 |
| | Undisclosed | 3 | |
| **Age of lake user** | | | |
| | Under 20 | 15 | 2.1 |
| | 20-35 | 225 | 31.1 |
| | 36-50 | 255 | 35.5 |
| | 51-65 | 171 | 23.8 |
| | 65+ | 53 | 7.4 |
| | Undisclosed | 4 | |
| **Number of people in the party** | | | |
| | Alone | 49 | 6.8 |
| | 2 | 152 | 21.1 |
| | 3-5 | 294 | 40.8 |
| | 6-10 | 150 | 20.8 |
| | 10+ | 75 | 10.4 |
| | Undisclosed | 3 | |

## Respondents Origin

### *Area Residents (Permanent & Seasonal)*

Two hundred and fifty-six respondents self-identified as residents of the study area (Table 2). Two hundred and twenty-nine residents were from the CSRD region, 24 from the TNRD and 3 from NORD.

**Table 2 Respondents origin (N=256)**

| Permanent Residents | Seasonal Residents | Community | Regional District |
|---|---|---|---|
| 5 | 4 | Adams Lake Reserve | CSRD |
| 4 | 9 | Anglemont | CSRD |
| 1 | 0 | Armstrong | CSRD |
| 15 | 5 | Cedar Heights | CSRD |
| 3 | 2 | Celista | CSRD |
| 78 | 4 | Community Salmon Arm | CSRD |
| 0 | 2 | Eagle Bay | CSRD |
| 1 | 0 | Enderby | CSRD |
| 1 | 0 | Grinrod-Nord | CSRD |
| 1 | 0 | IR North Bay | CSRD |
| 1 | 0 | Larch Hills | CSRD |
| 0 | 1 | Lee Creek | CSRD |
| 1 | 5 | Magna Bay | CSRD |
| 1 | 0 | Malakwa | CSRD |
| 7 | 1 | Mara Lake | CSRD |
| 6 | 8 | Scotch Creek | CSRD |
| 1 | 21 | Seymour Arm | CSRD |
| 16 | 14 | Sicamous | CSRD |
| 3 | 1 | Sorrento | CSRD |
| 2 | 3 | Sunnybrae | CSRD |
| 1 | 0 | Tappen | CSRD |
| 1 | 0 | White Lake | CSRD |
| 3 | 0 | NORD | NORD |
| 16 | 2 | Chase | TNRD |
| 3 | 0 | Kamloops | TNRD |
| 1 | 0 | Monte Creek | TNRD |
| 2 | 0 | Pritchard | TNRD |
| **174** | **82** | | |

### *Visitors*

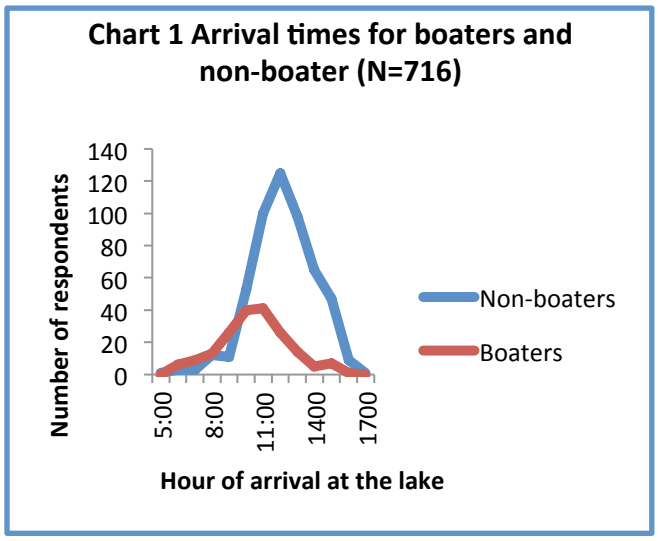
Not surprisingly, British Columbia proved to be the origin of the large majority of respondents (N=605). Other respondents came from other parts of Canada, the USA, and outside of North America. Canada's

largest number of visitors came from Alberta (93), Ontario (6), Saskatchewan (4), and the North West Territories (4), followed by 1 each from Ontario, Nova Scotia and Quebec. One visitor from Michigan represented the United States of America. International visitors accounted for one percent of the survey sample with respondents from Germany (3), England (2), Australia (1), and New Zealand (1).

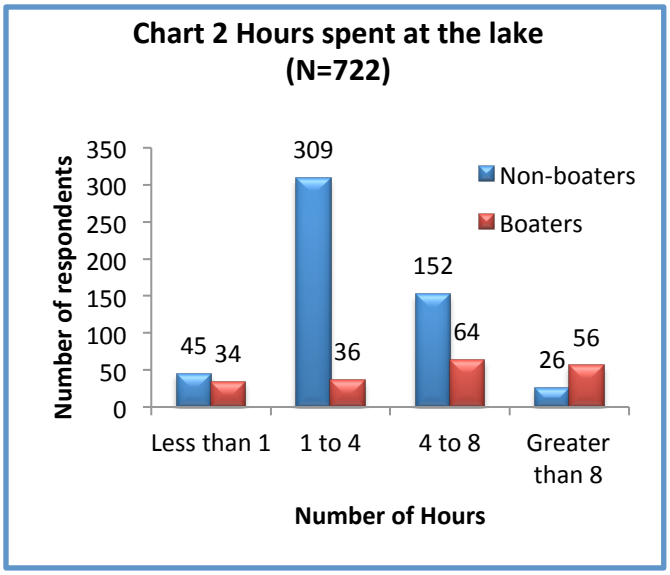
## III. Recreational Behaviour

### Hour of Arrival

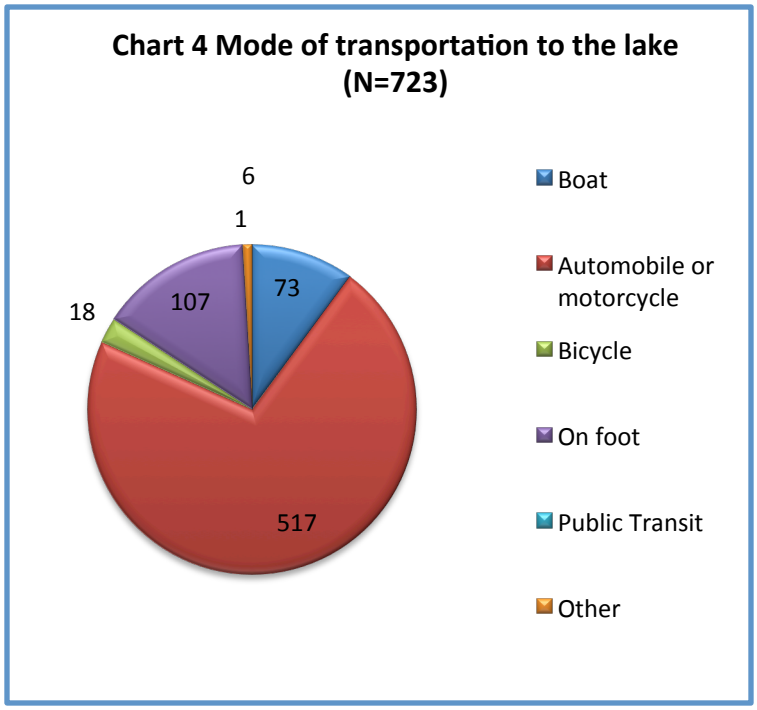
Temporal use of the lake area varied among users. The highest number of survey respondents arrived at the lake around mid-day (Chart 1). Although the times between 12:00 and 1:00pm showed the highest response with 151 users starting their activities within this hour, arrival times at the beach increased dramatically from 10:00am and 2:00pm. Beyond these times, numbers were significantly lower. Early mornings and evenings were indicated less frequently as the starting time for lake area activities. When further categorized, the data shows that the grouping of times between 11:00am and 2:00pm account for over 55% of all arrivals at the lake. The second highest volume of recreationists with 155 users (21.6%) arrived between 8:00am and 11:00. Closely following this were the afternoon lake users with 134 users (18.7%) who began their lake use between 2:00pm and 5:00pm. Limited data was collected on evening use of the lake, and as such, figures are likely not representative of this timeframe.




In addition to arrival times, respondents were asked to categorize the length of their anticipated stay at the lake (Chart 2). Nearly half of the respondents, 345(47.8%), anticipated spending between one and four hours at the lake. The second largest response category was between four and eight hours with 216 respondents (29.9%). Finally the remaining 161 respondents were split with 79 (10.9%) spending less than one hour at the lake, and the other 82 (11.4%) staying for a full day of greater than eight hours in duration.



## Mode of Transportation to Lake




Respondents were asked what form of transportation they utilized to arrive at the lake. A large majority (N=519) of survey respondents (71.7%) arrived at the lake by automobile or motorcycle. One hundred and seven individuals (14.8%) arrived on foot and 73 (10.1%) arrived on boats from other areas of the lakes. Bicycles were used by a further 18 (2.5%) survey respondents. Six respondents came either by quad, houseboats, RVs or rental bus.

## Recreational Activities

A segment of this survey was designed to gain an understanding of respondents' recreational use of the lake system. As the study area offers numerous recreational opportunities, respondents were asked to identify all of the activities they participated in or planned to participate in for the day. The two most popular activities at the lake were swimming and sunbathing. Six hundred and twenty-eight respondents indicated they planned to swim during their visit to the lake. Sunbathing closely followed this with 557 positive responses (77.0%). The second tier of responses indicated picnicking and boating as popular activities for the lake area with 217 (30.0%) and 190 (26.3%) lake users respectively. A total list of respondent activities and their participation rate are provided in Table 3.

### Table 3 Recreational Activities in the Study Area

| Recreational activity | Frequency (N=723) | Percent (%) |
|---|---|---|
| **Swimming** | 628 | 86.9 |
| **Sunbathing** | 557 | 77.0 |
| **Picnicking** | 217 | 30.0 |
| **Boating** | 190 | 26.3 |
| **Hiking** | 58 | 8.0 |
| **Visiting parks** | 21 | 2.9 |
| **Fishing** | 38 | 5.3 |

| | | |
|---|---|---|
| **Bicycling** | 24 | 3.3 |
| **Other nature study** | 9 | 1.2 |
| **Birding** | 6 | 0.8 |
| **Running or jogging** | 6 | 0.8 |
| **Stand up paddleboard** | 2 | 0.3 |
| **Other** | 222 | 30.7 |

## Boaters

As water based recreation is a major component of lake usage and this activity has a unique set of parameters associated with it, a series of questions were asked only to this user group. The first of the questions was to describe the watercraft that was being or was going to be used. Of the 190 boat users surveyed, 88 (46.3%) were using a type of ski/ wake boat. The second most popular type of watercraft was the houseboat with 38 users (20%). Kayaking and canoeing were represented by 22 users (11.6%) and personal watercrafts had an additional 19 (10%) response. Additional watercrafts included jet boats, pontoons boats, small fishing boats and larger-style fishing boats.

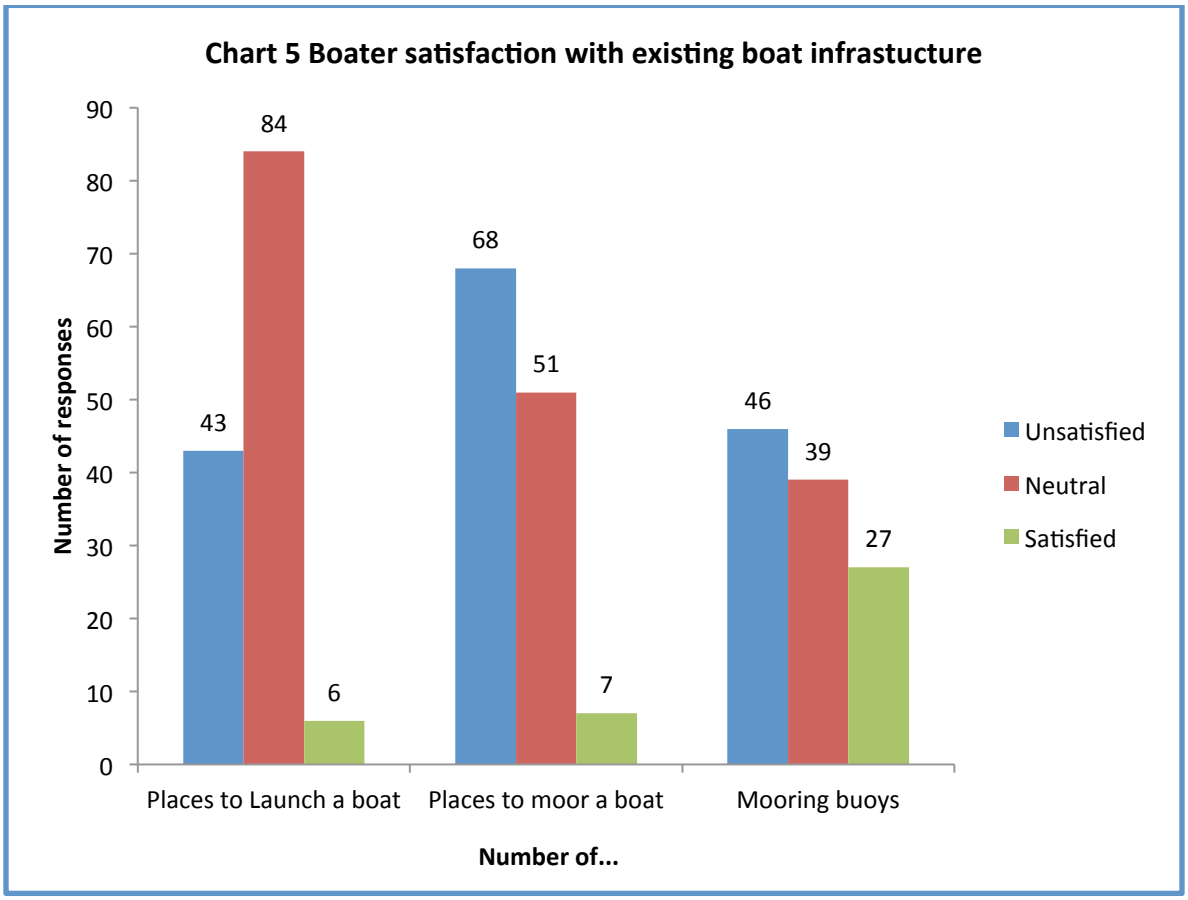
### Table 4 Type of watercraft used by recreationists

| Type of watercraft | Frequency-Resident (N=174) | Frequency-Visitor (N=190) | Percent (%) |
|---|---|---|---|
| **Ski/wake boat** | 35 | 53 | 46.3 |
| **Houseboat** | 2 | 36 | 20.0 |
| **Kayaking and canoeing** | 5 | 17 | 11.6 |
| **Personal watercrafts** | 1 | 18 | 10.0 |
| **Sport boats (jet boats)** | 4 | 7 | 5.8 |
| **Pontoon boats** | 4 | 7 | 5.8 |
| **Fishing (small outboards)** | 4 | 6 | 5.3 |
| **Fishing (large cabin-cruiser)** | 2 | 4 | 3.7 |

All watercraft users were asked where they gained access to the water for their particular activity. One hundred and four of the 190 boaters (55.3%) launched their watercraft at a public access boat launch. Marinas were the second most commonly used access point accounting for 56 individuals, or 29.8% of boat users. The third notable access method was from private property. Twenty-three boating respondents used private property as a launch, or starting point for their watercraft activity. One individual also noted using a beach as the access point for their watercraft.

Beyond type of access, boaters were also asked to identify their lake access location on a map segmented into identifiable access regions. The research showed that, aside from house boaters, most boaters tended to stay within a relatively short distance of their launch site.

Boaters were asked to indicate their level of satisfaction with a selection of boating infrastructure through a numerical ranking (1 being unsatisfied, 5 being very satisfied). On this five point scale, a score of 1 or 2 can be considered unsatisfactory, 3 as neutral, and 4 or 5 as satisfactory (Chart 5, see also Appendix C).




## Visitor Accommodation

Information on accommodation type for visitors was collected (Table 5). Campsites, houseboats, and rental cottages/condos were the most commonly used forms of paid accommodations. In addition to these, 84 respondents indicated staying with friends and family while recreating at the lake for multiple days.

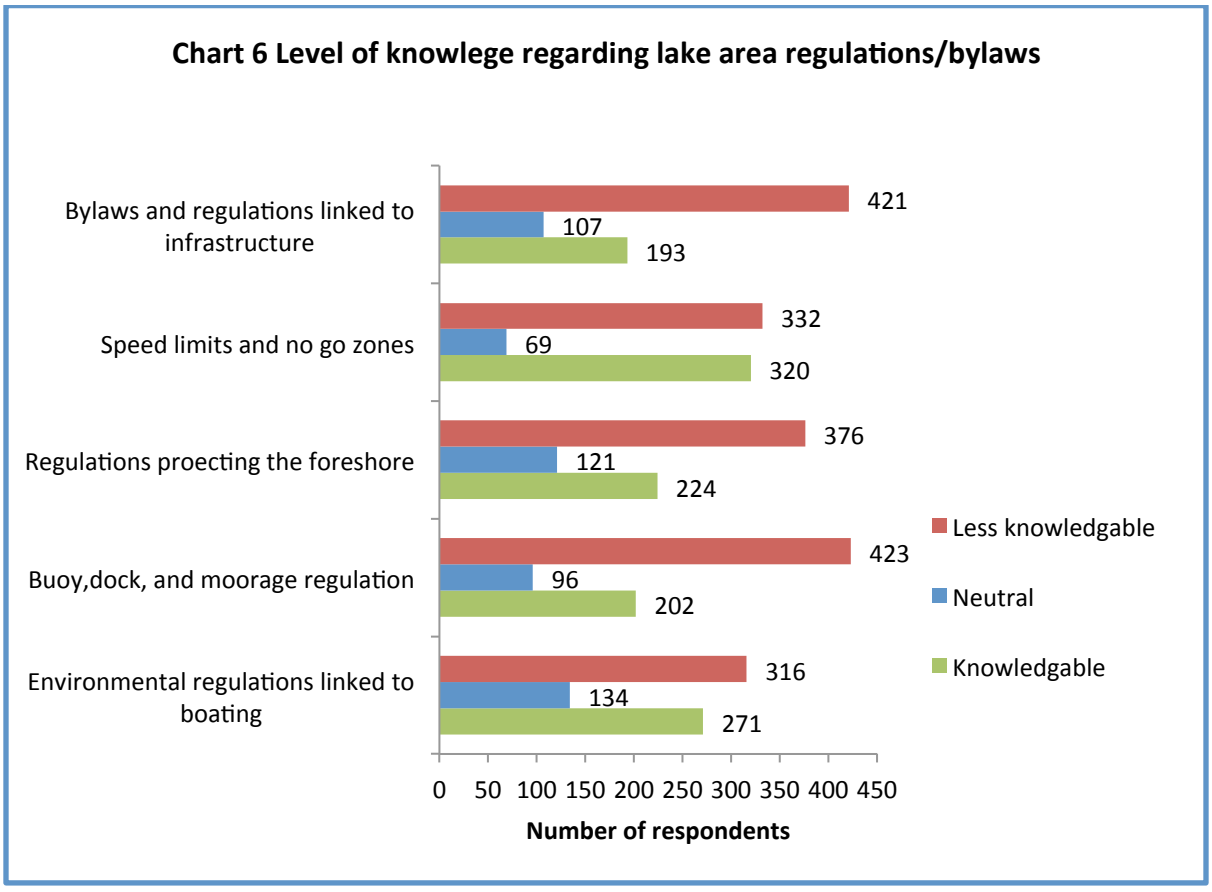
### Table 5 Accommodation Type Overnight Visitors

| Accommodation Type | Frequency (N=394) | Percent (%) |
|---|---|---|
| Campsite | 204 | 51.8 |
| Friends or family | 84 | 21.3 |
| Rented cottage/ condo | 27 | 6.9 |
| RV Park | 16 | 4.1 |
| Hotel/motel | 11 | 2.8 |
| Other | 52 | 13.2 |

# IV. Knowledge & Attitudes

## Knowledge of Regulations

All 723 respondents were asked to respond to a series of questions regarding regulation, bylaws, and rules about lake use (Chart 6 see also Appendix C). Of the total, seven hundred and twenty-one respondents chose to answer this series of questions indicating their level of knowledge on a scale of one to five (1-2 not knowledgeable, 3 neutral and 4-5 somewhat to very knowledgeable). All areas of regulation and bylaw awareness show significant levels of respondents who are not very knowledgeable or not at all aware of regulations pertaining to all of the considered factors. Environmental factors and speed limits and no go zones were the two questions that yielded the most familiarity and highest levels of knowledge amongst respondents. Conversely, regulations surrounding infrastructure, foreshore protection, and buoy, dock and moorage use all exhibited low levels of knowledge among the user group.

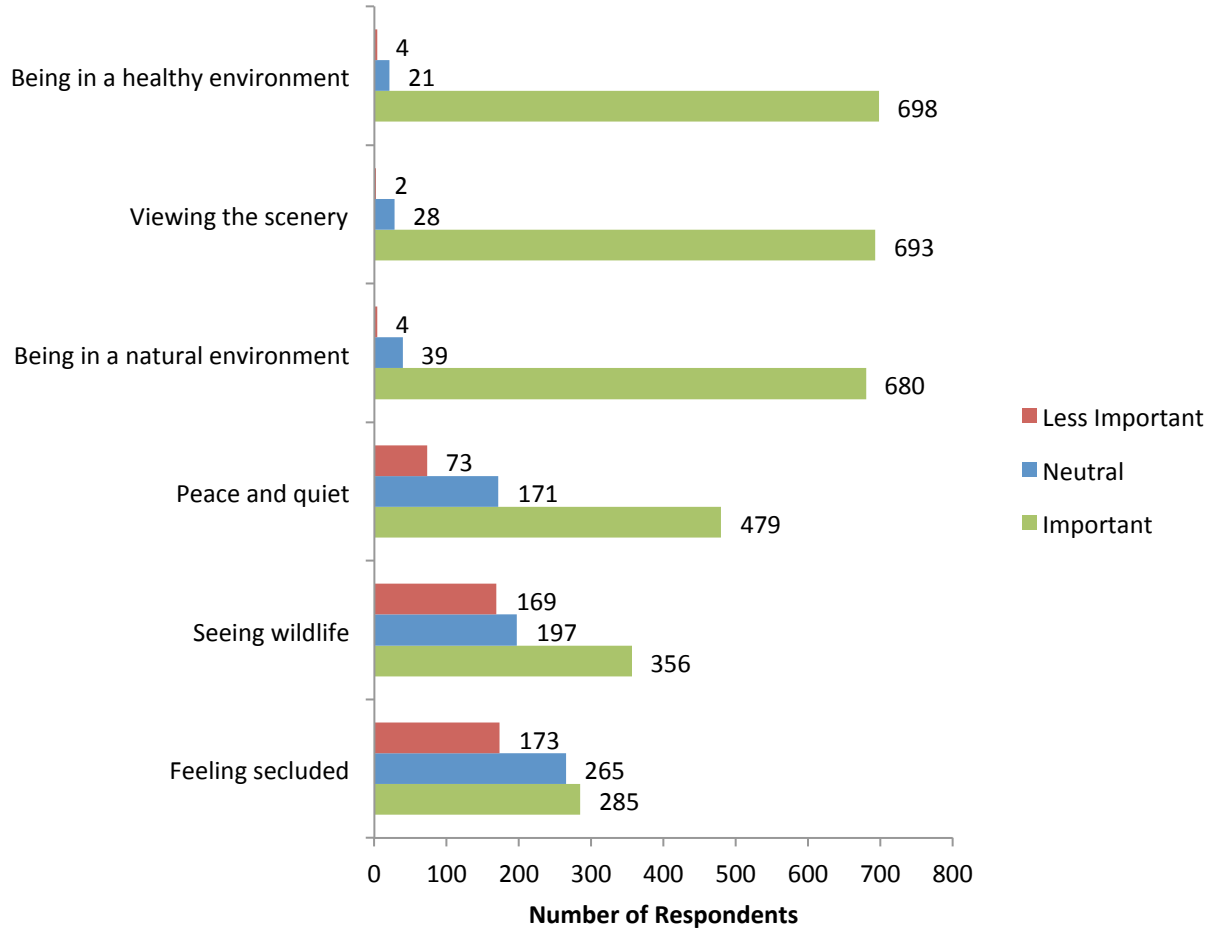



## Recreationist Values

When considering spending time at Shuswap lakes, survey participants were asked to indicate how important certain elements were to them. As seen below (Chart 7 see also Appendix B) it is clear that natural elements of the location are extremely important when deciding to spend time in the lake system. Two of the most important elements revolve around being in a healthy and natural

environment. The third highest rating is the surrounding scenery at the location. Given these results it can be interpreted that the condition of the natural environment is a key factor for users spending time in the study area. Furthermore we see that neutral and negative responses (or responses of lesser importance) increase in the parameters surrounding feeling. For example respondents were less concerned with the concepts of seclusion and tranquility when choosing to use lakes in the study area.

**Chart 7 Level of importance when deciding to spend time at Shuswap Lakes**



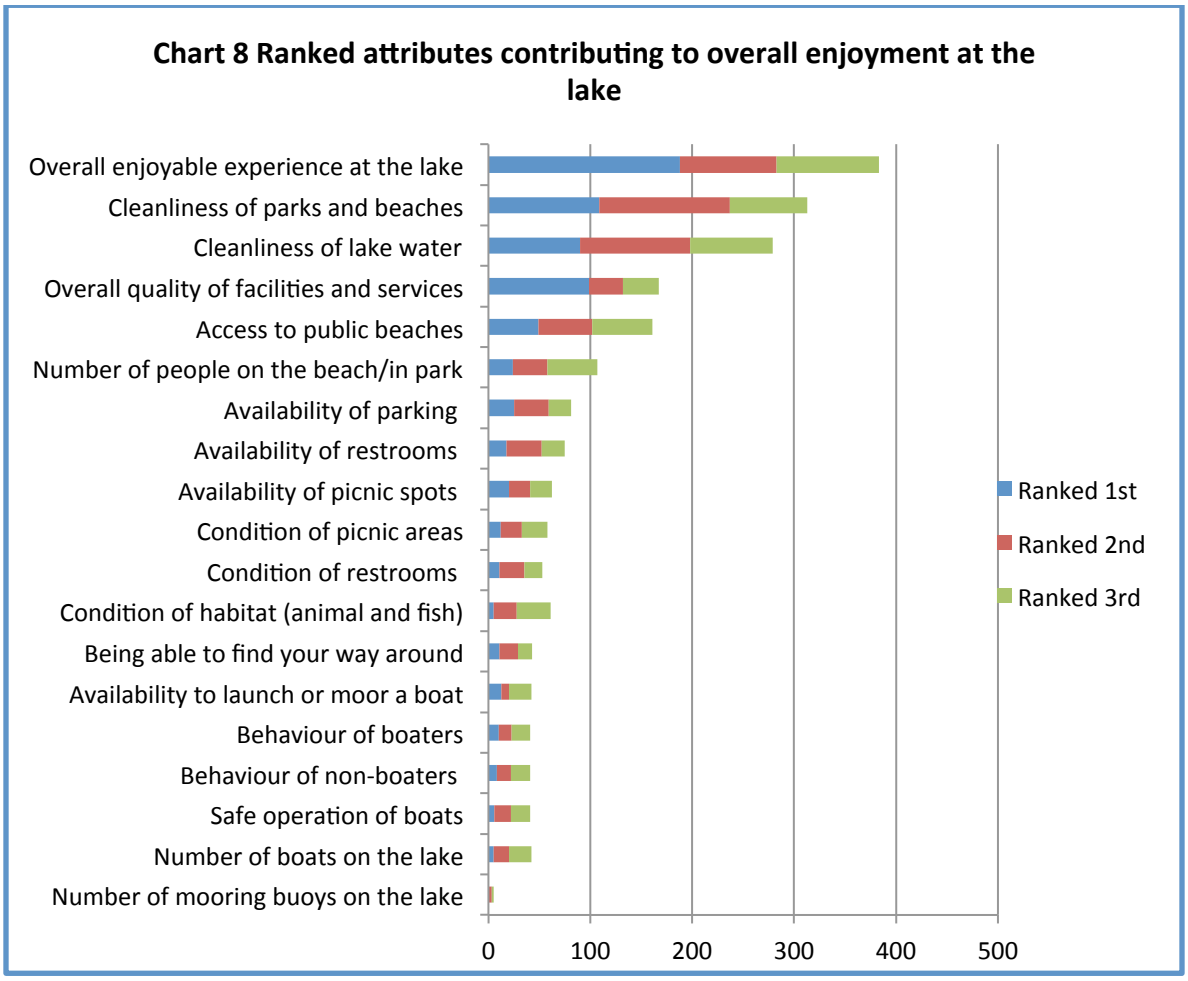

Once at the lake, survey respondents were asked to indicate their level of satisfaction with aspects inherent to their use of the lake area and experience. Fourteen elements were selected for participants to rate on a scale of one to five (five being very satisfied). Two hundred and seventy three respondents scored each of the factors that were applicable to their lake experience on the particular day; a category existed for those who felt the question did not apply to their experience (i.e. parking, if the subject walked or used public transit to the beach). The factors were:

- Overall quality of facilities and services
- Overall enjoyable experience at the lake
- Condition of restrooms
- Cleanliness of parks and beaches

- Availability of parking
- Being able to find your way around
- Availability of picnic spots
- Condition of picnic areas
- Availability of restrooms
- Cleanliness of lake water (i.e. pollutions)
- Access to public beaches
- Behaviour of non-boaters
- Behaviour of boaters
- Condition of habitat

Overall the response regarding these attributes yielded favourable responses. Seventy four percent of all respondents indicated they were satisfied with each of the above factors that influenced their experience at the lakes. Ninety-eight percent of all respondents report a four or five when asked to describe their overall level of satisfaction.

When considering the most important factors, survey respondents were asked to select the three attributes, in order of priority, contributing positively to their lake experience. Chart 8 (see also Appendix C) provides a summary of the ranked attributes contributing to the overall enjoyment of the lake based on the top three choices of respondents. Overall enjoyable experience at the lake, cleanliness of parks and beaches, and cleanliness of lake water were the top three categories in terms of total responses.



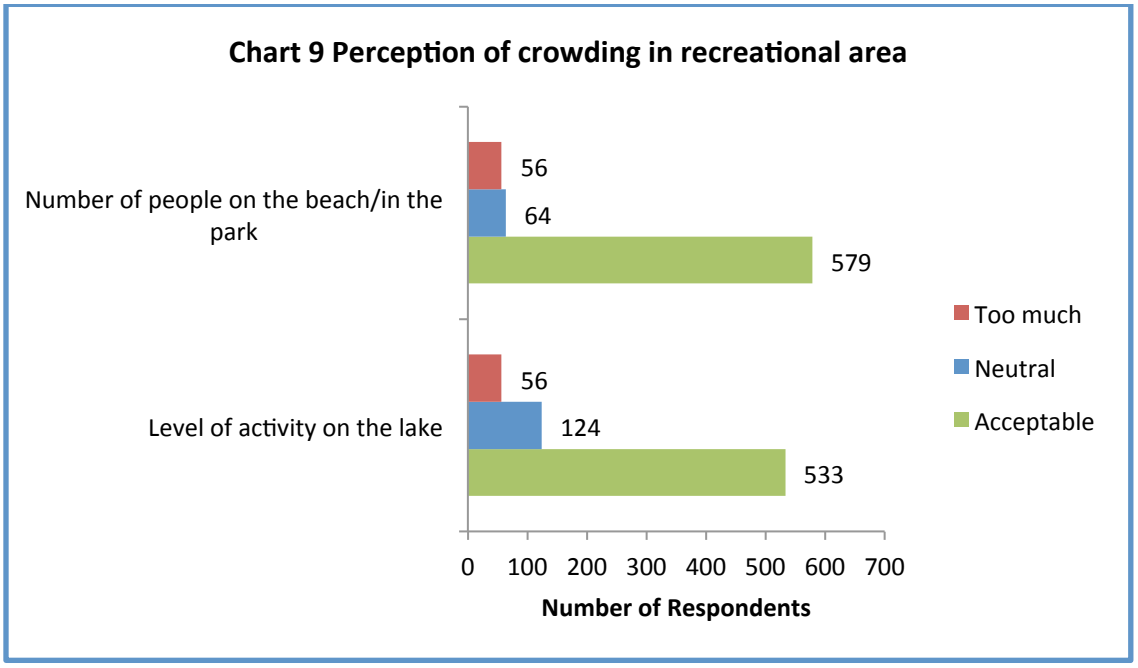
To further explore recreationists' satisfaction, negative responses were examined to identify what areas were unsatisfactory to respondents (Table 6 see also Appendix C). Availability of parking, availability and condition of public washrooms, availability of picnic areas, and overall access to public beaches were found to demonstrate the highest frequency of negative responses (scores of one and two).

**Table 6 Negative responses to variables impacting lake use experiences**

| Inquired parameter | N | Frequency | Percent (%)* |
|---|---|---|---|
| **Availability of parking** | 647 | 65 | 10 |
| **Condition of restrooms** | 448 | 43 | 9.6 |
| **Availability of picnic spots** | 595 | 51 | 8.6 |
| **Availability of restrooms** | 625 | 53 | 8.5 |
| **Access to public beaches** | 705 | 57 | 8.0 |
| **Ability to find your way around (signage)** | 701 | 35 | 5 |
| **Behaviour of boaters** | 691 | 34 | 4.9 |
| * Percent excluded those indicating the variable was not applicable | | | |

## Perception of crowding in recreational areas

The majority of respondents indicated the level of activity on the lake (e.g., number of boats) and on the parks and beaches (e.g., number of people) was acceptable (see also Appendix D).



# Appendix A – Intercept Questionnaire

Qualifiers *Before we begin, we need to ask you a few questions.*

1. Are you 16 or older?
    a. Yes (continue) No (does not qualify)
2. Have you participated in this survey before?
    a. No (continue) Yes (does not qualify)
3. Do you understand English, and can you respond to questions in English?
    a. Yes (continue) No (does not qualify)
4. Please answer the skill testing question (3 x 15) – 30 =
    a. Correct answer (15) (continue) Incorrect answer (does not qualify)

Survey Number _____Interview Initials _____ Location_____

You and the Lake area

1. What is important to you with respect to enjoying the lake? A. B. C.
2. How important are the following to you when thinking of spending time on this lake. (Scale of 1=not important and 5=extremely important)
    1. Being in a natural environment
    2. Being in a healthy environment
    3. Viewing the scenery
    4. Experiencing peace and quiet
    5. Feeling secluded
    6. Seeing wildlife
    7. Other

Your time at the lake (today)

3. What time did you arrive at the lake today? (24 hours clock)
4. How did you get here today?
    a. boat
    b. automobile, motorcycle
    c. bicycle
    d. foot
    e. public transit
    f. other (please specify) _____

5. How many hours will (did) you spend at the lake today?
    1. Less than 1 hr
    2. 1-4 hrs
    3. Over 4, less than 8 hrs
    4. More than 8 hrs
6. What recreational activities will (did) you do today here at the lake? (select all that apply)
    - Swimming
    - Sunbathing
    - Picnicking
    - Other beach activities
    - Canoeing or kayaking
    - River rafting
    - Windsurfing
    - Sailing
    - Jet skiing eg. Seadoo
    - Waterskiing
    - Wakeboarding
    - Rowing
    - Fishing
    - Bicycling
    - Hiking
    - Birding
    - Other nature study
    - Running or jogging
    - Horseback riding
    - Visiting parks
    - Houseboating
    - Boating
    - Other Recreational Activity
7. **If boating** . . . Observe if boat is
    i. Departing from shore
    ii. Arriving from shore
    a. Type of boat
        iii. Houseboating
        iv. Ski/wakeboat
        v. Sport boat (jet boat)
        vi. Personal watercraft (jetski)
        vii. Pontoon boat
        viii. Kayak/Canoe
        ix. Raft
        x. Sail
        xi. Fishing - Small outboard
        xii. Fishing - Large cabin cruiser
        xiii. Other (please specify _____)
    b. Where did you launch your boat? (Show map, locate and mark)
        i. Private property
        ii. Marina
        iii. Boat launch (public access)
        iv. Other_____
    c. Where will (did) you boat on the lake today? ( ID Zone(s) on provided map)

d. How satisfied are you with the following, on a scale of 1 = not enough and 5 = too many

   i. Number of places to launch a boat

   ii. Number of places to moor a boat

   iii. Number of mooring buoys on the lake

Knowledge of regulations

8. (All respondents) How knowledgeable are you of the following (Scale of 1= not knowledgeable at all and 5= extremely knowledgeable)

   1. Environmental regulations linked to boating activities
   2. Buoy, dock and moorage regulations.
   3. Regulations protecting the foreshore
   4. Speed limits and no go zone
   5. Bylaws and regulations Linked to infrastructure

Satisfaction with your experience at the Lake (this year)

9. Please indicate how satisfied you are with the following during your times at the lake. (Scale 1=very dissatisfied and 5=very satisfied)

   1. Overall quality of facilities and services around the lake
   2. Overall enjoyable experience at the lake
   3. Availability of parking
   4. Being able to find your way around (signage)
   5. Availability of picnic spots
   6. Condition of picnic areas
   7. Availability of restrooms
   8. Condition of restrooms
   9. Cleanliness of the parks and beaches
   10. Cleanliness of the lake water
   11. Access to public beaches
   12. Behaviour of non boaters
   13. Behaviour of boaters
   14. Condition of habitat (animal and fish)

10. From the list (Q7), what are the 3 most important attributes contributing to your overall enjoyment at the lake?

    1. 2. 3. 4. Other

11. Please indicate how satisfied you are on a scale of 1 to 5, one being an acceptable amount and 5 being too much, with the following.

    1. The level of activity on the lake (boats, seadoos etc)

    2. Number of people on the beach/in the park

12. Are there any other things that affected you level of satisfaction at the lake?

    <u>Questions about You</u>

13. Are you a

    a. Day visitor
    b. Multi day visitor
    c. Area resident
    d. Seasonal resident

14. (For year round and seasonal residents), where do you live? (ID location on map)

15. (For overnight visitors) where are you staying? (ID location on map)

    1. Rented cottage or condo
    2. Hotel/Motel
    3. B&B
    4. Campsite
    5. RV Park
    6. Friends or family
    7. Other

16. (For seasonal resident s and visitors) where is home?

    a. Postal code if BC/Alberta. Province if other Canada

17. Gender M/F

18. Age: Under 20 20-35 36-50 51-65 65+

19. Do you have any additional comments regarding recreation management on the lake?

## Appendix B Q1

Table (Q1) How important are the following when thinking of spending time on this lake? (1 being not important, 5 being extremely important)

| Question | Mean | Response | Frequency (N=723) | Percent (%) |
|---|---|---|---|---|
| **Viewing the Scenery** | 4.83 | | | |
| | | 1 | 1 | 0.1 |
| | | 2 | 1 | 0.1 |
| | | 3 | 28 | 3.9 |
| | | 4 | 138 | 19.1 |
| | | 5 | 555 | 76.8 |
| **Being in a natural environment** | 4.72 | | | |
| | | 1 | 3 | 0.4 |
| | | 2 | 1 | 0.1 |
| | | 3 | 39 | 5.4 |
| | | 4 | 154 | 21.3 |
| | | 5 | 526 | 72.8 |
| **Being in a healthy environment** | 4.66 | | | |
| | | 1 | 1 | 0.1 |
| | | 2 | 3 | 0.4 |
| | | 3 | 21 | 2.9 |
| | | 4 | 69 | 9.5 |
| | | 5 | 629 | 87.0 |
| **Experiencing peace and quiet** | 3.95 | | | |
| | | 1 | 24 | 3.3 |
| | | 2 | 49 | 6.8 |
| | | 3 | 171 | 23.7 |
| | | 4 | 177 | 24.5 |
| | | 5 | 302 | 41.8 |
| **Feeling secluded** | 3.47 | | | |
| | | 1 | 66 | 9.1 |
| | | 2 | 107 | 14.8 |
| | | 3 | 265 | 36.7 |
| | | 4 | 134 | 18.5 |
| | | 5 | 151 | 20.9 |
| **Seeing wildlife** | 3.27 | | | |
| | | 1 | 68 | 9.4 |
| | | 2 | 101 | 14.0 |
| | | 3 | 197 | 27.3 |
| | | 4 | 134 | 18.6 |
| | | 5 | 222 | 30.7 |

## Appendix C Q10

Table (Q10) Level of satisfaction with volume of boating infrastructure (1 = not enough, 5 = too many)

| | N | Mean | Response | Frequency | Percent (%) |
|---|---|---|---|---|---|
| **Number of places to launch a boat** | 133 | 2.49 | | | |
| | | | 1 | 32 | 24.1 |
| | | | 2 | 11 | 08.3 |
| | | | 3 | 84 | 63.2 |
| | | | 4 | 5 | 03.8 |
| | | | 5 | 1 | 0.8 |
| **Number of places to moor a boat** | 126 | 2.12 | | | |
| | | | 1 | 53 | 42.1 |
| | | | 2 | 15 | 11.9 |
| | | | 3 | 51 | 40.5 |
| | | | 4 | 4 | 03.2 |
| | | | 5 | 3 | 02.4 |
| **Number of mooring buoys on the lake** | 112 | 2.62 | | | |
| | | | 1 | 40 | 35.7 |
| | | | 2 | 6 | 05.4 |
| | | | 3 | 39 | 34.8 |
| | | | 4 | 11 | 09.8 |
| | | | 5 | 16 | 14.3 |

Table (Q11) Level of knowledge of regulations and bylaws (1= not very knowledgeable, 5= very knowledgeable)

| | Mean | Response | Frequency (N=721) | Percent (%) |
|---|---|---|---|---|
| **Environmental regulations linked to boating activities** | 2.85 | | | |
| | | 1 | 217 | 30.1 |
| | | 2 | 99 | 13.7 |
| | | 3 | 134 | 18.6 |
| | | 4 | 117 | 16.2 |
| | | 5 | 154 | 21.4 |
| **Buoy, dock and moorage regulations** | 2.40 | | | |
| | | 1 | 333 | 46.2 |
| | | 2 | 90 | 12.5 |
| | | 3 | 96 | 13.3 |
| | | 4 | 81 | 11.2 |
| | | 5 | 121 | 16.8 |
| **Regulations protecting the foreshore** | 2.56 | | | |
| | | 1 | 296 | 41.1 |
| | | 2 | 80 | 11.1 |
| | | 3 | 121 | 16.8 |
| | | 4 | 90 | 12.5 |
| | | 5 | 134 | 18.6 |
| **Speed limits and no go zones** | 2.91 | | | |
| | | 1 | 269 | 37.3 |
| | | 2 | 63 | 08.7 |
| | | 3 | 69 | 09.6 |
| | | 4 | 104 | 14.4 |
| | | 5 | 216 | 30.0 |
| **Bylaws and regulations linked to infrastructure** | 2.37 | | | |
| | | 1 | 353 | 49.0 |
| | | 2 | 68 | 09.4 |
| | | 3 | 107 | 14.8 |
| | | 4 | 65 | 09.0 |
| | | 5 | 128 | 17.7 |

Table (Q12) Level of satisfaction of attributes during time spent at the lake (1= very dissatisfied, 5 = very satisfied)

| | N | Mean | Response | Frequency | Percent (%) |
|---|---|---|---|---|---|
| **Overall quality of facilities and services around the lake** | 722 | 4.34 | | | |
| | | | 1 | 9 | 1.2 |
| | | | 2 | 16 | 2.2 |
| | | | 3 | 86 | 11.9 |
| | | | 4 | 239 | 33.1 |
| | | | 5 | 372 | 51.5 |
| **Overall enjoyable experience at the lake** | 722 | 4.75 | | | |
| | | | 1 | 1 | 0.1 |
| | | | 2 | 0 | 0.0 |
| | | | 3 | 10 | 1.4 |
| | | | 4 | 155 | 21.4 |
| | | | 5 | 556 | 76.9 |
| **Availability of parking** | 647 | 4.29 | | | |
| | | | 1 | 21 | 3.2 |
| | | | 2 | 44 | 6.8 |
| | | | 3 | 72 | 11.1 |
| | | | 4 | 98 | 15.1 |
| | | | 5 | 412 | 63.7 |
| **Being able to find your way around (signage)** | 701 | 4.43 | | | |
| | | | 1 | 14 | 2.0 |
| | | | 2 | 21 | 3.0 |
| | | | 3 | 60 | 8.6 |
| | | | 4 | 158 | 22.5 |
| | | | 5 | 448 | 63.9 |
| **Availability of picnic spots** | 595 | 4.24 | | | |
| | | | 1 | 27 | 4.5 |
| | | | 2 | 24 | 4.0 |
| | | | 3 | 80 | 13.4 |
| | | | 4 | 112 | 18.8 |
| | | | 5 | 352 | 59.2 |
| **Condition of picnic areas** | 536 | 4.45 | | | |
| | | | 1 | 6 | 1.1 |
| | | | 2 | 8 | 1.5 |
| | | | 3 | 52 | 9.7 |
| | | | 4 | 144 | 26.9 |
| | | | 5 | 326 | 60.8 |
| **Availability of restrooms** | 625 | 4.26 | | | |
| | | | 1 | 27 | 4.3 |
| | | | 2 | 26 | 4.2 |
| | | | 3 | 73 | 11.7 |
| | | | 4 | 129 | 20.6 |
| | | | 5 | 370 | 59.2 |

| | | | | | |
|---|---|---|---|---|---|
| **Condition of restrooms** | 448 | 4.06 | | | |
| | | | 1 | 12 | 26.8 |
| | | | 2 | 31 | 6.9 |
| | | | 3 | 72 | 16.1 |
| | | | 4 | 134 | 29.9 |
| | | | 5 | 199 | 44.4 |
| **Cleanliness of parks and beaches** | 717 | 4.43 | | | |
| | | | 1 | 3 | 0.4 |
| | | | 2 | 8 | 1.1 |
| | | | 3 | 55 | 7.7 |
| | | | 4 | 263 | 36.7 |
| | | | 5 | 388 | 54.1 |
| **Access to public beaches** | 705 | 4.26 | | | |
| | | | 1 | 7 | 1.0 |
| | | | 2 | 25 | 3.5 |
| | | | 3 | 92 | 13.0 |
| | | | 4 | 260 | 36.9 |
| | | | 5 | 321 | 45.5 |
| **Behaviour of non-boaters** | 709 | 4.24 | | | |
| | | | 1 | 26 | 3.7 |
| | | | 2 | 31 | 4.4 |
| | | | 3 | 95 | 13.4 |
| | | | 4 | 155 | 21.9 |
| | | | 5 | 402 | 56.7 |
| **Behaviour of boaters** | 691 | 4.57 | | | |
| | | | 1 | 3 | 0.4 |
| | | | 2 | 8 | 1.2 |
| | | | 3 | 36 | 5.2 |
| | | | 4 | 187 | 27.1 |
| | | | 5 | 457 | 66.1 |
| **Condition of the habitats** | 695 | 4.22 | | | |
| | | | 1 | 9 | 1.3 |
| | | | 2 | 25 | 3.6 |
| | | | 3 | 122 | 17.6 |
| | | | 4 | 190 | 27.3 |
| | | | 5 | 349 | 50.0 |

## Appendix D Q14

Table (Q 14) Satisfaction with volume of people in the given areas (1 = very satisfied, 5 = too much)

| | N | Mean | Response | Frequency | Percent (%) |
|---|---|---|---|---|---|
| **Level of activity on the lake** | 713 | 1.74 | | | |
| | | | 1 | 436 | |
| | | | 2 | 97 | |
| | | | 3 | 124 | |
| | | | 4 | 38 | |
| | | | 5 | 18 | |
| **Number of people on the beach/in the park** | 699 | 1.56 | | | |
| | | | 1 | 494 | 70.7 |
| | | | 2 | 85 | 12.2 |
| | | | 3 | 64 | 9.2 |
| | | | 4 | 44 | 6.3 |
| | | | 5 | 12 | 1.7 |