Managing for a Quality Visitor Experience in Garibaldi Provincial Park
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Executive Summary and Recommendations

In order to manage crowding levels at Elfin Lakes and Red Heather in Garibaldi Provincial Park, I recommend that BC Parks not implement a traditional reservation system. A mix of visitor education and a modified reservation system would be much more highly supported by the current users of the park. Since Elfin Lakes and Red Heather play valuable roles as unique areas where beginners can learn to backcountry ski and more advanced skiers can go to when the avalanche danger is too high in other backcountry areas, it is important that people perceive they have the freedom to go at a moment’s notice. I recommend three main management strategies:

1. Visitor education – educating those who are new to the backcountry about proper etiquette and backcountry preparedness could help reduce visitor conflicts. I recommend adding information to the BC Parks webpage and at the beginning of the trailhead and increasing park ranger presence at the huts.

2. Adjusting expectations – by providing a space online and at the trailhead for visitors to record how big their group is and how many nights they are planning to stay, others will have a better idea of how full they can expect the Elfin Lakes hut to be and adjust their expectations accordingly.

3. Modified reservation system – a modified reservation system could allow the beds in the Elfin Lakes hut to be reserved, but still allow others to hike up and camp if they desire. With this system nobody would be completely restricted from going, and people would know if they should be prepared to winter camp or not.

Introduction

BC Parks is committed to providing “high quality and safe outdoor recreation that is compatible with protecting the natural environment” (BC Parks Mission and Mandate). A high quality visitor
experience is one which exceeds or meets a visitor’s expectations. It promotes appreciation for the BC Parks organization and encourages visitors to return, and is also highly likely to foster in them an appreciation for, and interest in conserving, natural areas (Manning 2002). As the second mission of BC Parks is to “protect...for future generations a wide variety of outstanding park lands” (BC Parks Mission and Mandate) it is clear that providing a high quality experience is integral to meeting both recreation and conservation goals. Therefore, there must be a way to measure a visitor’s experience within parks and ensure it is meeting the standards of quality set out by management plans. Of particular concern for BC Parks is the impact that crowding can have on visitor experience. During this project I have found that the best way to measure the impact of crowding on visitor experience is to compare crowding levels against the expectations that people have for a given area. I conducted my study at the Elfin Lakes and Red Heather sites of Garibaldi Provincial Park and found that at both of these sites visitors expect to encounter other groups of people at each of the huts, and that they are not necessarily looking for the type of wilderness backcountry experience for which the area is currently managed. I conclude with management strategies that can be used to control the negative effects that come with increasing user density and which would likely be supported by the users of the park.

Background to Garibaldi Provincial Park

Garibaldi Provincial Park is the most heavily used backcountry park in the entire BC Parks system. It protects 194,000 hectares of coastal mountains with numerous special features such as volcanic peaks and alpine meadows. Recreation has always been a very important part of its history, as the Outdoor Recreation Club was heavily involved in the area’s designation as a park and remains so today. The park has seen much increased use in recent years due to the expansion of the ski lifts at Whistler going to its very edge and an increase in the popularity of aircraft access over it. However, the park is still designated as a backcountry area, characterized overall by low to moderate use (Ministry of
Parks South Coast Region 1990). Elfin Lakes and Red Heather are both popular winter-use areas for backcountry skiing and snowshoeing. There is an overnight shelter located at Elfin Lakes with capacity to sleep 34 people. Red Heather is a day-use area with a warming hut.

Figure 1. Outline of Garibaldi Provincial Park, showing the location of study areas Elfin Lakes and Red Heather. Map adapted from http://www.spacesfornature.org/greatspaces/garibaldi.html

Methodology

Visitor Experience Resource Protection

In order to guide and direct my research, I used the steps of a management framework for planning known as Visitor Experience Resource Protection (VERP). VERP was developed by the US National Park Service to deal with carrying capacity in terms of the quality of park resources and quality
of visitor experience (Nilson & Tayler 1997). I chose this framework for my study because it places emphasis on management zoning which is also a practice that BC Parks uses extensively, making the two quite compatible. As outlined in “A Comparative Analysis of Protected Area Planning and Management Frameworks” (pp. 51) by Nilson and Tayler, the steps of VERP are as follows:

1. Assemble an interdisciplinary project team.
2. Develop a public involvement strategy.
3. Develop statements of park purpose, significance and primary interpretive themes; identify planning mandates and constraints.
4. Analyze park resources and existing visitor use.
5. Describe a potential range of visitor experiences and resource conditions (potential prescriptive zones).
6. Allocate the potential zones to specific locations within the park.
7. Select indicators and specify standards for each zone; develop a monitoring plan.
8. Monitor resources and social indicators.
9. Take management actions.

There are already management plans including prescriptive zoning in existence for Garibaldi Provincial Park, so my project focussed on steps 7 through 9. I first conducted a literature review on the effect of crowding on visitor experience, and used this to inform my chosen crowding indicators for Garibaldi Park. I then used the indicators to develop interview questions intended to determine whether or not visitors feel crowded at Elfin Lakes at Red Heather and to get a feel for the types of management strategies that they would support. I conducted interviews at Elfin Lakes and Red Heather between the dates of February 15 and February 17, 2014. These dates were chosen as they encompassed part of a
weekend and part of a weekday, in order to get perspectives from groups potentially looking for different experiences.

**An Investigation of Crowding**

*Perceived Crowding*

Developing indicators and standards first requires an understanding of what these are. An indicator is a measurable variable that can be used to reflect the essence of a management objective or concern. Standards are used to define the minimum acceptable condition of each indicator (Manning 2002). Both Elfin Lakes and Red Heather are located in the Natural Environment Zone of Garibaldi Provincial Park. The underlying management concern of this zone is to “keep use impacts below levels that will significantly reduce user satisfaction” (Ministry of Parks South Coast Region 1990). In other words, a person travelling to this area of Garibaldi should not have their experience diminished by perceived crowding. However, crowding is a very personal, subjective measurement and as such there are many complexities involved with trying to measure it.

Crowding can be defined as “a negative evaluation of density” (Vaske & Shelby 2008). Perceived crowding usually stems from some measure of stress that the visitor feels is put on them by the actions of other visitors. This makes crowding very difficult to measure as often stress does not stem purely from user density, but is instead based on the behaviour or activity of other visitors (Arnberger & Haider 2005). Factors that are known to influence a feeling of being crowded are: conflicts in visitor goals (ex: some looking for social interactions, others for a meditative space); behaviour such as littering, noise, or rudeness; size of other groups (especially those over six people); direction of travel (meeting vs. overtaking); user speeds; and violation in personal space requirements (ex: a cyclist takes up more space than somebody walking) (Arnberger & Haider 2005).
Coping Mechanisms

It is common for visitors to employ a variety of coping mechanisms in order to deal with the stress caused by perceived crowding, many of which downplay the amount of crowding they may be feeling. Coping can come in the form of either behavioural mechanisms or cognitive mechanisms. Behavioural mechanisms involve any spatial or temporal changes in use, including outright displacement where the visitor chooses to just not visit the area anymore. Displacement makes measuring visitor satisfaction particularly difficult, since if visitors are unhappy enough to abandon the park it is likely their opinion will never be taken into account in future surveys. Displacement can cause the goals and use of a park to change over time by changing the visitor make-up in a park. Cognitive coping mechanisms include rationalization and product shift. Rationalization and product shift occur when a visitor has invested enough in their trip that they do not want to admit it did not meet their expectations, and so they subconsciously adjust those expectations to better align with the actual experience (Manning & Valliere 2001).

Based on the mechanisms that visitors are known to employ, indicators that can be used to judge whether or not a visitor is feeling stressed by crowding are: any change in trip plans to do with site, timing, activity, or length of stay to avoid crowds; a limitation on the amount of time spent at attraction sites; a shift in expectations for a given area; and any attempt at direct action such as talking to park employees (Manning & Valliere 2001; Miller & McCool 2003).

It is usually the expectations that a visitor has upon arrival which most affect their experience (Booth, Cessford, McCool & Espiner 2011). Hence, the most accurate way to predict whether a visitor will feel crowded is to determine what their expectations are. It is also very important that the information BC Parks possesses about a park is accurate and up to date, as the more informed a visitor is about an area before going the more they will find their expectations align with the actual experience.
The Case of Garibaldi Provincial Park

Applying the VERP framework

Steps 1 and 2: Assemble an interdisciplinary team and develop a public involvement strategy.

In the creation of the Master Management Plan for Garibaldi Provincial Park, park planners sent surveys out to people located all along the Sea to Sky Corridor in order to get their feedback on how much development should take place within Garibaldi. 117 responses were received and taken into account during the creation of the plan (Saremba & Gill, 1991).

Step 3: Develop statements of park purpose, significance and primary interpretive themes; identify planning mandates and constraints.

From the survey respondents it became very clear that there were conflicting opinions as to how the park should be managed. In general, respondents in the Whistler area were in favour of the park being developed more fully, to the point where access would not be restricted based on characteristics such as physical fitness. However, those from the Greater Vancouver area were more in favour of the park being maintained as a wilderness area (Saremba & Gill, 1991). In the end, parks management erred on the side of wilderness preservation and deemed its main goal as one to provide the “highest quality destination mountain wilderness opportunities in southwestern British Columbia” (Ministry of Parks South Coast Region 1990). Hence, management is very concerned with keeping use levels at a point where visitors, expecting a backcountry trip into the wilderness, are not feeling unexpectedly crowded.

Step 4: Analyze park resources and existing visitor use

While I was at Elfin Lakes and Red Heather over the dates of February 15 through February 17, 2014, I counted the number of people I passed on the trail and encountered in the hut. On the way up to Red Heather I encountered 70 people on the trail and 18 in the shelter. There were 10 people in the Elfin Lakes hut each night I was there and an additional two in the Red Heather shelter on February 17,
leading to a total of 110 people encountered over the three days. Most of these people were encountered on the trail coming down from Elfin Lakes and Red Heather on February 15, a Sunday. Park rangers I spoke to on the way up verified the fact that the hut had been at capacity over the weekend, but it was much quieter on the Sunday and Monday nights that I was there.

Steps 5 and 6: Describe a potential range of visitor experiences and resource conditions (potential prescriptive zones). Allocate the potential zones to specific locations within the park.

Garibaldi Provincial Park is broken into four zones. Both Elfin Lakes and Red Heather are found in the Natural Environment Zone (see Figure 2). The objective of the NEZ is to “...protect scenic values and provide for backcountry recreation in a largely undisturbed natural environment. It is characterized by “low-to-moderate use, moderate development with trails, walk-in campsites and shelters” (Master Management Plan 1990).
Step 7: Select indicators and specify standards for each zone; develop a monitoring plan.

Keeping in mind the literature on crowding and management goals for the Natural Environment Zone, I developed a list of factors that could indicate if crowding is happening at Elfin Lakes and Red Heather. The indicators are: a change in activity or timing/location of use in order to avoid crowds; a shifting in use of the sites over time; the motivation of visitors in choosing to go to the sites and how those align with management goals; desire of visitors to see management strategies put in place to deal
with crowds; and conflicts with other visitors. I then used these to develop an interview questionnaire that would show what type of experience people go to Elfin Lakes and Red Heather for, whether or not they feel the areas fulfill those expectations, and what management actions (if any) they would like to see put in place (see Appendix for complete survey). In addition to answering the questions, I recorded any qualitative statements people offered while the interview was taking place.

**Step 8: Monitor resources and social indicators**

Over the three days I was at Elfin Lakes and Red Heather I conducted a total of 12 interviews. I also conducted another upon my return to Vancouver. There were consistent themes in the answers I received. Out of 13 respondents, 11 had visited Elfin Lakes or Red Heather before, indicating that the majority of current users have not experienced crowding levels that would displace them. 5 of 13 scored the importance of off-peak timing to avoid crowds as 5 or higher (on a scale of 1-7, with 7 being very important – see figure 3), indicating that some people do feel the area currently sees more use on weekends than they are comfortable with. ‘Evidence of human impacts’ was the most commonly chosen answer to a condition which would detract from an experience, being chosen by 7 out of 13 people (see figure 4). However, everybody was in agreement that they had never encountered evidence of human impacts in a negative way at either Elfin Lakes or Red Heather. Based on qualitative comments, I found that people go to Elfin Lakes because it is easily accessible, relatively safe for beginners, and is a safe place to be when other backcountry areas are experiencing high levels of avalanche danger (as happened on the days I was there).
Please rate the importance of each of the following factors when planning your trip(s) to Garibaldi. For rating, please use a scale from 1 to 7, with 1 being extremely low importance and 7 being extremely high importance.

Off-peak timing to avoid crowds

1  2  3  4  5  6  7

**Figure 3.** 5 of 13 people scored the importance of off-peak timing to avoid crowds as a 5 or higher.

Do any of the criteria in the list below represent the situation or condition which detracted from your experience? Please choose up to two.

- Number of other people encountered on the trail
- Number of other people encountered at the Red Heather shelter
- Number of other people encountered at the Elfin Lakes hut
- Lack of available parking
- Evidence of human impacts
- Human-caused noise
- Rude visitor behaviour
- Conflicts with other user groups
- Undesirable weather conditions
- Poor trail maintenance
- Undesired wildlife encounters
- Condition of facilities
- Other: ________________________________

**Figure 4.** Evidence of human impacts was the most commonly chosen element that would detract from an experience, being highlighted by 7 of 13 people.

**Step 9: Take management actions**

When asked whether they had experienced the Elfin Lakes hut as being too crowded, 5 of 13 people said yes. 8 of 13 said yes for the Red Heather shelter. There was disagreement as to whether management action was necessary at each site, but unanimous opposition to the idea of implementing a reservation system. Red Heather and Elfin Lakes play unique roles in the South Coast region parks in that they are easily accessible, safe backcountry areas, and as such it is important for people to feel as though they have the freedom make the decision to go to the area at a moment’s notice. For Red Heather, 6 of the 8 people who had seen it too crowded would like to see the facilities in the area be
expanded. For the Elfin Lakes shelter answers were much more varied. Most people indicated they saw no need for management strategies at the moment, and crowding was described more than once as “not necessarily negative.” Instead of user density, people pointed to conflicts between visitors as being the greater problem. The Elfin Lakes hut is a popular area for beginner skiers and those new to the backcountry, which can lead to conflicts with those more experienced as newcomers may lack appropriate backcountry etiquette. Some specific issues pointed to were people not being prepared to camp on busy days by bringing a tent, and others cooking food in pots meant only for boiling water.

Rather than using a regulation tactic such as a reservation system to deal with these issues, I recommend the following solutions:

1. Providing more easily accessible pre-trip information about the site that emphasizes the rules and need for basic backcountry skills, including winter camping.

2. Increasing the presence of park rangers at the hut to ensure conflicts are not arising and people are respecting the ‘first-come first-serve’ policy for the beds.

3. Providing an online space where people can record how big their group is and how long they are planning to stay for, so that other visitors can see this and know how many people they should expect to encounter.

4. Implementing a modified reservations system, where the beds in the hut can be reserved but others are welcome to also come and camp. This would have the added benefit in that people would know for sure whether or not they had to bring a tent. Park ranger presence would have to be increased to ensure visitors respect this type of reservation system.

Further Study

While analyzing the answers I received for interview questions there were some obvious points that should be clarified if BC Parks is to continue this research. To begin with, there was an obvious
disconnect between what I would consider crowding and what the visitors interpreted as crowding. Many people reported having felt crowded at the Elfin Lakes shelter, but then alluded to the fact that they did not consider this a negative thing. However, I had been working with the assumption that crowding is inherently negative, so any future questions on crowding should attempt to make the distinction clear. Additionally, while many people chose ‘evidence of human impacts’ as something that would detract from their experience, I failed to determine what exactly they considered to be human impacts. It would be helpful to know if people consider trail and shelter development as a negative human impact or if it is limited to things such as garbage found on the trail.

I was also unable to put an exact number on the point at which user density for Elfin Lakes and Red Heather would start to cause visitors stress. This could have been done by developing standards for all of the indicators that I indentified. Standards should be developed in consultation with park employees and should reflect the management goals for the area. Any further research would benefit from drawing up these standards to provide an exact number under which BC Parks should aim to keep visitor use.

Finally, I believe that all of these planning exercises would be more beneficial at the beginning stages of park development. By determining right away how many users for which BC Parks would like to manage an area, they would be able to implement management strategies right from the beginning which would be much more proactive. It would also help to keep park goals from shifting over time and visitors would likely be more supportive of management strategies if they were there from the outset.
Works Cited


Appendix: Survey

Date ____________________________

Site Location _________________________

1. Is this your first time to Garibaldi Park?
   Yes  No
   *If your answer is yes, please skip to question 4.

2. How long many years ago was your first visit to the park?

3. Approximately how many times have you visited since?

4. Primarily what type of outdoor activity do you do at Elfin Lakes/Red Heather?
   Hiking  Snowshoeing  Ski/Snowboard touring  Other _______________________

5. What outdoor recreation activity are you participating in today?
   Snowshoeing  Ski/Snowboard touring  Other _______________________

6. Is this an overnight trip?
   Yes  No

7. Please rate the importance of each of the following factors when planning your trip(s) to Garibaldi. For rating, please use a scale from 1 to 7, with 1 being extremely low importance and 7 being extremely high importance.

   Your time off from work/school
   1  2  3  4  5  6  7
   
   Your availability of other friends/family to come along
   1  2  3  4  5  6  7
   
   Weather conditions
   1  2  3  4  5  6  7
   
   Off-peak timing to avoid crowds
   1  2  3  4  5  6  7
   
   Availability of overnight facilities
   1  2  3  4  5  6  7
   
   Distance from your home
   1  2  3  4  5  6  7
   
   A recreation site that suits your skill level
   1  2  3  4  5  6  7
8. **Please rate the importance of each of the following motivations in your decision to come to Elfin Lakes/Red Heather.** Please use the same seven point scale as before, with 1 being extremely low importance and 7 being extremely high importance.

<table>
<thead>
<tr>
<th>Motivation</th>
<th>Scale</th>
</tr>
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<tbody>
<tr>
<td>Being able to get outside and enjoy nature</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>Getting away from people and crowds</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>Getting physical exercise</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>Socializing</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>Meeting new people</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

9. **Have you experienced a situation or condition which detracted from your outdoor experience in Garibaldi Park?**

   Yes  No

   *If no, please proceed to question 13.

10. **Do any of the criteria in the list below represent the situation or condition which detracted from your experience? Please choose up to two.**

    - Number of other people encountered on the trail
    - Number of other people encountered at the Red Heather shelter
    - Number of other people encountered at the Elfin Lakes hut
    - Lack of available parking
    - Evidence of human impacts
    - Human-caused noise
    - Rude visitor behaviour
    - Conflicts with other user groups
    - Undesirable weather conditions
    - Poor trail maintenance
    - Undesired wildlife encounters
    - Condition of facilities
    - Other ______________________________________________________________________

11. **Which site did it occur at?**

    Parking lot  Red Heather  Elfin Lakes  Other ____________________________
12. Would this element cause you to:
   Alter the timing of your next visit to Elfin Lakes/Red Heather
   Alter your expectations for your next visit to
   Make you never visit Elfin Lakes/Red Heather again
   In that case, would you:
      - go to another area for the same activity?
      - rather stay home

   Other ________________________________

13. Have you experienced the Elfin Lakes hut being too crowded?
   Yes    No

14. If yes, which management action would you prefer?
   An expansion of facilities

   A decrease in the amount of people permitted to use at one time, which might mean that you
   may not be able to visit on your preferred days

   Neither

15. Have you experienced the Red Heather shelter being too crowded?
   Yes    No

16. If yes, which management action would you prefer?
   An expansion of facilities

   A decrease in the amount of people permitted to use at one time, which might mean that you
   may not be able to visit on your preferred days

   Neither

17. Have you experienced the Diamond Head parking lot being too full?

18. If yes, which management action would you prefer?
   An expansion of facilities
A decrease in the amount of people permitted to use at one time, which might mean that you may not be able to visit on your preferred days

Neither

19. On a scale of 1-9, please rate how crowded you generally felt within the park

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
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<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not at all</td>
<td>Not crowded</td>
<td>Slightly crowded</td>
<td>Moderately crowded</td>
<td>Extremely crowded</td>
<td></td>
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20. Do you have any suggestions for how your recreation experience at Elfin Lakes/Red Heather could be improved for you? If yes, please specify.