

**Does Time Heal All Wounds? The Restoration of Place Attachment after Loss of  
Place: The case study of Point Pleasant Park after Hurricane Juan**

By

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## ABSTRACT

### **Does Time Heal All Wounds? The Restoration of Place Attachment after Loss of Place: The case study of Point Pleasant Park after Hurricane Juan**

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On September 29<sup>th</sup>, 2003, Hurricane Juan destroyed 75% of Halifax's beloved Point Pleasant Park. Park users were struck with grief and developed solastalgic feelings as they mourned the loss of a place that held such natural, cultural, and historical significance. Since 2005, the park has been under-going restoration. Drawing upon well-being, sense of place, place attachment and solastalgia literature, this study utilizes a place-based approach to determine if long-term users have re-established positive place attachments. Results from interviews and online surveys (n=90) indicate that participants overcame their solastalgic feelings, feel a positive sense of well-being, and have re-established positive place attachments. Interestingly, results suggest that most long-term users have place attachments that are potentially as positive as their pre-disaster attachments, and potentially stronger than those who never experienced the traumatic event. This study concludes that, given enough time to adjust to the rebuilt place, 'time heals all wounds.'

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## 1. Introduction

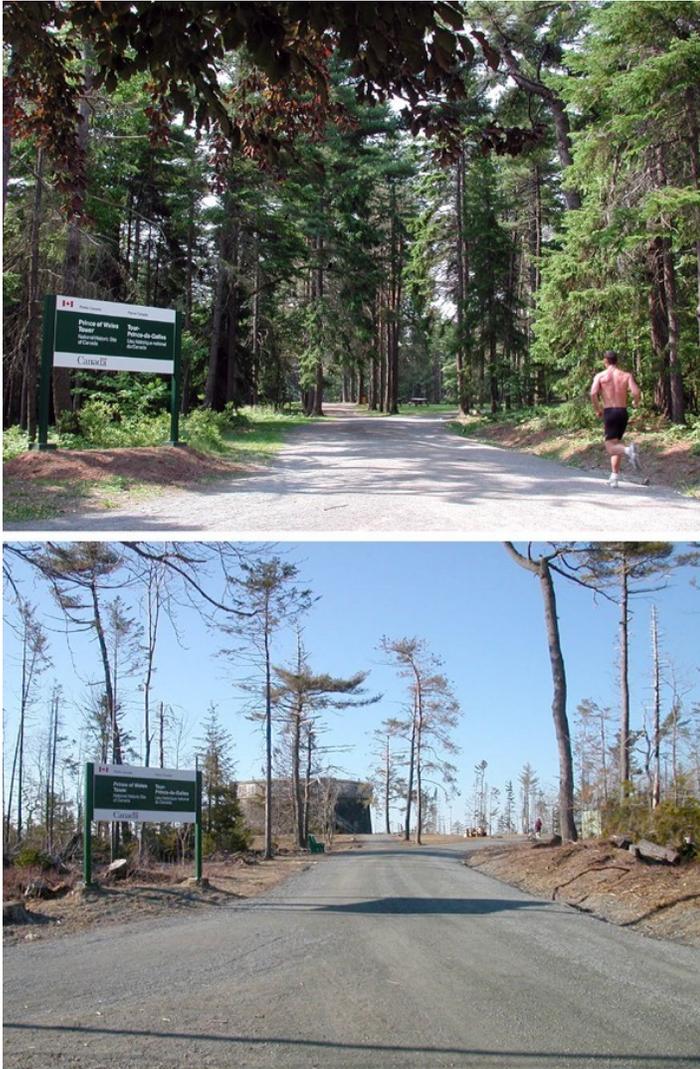
For more than 150 years Point Pleasant Park has been a natural haven filled with walking trails and lush canopies on the Halifax Peninsula. Known as the crown jewel of the Halifax park system and as one of the great parks of Canada (Dooley, 2003; Maher, 2004), Point Pleasant Park serves as an oasis of nature for Haligonians and the one and a half million people who visit each year (Point Pleasant Park Comprehensive Plan, 2008; West, 2013). The park is a place that some families have been visiting for generations and many locals can recall the years of memories they have with friends and family at the park. The park also serves as an important place for community events, such as youth sporting events and performances by Shakespeare by the Sea. This beloved urban park serves as a place of accessible nature where locals can get outdoors and escape the city. Thus, Haligonians can receive their dose of nature and get a breath of fresh air, improve their sense of well-being through exercise and relaxation, and take a moment to get away from the stresses of city (Chiesura, 2004; Ulrich, 1999; Maller et al., 2009; Kaplan, 1995; Hansmann et al., 2007). As with many natural environments, people feel that they are healthier for visiting Point Pleasant Park (Kaplan & Kaplan, 1989, Ulrich, 1984, Velarde et al., 2007).

The layout of Point Pleasant Park is unique and offers visitors a blend of natural experiences. Visitors can experience a seaside stroll along the Atlantic coast, feel surrounded by an urban wilderness, or stumble across the park's historical past. The military history of the park adds to an already meaningful cultural space, where park

users can explore the fortifications, the war memorials and attend Remembrance Day events to honour those who serve(d) the country. This beloved urban forest, which serves so many functions, is a place to which many visitors have developed strong attachments. To many, Point Pleasant Park is such an important place that it is commonly referred to as “The Park” (Lee, 2004) and is described as being a key part of the identity of Halifax (*The Chronicle Herald*, 2003).

This natural haven was shattered in the overnight hours of September 29<sup>th</sup>, 2003, as Point Pleasant Park had been struck by Hurricane Juan, a Category 2 hurricane that destroyed approximately 75% of the park’s forest cover (Hyndman et al., 2009) (see Figure 1). The immense damage the park sustained drastically changed the look and atmosphere that locals had previously experienced. This once positive place became a place of mourning, as Point Pleasant Park was stripped of much of its natural beauty. Newspaper articles at the time documented how the impact of Hurricane Juan negatively impacted visitors’ attachments. Upon seeing the damage, one park visitor described the damage as “enough to make you cry. Seeing it like this, there aren’t words to describe it. It’s hard to believe.” (Dorey, 2003). When Point Pleasant Park re-opened for viewing on October 18<sup>th</sup> and 19<sup>th</sup>, 2003, more than 100,000 visitors felt a sense of loss when they saw the damage that their treasured urban park had sustained (The Canadian Press, 2013; West, 2013). Visitors vividly described the catastrophic damage of downed trees everywhere, with paths blocked and covered by beautiful, once long-standing trees and entire sections of dense forest flattened (Dorey, 2003; Dorey, 2004). Places in the park where people had picnics and where they walked with their families were decimated. This once positive place for

so many park users looked “like a site where a bomb hit” (Dooley, 2003). Many people were described as crying, as they felt that they would never be able to see the park in its full glory once more and that they were mourning the loss of a friend (Dorey, 2003).



**Figure 1:** Point Pleasant Park and the impact of Hurricane Juan. The top image shows the rich and full forest canopy of Point Pleasant Park before the impact of Hurricane Juan. The bottom image shows the damage caused by Hurricane Juan and what was left behind. (Image Credit: pointpleasantpark.ca in Wikipedia. (2016). Point Pleasant Park. Retrieved from [https://en.wikipedia.org/wiki/Point\\_Pleasant\\_Park](https://en.wikipedia.org/wiki/Point_Pleasant_Park)).

These feelings of grief and sense of loss experienced by the park user community can best be described as solastalgia: “the pain or sickness caused by the loss or lack of solace and the sense of isolation connected to the present state of one’s home and territory.” (Albrecht, 2005). In particular, solastalgia refers to the feeling of home sickness without

leaving home that develops as a result of directly living through a negative change to one's home environment. Thus, the solastalgic feelings developed by many park users reflect the pain and lack of solace that were experienced after the impact of Hurricane Juan, degrading their once positive place attachments to Point Pleasant Park.

### 1.1 Research Questions and Thesis Statement

The purpose of this research is to explore whether park users have re-established their place attachments since Hurricane Juan hit Point Pleasant Park in 2003. This research focuses on long-term and short-term users: those who did and did not experience Point Pleasant Park before Hurricane Juan hit, respectively. The questions guiding this research are as follows:

- 1) *Did long-term users experience solastalgic reactions towards Hurricane Juan's impact on Point Pleasant Park?*
- 2) *Have long-term users overcome their solastalgic reactions and re-established positive place attachments to Point Pleasant Park?*
- 3) *Are there differences between long-term and short-term users with regard to their current place attachments and their sense of well-being at Point Pleasant Park?*

As reflected in newspapers at the time, many park users who visited Point Pleasant Park after Hurricane Juan hit described solastalgic reactions towards the damage. This first question addresses whether participants in this study (specifically long-term users) recall experiencing similar solastalgic reactions, thus illuminating if these users experienced a similar degrading in their place attachments as demonstrated by park users back in 2003.

Research Question 2 next explores whether these long-term users overcame their solastalgic feelings and re-established positive place attachments. This question is important as it highlights whether people can re-connect to a beloved place once it is destroyed or if feelings of grief persist even after 12 years of park restoration. Research Question 3 further explores the well-being of long term users and whether their place attachments have been positively re-established by comparing their place attachments to those short-term users who never visited Point Pleasant Park before the impact of Hurricane Juan. Because they did not experience that traumatic event, short-term users might be expected to have positive place attachments uncompromised by Hurricane Juan, particularly in comparison to long-term users who may have experienced a degraded place attachment.

As I will demonstrate, long-term users were initially struck with solastalgic feelings after the impact of Hurricane Juan. Over time, however, most long-term users overcame those solastalgic feelings of grief to rebuild positive place attachments and an improved sense of well-being, regardless of any reminiscing they might have done about a fuller, greener park that stood before the impact of Hurricane Juan. Thus, a substantial finding of this study is reflected by the popular saying, 'time heals all wounds.' Furthermore, long-term users being able to visit the park to meet their particular needs also appears to be a meaningful contributor to the re-establishment of their place attachments. In addition, both short-term and long-term groups of participants are positively attached to the current state of the park and feel a positive sense of well-being. Unexpectedly, however, long-term users appear to have more meaningful place attachments than short-term users, even

after their traumatic experience. This is highlighted by statements from long-term users describing their greater understanding of the importance Point Pleasant Park has to themselves and to the city. This finding is particularly significant, as it shows how the long-term relationship long-term users have with the park results in stronger place attachments that persist regardless of the changes to Point Pleasant Park and that the park is meaningful because of what it means to them and to the city, and not just as a place to exercise or walk the dog.

This research addresses significant gaps within the place attachment and solastalgia literatures. Much of the place attachment literature has focused on how place attachment is established, with little focus on how place attachments change once they are established. Additionally, the small body of literature that focuses on how place attachments change due to devastating events only focus on a short term period of, at most, a couple of years. Similarly, the solastalgia literature has only focused on the short-term impacts of a changing environment. This research addresses these gaps by analyzing how long-term park users' place attachments have changed over 12 years. This long-term focus on how place attachments change improves our understanding of how people relate, and reconnect, to changing and restored beloved places.

## 2. Background and Literature Review

Point Pleasant Park is located in Halifax, Nova Scotia, Canada. The Halifax Regional Municipality, which includes Halifax and numerous adjacent towns and communities, is home to approximately 414,000 people (Statistics Canada, 2011) and the park, as of 2008, is visited by one and a half million visitors a year on average (Point Pleasant Park Comprehensive Plan, 2008; West, 2013). The 75-hectare park, located at the southern end of the Halifax peninsula, is bordered by the city along its northern border and is surrounded by the Atlantic Ocean along its western, eastern, and southern borders (Figure 2). Being surrounded by the city, Point Pleasant Park is a popular destination, as it is within walking, cycling, driving and busing distance for many Halifax residents.



**Figure 2:** Point Pleasant Park on the Halifax Peninsula (Image Credit: Google Earth. Edited by Patrick Larter, 2016).

To the northeast, the park is bordered by a container port, while low-density residential neighbourhoods can be found along the rest of its northern border (Figure 3). The surrounding neighborhoods are some of the wealthiest areas in the city. As substantiated by the literature, the appearance of wealth and care (well-kept lawns, streets/sidewalks and houses), and lack of visual detriments (graffiti, run-down buildings, litter) are important elements that people consider when visiting a place such as a park. The nicer the place looks, the more likely the place will be visited. Thus, the positive environment of the surrounding neighborhood is likely a meaningful contributor in the popularity of the park (Banda et al., 2014; Bedimo-Rung et al., 2005; Kardan et al., 2015).



**Figure 3:** Point Pleasant Park (right of the container port) right next to the city. (Image Credit: Chebucto Community Net. (2016). Retrieved on 17 March, 2016 from [http://beacon.chebucto.ca/Photo\\_Album/Webcam\\_Dec\\_2004/fenwick2.shtml](http://beacon.chebucto.ca/Photo_Album/Webcam_Dec_2004/fenwick2.shtml)).

The historical fortifications and monuments of the park contribute to people establishing meaningful attachments. Point Pleasant Park is unique in that it is more than just a place where visitors can experience nature or the outdoors, but can also experience a sense of

history. This sense of history is experienced through the military fortifications, such as the Prince of Wales Tower and Fort Ogilvie, as well as through the monuments, such as the Halifax War Memorial, which commemorates the lives lost at sea during the World Wars. Point Pleasant Park has a unique 250 year history where it has acted as both a public park and an active military space.

## 2.1 History of Point Pleasant Park

With the founding of Halifax in 1749 by the British, Point Pleasant, which would become Point Pleasant Park, became an important place from which to defend the new city. Due to its location near the mouth of the harbour, Point Pleasant provided defence from a sea invasion, as well as from a land-based attack from across the Northwest Arm (Kitz & Castle, 1999). In 1762, the Seven Years' War led to fear of a French invasion, thus, to the establishment of Point Pleasant's first military installations. The Northwest Arm and Point Pleasant Batteries were erected that year to defend against an attack from the sea. The American Revolution (1776) led to fear of an attack from the Americans. This uncertainty led to the installation of two more batteries in 1776: Black Rock Battery and Chain Rock Battery (Kitz & Castle, 1999). By the 1790s, however, the fortifications were in disrepair. Fear of another French invasion caused by the French Revolution led to the construction of Fort Ogilvie in 1792, which provided much needed defense to Halifax Harbour, and to the employment of ninety-five militia members (Kitz & Castle, 1999). In the mid-1790s, Prince Edward, the newly appointed military commander-in-chief of Nova Scotia, intensified the fortifications at Point Pleasant. Concerned about an imminent attack from the French, Prince Edward ordered the construction of the Prince of

Wales Tower (Figure 4). Completed in 1798, the tower's round design provided 360 degree cover of Halifax's coastal defenses, as well as providing the city with much needed land defenses (Kitz & Castle, 1999).



**Figure 4:** Prince of Wales Tower. One of the many historical military fortifications throughout Point Pleasant Park. (Image Credit: Patrick Larter, 2015).

With no imminent threat of an attack from Britain's enemies, the fortifications once again fell into disrepair by the mid 19<sup>th</sup> century. A report in 1855 stated that the fortifications were obsolete, due to the improvement in gun technology, and the city was in a "wholly unprotected condition" (Kitz & Castle, 1999). This led to the encampment of military regiments at Point Pleasant. The men fed themselves with what was available in the woods, and were also responsible for the repair and upkeep of the fortifications and grounds (Kitz & Castle, 1999). Tensions with the United States in 1861 led to the construction of the Cambridge Battery in 1862. This battery, armed with new, more powerful guns, provided defense to both the harbour and the Northwest Arm, leading to

the abandonment of the original Northwest Arm Batteries. After the 1870s, no new installations were added. Although existing fortifications were periodically repaired and fortified, the fortifications were never called upon to fulfill their potential (Kitz & Castle, 1999).

Despite the military presence, Point Pleasant was used by the public as a place to enjoy the outdoors since the mid-18<sup>th</sup> century. As Halifax increased in population and grew, it became increasingly common for citizens to take Sunday trips to the park and enjoy the day outdoors (Kitz & Castle, 1999). Families would travel along the coastal road and enjoy the relaxation that came from viewing and experiencing the ocean, the woods and the military activities. Visitors mostly stayed along the perimeter trail, deterred from traveling into the interior due to gunfire and other military activities. This unique experience of visiting the park and viewing the military activities created a bond that locals would treasure for centuries. The increased recreational usage of Point Pleasant eventually led to its establishment as a public park on May 7, 1866 and the directors of the park signed a 99-year lease to secure the land from the British Crown (Kitz & Castle, 1999). Although recognized as a public park in 1866, the park was not officially open until June 23, 1873. In 1879, the lease was extended to 999 years. The park land was leased for 1 shilling per year and this fee has continued to be paid annually each June (Kitz & Castle, 1999).



**Figure 5:** Map of the historical and cultural points of interest at Point Pleasant Park. (Image credit: Point Pleasant Park Map. (2006). NovaScotia.com. Retrieved from <http://www.csaaapc.ca/sites/csaaapc.ca/files/webatlas/projects/2006%20Regional%20Merit,%20Communications,%20Peter%20Bigelow,%20Point%20Pleasant%20Park%2013.jpg> on 17 July, 2016).

The military presence persisted even after the park was established. Military and caretaker families lived in the park from the 1850s until the mid 1900s (Kitz & Castle, 1999). Although visitors did not initially venture into the woodlands because of the military activities, walks into the interior increased after military presence began declining in the early 1900s. The military presence was so embedded into the park culture

that “people missed seeing them in Point Pleasant Park.” (Kitz & Castle, 1999, p.60). The fortifications fell into serious disrepair after the military slowly began to abandon the batteries and forts beginning in the 1930s. With no one present to take care of the fortifications, people were concerned with the state of these beloved reminders of the park’s history. In the 1960s, many of the installations were declared National Historic Sites and restoration began (Kitz & Castle, 1999). Parts of Fort Ogilvie, as can be seen today, are mounded over as protection from weathering and erosion. Other fortifications were stabilized and fenced off. To this day, the fortifications and monuments can be explored as one walks through the park (Figure 5).

The trees of Point Pleasant Park were not always the grand and dense woods that were common in the late 20<sup>th</sup> early 21<sup>st</sup> centuries. For strategic purposes, the trees were cut so that the guns of Fort Ogilvie and the Prince of Wales Tower had clear sight-lines to defend the harbour and the city (Kitz & Castle, 1999). However, around the end of the World Wars, maintaining and defending the fortifications became obsolete, as guns became more powerful and fortifications could not defend against an air attack; from this point the trees in the southern half of the park were allowed to grow unimpeded. The trees of the park were also not representative of the local ecology. In the mid-19<sup>th</sup> century, around the time of the park’s establishment, fifteen non-native species were planted throughout the park (Point Pleasant Park Comprehensive Plan, 2008). Many of these trees were planted following the urban parks movement, which aimed to have aesthetically beautiful environments. The planting of native and non-native species, as well as the lack of cutting by the military, contributed to the beautiful, grand woods of the

late 20<sup>th</sup> century. These trees were allowed to grow uninhibited and without interruption since the World Wars, creating a feeling of a dense, age-old wilderness. Thus, for generations, locals perceived the woods to be an untouched, urban wilderness.

One of the most unique and meaningful aspects of Point Pleasant Park is its 250 year history, which highlights how important the park is to the city. Point Pleasant Park was a place where people could go to experience nature and also where the military defended the city. Thus, this unique blend of human activities and natural setting contributed to people meaningfully connecting with the park. This is evident through the newspaper articles and public complaints made in order to protect the integrity of the fortifications when officials were considering demolishing them in the 1950s (Kitz & Castle, 1999, p.64-65). As a result of the long history of the park, and the multiple meanings the park has held for hundreds of years, people have developed strong place attachments with Point Pleasant Park.

## 2.2 Parks, Nature and Well-being

The attachments that Haligonians have established with Point Pleasant Park reflects the historical relationship that society has had with parks, and nature, for the past 250 years. This relationship has not always been positive, as society's perceptions of nature have changed throughout history. Nature was once thought of as a place of danger from which people had to escape or to conquer, in order to have a thriving society. As time passed, nature came to be seen as a place to protect in order to have a thriving society (Nash, 1982; Cronon, 1996a; Cronon; 1996b). The latter mindset, which developed in the 19<sup>th</sup>

century, was in response to the increasing ills that accompanied the Industrial Revolution. Urban dwellers, the people in greatest contact with such ills, began to seek fresh air, a sense of peace, improved health and other amenities that were associated with being in contact with nature (Kaplan & Kaplan, 1989; Ulrich, 1996; Ulrich 1984. See also Thompson, 2002; Cronon, 1996b; Byrne & Wolch, 2009; and Young, 1995). Gaining access to nature was difficult for most urban dwellers, however, and the distance the average person needed to travel to reach nature was significant. The solution was to bring nature to the city. As discussed by Nash (1982), parks provided the ideal blend of city comfort and natural amenities by offering a safe, comfortable environment to connect to nature and escape the city (see also Young, 1995; Bixler & Floyd, 1997; Gabriel, 2011). The construction of urban parks became popular by the mid 19<sup>th</sup> century, as they became the preferred place to promote contact with nature and improved health (Thompson, 2002; Young, 1995. See also Thompson, 1996, 1998; Olmsted 1875, 1881; Cronon, 1996b; Spirn, 1996; Gabriel, 2011; and Byrne & Wolch, 2009). In addition to providing a breath of fresh air within the city, urban parks were a place where people of all social classes could socialize (Young, 1995). Many of the earliest urban parks were designed, in large part, to promote aesthetic attractiveness, as exemplified by grandiose paths, flower gardens and foreign trees (Young, 1995). The idea of how an urban park should be designed changed as the health and environmental benefits that nature provided became better understood (Chen & Wong, 2006; Lam et al., 2005). Although many modern urban parks still include beautiful, lavish gardens, most became multi-dimensional spaces where urban dwellers could meet a variety of needs, from mental relaxation to physical exercise to bonding with friends and family (Young, 1995; Thompson, 2002; Byrne &

Wolch, 2009). As a result of the various benefits urban parks provide, they have become, and continue to be, very important places for people to establish meaningful attachments to natural places (Maller et al., 2009; Thompson, 2002; Chiesura, 2004).

Since the late 1970s and early 1980s, a large body of literature has emerged, particularly from environmental psychology, which focuses on how natural environments, such as urban parks, can influence mental and physical well-being (see Bedimo-Rung et al., 2005; Chiesura, 2004; Gies 2006, Hansmann et al., 2007; Maller et al., 2009; Solecki & Welch, 1995; Tzoulas et al., 2007). One of the pioneering researchers in the nature and well-being literature is Roger Ulrich. In his 1984 article, “View Through a Window May Influence Recovery From Surgery,” Ulrich surveyed patients’ recovery times and differentiated them based on whether they had a view of nature, such as a view of trees outside their room, or not. Ulrich concluded that having a view of nature reduced patients’ post-operative hospital stays, reduced the amount of negative evaluative comments in nurses’ notes, and resulted in fewer potent analgesics being taken. Ulrich’s subsequent research has continued to focus on how nature can improve our well-being in healthcare environments, as natural places, such as gardens, help patients feel more positive and less stressed about their rehabilitation by providing them with an escape to a natural landscape that they can shape, and a place where they can receive social support (see Ulrich, 1999; Ulrich et al., 1991). For example, Ulrich (1999) describes how patients recover faster and feel healthier when they visit garden spaces, as these natural spaces reduce stress by helping them interact with other patients and offers them a sense of control over watering the plants, which improves their well-being. Ulrich’s pioneering

work has been built upon by many researchers who explore how nature improves physical and mental well-being, particularly through understanding the restorative benefits of nature, such as how nature affects attention, stress and perceived well-being (see Velarde, 2007; Bedimo-Rung et al., 2005; Tzoulas, et al., 2007; Kaplan, 1995).

Another key body of literature comes from Stephen and Rachel Kaplan. Their 1989 book *The Experience of Nature: A Psychological Perspective*, demonstrates how different environments may impact perceived psychological well-being, particularly by comparing urban and natural environments. This research was pioneering, as it sought to understand the preferences that people have for different types of natural environments, such as a front lawn compared to a national park. To do this, they showed participants various pictures of different natural environments and recorded their perceptions. Their conclusion was that an environment that was a mix between a humanized landscape and wilderness, such as an urban park, was most preferred by research participants. The authors also found that participants' preferences and perceptions were linked to experience, which was further based on cultural background. Kaplan and Kaplan (1989) argue that having positive experiences in a more aesthetically-pleasing environment will lead to a stronger preference towards that particular place. Stephen Kaplan's other works, "The Restorative Benefits of Nature: Toward an Integrative Framework" (1995) and *With People in Mind: Design and Management of Everyday Nature* (Kaplan, et al., 1998) further demonstrates his key position in this body of literature by highlighting the many perceptions people have towards different landscapes (see also Kaplan, 1987). In particular, Kaplan et al., (1998) discuss the benefits of everyday nature, such as urban

parks, and the need to effectively manage these preferred environments for the betterment of peoples' well-being. Many studies have built on Kaplan and Kaplan's work by further exploring how preferences towards, and experiences in, nature affect mental well-being (see Mcsweeney et al., 2014; Maller et al., 2009; Korpela et al., 2010). For example, Korpela et al., (2010) discuss how different natural environments influence our restorative experience and the benefits we do or do not receive.

Understanding the benefits of nature is particularly important given the detriments urban environments can inflict on peoples' perceived well-being (Hartig et al., 1991; Lam et al., 2005). Thus, urban parks can serve an important role as an accessible outlet where people can connect to nature and receive mental benefits. In addition, these studies discuss how parks promote social and community cohesion that also affect well-being, such as acting as a meeting place where community events take place and where people can feel a collective sense of freedom from the city (O'Brien & Morris, 2014; Chiesura, 2004; Maller et al., 2009). As described by Tzoulas et al. (2007), Young (1995) and Thompson (2002), parks provide an option for a healthier lifestyle and park users feel that they are healthier than non-park users. Thus, because they provide a welcome dose of nature, urbanites prefer parks and they also feel healthier when they are at parks. In addition, urban parks, such as Point Pleasant Park, are often located in areas that are easily accessible to many people compared to other natural spaces, thus making these places important venues for urbanites to not only improve their well-being but also to establish meaningful place attachments to vital natural landscapes within the city (Tuan, 1975; Ujang & Zakariya, 2015; O'Brien & Morris, 2014; Cresswell, 2004).

### 2.3 Place and Place Attachment

Geographers have been examining the concept of place for many decades (Williams & Kitchen, 2012; Cresswell, 2008; Lewicka, 2011). In particular, the concept of ‘sense of place’ was developed by Humanistic Geographers in the 1970s as a reaction to the increasing focus on scientific methodology and quantification in Human Geography, which many Humanistic Geographers felt ignored the complexities, intentions, values and subjectivity that are embedded in human interactions (Ley, 1981; Entrikin, 1976; Tuan, 1976). For Humanistic Geographers, sense of place captures these elusive and hard to quantify dimensions of the lived experience in particular places (Tuan, 1975; Entrikin, 1976; Buttner & Seamon, 1980; Malpas, 1999; Relph, 1976). Humanistic Geography thus offers a place-based approach, which aims to explore the experiences people have with particular places at multiple scales and how their interactions with and perceptions of these places impact the meanings that they attach to places (Cresswell, 2008, 2009; Ujang & Zakariya, 2015; Tuan, 1975; Scannell & Gifford, 2010).

One of the pioneering researchers to develop the sense of place concept is Humanist Geographer Yi-Fu Tuan, who published two landmark books on the subject: *Topophilia: a Study of Environmental Perception, Attitudes and Values* in 1974, and *Space and Place: The Perspective of Experience* in 1977. *Topophilia* is especially significant to the study of place because of its discussion of place perception and preference. *Space and Place* is equally influential for its discussion of how people attach themselves to different scales of places (from home to nation), and, notably, the differences between space and

place and how we experience both. However, this research focuses on *Topophilia* for its discussion of place preference, particularly in relation to nature. Tuan (1974) discusses how the aesthetics (sights and sounds) of different places pulls on the human senses (smell, sight, hearing), and how peoples' appreciation of and preferences for those aesthetics contributes to developing a positive connection toward and love of that place, or topophilia. Specifically, Tuan (1974) states that nature has aesthetic qualities (clean air, relaxing/peaceful sounds, pleasing colours) that people strongly appreciate and value, thus increasing people's attachment to natural environments (1974, 95). Tuan also discusses how the beauty of nature, particularly in contrast to the city, is an important aspect in establishing love of place, as nature signifies cleanliness and beauty compared to the pollution of the city (1974, 8). People, Tuan argues, would escape from the city to nature because of their perception of nature being good and clean (1974, 51). Parks, Tuan (1974) asserts, are thus an ideal environment to experience nature while still enjoying city comforts. As natural environments, parks are environments where many people positively perceive, value, and can establish love of place (topophilia). Most notably, Tuan (1974) discusses how meanings arise out of experiences and that familiarity with a place breeds attachment. Tuan's discussion of how people develop love of place through experiences, based on values, perceptions and aesthetics, provides this research with a foundation to better understand the reasons behind the meanings people establish at a place such as Point Pleasant Park.

The works of Tuan (see, for example, Tuan, 1975, 1976, 1979, 1989, 1991) are pioneering in their discussion of how people attach themselves to places. Much of the

later works of Tuan (such as Tuan 1989 and 1991) continue to explore and discuss the aesthetic and cultural interactions that lead us to establish meanings associated with place meaning. Although Tuan did much pioneering work on place in the 1970s, other geographers from this time also helped to advance the important notion of 'sense of place', including David Ley, Nicholas Entrikin, and Edward Relph. Ley (1981) discusses how peoples' perceptions and values concerning place have influence over their thoughts and actions. Entrikin (1976) discusses how the philosophy of phenomenology (the immediate experience of the lived-world) can provide an approach to studying the meanings and values embedded in places, while Relph (1976) also employs a phenomenological approach to place, to assess how places can be inauthentic and exclusionary, creating for some a sense of being an outsider.

'Sense of place' is a concept that has not remained static since it originated in the 1970s. As Cresswell (2009) argues, Humanistic Geographers developed a rich idea of place as experienced but did not offer much about how power is implicated in the construction, reproduction, and contestation of places and their meanings. Inspired by Marxism, Feminism, and Post-Structuralism in the 1980s, Critical Geographers' developed a critical approach to place which sought to rectify this problem (Cresswell, 2009). The kind of organic, rooted, and bounded place largely discussed by the Humanistic Geographers began to be seen as limiting and exclusionary and these Critical Geographers looked to reveal the complex and often contested social processes that are involved in the construction of places (Cresswell, 1996, 2009; Agnew 1987; Agnew & Duncan, 1990; Sack, 1992; Entrikin, 1991).

Cresswell emerged from this critical tradition as another key place researcher.

Cresswell's 2015 book, *Place: An Introduction*, builds on the foundations set by the Humanistic Geographers and the Critical Geographers. Cresswell, like Tuan and his contemporaries, discusses how people develop meanings through experiences, and how aesthetically-pleasing environments can increase positive attachments (2015, 18).

Cresswell also asserts that developing a sense of place is a never-ending process and is constantly shaped by our practices, experiences, and interactions (2015, 62). In addition, Cresswell adds that one's sense of place is impacted by outside processes, including power relations, and notes that, in some cases, many of our perceptions are influenced by what we have been told is or is not "normal," potentially leading to spatial exclusions (2015, 165-166). For example, the stigmas associated with the homeless may lead to their exclusion, from valued public spaces such as public parks (2015, 173-174). Thus, Cresswell's book is a particularly important foundation for this study because of its discussion concerning how sense of place is a constantly changing and contested process. The works of Cresswell (for example, see Cresswell, 1996, 2004, 2008, 2009; Verstraete & Cresswell, 2002; Cresswell & Merriman, 2011) are important texts because of their discussion of the power relations imbedded within an individual's or collective's sense of place. A number of other Critical Geographers have discussed the varied and complex social processes embedded in place-making, including David Harvey and Doreen Massey. Much of Harvey's work (see, for example, see Harvey, 1996) has focused on the power relations embedded in place-making from a Marxist perspective, particularly in reference to the spatialization of capitalism and the issues arising around class. Massey's

work (see, for example, Massey, 1994), has primarily analyzed the social relations in place-making, with a particular focus on gendered construction of places, as well as the idea of a global sense of place, and its impacts on power relations across regions and nations.

As demonstrated, sense of place is a nebulous concept with many processes involved in the making of place. Geographers have provided much detail on what is involved with creating a sense of place, such as the power relations, values and perceptions present. However, there is not much in this literature on how and what to measure regarding an individual's or collective's sense of place. In an attempt to find a solution, Environmental Psychologists began to focus on sense of place in the late 20<sup>th</sup> century, aiming to develop a common theory from which research methodology would flow (see Lewicka, 2011; Kyle et al., 2005; Hidalgo & Hernández, 2001). The result was that Environmental Psychologists developed three distinct sub-categories of 'sense of place', namely place identity, place dependence, and place attachment (Lewicka, 2011; Jorgensen & Stedman, 2001; Hidalgo & Hernández, 2001). Place identity involves the meanings and significance of a place that contribute to an individuals' conceptualization of self (Jorgensen & Stedman, 2001), such as, how the meanings embedded in a rural community contribute to a sense of community identity. Place dependence "concerns how well a setting serves goal achievement given an existing range of alternatives" (Jorgensen & Stedman, 2001). Specifically, a parent is likely to be more dependent on a neighbourhood that provides work, child care and essential services (e.g. groceries), compared to a place that only meets one of those needs. Finally, place attachment can be

described as the act of maintaining closeness and familiarity with these places to preserve their attachments (Ujang & Zakariya, 2015; Hidalgo & Hernández, 2001). Place attachment can best be described as a positive bond that develops between groups or individuals and their environment (Jorgensen and Stedman, 2001; Low & Altman, 1992; Hidalgo & Hernández, 2001). It is important to note that, although these sub-categories may have specific definitions, many researchers in this field believe that the lines of distinction are blurry, that the concepts overlap, and that they may not be different at all (Lewicka, 2011).

Many researchers credit Low and Altman's (1992) *Place attachment: A Conceptual Inquiry* with providing the groundwork to be able to analyze place attachments (see also Lewicka, 2011). Their book is a key text, as it discusses the various aspects that one could consider when analyzing place attachment, such as the length of residence, extensiveness of community ties, and presence of natural spaces. Recent research on place attachment has not added much new; however, much of the current place attachment literature seeks to find a theory and methodology that makes studying place attachment consistent (Lewicka, 2011; Kyle et al., 2005, Jorgenson & Stedman, 2001). Place attachment is particularly important to focus on for this research because of its attention to how people connect to places, such as Point Pleasant Park. As well, the place attachment literature offers many strategies and examples of how to measure peoples' connection to places.

The literature on sense of place and place attachment has informed this study by highlighting how people experience places and by offering some important indicators for measuring those experiences. By synthesizing key aspects of the literature, it is clear that some key place attachment indicators include: positive place perceptions and thoughts; consistent usage of the place; knowledge of the place; memories of the place; a sense of community linked through the place; and care for the place (Lewicka, 2011; Hidalgo and Hernández, 2001; Cresswell, 2004. See also, Kaplan, 1979; Lewicka, 2005; Hayden, 1995; Hay, 1998). Positive perceptions and thoughts, are the result of a place having characteristics that are pleasing to the individual. For example, this can be due to the place being aesthetically pleasing and capable of stirring the senses (Tuan, 1975, 1974). If pleasing, people will want to continue experiencing/visiting that place (Hidalgo and Hernández, 2001). Consistent usage of a place increases familiarity and closeness to the place. Although how often one must visit a place is not specified, it must be consistent to show the need to keep close to that place (Williams & Kitchen, 2012). Knowledge of the place highlights familiarity with a place. Those who are willing to understand the place's history and current events are demonstrating a need to maintain closeness and familiarity with that place (Ujang & Zakariya, 2015). Memories, sense of community and care of the place are the result of positive bonds that are/were developed. Memories suggest that one has consistently maintained closeness and familiarity with a place over time and the memories are the result of that positive bond (Chamlee-Wright & Storr, 2009).

Developing a sense of community shows that people are maintaining closeness with a place by developing a bond with other people in the place, further increasing the meaning that the place holds (Williams & Kitchen, 2012; Chamlee-Wright & Storr, 2009). Care of

the place highlights the immense closeness and meaning the place holds to that person or group. This shows the willingness to protect and maintain the bond they have with that place (Mesch & Manor, 1998; Ujang & Zakariya, 2015). It is important to note that these indicators for a particular place are subjective and can vary from person to person. When attachment is established, people act in ways that maintain closeness and familiarity with these places to preserve their attachments (Ujang & Zakariya, 2015; Hidalgo and Hernández, 2001).

It is also understood that place attachment contributes to well-being and vice versa. A place to which someone is strongly attached can have a greater impact on their sense of well-being, while a place that provides someone a greater sense of well-being can increase their attachment to that place (Ujang & Zakariya, 2015; O'Brien & Morris, 2014; Lewicka, 2011). In this light, place attachment and a sense of well-being are two sides of the same coin, one affecting the other. Thus, it is necessary to assess participants' sense of well-being, and a group of indicators were also selected from the nature and well-being literature for this purpose. An improved sense of well-being is determined by examining indicators such as: happiness and positivity; comfort and security; and restorative factors, such as feeling relaxed, refreshed and stress-free (Ulrich, 1999; Maller et al., 2009; Kaplan, 1995; Hansmann et al., 2007; Bedimo-Rung, et al., 2005). As with place attachment, one's sense of well-being is also subjective and can vary between individuals. An improved sense of well-being is determined simply by what people think makes them feel better, particularly in the form of feeling relaxed and less stressed. Feeling happiness and positivity, comfort and security and receiving restorative benefits

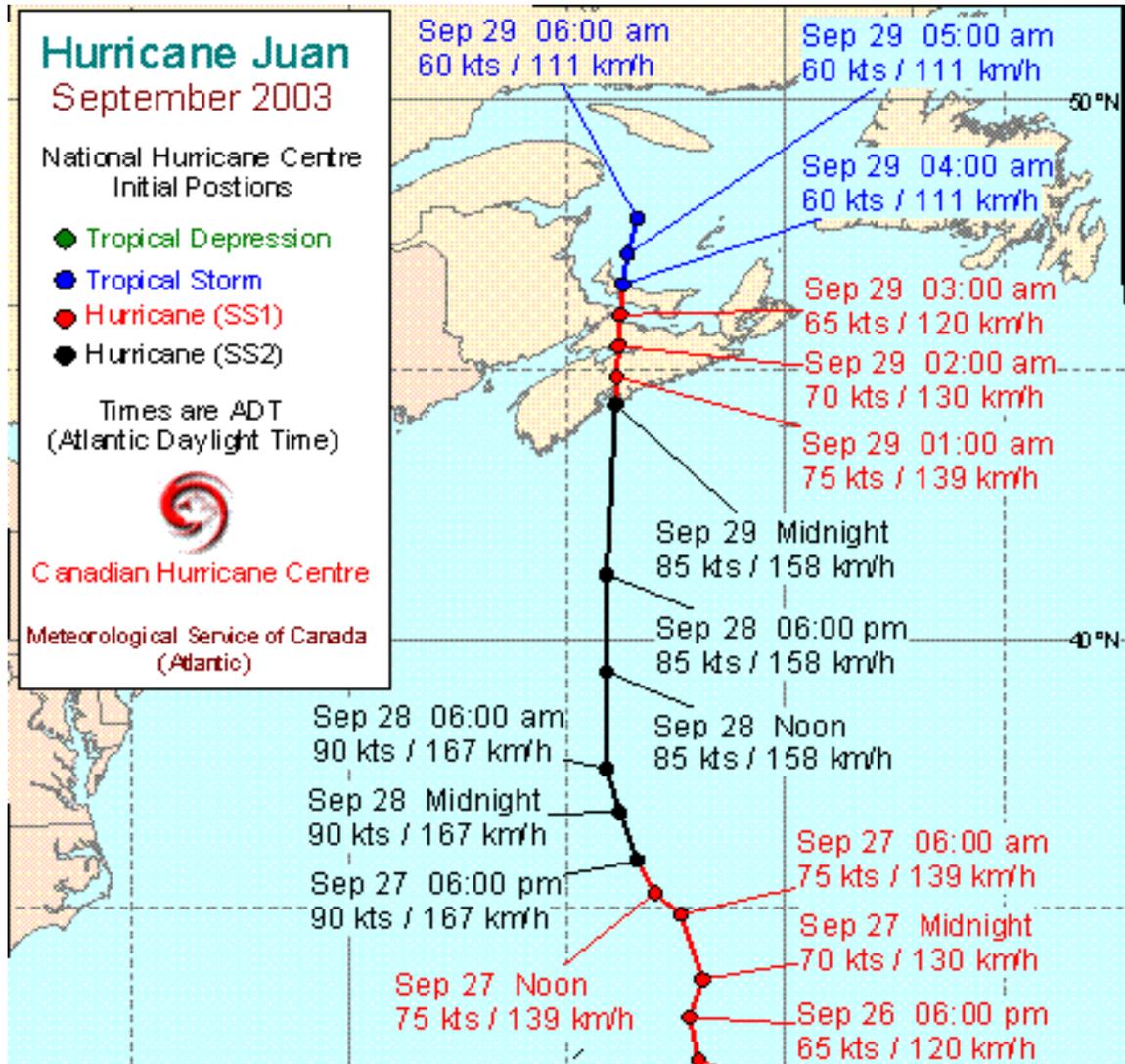
are all indicators that demonstrate well-being. In particular, these indicators show that people are feeling less stressed because they are feeling safe, secure, happy, and relaxed.

Much of the literature, as demonstrated, focuses on how a sense of well-being and place attachment is established. However, what occurs when these place attachments are impacted? How does a changing place impact a sense of well-being? The following section discusses what happened to park users after Hurricane Juan hit and on the literature that discusses what happens to well-being and place attachment after a disaster occurs.

#### 2.4 Crisis and Solastalgia

Before Hurricane Juan hit in 2003, Point Pleasant Park was already in a vulnerable state. In 1990, city officials were worried about the general health of the forest and carried out an ecological survey of the park in 1991 (Jotcham et al., 1991). The survey found that the park had very shallow soils, in part due to the constant removal of dead and damage trees. Without an opportunity to establish deep roots, the trees were vulnerable to high winds (Jotcham et al. 1991). Two other significant events further weakened the durability of Point Pleasant Park. In 1998, the Canada Food Inspection Agency discovered that hundreds of spruce trees had been damaged by an infestation of brown spruce longhorn beetles (BSLB), a non-native pest (Point Pleasant Park Comprehensive Plan). Officials removed and destroyed more than 2,000 infested trees in an effort to prevent the spread of the BSLB (Natural Resources Canada, 2007). In addition, a severe ice storm hit Nova Scotia in the spring of 2001, which resulted in 10,000 trees being damaged or completely

toppled in the park (Point Pleasant Park Comprehensive Plan, 2008). The shallow soils, the impact of the BSLB and the ice storm thus left Point Pleasant Park’s forest in a weak and vulnerable state ahead of Juan’s arrival.



**Figure 6:** Storm track of Hurricane Juan. (Image credit: Environment Canada, 2013).

Hurricane Juan hit Point Pleasant Park just after midnight on September 29<sup>th</sup>, 2003, and the category 2 storm obliterated the already weakened park (Figure 6). The eye of the hurricane was 30-40 km in diameter and traveled directly through Point Pleasant Park

and the Halifax Harbour (Environment Canada, 2013). Hurricane Juan boasted 158 km/h sustained winds, with gusts up to 185 km/h. Reports state that storm surges in the harbour, where the eastern eye wall traveled, were up to 3 metres. (Hyndman et al., 2009, 291-292). Average wave height, recorded just outside the Halifax Harbour, were measured at 9 metres, with maximum waves reaching almost 20 metres high. Rainfall amounts ranged from 25 mm – 44 mm. As a result, approximately 75% of the park's forest cover, which consisted of approximately 70,000 trees (Hyndman et al., 2009, 291-292), was destroyed. In April 2004, the World Meteorological Organization recognized the impact of Hurricane Juan on Atlantic Canada and retired the name from the list of hurricane names.

After Hurricane Juan hit, officials closed the park for 8 months to clean up the downed trees. The park was opened to the public on two occasions before the official re-opening on June 4<sup>th</sup>, 2004. The park first reopened on October 18-19<sup>th</sup>, 2003, so that park users could view the damage done along a restricted path along the coast. The park reopened again on March 28-29<sup>th</sup>, 2004, permitting park users to access the interior and view how the clean-up was going. Park users who saw the damage on October 18-19<sup>th</sup> were very distraught and their perceptions of the damage were captured by *The Chronicle Herald*, a local newspaper. Many of the visitors were described as mourning, crying, and “paying their respects” (Dorey, 2003). One user stated, “I don't even recognize it as the park anymore.” (Dooley, 2003). Upon seeing the damage, another park user said that “it's certainly hard to realize that so much damage can be done...Unbelievable, is all you can say. It's something you've got to see to believe.” (Dorey, 2003). One writer for *The*

*Chronicle Herald* stated that “Point Pleasant Park looked like a write-off” (Dooley, 2003). Some users shared that it was going to change their lifestyle: “for 17 years, we have been bringing kids here for hikes...Not anymore. Not for a long, long time.” (Dorey, 2003). Janet Kitz, who served on the Point Pleasant Park committee for many years, shared her thoughts on the damage: “there’s nothing, nothing, nothing in comparison with this...something struck that place at absolutely full force, head-on. It’s just incredible the damage in there.” (Arsenault, n.d.). Although officials had time to clean up much of the debris ahead of the March 2004 reopening, the feelings of sadness persisted for many park users who visited the park over the designated weekend. As one park user stated: “It’s sad, I can’t believe it...I didn’t expect to see it as desolate as it is...It’s just a very sad-looking sight. You can see right through.” (Dorey, 2004). Park users’ responses after witnessing the damage demonstrated a strong sense of sadness and there was a feeling of mourning for the loss of a loved one. Many users could not bear to witness their beloved park in this damaged state and, to this day, some people cannot bring themselves to visit the park again because it will never look and feel the same as it did before Juan hit (Anonymous participant, Personal Communication, 2015). This sense of loss and sadness experienced by many reflects a degrading of park users’ place attachments and their sense of well-being.

Environmental philosopher Glenn Albrecht refers to this post-disaster grieving process as solastalgia— “the pain or sickness caused by the loss or lack of solace and the sense of isolation connected to the present state of one’s home and territory.” (Albrecht, 2005). Coining the term in 2003, Albrecht defines solastalgia as the combination of solace and

nostalgia, meaning, the inability to receive place-related comfort (solace) as one's home changes. Nostalgia is a particularly important component of the concept, as it literally refers to the longing to return home; however, since it is the home environment that is changing, people develop a strong case of homesickness while still at home. (Albrecht, 2005). As discussed in his text, *'Solastalgia' A New Concept in Health and Identity* (2005), Albrecht states how the loss of, or negative change in, a home environment, such as caused by drought, mining, or gentrification, can negatively impact one's sense of place and, as a result, one's mental health. Solastalgic feelings occur because one feels that their sense of place is being undermined and that their place identity is being eroded. The lack of control that is often at play during these events leads to a sense of powerlessness about not being able to defend one's home or reverse the changes, which creates distress and impacts well-being (Albrecht, 2005). In particular, the sense of distress is intensified by the uncertainty of not knowing if the changed environment will be permanent, and what the changed environment means for one's livelihood and home. For example, a farmer who can no longer farm due to extreme drought could potentially feel a sense of powerlessness and develop a sense of distress seeing his/her crops destroyed and not knowing if he/she will ever make a living again. As a result, experiencing solastalgia can lead to mental anguish and escalate into more serious health and medical problems, such as drug abuse, physical illness and mental illness (depression, suicide) (Albrecht, 2005, 2006). This condition is important to understand, as it allows researchers to define and better describe the way in which people are affected by a changing natural environment.

As a recently developed concept, there has not yet been much focus on what happens after the solastalgia-inducing event occurs. However, in a related way, researchers in Geography and Environmental Psychology have been bringing focus to how sense of place and place attachments change when a disaster occurs. Much of this research discusses a general process by which residents' attachments are greatly impacted by the initial event of the disaster, followed by an upwelling of unity, engagement and sense of community as residents try to return to or restore their home (Chamlee-Wright & Storr, 2009; Scannell & Gifford, 2013; Silver & Grek-Martin, 2015). For some, the lingering attachment to how the place looked and felt before the destructive event means that place attachments are unlikely to be re-established regardless of how much effort was put into the restoration. As Cox & Perry (2011) discuss in relation to British Columbia communities that were impacted by wildfires in 2003, many evacuees felt a sense of disorientation and uprootedness as their homes are destroyed. Although many reorient themselves to their homes, some still feel a sense of being in a foreign environment and cannot reconnect, particularly those who lost possessions, friends, and family (Cox & Perry, 2011). This process of overcoming shock to developing a unified sense of community varies, as some people overcome the immediate shock within weeks after the event, whereas others may take months (Cox & Perry, 2011). Although a destructive event can cause an upwelling of community cohesion, it can also cause community strife, as those who lost more during the event may feel resentment toward those who lost less (Cox & Perry, 2011). In some cases, even after an upwelling of unity and support, many residents still feel dissatisfied over the slow recovery process and the fact that the place is still not the same (Chamlee-Wright & Storr, 2009; Cox & Perry, 2011; Silver & Grek-

Martin, 2015). As Chamlee-Wright and Storr note in their research on Hurricane Katrina (2009), natural disasters can have a powerful impact on place attachments for displaced residents. The authors assert that while many New Orleans residents developed fond memories of the town to which were displaced, most always considered New Orleans to be home and were committed to returning and rebuilding. In Goderich, Ontario, Canada, in 2011, an F3 tornado in 2011 devastated the community and put residents into a state of disbelief. However, an upwelling of unity occurred and residents banded together to rebuild their community (Silver & Grek-Martin, 2015).

## 2.5 Restoring Point Pleasant Park

As noted, park users were devastated when they saw the damage to their beloved Point Pleasant Park. Given the level of emotional attachment to the park and the sense of loss that park users experienced, city officials wisely solicited public input as part of an international design competition launched in 2005 in order to generate a restoration plan for Point Pleasant Park. Although there were a variety of discussions from the public regarding an opportunity to do something new and exciting with the park, such as developing the land for residential or business purposes (*The Chronicle Herald*, 2003), public input overwhelmingly demonstrated passionate support for restoring the Acadian mixed forest that existed on this site prior to the settlement of Halifax. Indeed, some 300 participants completed a questionnaire about what the park meant to them and many left a clear message: “give us back our forest” (West, 2013; Point Pleasant Park Comprehensive Plan, 2008). Some of the entries to the competition were ambitious and many park users expressed concern about what some of the submissions were proposing

to do to the park. As one park user stated: “I would be very unhappy to see some of the suggestions that have been made for the park...we have places like that. We have sports fields.” (Arsenault, n.d.). Some of the proposed plans did not reflect the urban forest that the public passionately desired. For example, a few of the entries suggested: (1) adding artificial trees (hydroforest) to collect and distribute water and create a self-contained, sustaining ecosystem; (2) compartmentalizing the park into different areas (lawn for sport activities, lawn for courts, lawn for memory, lawn for history, lawn for defense, and a great central garden) to highlight the culture and history of the park and city; and (3) adding three large amphitheatre areas and a bridge jutting out from the coast as a lookout spot/information area about the park (Entry 5, 2005; Entry 15, 2005; Entry 23, 2005).

In the end, the competition was jointly won by NIPpaysage and Ekistics Planning and largely because “neither of the winning proposals recommended radical changes to the Park; instead, both recognized the Park’s existing attributes and recommended the restoration of its former character.” (Point Pleasant Park Comprehensive Plan, 2008). The result of the design competition led to the development of the Comprehensive Plan in 2007. This plan was implemented in 2008 and covers the management of the park for the next 50 years (Point Pleasant Park Comprehensive Plan, 2008). With the help of volunteers from the park user community, 70,000 trees were planted between 2007 and 2008 (Point Pleasant Park Comprehensive Plan, 2008) and a total of 100,000 trees have been planted to date (P. Duinker, personal communication, 2016).

## 2.6 Outcomes and Gaps

This section has outlined in detail much of the literature that provides context to this study. Although many of these areas of literature have been well researched, there are two significant gaps that this research seeks to address. First, there is a gap in the solastalgia and place disaster literature. Much of this research focuses on the relatively short-term impacts (e.g. several months to 1-2 years) of a disaster to place attachments and offers little on the long-term effects. This research addresses this gap by exploring the long-term effects of park restoration and how it impacts place attachment in Point Pleasant Park over the past 12 years. Second, much of the nature and well-being and place attachment literature focuses on how well-being or place attachment comes to be established. However, what is often absent from this literature is how well-being and place attachment change after an event disrupts these established connections. This research aims to fill this gap by exploring how well-being and place attachment changed after Hurricane Juan hit and after park restoration began.

The following chapter will discuss the methodology used to answer how park users' place attachments have changed in the 12 years since Hurricane Juan hit. As I will demonstrate, 'time heals all wounds,' as long-term users appear to have overcome their solastalgic feelings and have re-established positive place attachments and a renewed sense of well-being. The details behind these findings will be fleshed out in Chapter 4.

### 3. Methodology

This research utilized a predominantly qualitative, mixed methodology in order to understand park users' place attachments. Qualitative approaches are particularly useful and methodologically appropriate when dealing with human experiences and relationships (Hay, 2000). Unlike quantitative approaches, which seek a rigorous, objective measurement in order to determine the truth or falsehood of particular predetermined hypotheses, qualitative approaches provide a more holistic approach to understanding the complex realities and processes of the human experience (Mayoux, 2006, 116-118). Additionally, qualitative approaches allow for questions and hypotheses to emerge or change as the investigation progresses, whereas quantitative approaches cannot adjust hypotheses if something unexpected occurs (Mayoux, 2006, 116-118). Thus, using a qualitative approach is useful in understanding participants' personal responses regarding their meanings and experiences at Point Pleasant Park. As a result, given that place attachment refers to the bond between a person and the environment, a qualitative approach is most appropriate in answering these research questions:

- 1) *Did long-term users experience solastalgic reactions towards Hurricane Juan's impact on Point Pleasant Park?*
- 2) *Have long-term users overcome their solastalgic reactions and re-established positive place attachments to Point Pleasant Park?*
- 3) *Are there differences between long-term and short-term users with regard to their current place attachments and their sense of well-being at Point Pleasant Park?*

### 3.1 Research techniques

Qualitative data were collected from 90 participants in the form of semi-structured interviews (11 participants) and online surveys (79 participants). As Jick (1979) and Sandelowski (2000) assert, using multiple techniques helps to cross-check the data collected which can help to validate the explanations, check for consistency of emerging themes, and provide a more complete portrayal of the issue being studied. Online surveys and semi-structured interviews were utilized, as they are particularly useful in attaining data on participants' perceptions, memories, thoughts and experiences (Winchester & Rofe, 2000; McGuirk & O'Neill, 2000; Hay, 2000). The interview questions were open-ended and semi-structured to allow participants to elaborate and follow interesting or insightful thoughts that would further enrich responses (Winchester & Rofe, 2000; Dunn, 2000; Mayoux, 2006). The online survey was mostly open-ended with the exception of two questions that were close-ended in the form of a Likert scale. As opposed to having all open-ended questions, which provide in-depth and rich data, Likert scale questions were utilized for the online survey to help complement the results and explanations from the open-ended questions (Jick, 1979; Sandelowski, 2000). For example, the question, *Is Point Pleasant Park a meaningful place to you?*, provided a scale of 1 – 5 in the online survey, with 1 being definitely no and 5 being definitely yes. Thus, quantitative data was collected from two Likert scale questions, as well as from four demographic questions.

The questions for both the online surveys and interviews were the same and asked in the same order, with the exception of the online survey including two Likert scale questions.

This ensured that the data obtained from the online surveys and interviews could be compared without invalidating the responses or interpretations made from the responses. If the questions were different, then the responses between the two techniques could not be easily compared, as the differently worded, or ordered, questions might have prompted a different kind of response. For example, asking participants to discuss their feelings upon seeing the damage after Hurricane Juan hit the park, before asking them how they currently feel about the park, may unintentionally lead them to focus on any old feelings of grief, rather than their current feelings.

Participants were recruited through online venues (discussed below) and in-person at Point Pleasant Park. Recruitment was conducted over a 5-month period from early June to early November, 2015, to coincide with maximum park usage (Point Pleasant Park, 2013). There were no demographic restrictions on who was allowed to participate, as long as potential participants were of legal age (18+) and have previously visited Point Pleasant Park. Due to the involvement of human participants, an ethics application was submitted and approved by the Saint Mary's University Research Ethics Board for the period of May 28th 2015 to May 28th 2016. All information collected through the interviews and online surveys remained anonymous and the author had sole access to the raw data. Participation was voluntary and participants could leave the interview or online survey at any time without consequence to themselves or their responses. Additionally, participants were not required to answer every question; thus some questions may vary in terms of the number of responses. Some questions were solely asked of long-term users and not of short-term users. These questions specifically asked long-term users about

their memories, experiences and perceptions of the pre-Juan park. None of the questions solicited sensitive/identifiable information from the participants (name, address, etc.), meaning that they could remain anonymous and feel more open about providing truthful answers. Interviewees were asked for their consent as well as informed of the use of an audio recorder.

The recruitment strategy included promoting the online survey and interview sessions through social media (Facebook, Twitter, Reddit), on websites/online groups (see below), on posters, through Saint Mary's University departmental email lists, in online newsletters (Nova Scotia Health Research Foundation) and in person at the park. Email lists and social media were the most useful recruitment tools as they produced the most participants. Posters were put up on utility poles in various locations at the park, in the neighborhood immediately surrounding the park, on the Saint Mary's University campus, and at various grocery stores and community bulletin boards around the city. Business cards with contact information and the online survey link were handed out to people who did not have time to stop and participate. One particularly important recruitment strategy was the use of the "snowball" technique, where people would share the survey link or contact information for an interview with their friends and family. Several online groups specifically related to Point Pleasant Park were contacted by email or in person in an attempt to have them share the survey. These groups included the Point Pleasant Park website, Shakespeare by the Sea (a theatre company that performs at the park), and a dog walking community website (dogs4PPP). Unfortunately, none of these groups responded to the request for sharing of the study invitation. The online survey provides an

alternative to the interviews for those who, for example, do not go to the park anymore, who do not go to the park as often, and/or who do not have the time to participate in an interview at the time of approach, but wished to participate at their convenience.

Information from two groups of park users, those who visited the park before Hurricane Juan hit (long-term users) and those who did not visit the park before Hurricane Juan hit (short-term users), was sought in order to determine if long-term users overcame their solastalgic feelings and re-established place attachments over the past 12 years since Hurricane Juan hit Point Pleasant Park. The two groups of users self-identified themselves by answering the survey/interview question “Did you visit Point Pleasant Park before Hurricane Juan in 2003?”. The purpose of creating two groups was to compare them in order to better assess the changes in the place attachments of long-term users. As suggested by the literature, not all people overcome feelings of grief after a disastrous event and other may take years to overcome those feelings (Silver & Grek-Martin, 2015; Cox & Perry, 2011; Chamlee-Wright & Storr, 2009). Due to the trauma caused by Hurricane Juan, some long-term users may not have overcome their solastalgic feelings or re-established positive place attachments. However, as highlighted by the literature, a degree of recovery in long-term users’ place attachments was expected, as most people eventually overcome some of the feelings of grief as they re-build their damaged place (Silver & Grek-Martin, 2015; Cox & Perry, 2011). The literature also suggests that those who did not experience the damage caused by an event, such as Hurricane Juan, would have stronger attachments, as they did not experience the trauma and resulting degradation in place attachment. Thus, it was expected that short-term

users' place attachments would be more positive and meaningful than those of long-term users who did experience the traumatic event. As a result, this research sought to discover if short-term users' place attachments were indeed stronger than long-term users' place attachments, since they had not experienced the damage, and sense of loss, caused by Hurricane Juan.

### 3.2 Data Analysis

The interviews were audio recorded and then manually transcribed on a computer using Microsoft Word. Since the responses from the online surveys were entered online, they did not need to be transcribed and participants' responses were downloaded from the program as an Excel, Word or PDF file. The program used for the online survey was Qualtrics, a free, online survey program. After the interviews were transcribed and the online survey responses downloaded, all the responses underwent a rigorous content analysis. As described by Dunn (2000) and Cope (2000), a content analysis searches for themes and/or patterns that arise from the text. This included using key words to search for implied meanings related to the identified place attachment indicators. For example, a response such as, "I would miss the park if I could never visit it again" implies care toward the park.

As described earlier, Geography offers a place-based approach to qualitative research, which aims to explore the experiences people have with particular places and how their interactions with and perceptions of places impact the meanings that they attach to places (Cresswell, 2009; Ujang & Zakariya, 2015; Tuan, 1975, Entrikin, 1976; Scannell and

Gifford, 2010). Since the purpose of this research is to determine whether long-term users overcame their solastalgic feelings and re-established positive place attachments, this research utilizes a place-based approach. As a reminder, a variety of place attachment indicators have been examined, including: positive place perceptions and thoughts; consistent usage of the place; knowledge of the place; memories of the place; a sense of community linked through the place; and care for the place (Lewicka, 2011; Hidalgo and Hernández, 2001; Cresswell, 2004. See also, Kaplan, 1979; Lewicka, 2005; Hayden, 1995; Hay, 1998). An improved sense of well-being has also been determined by examining indicators such as happiness and positivity, comfort and security, and restorative factors such as feeling relaxed, refreshed and stress-free (Ulrich, 1999; Maller et al., 2009; Kaplan, 1995; Hansmann et al., 2007; Bedimo-Rung, et al., 2005).

A series of survey and interview questions, informed by the literature, were designed to collect information regarding participants' solastalgic reactions, place attachments, and sense of well-being. Questions 17 – 22 (see Appendix B) asked participants about their memories of the park before the hurricane, their thoughts and emotions on the damage, how they currently feel about the park compared to before the hurricane hit and how they feel about the restoration. Here, the focus was on determining if participants experienced solastalgic feelings, and if they currently feel positively or negatively toward how the park has changed since Juan. In terms of positive perceptions and thoughts, questions 10 and 14 (see Appendix B) asked participants about their general feelings about the park and what they think about the design of the park, respectively. Question 7 (see Appendix B) focused on consistent usage, as it discussed how frequently a participant visits the

park. Knowledge of the park and memories are determined throughout all of the questions. For example, in question 10, participants' responses related to the history of the park, the impact of Juan, and memories with their families. Question 11 (see Appendix B) specifically aimed to determine a sense of community by asking participants about their relationship with other park users. Question 12 (see Appendix B), specifically aimed to assess whether participants care for the park by asking them how they may feel if they could never visit the park again. Questions 24, 26 and 27 (see Appendix B) aimed to determine whether participants derived a positive sense of well-being from the park. Specifically, question 24 aimed to determine if participants felt comfortable when they interacted with others at the park. Happiness and positivity, as well as restorative factors, were, in part, assessed through question 26 and 27, which discussed how participants felt when they entered and left the park, respectively.

The themes that were sought in participants' responses were informed by the literature review (Lewicka, 2011; Hidalgo and Hernández, 2001; Cresswell, 2004; Ujang & Zakariya, 2015; Williams & Kitchen, 2012; Maller et al., 2009; Kaplan, 1995; Hansmann et al., 2007; Bedimo-Rung, et al., 2005). These themes relate to participants' positive place perceptions and thoughts; consistent usage of the place; knowledge of the place; memories of the place; a sense of community linked through the place; and care for the place, as well as their sense of happiness and positivity, sense of comfort and security, and sense of feeling relaxed, refreshed and stress-free. For example, responses such as, "the park is a beautiful place" and "I love the park" illustrate positive place perceptions and thoughts toward the park.

The responses from both the online surveys and the interviews were analyzed by question (27 questions in total), as each question asked for specific information regarding place attachment and their sense of well-being. Since the interviews and online surveys used the same questions and question structure, there was no need to separate the online survey responses from the interview responses. Significantly, the responses from both the online surveys and the interviews resulted in similar themes, thus validating the reasoning behind not separating the responses. For example, responses relating to how the park is a beautiful place was mentioned in both the interviews and online surveys. The analysis was conducted manually, without the assistance of a software program, and the themes were kept in a Microsoft Excel file. The analysis was conducted manually as to better determine subtle meanings in the text that software may not be able to capture.

It is important to note that this study is not attempting to draw any sort of representational conclusions regarding the feelings of the entire park user community. Thus, any conclusions made from the results of this study relate specifically to the participants, and not the entire park user community or the people of Halifax. As a case study, the conclusions found relate specifically to Point Pleasant Park. However, some of the themes and patterns that arose out of the analysis may also be relevant to sites that are similar to Point Pleasant Park, particularly in terms of how park users, in many contexts, derive meaning from these carefully-crafted natural environments. For example, see Kheraj's (2013) exploration of Stanley Park in Vancouver, a similar case study that

addresses the damage caused by a powerful windstorm in December, 2006. Thus, some of the findings may be relatable to similar sites under similar circumstances.

### 3.3 Lessons Learned

Although this research had much success in attaining meaningful responses, some challenges arose. The greatest challenge was the design of the questions. At the outset of the study, conducting interviews was the main technique targeted and online surveys were included in order to reach a broader audience. Interviews were expected to capture a couple dozen participants, however, this was not the case and the inclusion of the online surveys proved more valuable than initially expected. Although in person recruitment was conducted at the park, no formal interviews were conducted at the park (although some park users briefly talked informally). All interviews were conducted later off site, and this was due, in large part, to how many questions the interview contained. The 27-question script was far too long to conduct with park users who were in the middle of their routine. Some park users specifically stated that they were there just to enjoy their routine and would not want to participate in an interview, let alone an hour long interview. Thus, developing a smaller question set for quick, 5-minute interviews would likely yield a greater participant pool when used in a setting where people are there for a specific, and often brief period of time. However, it is important to keep in mind that the smaller, quick question script may sacrifice the ability to obtain in-depth responses that usually take longer for participants to articulate.

Unfortunately, this study did not reach all of the possible long-term users (such a feat was unlikely anyway), specifically those who no longer visit the park because of the impact of Hurricane Juan. Responses from these users would have helped this study to attain a more complete analysis of long-term users' place attachments, compared to solely having participants who continued to visit the park. However, the focus of this study is on the re-establishment of park users' place attachments. Thus, recruiting users who no longer visit the park is less beneficial in analyzing the re-establishment of place attachments compared to those long-term users who did return to the park.

Since the interviews and online surveys were anonymous, it is impossible to know if a park user participated in both the online survey and in an interview or participated in more than one online survey. This may be an issue because this could make some themes seem more prominent among participants when it is the response of one individual and may not be shared by others or the majority. However, it is assumed that all the responses are unique for two reasons. First, upon analyzing the responses, no two responses are exactly the same. Second, the interviews allowed for prodding and following trains of thought that participants may not have provided on their own. Thus, if a respondent participated in both the online survey and in an interview, their responses would have been discussed in more detail, potentially giving their responses more depth and making them different from their online survey responses. Additionally, the online survey could not be completed twice from the same computer, as Qualtrics retained the IP address of the computer (solely for location purposes and not to retain personal information) and

would inform participants that they completed the survey and now allow additional attempts.

This study also acknowledges the potential demographic bias in the recruitment strategy. The use of online venues, such as Facebook, Twitter, and e-mail, limited the extent of the recruitment to those with internet access. Additionally, although the online posts for the survey were made public, those listed as “friends” and “followers” would likely be the only ones to see the post and the e-mail was only sent out to the current Saint Mary’s University student and faculty community. However, the usage of posters around grocery stores and the park, and the use of the snowball technique, provided opportunity for others to take part in the study. It is important to note that although this study recognizes this potential bias, the gender and age distribution of participants in this study reflect the much larger 2013 Point Pleasant Park user survey - a report conducted by the Point Pleasant Park Advisory Committee to determine any major policy concerns among park users (Point Pleasant Park – Park Survey Solutions, 2015). It is important to note that the 2013 Point Pleasant Park user survey focused on addressing day-to-day issues, such as off-leash dog policies, at the park, and did not specifically address the issues of how people feel about the restoration of the park, how the current park compares to the pre-Juan park, and how any changes in park users place attachments impact their experiences.

As a Haligonian, I believe I add value to this research by being a local resident. As a local, this may lead to a bias of how I interpret the data and the conclusions that are made, such as to potentially better represent my home community. However, I firmly

believe that being a local resident gives me a connection to the park that can aid in understanding participants' feelings toward and relationship with the park. An "outsider" may not be familiar with how important Point Pleasant Park is to people in this city and may misinterpret meanings that someone who is familiar with local things may not, such as the importance of Shakespeare by the Sea or the container port. Despite some challenges accompanying this research, this study obtained 90 participants and hundreds of pages of meaningful responses. Thus, the findings, discussions, and conclusions in the following chapter are based on sufficient data regarding participants' place attachments.

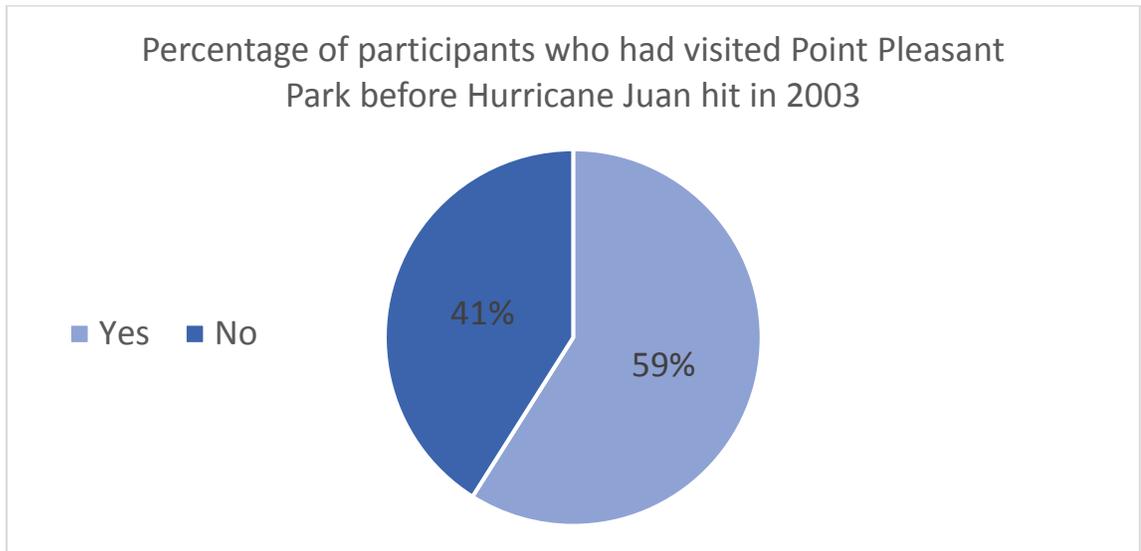
## 4. Findings and Discussion

The aim of this research was to assess the changes in long-term users' place attachments over the 12 years since the impact of Hurricane Juan. This research posed the following research questions: 1) *Do long-term users recall experiencing solastalgic reactions towards Hurricane Juan's impact on Point Pleasant Park?*; 2) *Have long-term users overcome their solastalgic reactions and re-established positive place attachments to Point Pleasant Park?*; 3) *Are there differences between long-term and short-term users with regard to their current place attachments and their sense of well-being at Point Pleasant Park?* This section answers these questions by presenting and analyzing the themes that arose out of the interviews and online surveys. These themes reflect participants' attachment to, and sense of well-being at, the park. As a reminder, the place attachment indicators that this study examined include: positive place perceptions and thoughts; consistent usage of the place; knowledge of the place; memories of the place; a sense of community linked through the place; and care for the place. The well-being indicators this study examined include: happiness and positivity, comfort and security, and restorative factors, such as feeling relaxed, refreshed and stress-free. This chapter will first present a demographic profile of the participants, followed by a discussion of the results that answer the three research questions.

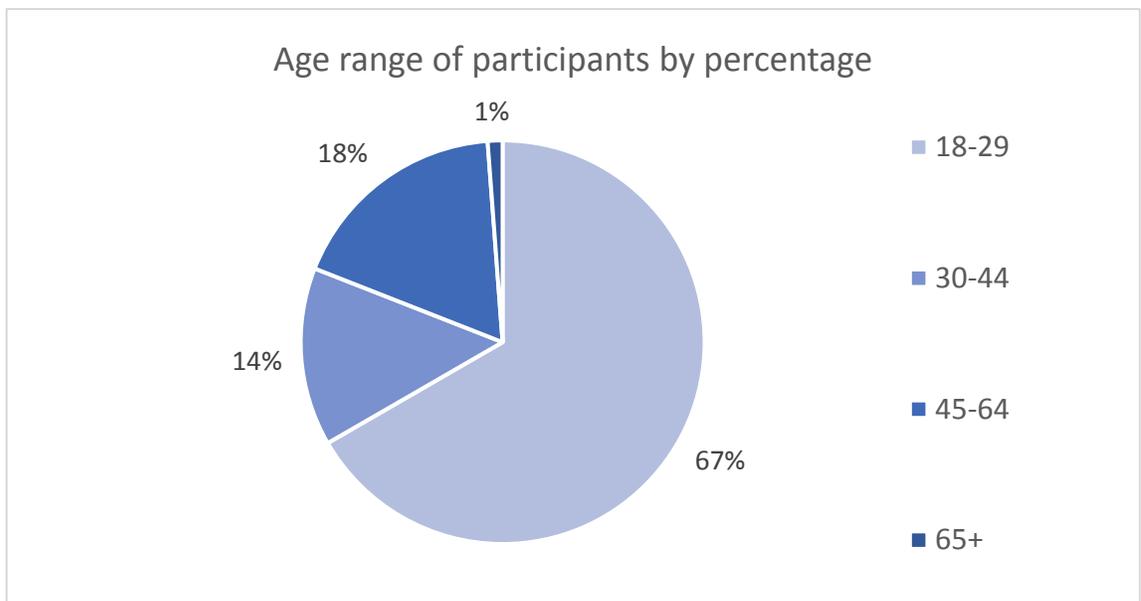
### 4.1 Profile and Demographics

In total, 90 participants took part in this study in the form of 11 interviews and 79 surveys. Figure 7 shows the percentage of participants who are long-term park users,

defined as those who visited the park before Hurricane Juan hit, and short-term park users, defined as those who had never visited the park before Hurricane Juan hit. Nearly 3/5 (59%) of participants identified themselves as long-term users, having visited the park before the impact of Hurricane Juan.

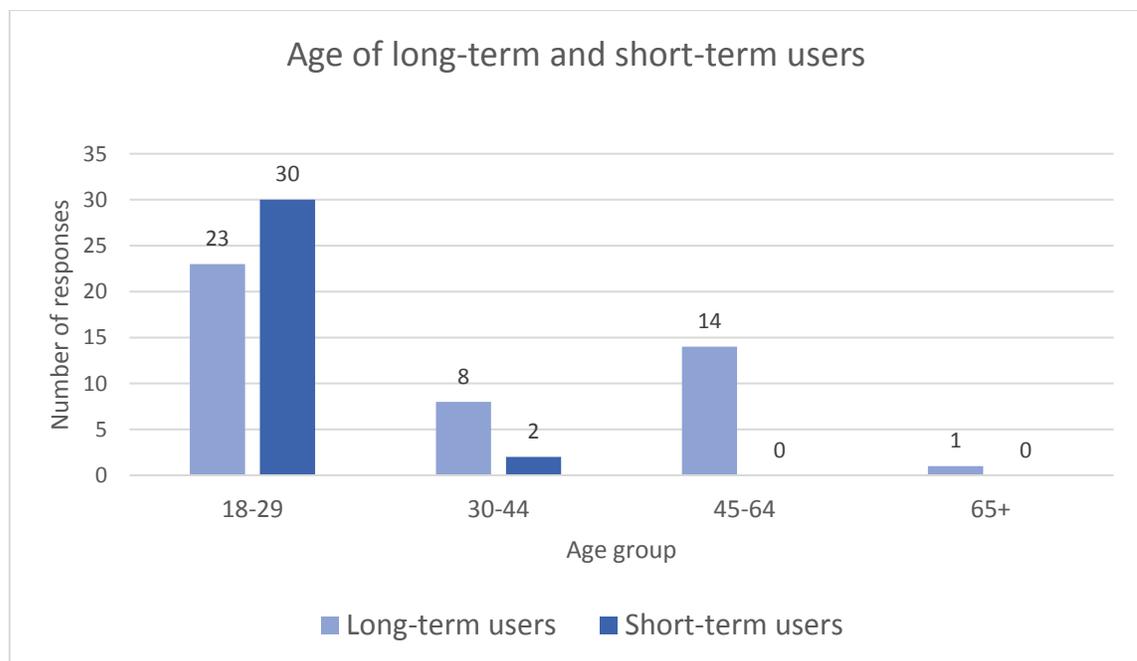


**Figure 7:** Percentage of participants who had visited and who had not visited Point Pleasant Park before Hurricane Juan hit in 2003 (See Question 16 in Appendix B).



**Figure 8:** Age range of participants by percentage (see Question 3 in Appendix B).

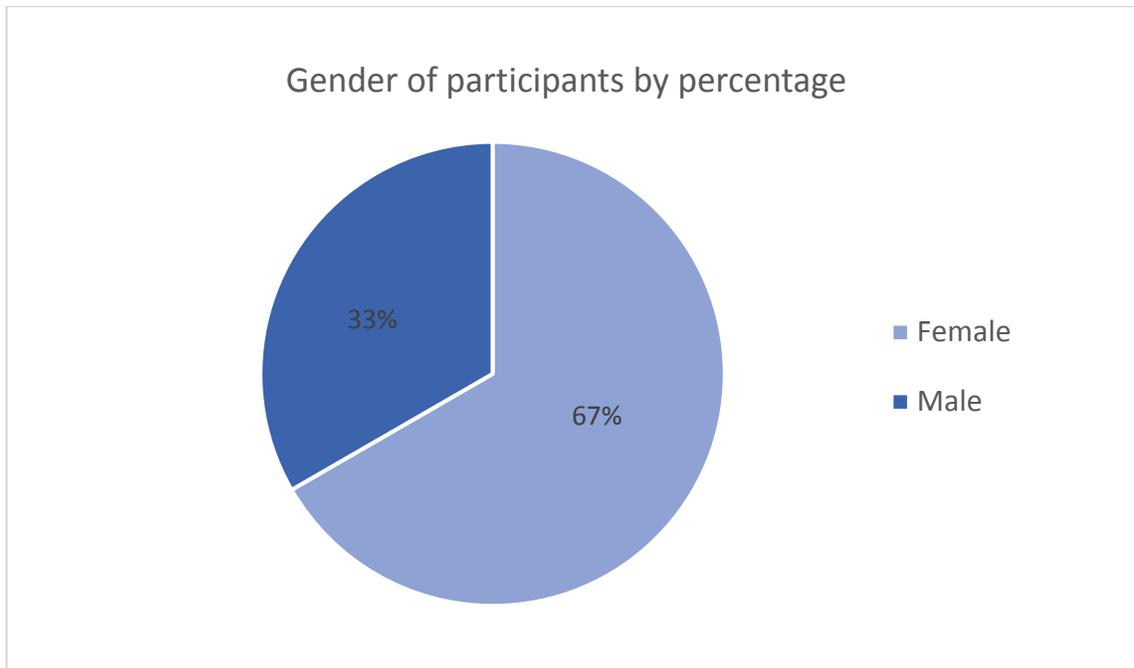
Figure 8 presents the age distribution (the age ranges chosen were adapted from Williams and Kitchen (2012) who also conducted a study on place) of the entire participant pool, which reveals that 2/3 of participants were aged 18-29. Figure 9 shows the age distribution of both long-term and short-term users. The ages of long-term users are more evenly distributed compared to short-term users, who fall mostly into the 18-29 age group. The 18-29 category is the most populated category for both groups.



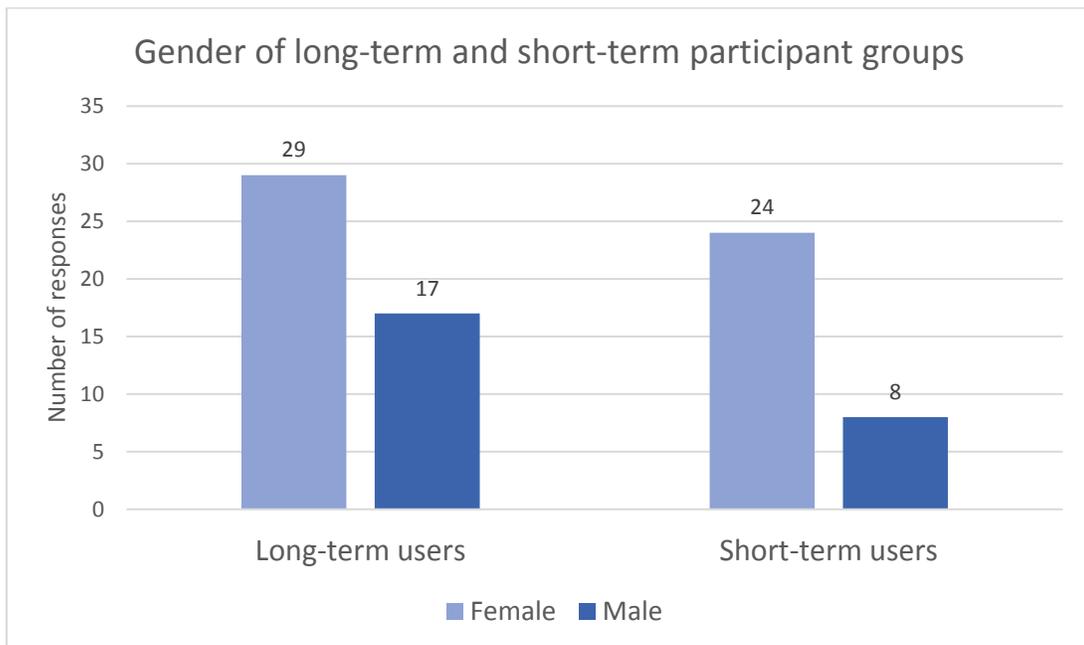
**Figure 9:** Number of long-term and short-term users per age group. (See Question 3 in Appendix B).

Figure 10 presents the gender distribution of the participants which reveals that female participants outnumbered their male counterparts two to one. Females are also the largest gender demographic in both the long-term and short-term groups (see Figure 11), with

the gender distribution among long-term users standing at 63% female, compared with 75% female among short-term users.

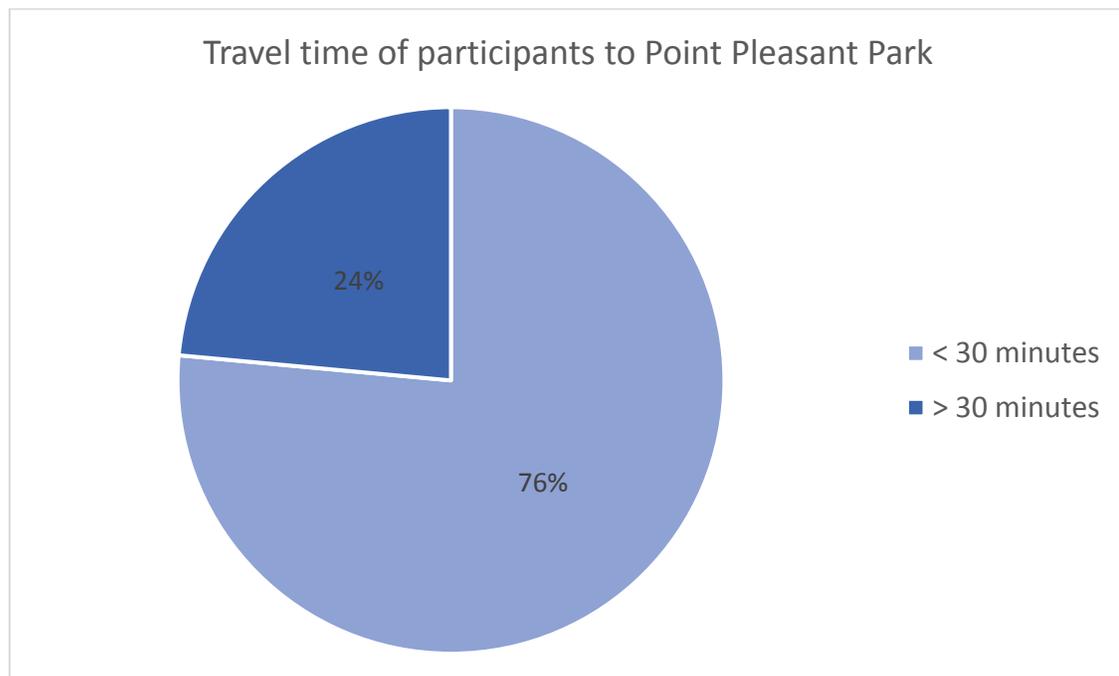


**Figure 10:** Gender of participants by percentage (See Question 4 in Appendix B).

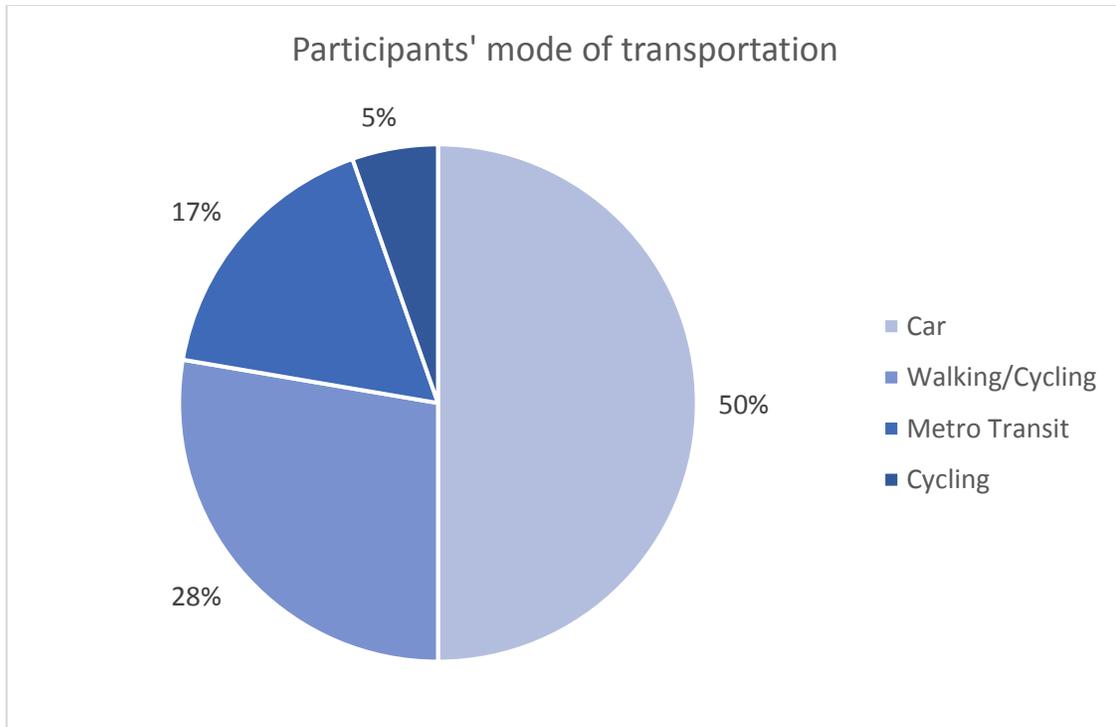


**Figure 11:** Gender of long-term and short-term participant groups (See Question 4 in Appendix B).

A sizeable majority of participants (76%) reported that they take 30 minutes or less to travel to the park, while it takes 24% of participants more than 30 minutes to reach Point Pleasant Park (see Figure 12). Personal experience in travelling to the park suggests that the majority of participants travel to Point Pleasant Park from the Halifax peninsula or from the immediate surrounding communities. The majority of participants stated that they primarily travel from home, while several participants stated that they visit the park from other places, such as from work or school. Figure 13 presents the modes of transportation park users utilize to travel to the park. Many participants stated that they use multiple modes of transportation to get to the park, such as walking and busing. Other stated that their mode of transportation varies depending on where they are coming from, such as driving from home and walking from work.



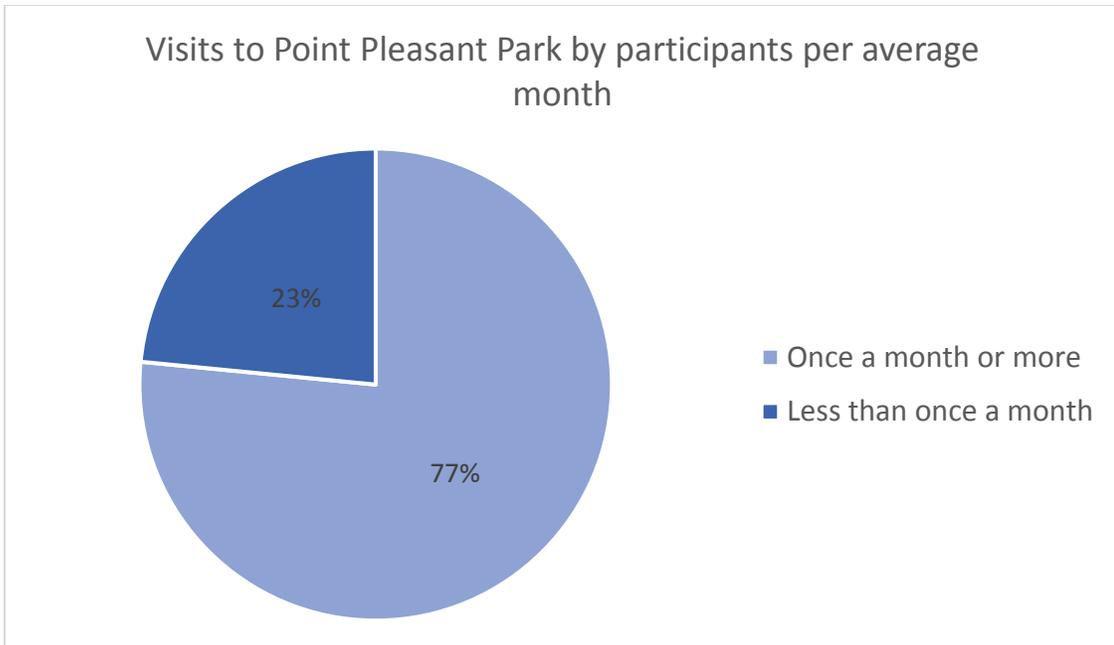
**Figure 12:** Travel time, by percentage, of participants to Point Pleasant Park (See Question 5 in Appendix B).



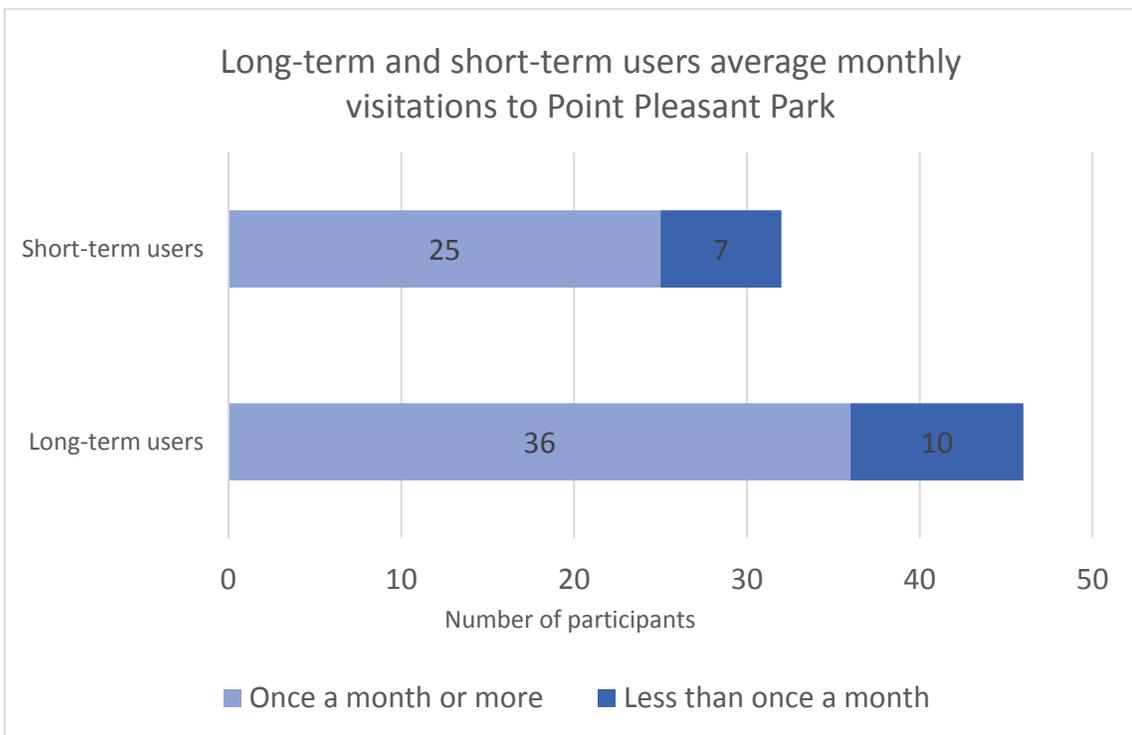
**Figure 13:** Mode of transportation used by participants to Point Pleasant Park by percentage (See Question 6 in Appendix B).

Figure 14 highlights how often participants use the park on an average monthly basis.

The majority of participants (77%) visit the park once a month or more, while 23% of participants visit the park less than once a month. A number of participants also discussed that they use the park more in the summer, which is expected, and correlates to the responses from the 2013 Point Pleasant Park user survey. This is meaningful in that you need to consistently visit/use a place to establish place attachment (Ujang & Zakariya, 2015; Williams and Kitchen, 2012). Although the specific time-frame of visiting a place and establishing an attachment is different for each place and person (varying from days to months), much of the literature indicates that more frequent visits are more indicative of stronger attachments than less frequent visits (Lewicka, 2011).

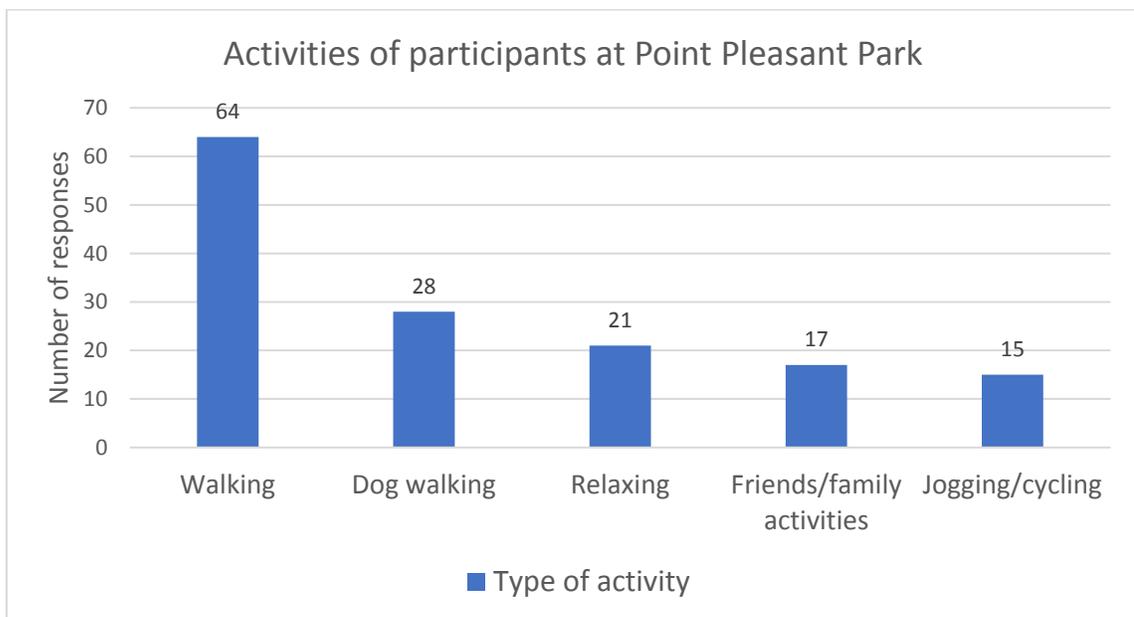


**Figure 14:** Percentage of participants who visit Point Pleasant Park less than once a month or once a month or more (See Question 7 in Appendix B).



**Figure 15:** Number of short-term and long-term users who visit Point Pleasant Park less than once a month and once a month or more. (See Question 7 in Appendix B).

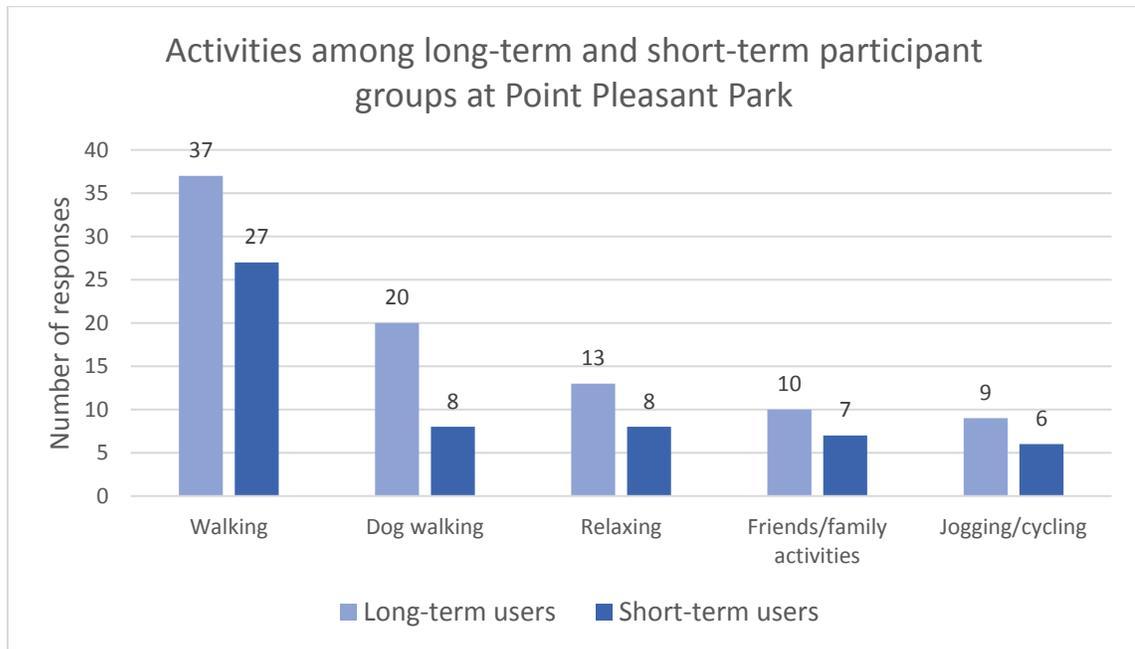
Figure 15 explores the differences between long-term and short-term users' average monthly visits to Point Pleasant Park. The majority of participants for both the long-term and short-term groups use the park, on average, once a month or more. Furthermore, the ratio between the two groups is nearly identical, as about 78% of participants from both groups visit the park, on average, once a month or more.



**Figure 16:** The activities of participants at Point Pleasant Park, based on the most frequently mentioned activity (See Question 8 in Appendix B).

Figure 16 presents the activities of participants at the park. The top five activities indicated by participants include: walking, dog walking, relaxing, engaging in a family/friend activity, and jogging/cycling. Other notable activities mentioned by participants included taking part in community events, such as Shakespeare by the Sea (a theatre troop that performs at the park) and youth sports events (running races); enjoying

the views; reading; photography; and using the park as a place to escape the city and connect to nature.



**Figure 17:** The activities of both long-term and short-term participant groups at Point Pleasant Park, based on the most frequently mentioned activity (See Question 8 in Appendix B).

Figure 17 compares the activities of both long-term and short-term users while visiting Point Pleasant Park, based on each groups top 5 mentioned activities. The top mentioned activities among both groups are the same, and are in the same order in regards to how often that activity was mentioned.

Overall, the demographics between the two groups are similar in terms of their gender, frequency of visiting the park and in the activities they do at the park. The main, notable difference between the two groups is that short-term users are a younger group overall.

## 4.2 Long-Term Users, Hurricane Juan and Solastalgia

The impact of Hurricane Juan was a devastating event for many park users. As illustrated in Chapter 2, many users were distraught over the damage caused to Point Pleasant Park, developing feelings of solastalgia as their place attachments degraded. This section examines long-term users' attachments to the park before Hurricane Juan hit, how their attachments were impacted immediately after Hurricane Juan, including whether they developed solastalgic feelings, and if they have overcome their solastalgic feelings since Hurricane Juan hit, based on their survey and interview responses. It is important to know if these participants experienced solastalgic feelings for two reasons: 1) to verify if the feelings of solastalgia were as widespread as accounts of the time implied; and 2) to gauge if long-term users have overcome any solastalgic feelings over the last 12 years.

### 4.2.1 Pre-Juan Place Attachment

Long-term users described Point Pleasant Park as being a much greener and more densely-forested place before Hurricane Juan hit. To many, the park was a very beautiful, peaceful environment. The most prevalent theme is that participants remembered bigger and fuller trees to the point of feeling like they were in a vast forest (see Question 17 in Appendix B). As stated by one participant, “[you] couldn't see the ocean, so it felt like you were walking in the woods.” Another stated that “there was much denser forestry. More of a feeling of being with nature.” Long-term users also described the beauty, richness, and lushness of the pre-Juan park: “I moved here in the summer of 2002 and was so in love with the park! I was so happy to have such a beautiful place to go that was

so close to home.” Participants also discussed how, before the hurricane hit, there was a greater sense of peace, much more shade, and a feeling of being able to feel alone. As one participant noted, there were more mature trees, which made the park “much quieter [and] you could hear less traffic and container terminal noise.” Another notable theme shared by long-term users were their family memories at the park: “[You could feel] peace. A place that we went every day to walk the dogs and play in the trees. Kids running through the trees. Riding down the paths after my youngest learned to ride his bike. Catching frogs in the pond and looking for the snapping turtle. Sitting on a bench and eating ice cream with my children.” The memories that long-term users shared reflect a very positive relationship that many had with the park and the strong attachments that were established. However, many of the aspects of Point Pleasant Park that gave rise to participants’ place attachments all changed when Hurricane Juan hit.

#### 4.2.2 Hurricane Juan and Solastalgia

When long-term users first returned to the park after the hurricane hit, many were in complete shock and despair over what they were witnessing (see Questions 18 and 19 in Appendix B). Participants described the damage done to the trees of the park and noted that, everywhere they looked, they saw fallen trees either blocking paths or on the side. As one participant noted: “I was struck by the impact those trees had, which I had always taken for granted while they were there.” About one third of the participants described the damage as “devastating” and marked “the destruction” of Point Pleasant Park. Many participants noted that the park looked bare and more open because of all the fallen trees and vegetation stripped away: “a lot of trees were down. Where there were once huge

trees with a massive canopy cover there were now bare trees and a straight view to the sky. Some places were hit harder than others. It was super sad.”

As participants recall viewing the immense damage the park sustained, many shared the emotions they felt during that first visit back: “It was really sad, tearful with all the trees down and when they were removed it was so bare looking.” Another participant stated, “it was shocking. Compared to the rich, vibrant, grand woods of the early 2000s, Point Pleasant Park looked as though nature had intentionally decimated all its richness and vibrancy and left a barely living field in its place.” Another participant went beyond the sadness felt toward the damage and described the atmosphere that was felt on that day: “Heartbreaking. The innumerable cars driving slowly conveyed the atmosphere of a funeral.” The feelings of sadness were also reflected in how participants envisioned using the park once it reopened. For some participants, the damage was too much for people to return to the park after it re-opened. As one participant noted, “I didn't go back for a while. I didn't really want to see the impact.”

As these feelings of sadness convey, many participants experienced pain and a degradation in their place attachments to Point Pleasant Park after the impact of Hurricane Juan. Research Question 1 asked *Do long-term users recall experiencing solastalgic reactions towards Hurricane Juan's impact on Point Pleasant Park?* These findings indicate that, yes, the majority (83%) of long-term users surveyed or interviewed did experience solastalgic reactions to the impact of Hurricane Juan, as is evident from their expressions of loss. This finding is important, as it substantiates the widespread

feelings of grief that accounts of the time conveyed, and allows this study to next determine if long-term users have overcome these solastalgic feelings and re-established positive place attachments.

#### 4.2.3 Place Attachment after Hurricane Juan

Although many participants felt sadness over the damages to the park, a few participants described some positive outcomes from the event. One silver lining is reflected by the fact that, for a majority of long-term users, the impact of the hurricane did not change their use of the park (see Question 20 in Appendix B). Many of the respondents described how, even though the look of the park had changed, the way they used the park (such as running, walking, dog walking, etc.), had not: “I visit no more and no less often, and my reasons for visiting the park (an occasional walk and to relax) have not changed.”

Another participant stated, “I use the park to walk in and socialize, and the destruction of trees didn't change that.” Approximately 75% of the participants stated that the impact of the hurricane did not stop them from going and that they went as they previously had: “I still will visit on a monthly or more basis. I was determined that I would continue visiting the park to spite Juan and I feel that a lot of others do the same thing.” This excerpt is particularly interesting as it highlights the emotional attachment this participant, and possibly others, have with the park. The participant's desire to keep visiting the park to spite the hurricane, demonstrates the bond he/she has with the park and their passion to keep the park as a meaningful part of their lives.

Although the environment that participants had established meaningful attachments with was damaged and different, participants still returned to the park to meet the needs that the park had always provided. Meeting one's needs at a particular place serves a role in (re)establishing place attachments (Mesch & Manor, 1998; Ujang & Zakariya, 2015). Thus, long-term users who rely on the park to meet their needs, even if it is solely to walk the dog, will more likely re-establish place attachments because visiting the park is important in fulfilling a particular need, regardless of the degraded present conditions or compromised prior place attachments. This relationship may also relate to participants' place dependency-that is, how well a particular place meets one's needs. Some participants may have been more dependent on Point Pleasant Park if the park was their place to be active, to get a dose of nature, or to walk a dog. When the park was closed, they had to meet their needs elsewhere, thus decreasing their place dependency on Point Pleasant Park. However, when the park re-opened, many users likely returned to the park to meet those needs, as well as to return to the place that held such meaning to them. This may suggest that a utilitarian relationship with the park was one of the biggest factors in re-establishing place attachments for many long-term users.

Yet, many of the responses from long-term users highlighted a deeper relationship with Point Pleasant Park beyond just meeting their needs. Several long-term users specifically described their feelings towards the park as "love". One response encapsulates the general feelings of long-term users: "I still love it. It may be different, and a few trees less but that's okay. Most of those high canopies are growing back, the Tower Road entrance still looks the same. I'll continue to use the park, not just because it's beautiful

but because it's important to me and many others." Other long-term users mentioned that they ended up visiting the park more because of the change to the park. Some did so because they enjoyed seeing the growth of the newly-planted trees, the views that have appeared because of the felled trees, and the openness/sunlight that has appeared because of reduced canopy coverage and tree density. One participant stated that "a park is not a static thing. Change is part of what makes it great." Another felt that, "the park was still a nice place to go for a walk and new views could be explored." Another participant also commented on the views and how it added a new element to the park once the feelings of sadness passed: "It was hard to see so many of the beautiful old trees knocked down. But at the same time, there were so many more beautiful views of the ocean." One participant, described the gratitude they have towards the park: "[I felt] sadness and thankfulness. So many trees were gone. It looked like a bomb went off but if the park had not been there to take the brunt of the storm then my house, which was less than a block away, might not have been standing at the end of the storm." Another participant felt that the damage helped them to better understand the history of the park and the way the military saw it many years ago: "I was shocked and sad about the trees but then after a while, if you thought back to when the park was used by the military to protect Halifax, it could have looked like that which could also [give] an idea of the past." Thus, while many participants experienced solastalgic feelings, many also saw silver linings in how the park can change and continue to be meaningful to them in the years to come.

The surviving features of the park may have helped to prevent the loss of the underlying love that long-term users had with the park. While the impact of the hurricane destroyed

75% of the forest cover, clusters of trees along the Northwest Arm shoreline and in the middle of the park survived. A few participants discussed how the damage did not change their feelings toward the park. Thus, the surviving patches of forest continued to serve as a place where people could escape to nature, and underscored how Point Pleasant Park still offered accessible nature to users. Additionally, if the park's forest was completely destroyed, there would have been less of a visible reminder to pull on participants' emotions. Since dense clusters of the park's trees survived, park users may have been reminded of how the park felt before the Juan. Thus, the deeper love that helped long-term users retain strong place attachments appeared to have remained intact because there were remnants of the park that survived the impact of Juan.

The good news for park administrators is that many long-term users feel that the park's restoration has been successful (see Question 22 in Appendix B). About half of the participants specifically stated that park management has done a good job. As one participant discusses: "Forests don't grow back quickly, but the effort put into the park have allowed people to visit and they continue to use it." Another participant states, "the park is one of our treasures and I'm glad work is being done to keep her strong and healthy." One participant even linked the restoration of Point Pleasant Park to the health of the city as a whole: "it is important to preserve and take care of this park. Halifax wouldn't be the same without it." These responses are important, as they validate the decision of park officials to seek public input and to pursue a plan that aimed to restore an urban wilderness. This brought back the style of park that the public wanted, potentially resulting in the positive feelings, expressed by these participants, years later.

The responses presented here suggest that, for many long-term users, ‘time heals all wounds.’ Although the look and feel of the park drastically changed after the impact of the hurricane, and the majority of participants were sad about this change, most continued to use the park as they previously had once the park was safely re-opened by officials. This is an important point, as it shows that participants are still remembering the pre-Juan park, but are not necessarily, or at least are no longer, dwelling on and mourning over the changes to the park to the point of avoiding it. In fact, it appears that the majority of participants have “moved on” and now feel somewhat positive about the changes to the park. Some participants described moving on immediately when the park re-opened on June 4<sup>th</sup>, as they were able to visit their beloved park once again. Others, however, needed more time to slowly get used to the new park as they kept visiting. This is substantiated by the results of the 2013 park user survey, which stated that usage of the park declined after the impact of Hurricane Juan, but has increased over time. The survey also found that the majority of participants in 2012 (when the data was collected) used the park as often as, or more than, they had in previous years (Point Pleasant Park – Park Survey Solutions, 2015). It is important to note that, although the 1999 park user survey did include data on the number of park users, the 2013 survey did not, thus, there is no readily available information on any change in the number of park users pre-Juan to 2013, except for the above finding. Furthermore, many participants describe how they still ‘love’ the park and are happy with the restoration, regardless of the differences between the current park and the pre-Juan park.

The fact that the majority of long-term users' usage of the park did not change is also substantial because of the apparent utilitarian relationship with the park. As mentioned above, park users being able to meet their needs at the park, due to the park's reopening, may be a meaningful, contributing factor in the re-establishment of their place attachments. Although this may suggest that usage is more important than the passing of time, given that usage is an indicator of place attachment, it is likely a mix of usage and time responsible for the re-establishment of long-term users' place attachments. Long-term users 'get through the front door' by being able to use the park again, and slowly, as indicated by participants' responses, feel more positive about the changes to the park. Research Question 2 asked: *Have long-term users overcome their solastalgic reactions and re-established positive place attachments to Point Pleasant Park?* As illustrated above, the answer is yes: the majority of long-term users have overcome their solastalgic reactions and re-established positive place attachments to Point Pleasant Park. This finding is significant, as it demonstrates that many people will eventually overcome feelings of grief, especially if they are able to use that place, and re-establish positive place attachments over the long term. Additionally, this finding demonstrates that, given enough time to rebuild the environment and/or get used to the changed environment, people may develop a newfound appreciation for the place.

#### 4.3 Current Attachment to Point Pleasant Park

The third and final Research Question asked: *Are there differences between long-term and short-term users with regard to their current place attachments and their sense of well-being at Point Pleasant Park?* To answer this question effectively, this section

discusses the current place attachments, as well as sense of well-being, of all participants (both long-term and short-term users) and then analyze the differences between the two groups at the end. This section analyzes participants' place attachments and sense of well-being, by referencing the aforementioned place attachment and sense of well-being indicators. This analysis is important because it explores whether the traumatic experience of Hurricane Juan prevents long-term users from enjoying the same degree of positive place attachments as short-term users, who have never experienced the traumatic event.

Positive perceptions and thoughts are one of the indicators of place attachment and the majority of participants have positive perceptions and feelings towards Point Pleasant Park. The most commonly discussed theme is that they like and enjoy the park, with many participants specifically using the word "love." Participants also feel positive toward Point Pleasant Park because it is a meaningful green space in the city. As one noted, "the park is an invaluable asset and an important environmental balance in the urban area of Halifax. It provides all visitors with a lovely respite from the busyness of everyday life and a strategic view of the harbour entrance." Additionally, the sense of escape from the city that Point Pleasant Park provides also contribute to participants' positive perceptions of the park. As one participant states, "I like the park. It feels like an escape from the hustle and bustle of downtown. It's quiet, very green. It just feels relaxing and calm." Another participant states, "I think it's great. When I first moved to the city I was overwhelmed by all the concrete and when I went to Point Pleasant Park, which was a walk/run/bike ride away, that sense of being overwhelmed by the city

dissipated.” Furthermore, participants also describe the park as a meaningful place due to the park being a large natural space which has been consistently cared for and managed, and that the park is a very beautiful, aesthetically pleasing place: “It has beautiful scenery, a community environment, and open spaces; overall I feel that it is a place to get outside and enjoy yourself without having to travel far.”

The variety of environments and activities that the park provides was an important factor in why many participants like Point Pleasant Park. Participants mentioned that they go to the park for a wide range of activities, such as enjoying the forest, wondering the shoreline, exploring sites of history and culture, walking the dog, running, cycling, reading, socializing, and learning. One participant highlighted the diversity of activities the park provides: “It is very functional. You have a variety of different trails that have different difficulty levels. The rim trail is very accessible for those who are not as able-bodied. Some areas are off-leash dog friendly, which is nice, and I understand the point of having no dog zones for those who are not as comfortable. I enjoy the historical aspects as well, the old fortress foundations and the information signs that go with them provide information. The lawn area can also provide a lot of function to park goers.”

Another participant added that the park is “designed for many different users. Pathways are large enough to handle crowds, bikes, vehicles etc. I like the design of the park, and the isolated places by the water.” Clearly, park users are able to meet their needs and expectations at the park, which helps them to develop stronger preferences for and positive perceptions to the place, resulting in stronger attachments (Mesch & Manor, 1998 Kianicka, et al., 2006).



**Figure 18:** Signs of damage from Hurricane Juan. (Image Credit: Patrick Larter, 2015).

However, this feeling is not shared by all participants. Although mentioned by a minority, some participants also noted that the park could use some improvements, including: better signage; better trails; improved infrastructure (bathrooms, audio stations for learning, etc.); and improvements to the by-laws and restrictions. Additionally, some participants who have been following the restoration of the park over the years have noted that, although things are coming along and while there was a good effort to restore the park, the damage from Juan is still visible (see Figure 18). One participant comments on how the park has been changing: “The area is more open than it was before Juan, not quite as serene and quiet as it was before. At one time, you could wander all over the park and not see anyone unless they were on the same pathway. Now, you can hear or even

see others by looking through the trees. The clearing of the felled trees was and is a time-consuming chore but, after a while, the new growth trees will eventually "quieten" the area." Overall, the majority of participants have positive perceptions and thoughts about Point Pleasant Park.

As a reminder, feelings of happiness and positivity, appreciation for restorative factors, and feeling comfortable and secure are indicators of one's sense of well-being. The majority of participants feel happy and positive, both when they enter and exit the park (see Question 26 and 27 in Appendix B). These questions were asked to assess the differences in participants' state of mind when they are entering and leaving the park. Participants mentioned that they feel excited, happy, and good when they first enter the park: "Honestly, it's beautiful. I see a living ecosystem and I am happy!" Related to feeling excited, some participants described their feelings as being anxious to get walking down to the water or just into the park. Others described their feelings as a sense of relief as they unwind from their stresses in the city: "It is relieving. There is a sudden feeling of being sucked out of the busy lifestyles we lead and just leaving it at the entrance. I am consumed by nature." Interestingly, participants also described their feelings when they first enter the park as returning to nature or returning home: "I feel a certain kind of excitement and pleasure, just like when I get home." Some participants described how they were from a rural hometown or from a place with more of a forested countryside and that visiting Point Pleasant Park helped them feel connected, to their roots and to a more rustic lifestyle. As one participant noted, "I'm from Cole Harbour, which is not country-ish, but my parent's house has a lot of beautiful views. It's open and forested. I've been

living in Halifax for two years and I miss that forest feeling. It's easy to get stressed out in the city and sometimes you just need to get back to nature.”

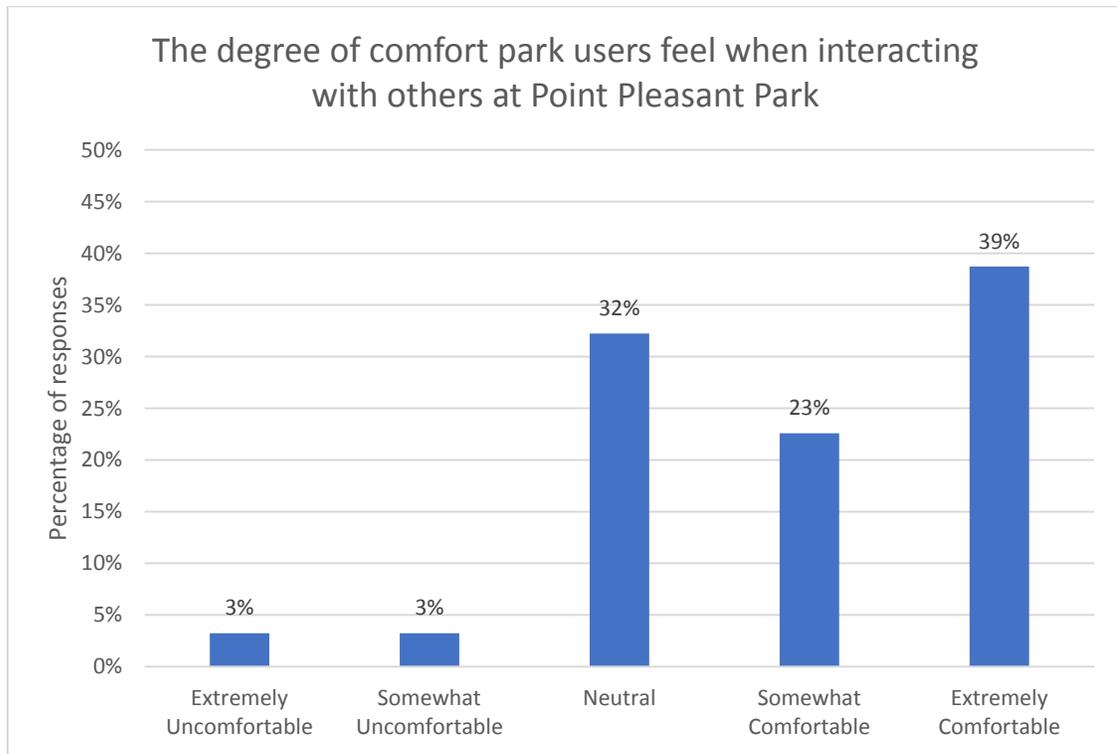
Regarding how participants feel when they leave the park, most spoke of themes that related to restorative aspects of well-being, such as feeling relaxed, refreshed, and energized. Participants also mentioned factors that relate to a positive experience, such as feeling happy, feeling good or great, feeling satisfied and feeling positive. As one participant states, “I feel really happy and energetic, and feel that I really want to come back there the next day.” Participants also mentioned that they were sad when it was time for them to leave the park and that they did not want to go back to the city: “I feel sad when I leave because I really do enjoy my time in the park. But life calls you back. I always look forward to returning to the park.” These themes particularly highlight the positive atmosphere and sense of happiness the park provides. Furthermore, participants described that they were very appreciative for their time spent at the park, particularly with being able to connect to nature. One participant describes their visits to the park as feeling like they “visited an old friend that offers something new every time.”

Figure 19 presents the online survey responses of participants with regard to how comfortable they feel when they interact with other park users (see Question 24 in Appendix B). The majority of participants feel comfortable, with a small percentage of participants saying they are uncomfortable. Nearly 1/3 of participants expressed that they felt neither comfortable nor uncomfortable during their interactions. This fairly high percentage of neutral responses suggest that many users don't usually interact with other

park users. In contrast to the survey respondents, all of the interview respondents stated that they were comfortable when interacting with others at the park. A number of participants expressed that their feelings of discomfort were often related to unleashed dogs, which included the fear of being jumped on and the complaint that dogs were often loud and out of control. Participants' comfort at the park also increased during the day, as opposed to visiting the park during the darker hours of the night before the park closed, where there was an increased perception of risk of walking the park in the dark.

The vast majority of respondents stated that visiting the park does have an impact on their mental well-being, whereas very few respondents stated that visiting the park does not have a significant impact on their mental well-being (see Question 25 in Appendix B). Participants state that Point Pleasant Park helps them to improve their mental well-being and that it is a place to be active and exercise: "Well, just having the park available to the public is great because it allows people to enjoy the outside and get exercise, which helps their well-being." Specific to improving mental well-being, participants state that the park helps them to relax and be calm: "I love to go to the park. It makes me happy and calms me. It's an enjoyable place to go and visiting the park improves my quality of life." Participants continue to highlight how Point Pleasant Park is a place where they can both get out of the city and connect with nature, as well as escape from the concrete and noise of the city, to improve their sense of well-being: "I've read a couple of articles that show that walking in nature (being surrounded by trees, ocean, having your feet in the grass, etc.) helps people's well-being. [Point Pleasant Park] is very grounding and allows me to

get away from the noise of the city and think.” Overall, the majority of participants feel happy at the park, feel comfortable at the park and are receiving restorative benefits.



**Figure 19:** Responses from online surveys regarding participants’ comfort with other park users. (see Question 24 in Appendix B).

To demonstrate if participants show care for the park, participants were asked a hypothetical question about how they would feel if they could never visit Point Pleasant Park again (see Question 12 in Appendix B). Not surprisingly, the majority of participants would feel unhappy and upset, particularly over the loss of meaningful green space. As one participant noted, “It would be sad, as it seems like a part of our history and it would be a huge green space lost in a central part of our city.” As discussed by Chamlee-Wright and Storr (2009), Ujang and Zakariya (2015) and Silver and Grek-Martin (2015), people feel a sense of loss when treasured environments are destroyed or

no longer available. As noted by another participant, “I would feel disappointed that a significant natural place to celebrate health and well-being would be gone from my life. There are other parks, but Point Pleasant holds a special historical significance and it is right on the open ocean!”

Also in reference to hypothetically not being able to visit the park again, many participants demonstrated that they have knowledge of the park based on their understanding of its history, and importance of the park to the city. In particular, many mentioned that Point Pleasant Park is part of the Halifax experience and part of Halifax’s identity. As one participant reacts to the idea of losing the park; “that’s a sad thought. There is really no other green space like that in Halifax. I think it’s an important element of Halifax’s identity, and I hope to be visiting the park for many years to come.” Another participant states, “I would feel pretty sad! It’s a huge part of Halifax history and it holds a special place in the hearts of many. The history of parks is a long one, stretching back to the 1700-1800s when they started building green spaces to escape diseases and the cramped living conditions of the growing cities. If they were taken away now, I think a lot of people would be upset.” Participants also mentioned they would be sad over the loss of the park because of the park being such a meaningful space: “if I could never visit Point Pleasant again, I would see it as a great loss, as so many people visit the park regularly. There are not many parks in Halifax and this one is at a great location.” Overall, the majority of participants care about the park and many participants have knowledge about the park’s historical and cultural significance.

Many participants frequently mentioned a sense of community at Point Pleasant Park. As one participant states, the park is a “great communal space for residents. Lots of different trail types make it accessible to a wide variety of people and it is used for organized events. I enjoy seeing so many different people using the space.” Another participant states, “I think it's important for anyone to have the opportunity to spend time outside, in a community environment. The park is so close to schools, workplaces, and the general community without being overtaken by it.” The friendliness of the park user community, as highlighted by how the majority of participants feel comfortable when interacting with other park users (Figure 19), is an important factor in participants feeling a sense of community (see Question 11 in Appendix B). A number of participants described their interactions as just small talk. For example, a hello or a nod as people pass by each other. Other respondents described having minimal interactions with other park users or spending their time at the park with just friends and family. However, the predominant feeling among participants is that their interactions with other park users are friendly, regardless of whether they know the person or how much they interact with other users: “There is one person in particular that I’ve been seeing probably for 15 years and she walks in an anti-clockwise direction and I walk in a clockwise direction and we’ve been saying the most friendly good mornings to each other for many years and neither of us have the faintest idea who each other is. Sometimes you get that. It’s kind of nice to have that kind of connection with other park users.” Socialization is another reason for why some participants feel a sense of community at the park: “it allows me to plan events for friends (picnics, sports) and allows me to attend events I would otherwise have generally ignored (Shakespeare by the Sea).”

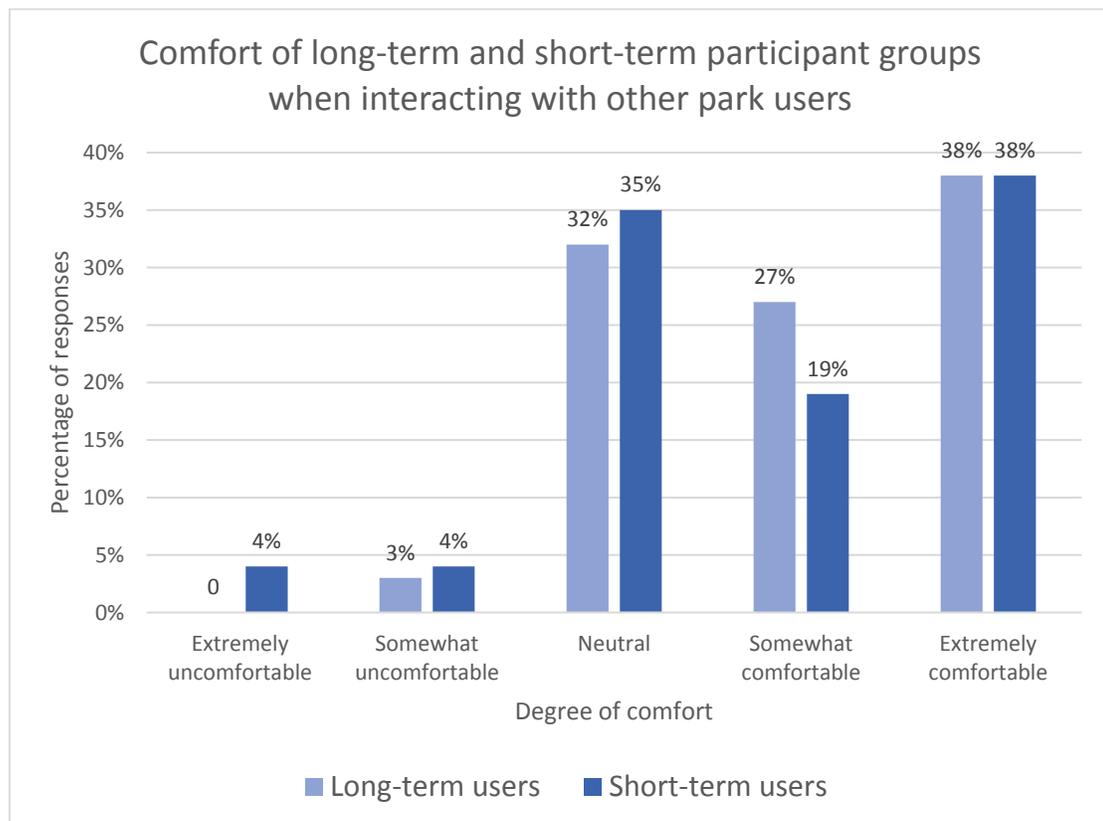
A particularly interesting theme with regards to participants' sense of community at the park relates to dogs at the park. As highlighted by the 2013 Point Pleasant Park user survey and Kitz and Castle (1999), Point Pleasant Park is an important place for many Halifax residents to walk their dogs. Thus, there is a sizeable dog walking community who visit the park and the dog walking community, to many, is the sense of community they experience. As a result, several participants stated that their interactions with other park users began because of their dogs initiating the interactions or that they only want to talk to people because they have a dog with them: "People are friendly (which is typical in Halifax). I have on more than one occasion stopped to talk with someone after their dog has run up to greet me." In contrast, a smaller, yet still notable number of participants stated that their interactions with other park users are negatively impacted when unleashed dogs are running around and barking. Thus, participants' experiences, and attachments, are not just impacted by other people, but by their dogs. For example, a negative dog experience can change someone's entire relationship with the park: "The off leash policy is making the park unpleasant. In fact, my brother, who was visiting from out of province, and I had been attacked [by dogs] twice in one day. The owners had an attitude like we should expect it because it's off leash... I have been back several times since, but that day has left such a negative impact that I hate the park." Fortunately, this feeling of not being comfortable around dogs appears to be shared by only a minority of participants, while the majority of participants have positive interactions with dogs at the park. Overall, the majority of participants feel a positive sense of community at the park.

As a reminder, consistent usage was discussed in section 4.1 (Figures 14 and 15), demonstrating that the majority of participants (both long-term and short-term users) use the park frequently (at least once a month or more). One reason for why people consistently use the park seems to be that it is significant to their lifestyle (see Questions 9 and 23 in Appendix B). Many participants visit Point Pleasant Park frequently because it serves as a place to connect with nature and escape the city. As one participant states, “Although you are so close to the city, when you are there, it feels very removed. Getting out into nature is important to me. I am able to reflect on my day to day life and it helps ground me. Having a forested area so close to the city helps with reflection and doesn't take me an hour to get to.” Several participants also visit the park due to the fact it serves as a place for exercise and/or as a place where participants can improve their overall health and mental well-being. As noted by one participant, “this place eases my anxiety, anger, sadness, and other egocentric feelings. It is close to where I live so I can visit there whenever I want. It is almost like a friend for me; this place is one of the things that never rejects me and always welcomes me.” The natural aspects of Point Pleasant Park appears to be an important motivating factor people to use the park and be active. As one participant states, “I strive for a physically and mentally fit lifestyle, as well as I strive to be part of the community. It definitely helps me live a more physically fit lifestyle because it allows me to exercise in the park, and I think it helps me live a more mentally fit lifestyle because of the benefits of being surrounded by trees and not by cars and concrete...I like seeing other people out and about also getting the benefits of exercise and being in the presence of nature.” Another participant states, “Nature is motivating and invigorating. I feel alive when I am in nature and can breathe in the fresh salt air.”

Many participants described how they enjoy using the park and experiencing the history the park offers: “It is a nice place to walk while still in the city and the history that is found there is great as well.” Participants also discussed the meaning the park holds to both the city and to themselves: “[the park] holds a lot of history for my family and I. I don’t go there as much as I used to, but when I do I can see how much it means to people and how they use it every day.” Another participant states: “With a few minute drive I can be there from pretty much anywhere in Halifax, but once I'm in the park I feel miles away from city stress. Even so close to the container port! Somehow the contrast of industry and the park reinforces how special Point Pleasant is.” Overall, participants frequently use the park because it is a significant place for them be active and improve their health, to appreciate nature, appreciate the history, and appreciate the importance of Point Pleasant Park.

As demonstrated, the majority of participants have positive place attachments with Point Pleasant Park and have a positive sense of well-being. Participants are using the park consistently and are motivated to do so. Many participants feel that there is a sense of community with other park users and that there is a friendly atmosphere, regardless of the amount of contact with other park users. The variety of trails and areas that the park provides helps participants to meet their needs, which vary from dog-walking to escaping the city and connecting to nature. The vast majority of participants feel that the park is significant because of the history it holds and the meaning it has to them and to the city. This point, and the fact that many people like, enjoy and even love the park, strongly highlights the positive thoughts participants have towards Point Pleasant Park.

Participants care about the park and the majority of the participants want to make sure it is healthy and usable to enjoy and appreciate. The majority of participants feel that visiting the park positively impacts their well-being and that they always feel better after their visits. Many participants feel restorative benefits while they are at the park and also feel happier after their visits. Thus, participants have amply demonstrated that they have positive place attachments to Point Pleasant Park.



**Figure 20:** The degree of comfort short-term and long-term participant groups have with other park users, based on the responses from the online survey. (see Question 24 in Appendix B).

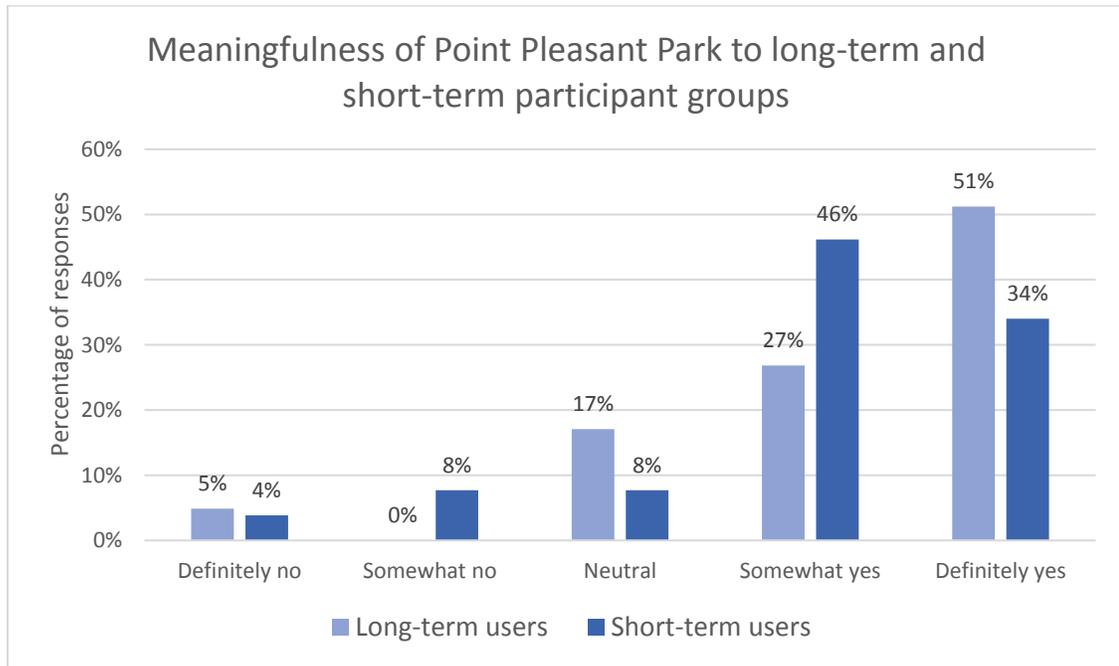
#### 4.3.1 Long-term vs. Short-term Users

Now that we have an understanding of participants' place attachments and sense of well-being as a whole, this section analyses any potential differences between long-term and

short-term users. As a reminder, Research Question 3 asked: *Are there differences between long-term and short-term users with regard to their current place attachments and their sense of well-being at Point Pleasant Park?* There are nearly no notable differences between short-term and long-term users in regards to their place perceptions, sense of well-being, sense of community, knowledge of the park, memories at the park, usage of the park, and care for the park (for example, see Figure 20). Nonetheless, a couple of interesting themes emerged from the results with regard to the strength of long-term users' place attachments, and their relationship regarding usage of the park.

The utilitarian relationship with the park that is evident among long-term users' responses (discussed in section 4.2.3) appears to be apparent among short-term users as well. As one short-term user describes, "I grew up in the country, so when I moved to the city I lived close to Point Pleasant Park. I would go there all the time and it was a nice little getaway in the city." As described by another short-term user, "it would definitely be a bummer [not being able to visit the park again]. It's the closest park of that size in the city. It's easy enough to get... to a different park, but it's a lot less convenient." Although very similar in reasons, long-term users go a bit further and describe the park as having a deeper sense of significance to the park community: "It's significant in that it's a very entrenched part of Halifax... I think most Haligonians will accept and understand that Point Pleasant Park is fairly important. It's part of a wilderness almost in the downtown core of Halifax which is a nice getaway for a lot of people... the park is quite important to me." Long-term users' themes illustrate this idea that the park is more than just a place to be used, but it is part of the fabric and culture of the city and people: "It's a big part of

Halifax, so if I couldn't be near the park again it would really feel weird. It is, in my view, a large portion of the city and it has pretty symbolic meaning to Halifax. When you think of Halifax, you think the peninsula with Point Pleasant Park.”



**Figure 21:** The degree of meaningfulness of Point Pleasant Park to long-term and short-term participant groups from online surveys (see Question 13 in Appendix B).

There is a subtle difference between the responses of long-term and short-term users, which suggests that long-term users may have a deeper sense of attachment to the park, whereas short-term users focus more on usage. As highlighted above, long-term users discuss a greater sense of love for the park and discuss how Point Pleasant Park has this sense of importance to the Halifax's cultural identity. This suggests that long-term users may have greater place attachments to Point Pleasant Park. This may be due, in part, to their longer relationship with the park and the fact that their long-term experience

generates a greater understanding of the park's historical and cultural importance. Figure 21 shows the online survey responses regarding how meaningful the park is to both participant groups. Although there is a similar pattern, more long-term users stated that the park is definitely meaningful to them, whereas more short-term users only rated the park as somewhat meaningful to them. A similar pattern is found among interview respondents, as 100% of long-term users find the park meaningful while 83% of short-term users find the park meaningful.

It is normal that a longer-term user of a place would have stronger attachments than a shorter-term user (Ujang & Zakariya, 2015; Williams & Kitchen, 2012; Albrecht, 2005). Given the impact of Hurricane Juan, however, it was expected that long-term users' place attachments would not likely be as strong as short-term users' place attachments, because short-term users did not experience the traumatic damage that changed long-term users' place attachments. Thus, it is interesting that long-term users' place attachments appear to be stronger, or more meaningful, than short-term users.

The relationship long-term users have with Point Pleasant Park appears to transcend the changes the park sustained. This, in no small part, appears to be due to the length of time these long-term users have had to experience the park and develop deep and meaningful place attachments there. Thus, when Hurricane Juan hit the park, the immediate reaction was grief. However, as these findings indicate, 'time heals all wounds' and the underlying love that many long-term users had for the park helped them overcome their feelings of grief. This is not to say that all long-term users feel the same way or that

short-term users cannot have profound love towards the park. One participant stated that a friend, who was a long-term user prior to Juan, could never go back to the park because it will never look the same (participant, personal communication, 2015).

The third and final research question asked: *Are there differences between long-term and short-term users with regard to their current place attachments and their sense of well-being at Point Pleasant Park?* The results indicate that there are differences between short-term and long-term users, with the latter's place attachments appearing to be stronger. This is significant, as it demonstrates how the re-establishment of place attachment and a sense of well-being compare to those who did not experience the traumatic event. The results also indicate that there were no appreciable differences in their sense of well-being.

## 5. Conclusion

The questions posed at the outset of this thesis aimed to explore whether long-term park users have overcome their solastalgic feelings and have re-established place attachments over the past 12 years since Hurricane Juan hit Point Pleasant Park in 2003. Specifically, this research addressed the following research questions:

- 1) *Do long-term users recall experiencing solastalgic reactions towards Hurricane Juan's impact on Point Pleasant Park?*
- 2) *Have long-term users overcome their solastalgic reactions and re-established positive place attachments to Point Pleasant Park?*
- 3) *Are there differences between long-term and short-term users with regard to their current place attachments and their sense of well-being at Point Pleasant Park?*

Back in 2003, after the initial event, the park user community was stricken with grief, as their beloved park was devastated and physically changed. Many participants' place attachments were greatly impacted due to the destruction of the park, and from the potential fear of not being able to ever see the park in its full beauty again. The popular saying, 'time heals all wounds,' best describes long-term users overcoming their solastalgic feelings and re-establish their place attachments over the past 12 years. Long-term park users' current place attachments to the park are positive and strong.

The majority of long-term and short-term users use the park consistently, experience a sense of community when they visit (whether it is with family and friends, or feeling

connected to other park users through events, such as dog walking or Shakespeare by the Sea), and have positive experiences at and memories of the park. This point is substantiated by the care participants show for the park. The positive place attachments have also resulted in participants feeling happy, feeling comfortable and safe, feeling relaxed and refreshed, and feeling a sense of community while visiting at the park.

The feelings of grief that long-term users felt after Hurricane Juan hit have been replaced by a sense of positivity. Although many participants remember the look and atmosphere of the pre-Juan park, this reminiscing does not appear to have prevented them from re-establishing their attachments. This is evident in how the majority of participants expressed that their usage of the park did not change once the park was reopened.

Through a mixture of being able to use the park and adapting to the changed landscape, the majority of long-term users seem to be embracing the new look and feel of the park. This is an important finding, as it demonstrates the importance of usage, and meeting one's needs at the park, in re-establishing place attachments. In addition, the opening of the forest canopy has opened up new views to the ocean and made the park a brighter place, towards which a number of long-term users have expressed positive feelings. The relationship long-term users have with the park goes beyond a change in look and atmosphere, as many state that Point Pleasant Park is still "the park," and they love it just the same.

It was expected that long-term users' place attachments would not be as positive as they once were, given the traumatic event that occurred. However, it was surprising to

discover that long-term users' current place attachments appeared to be just as positive as their pre-Juan attachments. Interestingly, long-term users' place attachments appear to be more meaningful than short-term users' place attachments, even though short-term users did not experience the traumatic impact of Hurricane Juan, long-term users described the historical and cultural importance that Point Pleasant Park held to them and to the city more frequently than did short-term users. On the other hand, short-term users, more often, did not describe that deeper importance, as their relationship appeared to focus more on being able to meet their needs and have access to the park. This leads into another key finding that refers to the utilitarian relationship that both long-term and short-term users appear to have with the park. As demonstrated, long-term users discussed that their use of the park did not change after the impact of the hurricane and that the reasons for why they use to park, such as needing to go for a walk or walking the dog, also did not change. Long-term users also stated that they continued visiting the park as they had before to meet those needs. However, this utilitarian relationship is more strongly found among short-term users. Although both long-term and short-term users described going to the park to meet a need, such as walking the dog or getting a dose of nature, long-term users, more often, described that deeper love for what the park means to them and to the city, thus suggesting that long-term users place attachments to the park is less based on meeting needs as compared to short-term users.

Understanding place attachment is important as it improves our understanding of how people relate and connect to the world around them. By continuing to study place, we can better understand the meanings people establish with different places, how these

meanings impact their experiences, and how changes to those place impact the established meanings and their experiences. Thus, research on place attachment can have an impact on policy and the decision-making process. For example, by understanding the place attachments people have with particular places, decision-makers can better understand how policies leading to changes to an important place may impact people's relationship to that place, or how that policy may be perceived, such as when park users demonstrated passionate support for restoring their park without radical changes.

Future research should continue to focus on how place attachments change over a long period of time. One interesting insight that this study unexpectedly captured was the utilitarian relationship people have with Point Pleasant Park. Participants' responses indicated that, although they had strong feelings of attachment for the park that were damaged when Hurricane Juan hit, they continued to use the park as before to meet their needs. Their responses also suggest a potential 'place dependency' to Point Pleasant Park, which appeared to have been a factor in the re-establishment and/or maintaining of their place attachments to the park. A future study might focus on the types of needs that led participants to use the park as they once did following the hurricane. This research would be significant as it would add to our ever-growing understanding of the relationship people have with various places, particularly urban parks, as well as improving our understanding of the type of needs people need to fulfill at particular places, such as walking the dog compared to getting a dose of nature.

Another potential research direction would focus on solastalgia. Solastalgia, as it has been studied so far, has mostly been explored on a short-term basis, such as a few months to a couple of years. This research demonstrated that participants are currently happy with the park's restoration and the majority of participants are no longer experiencing any feelings of sadness or mourning. This suggests that feelings of solastalgia may only affect the short-term and has little to no impact beyond that short-term period of time, particularly once the restoration of place and recovery of place attachments have begun. Future research should conduct a longitudinal analysis focusing on how the feelings of solastalgia change over time, particularly in cases when participants begin to recover from the initial degradation in place attachment and sense of well-being. Another research direction could focus on how solastalgia changes in different environments. The focus of this study was on an environment that was already in the process of being restored, compared to much of the current solastalgia research, which focuses on environments that are in the process of being degraded. Additionally, another research direction could focus on how solastalgia changes over time when comparing man-made disasters with natural disasters. Further research on how people experience changing environments, and how they experience recovering or degrading environments, could provide some insights related to peoples' place attachments and sense of well-being.

It is heartwarming to see that 'time heals all wounds' and that long-term users' place attachments were not permanently changed. This research has demonstrated that, with a proper management plan in place, it appears that a beloved environment can be restored to a state where people can positively re-establish place attachments. It is clear that not

everyone will share the same sense of positivity about the recovery process or about the final product. However, a key message from participants' responses is that attachments will recover if people can return to that place. Furthermore, a beloved place will always retain its meaningfulness throughout all of its changes as long as there are still people who value that place.

# Appendix A

## Consent form

### INFORMED CONSENT FORM

Long Term Place Connection and Psychological Benefits Restoration after a Destructive Event: The Case Study of Point Pleasant Park after Hurricane Juan SMU REB # 15-244

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### Introduction and Purpose

The Principal Investigator of this study is Patrick Larter. I am a Master of Arts in Geography student at Saint Mary's University. As part of my master's thesis, I am conducting research under the supervision of Dr. Jason Grek-Martin. You are being invited to participate in this study that is researching place connections and perceived psychological benefits with Point Pleasant Park. Participating in the study is completely voluntary and you may exit the study at anytime. This is an anonymous study. CIHR (a Tri-Council Agency) and the Nova Scotia Health Research Foundation are funding this study.

The purpose of my research is to explore how the immediate devastation caused by Hurricane Juan to Point Pleasant Park in 2003 and how the subsequent restoration of the park over the past 12 years has affected park users' mental health and their relationship to the park. I intend to determine to what degree your place attachments have been re-established and to illuminate how these connections to place impact psychological well-being. This study will ask you questions about your perceptions, experiences and memories of Point Pleasant Park in order to determine your sense of place connection with the park.

### Participation

I am interested in legal age (must be 18+) adults who have visited Point Pleasant Park to answer a 27-question survey/interview that will take approximately 10 – 15 minutes. The study is completely voluntary. You may skip any questions you are not comfortable with answering and you may ask for clarification at any time. You may also withdraw from the study at anytime and there are no consequences if you withdraw from the study. The interview will be audio recorded in order to improve quality of my notes.

### Risks/Benefits

Although you will not receive any direct benefits/compensation from this study, the results from the entire study may be helpful in city planning by showing the importance of people having access to parks and similar green spaces. This study is a minimal risk study with no risks being anticipated.

### Privacy

This is an anonymous survey and you will not be able to be identified from the information provided. The only demographical information that will be collected is range of age and gender. Any information that you provided will be kept confidential and will only be viewed/accessed by the Principal Investigator and the Saint Mary's University Research Ethics Board. Once all the data are collected and analyzed for this study, I plan on sharing the information with the research community through seminars, conferences, presentations, journal articles, etc. The audio recording will be destroyed upon completion of degree. If you are interested in seeing the results of the study, you may provide your email address to which I can send you the results upon completion of the study. This study will be completed by Spring 2016.

### How can I find out more about this study?

If you have any comments, questions, concerns or would like to learn more about this study, you may contact the Principle investigator (above), the research supervisor Dr. Jason Grek-Martin (above).

The Saint Mary's University Research Ethics Board has reviewed this research. If you have any questions or concerns about ethical matters or would like to discuss your rights as a research participant, you may contact the Chair of the Research Ethics Board at [ethics@smu.ca](mailto:ethics@smu.ca) or 420-5728.

I understand what this study is about, appreciate the risks and benefits, and that by verbally consenting I agree to take part in this research study and do not waive any rights to legal recourse in the event of research-related harm.

I understand that my participation is voluntary and that I can end my participation at any time without penalty.

I have had adequate time to think about the research study and have had the opportunity to ask questions.

## Appendix B

### Interview/survey guide and questions

I will ask you 27 questions about your perceptions, memories, experiences and thoughts and emotions.

There are 4 categories and there are also some requirement questions before the first category to make sure you meet the requirements of the study

I will tell you the question number and name if the category

I will also tell you if the question is multiple choice or open ended (open ended means you can answer how you want and not choose a pre-determined answer. You can take as long as you want and answer how you want)

Throughout the survey I may ask you to elaborate, if necessary, with some non-risk prodding.

You may skip any question you feel uncomfortable with (including when I ask you to elaborate)

You may leave the study at any time without risk.

You may also ask me to repeat or clarify any question at anytime

If some of the questions feel repetitive, that is okay. Just answer the way you feel is best for you to answer the question, even if it is a similar answer to what you said before.

The recorder will pick up our voices fine, so feel free to speak naturally.

Any questions before we begin?

1. Have you ever been to Point Pleasant Park before?
  - a. Yes
  - b. No/I don't know
2. Are you 18 or older?
  - a. Yes
  - b. No

#### A) Demographics

3. What is your age? (select the range your age falls under)

- a. 18-29
  - b. 30-44
  - c. 45-64
  - d. 65+
4. What is your gender?
    - a. Male
    - b. Female
  5. How long does it take you to travel from your home to Point Pleasant Park?
  6. What mode of transportation do you use to travel to Point Pleasant Park?

B) Current Place Attachment (About your current relationship)

7. How many times in an average month do you visit Point Pleasant Park?
8. Describe the activities you do at the park.
9. Is Point Pleasant Park significant to your lifestyle?
  - a. Explain.
10. Describe your general feelings about Point Pleasant Park
11. Describe your relationship with other park users.
12. Discuss how you might feel if you could never visit Point Pleasant Park again.
13. Is Point Pleasant Park a meaningful place to you? (open ended for interviews)  
(scale 1 – 5) 1 (Definitely no) ----- 5 (Definitely Yes)
14. What do you think about the design of the park.
  - a. Explain (trees, paths)?
15. Were you aware of the park's restoration after Hurricane Juan?
  - a. Yes
  - b. No

C) Hurricane Juan

16. Did you visit Point Pleasant Park before Hurricane Juan hit in 2003?

- a. Yes
- b. No

If answered No, Please head straight to section D.

- 17. Describe your memories of the park before Hurricane Juan hit.
- 18. Explain what you saw when you first visited the park after Hurricane Juan hit.
- 19. Describe your thoughts and emotions during that first visit to the park after Hurricane Juan hit.
- 20. Did the impact of the hurricane change your use of the park?
  - a. Yes
  - b. NoIf yes, please explain how your use of the park changed.
- 21. Explain how you feel about the park now compared to what you remember of the park before Hurricane Juan.
- 22. Discuss how you feel about the park's restoration.

#### D) Perceived Health

- 23. Do you feel that visiting Point Pleasant Park helps you to achieve a lifestyle that you strive for?
- 24. Are you comfortable when you interact with others at the park?
  - a. Yes
  - b. NoExplain.
- 25. Do you believe that visiting the park has an impact on your psychological health/mental well-being?
  - a. Explain.
- 26. During an average visit, describe how you feel when you first enter the park.
- 27. During an average visit, describe how you feel when you leave the park

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