

https://dspace.org/

The environmental impacts of/on second homes on/in Hartbeespoort dam, South Africa

Long, Dianne Patricia

2014-02-26
http://hdl.handle.net10539/13965

Downloaded from a DSpace repository. https://dspace.org/

UNIVERSITY OF THE WITWATERSRAND

School of Geography, Archaeology and Environmental Studies

The Environmental Impacts of/on Second Homes on/in Hartbeespoort Dam, South Africa

Dianne Patricia Long
0613222J

A Dissertation submitted to the Faculty of Humanities
University of the Witwatersrand, Johannesburg
in fulfilment of the requirements for the degree of Master of Arts

Johannesburg, November 2013

Declaration

I, Dianne Patricia Long, declare that this thesis is my own, unaided work. It is being submitted for the degree of Master of Arts in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.



Dianne Patricia Long

February 2014

Abstract

Tourism and the environment are two interdependent entities, for tourism to thrive the environment needs to be sustained, conversely for the environment to be sustained tourism needs to attain to the goals of responsible tourism. Second home tourism research has shown that scenic natural environments influence the location and development of second homes, however, little attention has been paid to the potential impact degraded environments can have on second home tourism and more specifically their owners. Second home tourism studies have also found that there are environmental concerns which arise through the development and continued use of a second home. The majority of these studies, however, have been conducted in the Global North, and no research of this kind has yet been conducted in South Africa. This study aims to fill these gaps in the South African understanding of second home tourism by looking at the relationship that exists between the environment and second homes using Hartbeespoort in the North West Province of South Africa as the case study. The impacts associated with the degraded environment of Hartbeespoort on second homes include the decline in property values of second homes, their recreational place utility and consequently the place attachment value of the owners. Potential knock-on effects include the undermining of second home tourism, which directly affects the local economy of Hartbeespoort. Knowing the implications of a degraded environment for second home tourism may incite more responsible behaviour by tourists themselves in addition to an improved tourism policy by government and the acknowledgement of the importance of the natural environment across municipal and provincial boundaries. In terms of the environmental impacts of second homes, special attention was paid to the perceptions held by second home owners. The perception held by the majority of Hartbeespoort second home owner respondents is that neither they, nor their households, impact upon the environment. This perception brings the environmental sustainability of second home tourism in South Africa into question. However, the case is not so, as second homes in Hartbeespoort do impact upon the environment, through their initial development and continued use. These impacts need to be acknowledged in order for successful mitigation strategies to be put in place. Understanding these impacts, therefore, is essential for policy, planning and mitigation in order to attain to the goal of responsible tourism so sought after by the South African government.

Keywords: Second homes, Responsible tourism, Environmental impacts

Acknowledgements

There are a number of people to whom credit is due for their valued assistance with completing this Master's Degree. Firstly, my supervisor Gijsbert Hoogendoorn for his guidance and support during the two year process. Many thanks are attributed to Gijsbert for his hard work and dedication to this project. With much help two papers from this research report have been published in peer reviewed journals. The first being a paper entitled: Second home owners' perceptions of a polluted environment: the case of Hartbeespoort, published in *The South African Geographical Journal*, and the second paper entitled: Second Home Owner Perceptions of Their Environmental Impacts: The Case of Hartbeespoort, has also been published in *Urban Forum*.

Secondly I would like to thank all those who participated in this research project. Without their input none of this would have been possible; I am therefore humbly grateful to each one.

The financial assistance of the National Research Foundation (NRF) towards this research is hereby acknowledged. Opinions expressed and conclusions arrived at are those of the author and are not necessarily to be attributed to the NRF.

I would also like to thank the South African National Space Agency for supplying the SPOT satellite imagery, Pryaska Veramoothia at the agency is duly acknowledged for her assistance and prompt response to queries made and orders placed. Wendy Job is acknowledged for making one of the maps found in this research report (Figure 1).

Jennifer Fitchett is also acknowledged for her assistance with the statistical portion of this research.

On a personal note, I would like to acknowledge my family and friends for their support through all the ups and downs that are part and parcel of any degree.

Table of Contents

DECLARATION **1**
ABSTRACT **2**
ACKNOWLEDGEMENTS **3**
TABLE OF CONTENTS **4**
LIST OF TABLES **7**
LIST OF APPENDICES **7**
LIST OF ACRONYMS **8**
CHAPTER 1: INTRODUCTION **9**
1.1 Rationale **11**
1.2. Research questions **15**
1.3. Conclusion **15**
CHAPTER 2: SECOND HOMES TOURISM: INTERNATIONAL DEFINITIONS, DEBATES AND DILEMMAS **17**
2.1. Introduction **17**
2.2. Defining second homes, tourism and second home owners as tourists **17**
2.3. The development of second home research internationally **20**
2.4. The environment influencing second homes and second home owners **20**
2.4.1. The environment: influencing second home placement and recreational place utility 21
2.4.2. The environment: influencing property values 22
2.4.3. The environment: Influencing place attachment and attitudes 23
2.5. The three pronged approach of responsible tourism in research **25**
2.5.1. Economics of second home tourism 26
2.5.2. Second homes and society 26
2.5.3. Second homes impacting on the environment 28
2.6. Perceptions and Actions **33**
2.7. Conclusion **34**
CHAPTER 3: BUILDING AN UNDERSTANDING OF TOURISM AND SECOND HOMES IN SOUTH AFRICA **36**
3.1. Introduction **36**
3.2. Tourism research in South Africa **36**
3.3. South Africa's Tourism policy: From sustainable development to responsible tourism **38**
3.4. Responsible tourism and second home tourism research in South Africa **39**
3.4.1 Second homes and the economy in South Africa 39

3.4.2. Second homes and economic research in South Africa 40
3.4.3. Second homes and societies in South Africa 43
3.4.4. Second homes and the environment in South Africa..... 44
3.5. Conclusion 45
CHAPTER 4: STUDY SITE AND METHODOLOGY 46
4.1. Introduction 46
4.2. Study site: Hartbeespoort 46
4.2.1. The Hartbeespoort environment 48
4.3. Compiling a questionnaire for second home owners..... 50
4.4. Identifying and questioning second homeowners 51
4.5. Getting a second opinion on second homes 53
4.6. Visual aids in analysis: SPOT false colour composites 54
4.7. Research Data, Analysis and Interpretation..... 54
4.8. Limitations..... 55
4.9. Conclusion 56
CHAPTER 5: RESULTS AND DISCUSSION 58
5.1. Introduction..... 58
5.2. General profile of Hartbeespoort second home owners 59
5.3. Environmental impacts associated with Hartbeespoort Second Homes 68
5.3.2. Perceived impacts of second home owners..... 72
5.3.3. Environmental impacts of second home tourism in Hartbeespoort according to environmental stakeholders..... 76
5.4. Second home owner's perceptions of the impact a degraded environment has on them and their homes..... 81
5.4.1. Perceived economic repercussions for second home owners due to a degraded environment..... 82
5.4.2. The degraded environment impacting on recreational place utility and place attachment of Hartbeespoort second home owners..... 85
5.4.3. The result of a loss in economic, recreational, and place attachment utility 87
5.5. A brief look at the social implications associated with second home development in Hartbeespoort 91
5.6. Conclusion 92
CHAPTER 6: KEY FINDINGS AND RECOMMENDATIONS..... 94
REFERENCES 104
APPENDICES..... 115
Appendix 1: Questionnaire for second home owners..... 115
Appendix 2: Estate agent questionnaire 122

Appendix 3: Environmental Stakeholder Questionnaire 123
Appendix 4: Ethical clearance 124

List of Figures

Figure 1: Location of Hartbeespoort, North West Province, South Africa……13
Figure 2: Additional Second Homes……63
Figure 3: Mean days spent at the Hartbeespoort second home in the past year as well as school holidays……67
Figure 4: Influence of seasonality on second home ownership……..68
Figure 5: Satellite image of Hartbeespoort displaying algae, taken February 2013……76
Figure 6: Satellite image of Hartbeespoort displaying algae, taken April 2012……77
Figure 7: The eutrophic Hartbeespoort Dam with second homes in the background……78
Figure 8: The green water a clear indication of nutrient rich water……..79
Figure 9: Graph depicting mean property appreciation……83

List of Tables

Table 1: Second home owner respondents' highest qualifications and occupations……..59
Table 2: Year of purchase and reason for purchase……..61
Table 3: Second Home owners' amenity expenditure in Hartbeespoort……64
Table 4: Second home owner's opinions as to the reasoning behind Hartbeespoort Dam being polluted……..73
Table 5: Second home owners' opinions as to how to improve the state of the environment…….....75
Table 6: The effect of the environment on Hartbeespoort homes as perceived by second home owners……...82
Table 7: Environmentally related reasons preventing recreational activities……86
Table 8: Reasons why respondents would sell their Hartbeespoort second home……88
Table 10: Reasons given as to why respondents would sell their Hartbeespoort home and buy elsewhere……89

List of Appendices

Appendix 1: Questionnaire for second home owners……115
Appendix 2: Estate agent questionnaire……...122
Appendix 3: Environmental Stakeholder Questionnaire……123
Appendix 4: Letter of Ethical Clearance……124

List of Acronyms

CRISP: Centre for Remote Imaging, Sensing and Processing
DEAT: Department of Environmental Affairs and Tourism
DWA: Department of Water Affairs
DWAF: Department of Water Affairs and Forestry
GIS: Geographic Information Systems
SPOT: Satellite Pour l'Observation de la Terre
UNWTO: United Nations World Tourism Organisation

The Environmental Impacts of/on Second Homes on/in Hartbeespoort Dam, South Africa

Chapter 1: Introduction

Tourism as a growing industry relies on the natural environment to ensure its growth and continued viability (Pigram, 1980). Pigram (1980) has argued that the relationship that exists between these two entities is one of interdependence, and thus the viability of nature based tourism is directly dependent upon the environment as a resource. Therefore, in order for nature based tourism to thrive, the natural environment needs to be pristine in order to attract visitors (Gormsen, 1997). According to Hall and Müller (2004) second homes as a form of tourism are both an important and expanding element of contemporary lifestyles. Hence, as a form of tourism, second homes are increasingly dependent upon the sustainability of the natural environments in which they occur (Hiltunen, 2007).

Within the body of literature on second homes, the environment has been found to influence second home tourism development rather significantly. The environment not only influences the placement and monetary value of second homes, but also the place attachment felt by second home owners. Second home locations are chosen for a number of reasons but recreational place utility has been found to be the main influencing factor for many purchases (Stettler and Danelli, 2008). “Recreational place utility is conceived of as the sum of a set of characteristics which the individual considers constitutes an attractive environment for this type of recreational living” (Aldskogius, 1967, p.72). The recreational place utility of an area then has a direct impact on property prices of that particular area, as the demand for homes increases (Robertson, 1977; Aldskogius, 1967). It has also been noted that many second home buyers have purchased their home and value it for the attached prestige (Robertson, 1977); a devaluation of the property as a result of declining environmental standards will likely influence the emotional attachment home owners have to their second home.

The environment therefore influences the second home tourism sector broadly as well as the second home owner on a personal level. Second homes represent not merely an asset for their owners but are also a place where sentimental attachments are made to both the location and the community (Wolfe, 1977). Added to this, second home owners have a direct interest in the value of their property and thus environmental quality as a whole (Gardavský, 1977). Therefore acknowledging that second homes and the environment are

interdependent (Gormsen, 1997), it is alarming to find that no studies to date could be found that examine the impact that a degraded environment has on second home owners and the tourism sector as a whole. Given that the environment influences both the monetary and emotional investment of a second home owner, the value of studying the effect of a degraded environment could contribute to ensuring that every effort is made to maintain a positive relationship between these two entities.

Given that the environment substantially influences second home tourism, this sector is therefore dependent upon the sustainability of the natural environment to thrive, however, as a form of tourism, second homes also impact on the environment (Hiltunen, 2007; Keyser, 2002). Whilst this is true, opposing opinions exist as to the degree of environmental degradation that results from second home development and continued use. Matteucci, Lund-Durlacher, and Beyer (2008) argue that serious ecological impacts result from the fast and at times poorly planned second home developments. This, coupled with increasing concern over sustainable tourism and the growing awareness of the detrimental impact unbridled mass tourism can have on natural environments, has led to concerns over the environmental sustainability of tourism (Spenceley, 2005). However, Müller (2002b) came to the conclusion that second home tourism can be a means to sustainability as he argues the environmental and social impacts associated with second homes are limited. Although the tourism industry has shifted from using sustainable tourism as a guideline for development to responsible tourism, the arguments presented by Spenceley (2005) and Müller (2002b) with regards to sustainable tourism are still of relevance when considered through the lens of responsible tourism.

Responsible tourism denotes that tourism initiatives should encompass improved holiday experiences, whilst promoting business opportunities as a means to improve the life styles of the host community (DEAT, 2002). These objectives must be achieved in conjunction with improved management and use of the natural resource base (DEAT, 202). The move towards responsible tourism internationally has led to the present debate around second homes being divided among scholars, with some concerned over the environmental impacts associated with such developments, and the others enthusiastic about the potential economic gains (Kaltenborn, Anderson, Nellemann, Bjerke and Thrane, 2008). This friction makes it ever more important to ensure that the environmental impacts of second home tourism are not side-lined in favour of economic development.

Within the second home research focus, few studies have since contributed to this debate concerning the environmental implications of second home development (Priddle and

Kreutzwiser, 1977; Cohen, 1978; Hiltunen, 2007), whilst none could be found for South Africa. This is increasingly alarming, as notions of sustainable tourism and later responsible tourism have become the backdrop for tourism development, particularly for South Africa, with the post-apartheid government emphasising that responsible tourism would frame South Africa's overall approach to tourism (Visser and Hoogendoorn, 2011). This gap in the South African literature when compared to first world countries such as Finland, has possibly contributed to the proliferation of comparably inadequate policy and planning measures to avoid negative environmental impacts generated by tourism and, in this case, second home tourism (Pigram, 1980; Pitkänen, 2008).

At present, the majority of the published works on second homes in South Africa have been compiled by Hoogendoorn and Visser (2004, 2010b, 2011a). Both authors have identified numerous second home developments within South Africa. However, following the international trend, Hoogendoorn and Visser have focused mainly on rural development and more specifically on the local economic impacts associated with second homes. Nonetheless, in order to ensure that second home tourism is a form of responsible tourism development, economic impacts cannot be the only consideration. Environmental and social implications of any tourism development need to be taken into account, as identified by the Department of Environmental Affairs and Tourism (DEAT, 2002). This thesis therefore aims to contribute to the environmental discourse through developing an understanding of the relationship that exists between second homes and the environment, by looking at how second homes impact on the environment and how the environment (and in this case a degraded environment) impacts on second homes. Additionally, second home owners' perceptions of this relationship will also be considered.

1.1 Rationale

There are many reasons why tourism and, in this case, second home tourism needs to be understood, mainly in order to sustain the tourism industry as a whole (Puczkó and Rátz, 2000). The economic benefits of tourism are often highlighted as a proponent for promoting tourism globally (Briassoulis and van der Straaten, 2000). This is due to the potential tourism has to generate income for developing countries and thus it is seen as a viable option for development and poverty reduction (Saarinen, Becker, Manwa and Wilson, 2009). As a result of this, tourism remains one of South Africa's major foreign exchange earners and is therefore seen as a means for employment generation, especially within low skilled labour markets (Hall, 2009). Within the broader Southern African Development Community (SADC); tourism at a policy level is acknowledged as a potential driver for reconstruction and

development and therefore is keenly promoted as an essential growth sector (Saarinen *et al.,* 2009). Given this and the ever present need for economic growth in a developing country, understanding tourism and the implications thereof is vital. Additionally, tourism has been identified as a potential option for sustainable development[1] (Law, De Lacy, McGrath, Whitelaw, Lipman and Buckley, 2012). However, literature surrounding tourism and second home tourism specifically highlights that this may not be the case, as tourism does impact negatively upon the environment (Keyser, 2002). The literature therefore suggests that there are environmental impacts associated with second home tourism and therefore in order to develop a comprehensive understanding of all the impacts associated with second homes, the environmental impacts should be investigated.

Tourism is especially promoted in South Africa as a responsible local economic development strategy (DEAT, 2002). By terming tourism development as responsible, it is characterised as having a net positive social, economic and environmental outcome (DEAT, 2002). However, there are negative impacts associated with tourism and these need to be understood before tourism is blindly promoted as a preferred development strategy (Hiltunen, 2007; Keyser, 2002). In South African second home tourism studies it was noted in 2004 by Hoogendoorn and Visser that the reasons for second home development, and the associated impacts of these leisure homes, have not been researched or understood within the South African context. Whilst this was the case in 2004, there has since been some advancement made in understanding the process of second home tourism development and some of the associated impacts. However, there remains a clear lack of second home studies focusing on the environmental impacts associated with these tourist homes in South Africa (Hoogendoorn and Visser, 2011c). It is therefore fundamental that the second home tourism sector be studied properly to ensure that effective plans be found to manage the environmental impacts of tourism (Law *et al.,* 2012). Responsible tourism has been put forward as such an approach, as the economic, social and environmental impacts of tourism need to be considered in order to maintain a successful tourism industry (Puczkó and Rátz, 2000).

Whilst responsible tourism denotes a balance between economic, social and environmental impacts, Paris (2009) notes that a gap still exists in the literature as to what "the implications in terms of sustainability, both environmentally and socially, of high concentrations of second

[1] Given the potential role tourism could play in the decarbonisation of economies, it is seen as a 'green' development strategy that can be used to combat poverty in the developing world (Law *et al,* 2012).

homes, especially in large commercial developments" (Paris, 2009, p.307). This study therefore aims to focus on the environmental implications of second home tourism, so as to add to the understanding of the degree to which second home tourism can be deemed responsible. Therefore, one of the main aims of this study is to find out what the environmental impacts of second homes are. This will be done using Hartbeespoort as a case study (Figure 1). An approximate 202 second homes have been identified in the immediate area surrounding the Hartbeespoort Dam. The large number of second homes, in conjunction with the fact that the area around the Hartbeespoort Dam is rapidly developing with the expansion of new housing stock[2], potentially having a detrimental effect on the environment, makes this research imperative (DWAF, 2011).

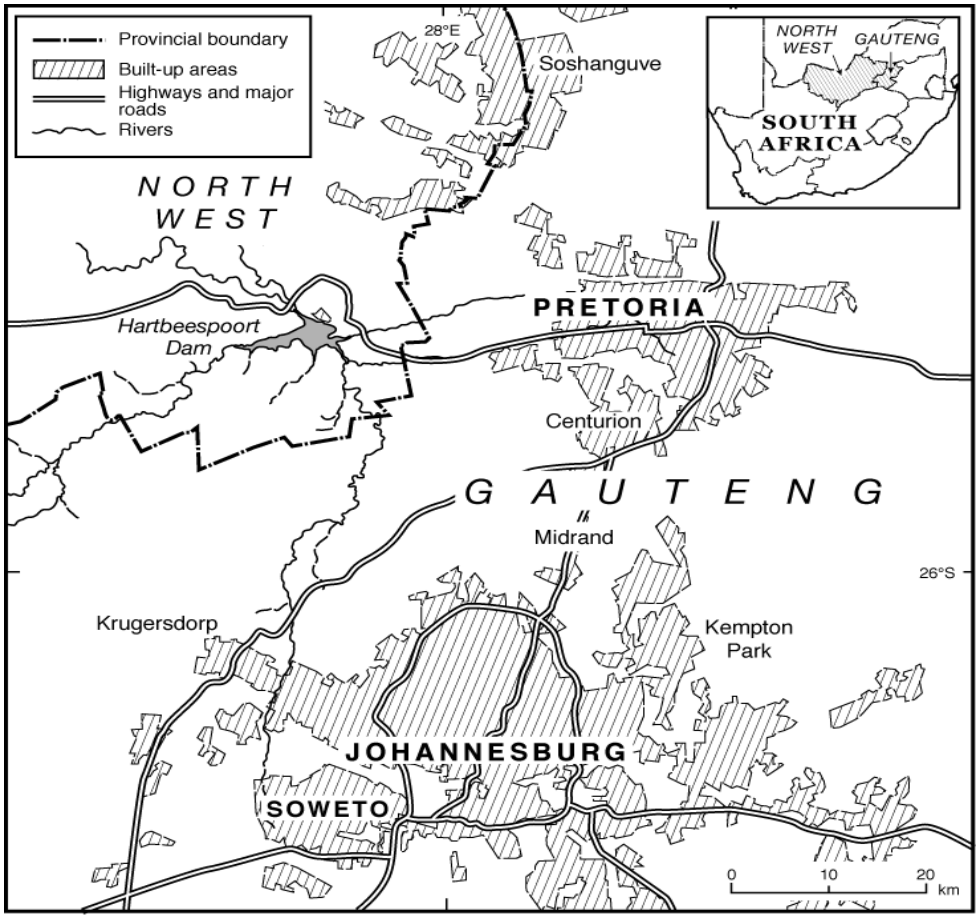


Figure 1: Location of Hartbeespoort, North West Province, South Africa.

Given that second homes used for tourism are generally built in aesthetically attractive, relatively untouched areas, these areas are also generally ecologically vulnerable (Hiltunen, 2007). When areas of second home developments once renowned for their natural

[2] 3% per year population growth (DWAF, 2011)

amenities reach the stage of over development, the result is often increased environmental degradation. This often results in ‘clean up’ efforts being implemented by local government (Gardavský, 1977). Arguably, the notion of preventing environmental degradation before it occurs is a far better approach than dealing with the consequences of over development (Hajer, 1995). It is possible for adequate policy and planning to address these issues, however, baseline information needs to be gathered in order to guide policy makers and ensure that environmental quality is maintained (DeFries, Foley and Asher, 2004; Dubois, 2004; and Priddle and Kreutzwiser, 1977). This baseline information can aid planners to pre-empt some of the environmental impacts when future areas are identified as possible second home locations, and thus, through adequate planning and foresight, could perhaps abate unnecessary environmental impacts. This research will aim to provide this baseline information by identifying some of the environmental impacts associated with second homes, with responsible tourism forming the analytical framework for this research.

The second area this research will look at is the effect the environment has on second homes in the Hartbeespoort area. Numerous people have come to own a second home in Hartbeespoort. This implies that they have a vested interest in the area and the Dam itself by virtue of the fact that they have invested in acquiring a property. Given that the environment plays a major role, not only in the placement of second homes but also has a direct impact on the economic and personal value attached to second homes, a decline in property values may occur as the environment is degraded. Second homes often require large monetary investment, and often have a certain sentimental value attached to them by their owners who have come to cherish the environment and the recreation this affords (Wolfe, 1977). Therefore, understanding this relationship is key to ensuring that appropriate policy and planning can be put into place to ensure that second homes remain in pristine areas and hold their investment value, as well as, place attachment value to ensure responsible tourism is achieved.

When examining the relationship between tourism and the environment, it is essential that tourist perceptions be considered as the way in which tourists perceive their impact on the environment will dictate their actions (Dodds, 2012). Along with this, the way in which tourists perceive the impact the environment has on them will also influence potential actions (Briassoulis and van der Straaten, 2000). This thesis therefore aims to determine the relationship that exists between second home tourism and the environment, investigating the way in which second home tourists perceive this relationship. Given that perceptions determine action, perceptions in this study were considered in a bid to aid the promotion of a successful responsible tourism development strategy.

1.2. Research questions

With the rationale for this thesis in mind, the research questions were developed. These research questions will be answered using Hartbeespoort second homeowners as the case study. The research questions are as follows:

1) What are the environmental impacts associated with second home tourism?
2) What are the second homeowners' perceptions of their impacts on the environment?
3) What are the perceived impacts of the environment on second homeowners?

1.3. Conclusion

In order to answer these research questions this thesis will unfold as follows:
Chapter two will provide the international literary background for this study. Within this chapter the definition of what constitutes a second home, tourism and second home owners as tourists will be discussed. Following this, a detailed discussion emanates on how the environment has influenced the placement, property values and the degree of attachment felt by second home owners to their homes. Furthermore, three themes have emerged from the notion of responsible tourism and will be discussed in Chapter two, namely: economics, societies and the environment. Chapter two will lastly look at how the perceptions people hold with regards to their environmental impact affects their action or inaction to abate their environmental impacts.

Chapter three of this thesis then turns to examine tourism research on a national scale in South Africa. South Africa's policy approach towards tourism development is discussed, following which an overview of tourism research in general is undertaken. South African second home research is then discussed within the broader themes of responsible tourism. Chapter four then follows with a detailed discussion of Hartbeespoort the (study site) as well as the methodological procedure undertaken to conduct this research.

Once the methodological process has been discussed, Chapter five then presents and discusses the results that have emerged from the Hartbeespoort second home case study. Firstly, the general profile of the Hartbeespoort second home owner is established. Following on from this, the environmental impacts that result from second home ownership and use in Hartbeespoort are outlined and discussed. This is done in two sections whereby the first looks at the perceived environmental impacts as held by second home owners, following a discussion of some of the actual environmental impacts that have resulted from second home ownership in Hartbeespoort. The following section of Chapter five seeks to outline and

discuss the perceived impact that a degraded environment has on second home owners and this tourism sector as a whole. Lastly, a brief overview of some of the social implications of second home tourism that have emerged from this study is given. Whilst investigating the social impacts of second home tourism was not the aim of this research study, the issues that have arisen are important and therefore have been presented here briefly. Chapter six of this thesis then makes concluding arguments on the findings of this investigation into the relationship that exists between second home tourism and the environment in Hartbeespoort, as well as providing some recommendations for second home tourism in Hartbeespoort and the industry as a whole.

Chapter 2: Second homes tourism: International definitions, debates and dilemmas

2.1. Introduction

Second home research across the globe has been a focus of geographers, with growing consideration given to the subject since the publication of Coppock's (1977a) edited text, *Second homes: curse or blessing?* Within this research focus, international scholars have concentrated on the social, environmental and economic implications of second home tourism as a whole (Müller, 2011; Leslie, 2007; Marjavaara, 2007). This literature review aims to give an overview of international studies of relevance to second homes. This is done to provide a clear literary background that can be used to identify key arguments of relevance to answering the research questions. This review firstly seeks to identify a definition for second homes as well as seeks to understand how second home owners can be defined as tourists, given their frequent visitation to the same location (Goodall, 1982). With a clear definition of what constitutes a second home and a second home owner as a tourist, this literature review can assess the writings on second homes in light of second home owners as tourists, rather than simply occasional residents of an area. This review then turns to give a brief overview of the progress made in second home studies internationally.

Following on from this, the review will discuss themes that have emerged in the literature that are significant to this study. An in-depth discussion of the influence the environment has on second home development follows. If the potential consequences of a degraded environment are to be identified in the context of second home tourism, it is first essential that the role the environment plays in the establishment of this form of tourism be understood. Lastly, literature that is key to understanding the three pronged approach of responsible tourism is then reviewed. Subsequent to this, literature is reviewed that details the importance of the perceptions held by tourists in determining either their action or inaction with regards to sound environmental practices, and how these perceptions should then be factored into tourism planning and policy writing.

2.2. Defining second homes, tourism and second home owners as tourists

Defining second homes has not been an easy task, with scholarly debates centred around what constitutes a second home and how to identify such homes (Coppock, 1977b). Secondly, second home studies have been conducted in varying fields of research and thus,

depending on the lens through which the author is studying second homes, his/her interpretation and thus definition may vary (Müller, 2004). Additionally, when studying second homes, identifying the motive for purchase might also affect how second homes are defined (Coppock, 1977b). For many, the motive behind purchasing a second home is superficial, in that the home is not purchased to meet a primary housing need but is rather purchased as an added comfort to meet the desire for an improved lifestyle (Åkerlund, 2013). McCarthy (2007) defines the act of purchasing a second home as amenity migration, whereby homes are purchased mainly in aesthetically pleasing rural areas high in recreational place utility and often have consumption-orientated potential (McCarthy, 2007). Important to note here is the recreational component of second homes. Vágner and Fialová (2011) have also noted that with globalisation and the increasing sophistication of technology, the differences between primary and secondary residences are blurred and many people are now able to work from either residence; consequently work and leisure homes are not as easily separated as they were in the past. This is possibly where the motive behind each property may have to be taken into consideration, and often the motive behind second home purchases remains leisure (Huhtala and Lanika, 2012).

Acknowledging Müller's (2004) argument that the definition of what constitutes a second home will vary depending on the focus of study, there does seem to be some scholarly agreement reached with regards to the definition as put forward by Goodall in 1987 (Pienaar and Visser, 2009). Therefore in agreement with the literature, second homes in this thesis will refer to "a fixed property which is the occasional residence of a household that normally lives elsewhere […]. Second homes may be owned or rented on a long lease and are usually located in rural areas where they are used for weekend, vacation and recreational purposes" (Goodall, 1987, p.424). Keeping in mind the frequent visitation of second home owners to their own homes as is seen in Goodall's (1987) definition, it may be difficult to define second home owners as tourists in their own homes in an area they are familiar with (MacCannel, 2012). In order to establish whether second home owners can be classified as tourists, tourism will be first be defined.

Defining tourism has also proven to be a difficult task as there are many aspects that constitute tourism itself. Tourism can be a business, a social phenomenon, a form of land use; it can fall into mobility studies, or the psychological aspect of tourism may be of interest to some. Therefore there are many lenses through which the process of tourism can be conceptualised and this has made defining tourism rather a difficult endeavour (Becken and Hay, 2007). MacCannell (2012) in his article *On the Ethical Stake in Tourism Research* seeks to articulate what tourism research has to date achieved. He makes the argument that

tourism research lacks any coherent structure, leading him to question whether tourism researchers can make any fundamentally true arguments regarding the basics of tourism research (MacCannell, 2012). In this article he goes on to define tourism as an act of trying to experience something that is 'other' to the tourist's everyday life (MacCannell, 2012). The 'other' as identified by MacCannell (2012) may be found in an array of forms and can be found in areas of unfamiliarity. This unfamiliarity may be characterised by the local geography, or the social characteristic of the area (MacCannell, 2012). If this definition is to be the all-encompassing definition of what constitutes tourism, then second homes fall short. Second homes are generally used for weekend use (Goodall, 1987) and are therefore visited often by their owners and hence are places of familiar geography, local cultures as well as natural and historical frameworks. However, by definition of what constitutes a second home, they are places often characterized by leisure and relaxation where tourist activities are a common pastime (Goodall, 1987).

Contrary to the above definition supplied by MacCannell (2012), Godbey and Graefe (1991) define tourism as visiting a place that is more novel than the tourist's everyday location. This allows for repeat visitation to any given destination to be classified as a form of tourism provided that the area remains novel. An example of such tourism is visiting friends and relatives, whereby individuals may repeatedly visit the same location in order to see family and friends (Griffin, 2013). Godbey and Graefe (1991) however note that repeat visitation to an area can decrease the novelty of the visit; however, the location remains more novel than the tourist's home. Of importance to note from this definition is the fact that visitors to an area can still be deemed as tourists, even though the area has become somewhat familiar with each visit. The number of visits made to an area is simply a matter of preference as some less adventurous tourists prefer locations of familiarity as opposed to adventurous tourists who will mostly visit only new locations (Godbey and Graefe, 1991). These adventurous tourists are the only tourists MacCannell (2012) makes allowance for in his definition of what constitutes tourism.

Taking these arguments into consideration along with the definition of second homes, second home owners can be considered tourists. MacCannell (2012) has not taken into consideration that some areas, although repeatedly visited, may still remain novel, especially when one compares them to the visitor's primary residence. Given this and the leisure component that is found within the definition of what constitutes a second home, second home owners can be considered tourists, and more accurately repeat tourists.

2.3. The development of second home research internationally

Second home ownership and the idea of a prestigious leisure home is not a new concept (Coppock, 1977b). Second homes have been present for centuries. From ancient Egypt and Classical Rome they have been an acquisition of the wealthy and powerful within society (Coppock, 1977b). In more modern times, second homes have again been ever-present features of the wealthy British Royal family as well as United States presidents, but not only are the extremely wealthy elite owners of second homes, in Europe owning a second home is not uncommon (Coppock, 1977b). Increased leisure time afforded to employees, increased mobility and increased wealth in the 1970s combined to give rise to an increased number of second homes in that decade (Müller, 2004). Following this, International research on the subject of second home tourism peaked in the 1970's with the release of Coppock's (1977a) edited book titled *Second Homes: Curse or Blessing?* Post the release of this research, second homes lost precedence as a topic of interest in international studies (Pettersson, 1999). Pettersson (1999) argues the reason for this was the ending of a period of affluence that led to the construction of new second homes and the increased mobility that allowed for easy access to these homes. In recent years, however, second home tourism has become a focus again with a variety of studies being conducted on the various impacts associated with these homes (Godbey and Graefe, 1991; May, 1991 and Müller, 2002a).

2.4. The environment influencing second homes and second home owners

Nature based tourism globally is dependent upon the environmental features and attributes to draw visitors and maintain the industry (Gormsen, 1997). As a result of this, tourism relies on the natural environment for its inception and continued viability, with natural resources such as beaches, lakes and mountains providing the base from which tourism stems (Keyser, 2002). It is therefore necessary for successful tourism development, that the environment receives proper attention and handling in order to preserve not only the environment but the tourism industry as well (Briassoulis and van der Straaten, 2000). Second home tourism is no different, as second homeowners seek remote locations within nature to isolate themselves from their day to day lives and get reacquainted with nature, an activity highly prized for the rest and relaxation it affords the second home tourist (Wolfe, 1977). Second homes therefore not only represent an asset for their owners but are also a place where sentimental attachments are made to both the location and the community (Stedman, 2006). If it is at all possible that the environment influences both the monetary and emotional investment in a second home, the value of studying the implications of this link could contribute to ensuring that the relationship remains positive.

2.4.1. The environment: influencing second home placement and recreational place utility

The environment, as a tourism resource, has in the 1970's been identified as a role player in the placement of second homes (Coppock, 1977b). Scenic attractions were identified in the eighties as being the defining factor that determined a tourist's motivation to visit any given destination (Krippendorf, 1982). This still remains a largely agreed upon theory with modern second home researchers Huhtala and Lanika (2012) who have noted that it is the natural attributes of the second home area that will determine visit frequency. These natural attributes have an even greater influence on visit frequency than even the socio-demographic profile of the second home owner (Huhtala and Lanika, 2012). Coppock (1977b) offers evidence for this as he notes that locations which are less appealing are avoided in preference for farther out locations which are scenically attractive. It is argued that this demonstrates the immense weight second home owners place on the environment, as the location of the second home is said to become less appealing as distance from the first home increases (Coppock, 1977b). The environment thus has not only a defining role to play in the placement of second homes but also the frequency of visits made to the second home thereafter.

Environmental amenities that have been observed to attract second home buyers are those that are high in recreational place utility. Recreational place utility has thus been found to be one of the main influencing factors for many purchases (Stettler and Danelli, 2008). Natural amenities considered high in recreational place utility are water bodies such as lakes and dams prized for the associated recreational activities such as fishing, boating and water skiing (Coppock, 1977b). Mountains hold a high recreational place utility for hiking and mountain climbing but are of greatest influence in areas where sufficient snowfall allows for skiing and other snow related sports (Coppock 1977b). The dominant climate of an area may also influence the development of second homes, depending on the recreational purpose of the second home (Becken and Hay, 2007). Warmer climates are sought after as second homeowners seek to enjoy water sports, whilst colder climates are favoured by those drawn to snow sports (Becken and Hay, 2007). As a consequence, the environment in pristine secluded areas with natural amenities high in recreational place utility are considered ideal for second home tourism development (Stettler and Danelli, 2008). It is thus clear that the environment and the state thereof is essential to second home tourism development. Arguably then, the conservation of the environment is just as crucial. The environment is the main reason second home owners choose their respective locations (Krippendorf, 1982;

Huhtala and Lanika, 2012). Hence, if the environment is degraded the very reason for owning a second home in the area is undermined.

The environment may not only affect the placement and recreational place utility of an area in a positive manner but also negatively. Many tourists, in buying their homes in a secluded natural environment, have purchased the house because it met a certain set of natural amenities that the buyer was looking for (Coppock, 1977b). Thus when future development alters the environment, such as an increase in the amount of shopping centres in an area, this has a direct effect on second homeowners and is often one of disdain towards development (Müller, 2002a). Hall and Lew (2009) have noted that because the environment plays such a defining role in leisure activities the effects of climate change may be immense. Changing climates may make some areas less desirable for leisure, influence the water supply and decline water quality in other areas (Hall and Lew, 2009). Huhtala and Lanika (2012) in a study in Finland found that the presence of algae had a negative effect on second home owners in that it prevents recreation. In their study, the degree of impact was found to be minimal (not statistically significant), but this is in light of the fact that algal growth only affects second home owners on average 1.2 days each summer (Huhtala and Lanika, 2012). Whilst the impact in Finland is only slight, it stands to reason that if algae were present more than 1.2 days during summer, the impact this would have would also be elevated.

Therefore the environment as is seen here may also impact second homes in a negative way through prevention of recreation, one of the main reasons for purchasing a second home in the first instance (Aldskogius, 1967). It is clear that whist environmental change could affect second homes negatively it cannot be overlooked that the inverse may also be true. If the environment is maintained and kept in as pristine a condition as possible, demand for second homes in the area would possibly increase and thus contribute to sustaining the second home tourism sector.

2.4.2. The environment: influencing property values

Nicolau (2012) examined the relationship between price and nature motivation in tourism and found that individuals who desired a nature based holiday were less affected by price sensitivity, i.e. if their desire was to have a holiday in nature they were less affected by the expense of the holiday. The environment has already been demonstrated to be the defining factor in second home location and is thus the main motivator for purchase (Krippendorf, 1982). Hence, the environment influences the amount of money second home owners are

willing to spend, not only in acquiring their second homes but also on maintenance and visitation (Nicolau, 2012). Following Nicolau's (2012) argument, the result of second home owners preference for purchasing homes in aesthetically beautiful areas with high recreational place utility and decreased cost sensitivity is an increased demand for housing stock within those areas. This increase in demand results in an increase in property values for the area in which this demand is centred (Pitkänen, 2008). If the presence of natural amenities and the recreational utility drive property prices to increase, then it can be argued that a degrading natural amenity would possibly devalue properties in the same way. This has a direct impact on second homeowners as property investors, and thus second home owners have an indirect interest in environmental quality (Gardavský, 1977). If the natural environment is degraded enough that devaluation in place utility occurs it may lead to the eventual disposal of the property by the owner (Robertson, 1977).

The environment not only influences the monetary value of a second home but also the ownership, enjoyment and prestige attached to the home. Wolfe (1977) argued that the second home boom that took place in the seventies was attached to the prestige sought after by potential buyers. The better perceived the scenic location, the more private and the greater the recreational place utility, the higher the attached prestigious value (Wolfe, 1977). The environment therefore not only plays a role in the monetary value of second homes but also the attached prestige sought after by second home owners, thus in order to maintain this prestige the environment would need to be kept pristine. If the attached prestige were to be lost one of the main reasons of second home ownership as argued by Wolfe (1977) would be undermined and the second home owner may no longer see the need to retain the property.

2.4.3. The environment: Influencing place attachment and attitudes

The environment as discussed previously can be a defining factor in second home owners' choice of location: local landscapes, environmental quality, and the escape from daily life has been attributed to second home owners' place attachment (Stedman, 2006). Place attachment can be understood as the emotional bond developed between people and places as people begin to identify who they are by looking at their physical location and in doing so identify where they belong (Cuba and Hummon, 1993). Hay (1998) has argued that mobility of second home owners contributes to a weaker sense of place attachment. He notes that permanent residents, having lived in a place longer, have stronger social ties and thus their attachment to place is much stronger (Hay, 1998). Vorkinn and Riese (2001) argue a similar

case in that they believe it to be the length of occupancy that determines the degree of place attachment.

Whilst Stedman (2003) notes that the above arguments may be the case he argues that second homeowners, unlike permanent residents, find their attachment through the environmental base, and thus mobility can be seen as a non-issue. Stedman (2006) found that permanent residents find their base of attachment within their communities and the social networks found within these communities, whereas temporary residents such as second home owners will base their attachment on environmental quality and the escape that the area provides from daily life. Tjørve, Flognfeldt, and Calf Tjørve (2013) found this to be the case in southern Norway, where place attachment made distance a non-issue as second home owners were willing to travel longer distances to their homes simply because they felt a strong attachment to the place. Jaakson (1986) also argued that second home owners in Canada have a strong sense of community, developed through recreational activities where class and background are a nonissue as the pursuit of recreation unites people with different backgrounds. Social interactions built around recreation help to create a sense of place for second home owners and thus aid in the formation of attachment to the place (Amsden, Stedman and Luloff, 2011). Thus, whilst the degree of place attachment may be under question, many authors agree that the main attribute aiding second home place attachment is the environment, and a strong sense of place is developed through the environment and its associated experiences. Hence, if environmental degradation occurs then attachment to place is potentially undermined.

Vaske and Kobrin (2001) have studied the relationship that exists between place attachment and environmentally responsible behaviour, and discovered that the greater the attachment to place people have, the more likely they are to be aware of the environment and act in a manner that is environmentally responsible. Huhtala and Lanika (2012) agree that due to the purpose of second homes being so embedded within leisure and nature tourism activities, it is not hard to consider that second home owners would deem it vital to maintain environmental standards. Changes in the environment may alter place attachments negatively, and thus second home owners again have a vested interest in maintaining environmental quality (Davenport and Anderson, 2005). If strong place attachment is the result of high quality environments then degraded environments could potentially weaken place attachment, possibly resulting in the disposal of the second home, however this has to date not been investigated within the literature on second homes.

As shown in the above literature, the environment plays a central role not only for tourism in general but also for second home tourism. It determines the placement of second homes, the recreational potential of holidays at the second home, the economic value of the home as well as influences the attachment to place felt by second home owners. Therefore, in order for tourism, and in this case second home tourism, to thrive the environment must be kept in as pristine a condition as is possible. In light of this, the approach of responsible tourism management has been put forth as a means to guide development in a manner that is socially, economically and environmentally responsible (Puczkó and Rátz, 2000).

2.5. The three pronged approach of responsible tourism in research

This section of the review seeks to highlight the international literature around the three main prongs of responsible tourism and in doing so examine the relationship that exists between second home tourism and the economy, social-cultural landscape, and the environment. Firstly, sustainable tourism is derived from the concept of sustainable development, first mentioned in the Brundtland Commissions Report in 1987 (Liu, 2010). Sustainable tourism has since been a focus of international research in the tourism agenda and is widely accepted as a desirable goal (Sharpley, 2010). It is also identified as one of the many means of attaining to sustainable development, the paradigm from which responsible tourism stems (Telfer and Sharpley, 2008). This being the case, it is important to note that the definition of sustainable development and sustainable tourism still remain largely contested among scholars (Saarinen, 2006). The World Tourism Organization has chosen to use a definition that is a replica of its parent definition sustainable development: "Tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities" (UNWTO, 2005). Even with contestation over a definition, scholars tend to agree on the general goals that constitute sustainable tourism, these being sociocultural equity (namely for the host community), maintaining environmental quality, economic growth and tourist satisfaction (Puczkó and Rátz, 2000).

Whilst in recent years the focus has shifted from sustainable tourism to responsible tourism the basic three-pronged approach of environment, society and economy is present in both and as such much of the literature (even as late as 2012) examining this relationship is still written using the term sustainable tourism as opposed to responsible tourism (Dodds, 2012; Graci, 2012). No real justification could be identified for this: it seems that in many instances the use of these two terms has been used interchangeably and as such much of the literature reviewed here has been taken from sustainable tourism studies. The following

three sections of this review (2.6.1; 2.6.2 and 2.6.3) will look briefly at the social and economic implications of second home development, and then turn to an in-depth look at the relationship that exists between the environment and second home tourism.

2.5.1. Economics of second home tourism

The tourism economy in general ranks highly in terms of international trade (Lew, 2011) and thus has been identified and implemented as a means to economic development in many developing countries (Becken and Hay, 2007). Additionally tourism, being the world's largest service sector industry (Lew, 2011), has the potential to create jobs in countries who lack alternative industries (Keyser, 2002). Investing in tourism not only sees job creation in the tourism sector itself but also in sectors of the economy related to tourism, such as developers, the construction industry and marketing organizations, thus benefiting local and regional development (Keyser, 2002). This is desirable in developing countries who wish to diversify their economies and reduce their over dependence on primary forms of production (Keyser, 2002).

Within the second home tourism sector, growth is not benign; internationally it is argued to be the fastest growing sector within rural communities (Kaltenborn, *et al.*, 2008). As a result, second home destinations are converted from low key rural areas to traffic laden areas where commodity flows generate income (Marjavaara, 2007). Not all economic repercussions of second home development are positive. Second home developments when compared to other potential tourism initiatives that could be implemented demand less labour and services than do hotels and guesthouses and thus are perhaps not always the ideal economic driver for local community development (Gardavský, 1977). It has been found that as existing housing stocks in rural areas are bought as second homes there is a reduction in the supply of available houses and this aids to increase the cost of housing for local residents (Crofts, 1977). Local disadvantaged communities then often carry the costs of increased development and second home ownership as the raised costs associated with the use of now scarce resources acts to exclude poorer people (Lui, 2010).

2.5.2. Second homes and society

Whilst it is acknowledged that social impacts as a result of tourism do exist (Deery, Jago, and Fredline, 2012) there are conflicting opinions as to the extent and nature of these impacts. Within the debates surrounding the social impacts of second home tourism, it has been argued that second home owners' actions lead to the displacement of local residents

(Marjavaara, 2007; Müller, 2011). When second home owners find an area ideal for second homes, the demand for homes in this area increases, which in turn increases property prices (Coppock, 1977c; Müller, 2011). Local residents, especially those new to the property market in the area, cannot compete with the high property prices and so cannot enter into the property market, resulting in the displacement of locals as they are inadvertently forced to move away (Marjavaara, 2007). Added to this, the cost of living in these areas also increases, making it hard for locals to survive (Andereck, Valentine, Knopf, and Vogt, 2005). Opponents to this theory such as Marjavaara (2007) argue that this displacement theory is untrue. In a study conducted in Stockholm Archipelago, Marjavaara (2007) found that second homes were being bought up by permanent residents, thus reasoning that this dispels the argument of displacement theory. A further finding of this study was that permanent homes hold higher value than do second homes and thus it is permanent homes that raise property values and not second homes (Marjavaara, 2007). The controversy that exists with regard to the displacement theory may indicate the case specific nature of the theory.

Tourism, in general, has been identified as a positive driver of infrastructure development and maintenance, and is thus promoted as a responsible means of development (Telfer and Sharpley, 2008). This may be the case but it has also been found that tourism, and in particular second home tourism, aids to exclude local communities not just from natural amenities and infrastructure but from the process of tourism development as a whole (Bielckus 1977; Binns and Nel, 2002). Power relations that exist within local communities and between local communities and second home owners also see few benefiting from tourism development, often the most disenfranchised members of communities receive the least benefit (Binns and Nel, 2002; Rye, 2011). In spite of this, there are locals within host communities who do support tourism and second home development. These locals have been found to be those who benefit most from tourism development and thus have reason to favour further development (Andereck *et al.,* 2005; Tosun, 2002). In areas where the increase in economic prosperity has been noticeable, locals also tend to be more favourable towards tourism as hardship characterised the pre-tourism community (Tosun, 2002). Economics are not the only driver of local opinions on second home tourism, local residents who have high ecocentric values have been observed to oppose further developments within their communities (Gallent, Mace and Tewder-Jones, 2005; Kaltenborn *et al.*, 2008). Differing opinions such as these among local residents may give rise to conflict.

Among other social impacts of tourism is the increase of crime, gambling and health implications as diseases are easily spread through mobile tourists (Keyser, 2002). The

process of acculturation has been a cause for concern as cultures lose their authenticity as they come into contact with and adopt aspects of other cultures through tourism (Telfer and Sharpley, 2008). In stark contrast to this argument it has also been argued that tourism can also act to prevent local development and progression as destinations are forced to conserve their culture and heritage in a bid to keep the tourism industry thriving (Liu, 2010). Social impacts exist for tourists as well, as they may be the victims of crime or become ill through travelling to an unfamiliar area (Telfer and Sharpley, 2008). The literature presented here shows that undeniably second home tourism has social implications for responsible tourism that cannot be ignored.

2.5.3. Second homes impacting on the environment

As shown, nature based tourism and the environment are interlinked and a thriving tourism industry depends largely upon the state of the local environment not only for its inception but also for its continued viability (Pigram, 1980). This being the case, it is essential that tourism initiatives have as little impact on the environment as possible. A responsible tourism initiative will therefore acknowledge that there exists an inter-related relationship between the environment and tourism and therefore the impacts of tourism must be managed and the result must be a net-positive impact on the environment as opposed to degradation (DEAT, 2002). Thus, understanding the impacts associated with second home development is crucial. Within the debates surrounding the environmental impacts associated with second home development there exists some contention with regards to the extent of impact.

Müller (2002b) on the one hand, argues that second homes are seldom newly built, instead already existing houses are acquired in areas where rural depopulation has resulted in the availability of housing stock. Thus, he maintains that due to second homes not being newly built but rather already existing structures that are now less intensively utilised, the environmental impact is somewhat abated (Müller, 2002b). Second home owners in this case are also contributing to sustainable development as they maintain houses that would otherwise not be maintained as a result of rural depopulation (Müller, 2000). It must be noted that Müller‘s thoughts are very much connected to the situation in Scandinavia. In conjunction with this it was found in Michigan, USA that second homeowners have a limited impact on the environment due to their limited stay in their homes as opposed to permanent residents living in the area (Gartner, 1987).

Gallent *et al.* (2005) have made a similar argument in that they identify the environmental impacts of second home development as either being neutral or beneficial. Beneficial in the

case of second homes being purchased from housing stock that would otherwise fall into decay, and neutral whereby if effective planning measures pre-empt second home developments the impacts of newly built second homes are neutral (Gallent, *et al.,* 2005). However, it must be noted that second home owners necessarily have two impacts (two houses), whereas single home owners only have one source of impact (first home). Added to this any new structure, whether well planned or not, would inevitably impact upon the environment: good planning practices would only affect the degree of impact. However, even the limited time that second home owners spend at their holiday residence is valued greatly for the recreation afforded to them (Wolfe, 1977). Second home owners having purchased a home in an area for its natural amenities, may be against any activity that would alter this countryside, and thus have been identified as conservationists aiding environmental protection rather than contributing to degradation (Müller, 2002a).

Contrasted with this view is that of authors who believe the impacts of second homes are far more severe than minimalistic and this view is more widely supported. Hiltunen (2007) views the simple act of owning a second home as socially and environmentally unsustainable as a large number of global citizens do not even own a first home. Second home purchases have been linked to increasing pressure being placed on local markets to meet the needs of many who do not have a first home and thus whilst second homes may not be newly built, the demand that results from second home purchases results in newly built first homes for many (Gallent, *et al.,* 2005). Thus, second homes, even when purchased from existing housing stock, do not abate the environmental impacts associated with building.

By their very existence, Wolfe (1977) argues that second homes are inessential given that that many places would fare far better in the absence of second homes and therefore the absence of the associated impacts. If this is the case, that second homes are considered unnecessary and unsustainable in their very existence, then any consequent environmental damage cannot be considered responsible. However the argument made here has only considered the environment and has not taken into account the potential economic gains that result from second home tourism (Marjavaara, 2007).

Whilst it is acknowledged that some second homes may be acquired through rural depopulation, there are many which are not, but are rather purpose built (Hiltunen, 2007). These homes are often built in areas of high recreational utility and are often built in sensitive areas unsuitable for development (Nouza, Ólafsdóttir and Müller, 2013; Hiltunen 2007). It has been observed that developers unaware of or unconcerned by the environmental implications of second home development ignore the long term impacts of

their developments for the immediate financial payoff (Cohen, 1978; Stroud, 1985). Within these now overdeveloped sensitive environments, every tourist entering and engaging in tourist activities such as fishing and hiking adds to environmental degradation with each pass (Gartner 1987).

In conjunction with the above, second home development does not often happen in isolation, but rather in conjunction with tourist infrastructure which needs to be developed (Hoogendoorn and Visser, 2011a). In order to sustain tourism and meet the demands of the tourist population, building booms occur to provide roads and shopping facilities for tourists, often always in environmentally sensitive areas (Telfer and Sharpley, 2008). Converting land for both the development of homes and associated infrastructure is fundamental to tourism (Gössling, 2002). Infrastructure development is fundamental given that many tourists come from areas where service provision is of a high standard, and thus are accustomed to this standard (Cohen, 1978). Increased infrastructure could aid in attracting more tourists to an area, however, most sites can only accommodate a certain number of tourists before the environmental threshold is reached and degradation increases at an alarming rate (Pigram, 1980). Whilst these impacts are set to increase, they should rather be reduced in a bid to mitigate further far-reaching impacts such as climate change (Hiltunen, 2007).

One such tourist activity identified in the literature as adversely impacting upon aquatic environments is that of boating (Mosisch and Arthington, 1998). Some of the environmental impacts of boating discussed by Mosisch and Arthington (1998) include: exhaust, fuel and oil discharges into water bodies; bank erosion due to the creation of waves; further erosion as a result of damage to vegetation through boat launching. Tran, Euan and Isla (2002) have noticed a variety of these impacts in the coastal waters in Holbox Island, Mexico, mainly around the jetty where launching of boats takes place. In India intense boating for recreational tourism has been linked to an increase of heavy metal pollutants in the Hussainsagar Lake (Reddy, Babu, Balaram, and Satyanarayanan, 2012).

Among the impacts associated with boating is an unnatural increase in the turbidity of a water body (Mosisch and Arthington, 1998). Boats, through the generation of waves and the motion of the propellers, act to resuspend settled sediment in the water body (Lenzi, Finoia, Gennaro, Mercatali, Persia, Solari, and Porrello, 2013). The action of resuspending sediments enriches the water and has been linked to the creation of algal blooms (Lenzi *et al.* 2013; Mosisch and Arthington, 1998). Turbid water also limits the depth to which light can penetrate the water body and so limits the photosynthesis of aquatic plants. Also limited is

the depth to which surface predators can see and so their capacity to feed on subsurface organisms is hindered (Mosisch and Arthington, 1998).

Not only does environmental degradation occur in the building and use of the second home environment but often there are continued and sustained impacts that are felt far beyond the immediate location of the home. Water consumption in second homes is a major environmental issue that needs to be addressed. With tourism and the temporary migration of tourists the demand for water is shifted and oftentimes the shifting demand is to water scarce areas which struggle to meet this demand (Gössling, 2002). Often second homes have pools and Jacuzzis that consume large amounts of water (Tress, 2000). Keyser (2002) notes that with the often fast paced development booms, local municipalities lack adequate sewerage facilities to cope with the increased demand, which often results in the discharge of untreated sewerage into water systems. The act of recreation itself has been identified as a possible water polluter as boats discharge oil and wastes into water systems (Hall and Lew, 2009). With fresh, clean water a valuable and limited resource, the environmental and social implications of such a high demand need to be taken into consideration (Gössling, 2002). Often water resources high in recreational utility attract second home developments directly resulting in the deterioration of water quality (Tress, 2000). These waterways then often act as carriers of pollution to areas downstream (Atkinson, Picken, and Tranter, 2007) making the impacts of second homes widespread.

The high energy usage within second homes is also a cause for concern. High energy equipment like saunas and electric heaters are often found in second homes owned by the wealthy elite (Tress, 2000). Added to this is the use of stoves, ovens, air-conditioning and electrical appliances (Gössling, 2002). The increased use of energy increases the amount of carbon dioxide and other pollutants released into the atmosphere during the production of energy (Gössling, 2002). Thus, once again second homes have environmental effects far beyond their physical locality, and as a consequence the number of people affected by these negative impacts is far greater than may be assumed.

A direct result of second home development is the increase in the amount of traffic on the roads, especially during holiday periods (Stettler and Danelli, 2008). More cars on the roads travelling long distances inevitably denote an increase in congestion and pollutants such as carbon monoxide (Rogers, 1977; May, 1991). Added to this, ecosystem damage is one of the dominant concerns surrounding tourism in general and thus second home tourism as well. Ecosystems are vital for humanity as they are responsible for maintaining support systems that are essential to life as well as providing the basic necessities for life to thrive

(Gössling, 2002). Tourism development has been found to be responsible for the damage of sensitive ecosystems through actively changing ecosystem dynamics via hunting and fishing (Holden, 2003; McCarthy, 2007), and in some instances have led to the extinction of wild species through the destruction of land and habitat fragmentation (Hall and Lew, 2009).

Once second homes are built and use frequency is determined, the potential for increased associated environmental impacts still exists. It has been found in Finland that second homes, once modest buildings, are now inadequate for meeting the needs of tourists (Hiltunen, Pitkänen, Vepsäläinen and Hall, 2013). The Finnish second home owner is now altering his second home to meet an increased need for luxury at the second home which was not there upon purchase (Hiltunen, *et al.,* 2013). Finnish second homes are changing from small unserviced hunting cottages to essentially well serviced homes, supplied with electricity, water and the conveniences of a first home such as under floor heating (Hiltunen, *et al.,* 2013). In this instance the environmental impacts of second homes in Finland are being exacerbated and have not stopped once purchase and initial use has been determined.

In order for tourism to be deemed responsible, the economy, society and environmental spheres need to be taken into consideration, maintaining a balance for the betterment of all. At present the debate around second homes is divided between those optimistic about the potential positive economic ramifications of development for local communities and others concerned about the environmental impacts associated with this very development (Kaltenborn, *et al.*, 2008). Optimism about economic gain for developers often results in environmental degradation, but in order for responsible tourism to prevail, developers need to be regulated and forced to consider the environmental implications of each new development, possibly through adequate long-term policy planning and implementation (Bianchi, 2010; Graci, 2012). Another option identified in international literature for decreasing the environmental impacts associated with second homes is the greening of tourism accommodation (Leslie, 2007). Greening refers to the implementation of environmentally friendly technologies and the promotion of environmentally friendly practices (Leslie, 2007). Through the greening of tourism accommodation it is hoped that further growth of the sector will have a reduced environmental impact, aligning with the goals of sustainable development and responsible tourism (Leslie, 2007). Leslie (2007) identifies a few factors that, when implemented, could result in reducing the impacts of second homes, for example: increasing the energy efficiency of accommodation by way of insulation and the double-glazing of windows; recycling and influencing the behaviour of guests by promoting efficient transportation in one instance. This puts the onus for environmental protection on

second homeowners themselves in the hope that the tourists themselves will become more responsible. If second home owners are conservationists as Müller (2002a) argues, then implementing such an initiative may prove to be successful as long as it aids environmental conservation rather than degradation as is favoured by second home owners who value the environment and the setting it provides for their homes.

2.6. Perceptions and Actions

Undeniably, second homes do impact upon the environment, but whether or not second home owners perceive this impact, or even how they perceive this impact, is needed in our understanding as "values, attitudes, normative beliefs and behaviours are built upon one another, so that values and attitudes influence behaviour and preferences" (Kaltenborn *et al.,* 2008, p.668). From the onset, second home owners' perceptions are crucial to tourism as what tourists perceive as desirable is in turn where they choose to visit (Liu, 2010), or in the case of second homes where they choose to buy a property. Following the purchase of a home, Davenport and Anderson (2005) have found that place attachment influences attitudes which in turn influences the behaviour of second home owners within their location. As discussed previously, the environment impacts not only the second home location and value, but also the attachment to place that second home owners may come to feel. Thus, understanding how second home owners perceive this is also imperative to ensure that second home owners remain satisfied within their environments.

Ap (1992), found that host communities' perceptions of tourism was a precursor to their actions with regards to tourism. Community members who found tourism to be a positive contributor to the community were observed to be more supportive of tourism development (Ap, 1992). If this is the case for host communities, then the same may be true of tourists themselves. Dodds (2012) notes that all stakeholders hold powerful positions within sustainable environmental management practices as they can either aid or hinder the process of sustainable development (Dodds, 2012). Further, differing stakeholder perceptions can lead to conflict within communities, impeding sustainable outcomes (Marcouiller, Gartner and Chraca, 2013). Thus, it is necessary to understand stakeholder perceptions in order to facilitate sustainable development. How second home owners perceive their impacts on the environment, as well as the impact the environment has on them, will determine their actions taken. It is hypothesised here that a second home tourist satisfied with the environment will continue to remain a second home owner in the area. However, a second home owner who is dissatisfied may sell their property and leave the area altogether (Robertson, 1977). The way in which second home owners perceive their

impact on the environment may also determine their willingness to abate some of their impact (Dodds, 2012). Therefore understanding the way in which second home owners perceive their relationship is key in implementing responsible tourism policies, as responsible tourism in South Africa seeks to maintain positive tourism experiences as well as minimise environmental impacts (DEAT, 2002).

Given that second home owners' perceptions of their environmental impacts influence behaviour, these perceptions should be taken into account in the process of policy writing and planning, given that it is these perceptions that will determine second home owners' willingness to engage with the implementation of these environmental policies. Acknowledging this it must be noted that the DEAT (2002) *Manual for Responsible Tourism South Africa* does not identify tourists or their perceptions as an important factor in responsible tourism planning. Focus is rather placed upon institutional top down governance with environmental impact assessors and construction companies, among others, being key to ensuring responsible tourism. Whilst these are important stakeholders in ensuring responsible tourism they are only most helpful in the beginning construction phases of tourism development. Thereafter focus needs to shift to the tourists themselves and in this case second home owners. As stakeholders, second home owner perceptions and actions are vital to peaceful responsible tourism development.

2.7. Conclusion

This review has provided literary justification for including second homes as a form of tourism as well as second home owners as tourists themselves. Given this, it is possible to examine the environmental impacts of second homes through the lens of responsible tourism and to discuss the impacts associated with second home development and use in light of broader tourism policies in South Africa. With the responsible tourism focus of this study the literature review has revised both international and local studies of relevance. Special emphasis, however, was given to studies with an environmental focus as these are of most relevance to this study. This literature review has examined key themes that have emerged in the second home discourse with regards to the relationship that exists between the environment and second home developments.

Although there exists a wealth of literature on the influence the environment has on second home placement, value and place attachment, no studies could be reviewed which focus on how a degraded environment impedes or undermines this influence. Studies detailing the impact second homes have on the environment have predominantly been undertaken in

Europe. Even though studies of this nature have been undertaken in Europe the environmental impacts of second homes do not dominate within the literature on second homes, rather the economic implications of second home developments for host communities has been the main focus internationally and, as will be seen in the following chapter, in South Africa as well.

A precise and well-read literature review is needed in that it provides the basis for a sound research methodology. With a clear definition of what constitutes a second home, the methodology for identifying second homes may take this into consideration. Additionally a thorough literature review has been used to guide questions that would need to be asked in order to understand both the impact that second homes have on the environment as well as the impact of a degraded environment on second homes.

Chapter 3: Building an understanding of Tourism and Second homes in South Africa

3.1. Introduction

Tourism in South Africa is one of the country's major foreign exchange earners (Hall, 2009). In light of this and in direct response to poverty, the South African government now actively promotes development through tourism using the country's Local Economic Development strategy, in order to benefit host communities through economic growth (Rogerson, 2009). This has resulted in many South Africans benefiting through the sustainable employment of often-times unskilled labourers within the tourism sector (Hall, 2009; Mago and Hofisi, 2013). Given that Tourism is a major earner for the country, it has also become a focus of some researchers, the work of whom will be reviewed in this chapter.

Added to this, a great deal of international second home literature has been found relevant when explored in the South African context. South Africa, rich in natural amenities, has seen an increase in the number of second home developments throughout the country (Hoogendoorn, Mellet and Visser, 2005). These developments are the result of increasing economic prosperity, combined with an increased amount of leisure time afforded to employees which together aid the development of both tourism and second home markets (Hoogendoorn and Visser, 2004). Given the impetus placed on tourism as a major foreign exchange earner and the increase in the second home tourism market, there is a great deal of relevance for studies that fall within this scope of research.

This chapter also aims to outline current tourism research as a whole in South Africa in order provide some context for this research. Thereafter, South Africa's responsible tourism policy approach is reviewed. This provides the main context from which this research emanates. The three foci of responsible tourism, namely economics, society and the environment, are examined with specific relevance to South Africa. From the overview provided, the clear dominance of economic tourism studies within South Africa is seen, this providing clear evidence of the gap that exists within South African second home research.

3.2. Tourism research in South Africa

Tourism in South Africa has become a spotlight subject in the post-apartheid period and has received much attention from the South African government as a development strategy (Visser and Hoogendoorn, 2011). This attention comes as a result of tourism being identified as a means to meet a range of developmental goals within the country (Rogerson and

Visser, 2011a). Additionally, tourism may be used as a means to generate 'inclusive development' thereby addressing some of the social inequalities that have persisted as a result of apartheid (Rogerson, 2013). Binns and Nel (2002) have found that the promotion of urban tourism as a local economic development strategy was in fact successful in addressing some of the apartheid legacies that persisted in two South African towns, namely Still Bay in the Western Cape and Utrecht in KwaZulu Natal.

Rogerson and Visser (2005) have noted that prior to the awareness of tourism as a potential source of income for local development, tourism as a research agenda was largely neglected in South Africa. Reasons for this include the fairly limited extent of tourism within South Africa that resulted from apartheid restrictions placed on movement within and into the country (Rogerson and Visser, 2005). Added to this, tourism in South Africa has traditionally been intensely nature based and therefore other forms of tourism research fell short of scholarly gaze (Rogerson and Visser, 2005). However, since the potential of tourism for economic development has been identified, expansion within this sector is likely to occur and therefore there is a clear need to develop a broader local research agenda for tourism within South Africa (Rogerson and Visser, 2011b).

Visser and Hoogendoorn (2011) have argued that there are essentially four main frameworks that have guided tourism research in South Africa to present, these being responsible tourism, pro-poor tourism, local economic development tourism and lastly tourism combined with small, medium and microenterprise development. Within these four main research frameworks the dominance of economic tourism studies is clearly identified. Rogerson and Visser (2011a) have noted that this economic tourism research bias that has emanated in Southern Africa as a whole is as a result of the emphasis placed on tourism as a means to meet a variety of development goals.

Whilst responsible tourism was identified by Visser and Hoogendoorn (2011) as one of the main frameworks guiding tourism research in South Africa, the promotion of economic development as a means of responsible tourism dominates tourism research; thus leaving the social and environmental research spheres of responsible tourism lacking within the country. Again, the reason for this is the emphasis placed on tourism as a means for development so engrained within South African tourism policy (Rogerson and Visser, 2011a). Whilst sustainable social and environmental objectives are mentioned in responsible tourism policy, they are not emphasised as much as the economic sphere (DEAT, 2002). This then has emanated in South African tourism research agendas. This being said, South African tourism researchers are aware of the fact that there are environmental and social

consequences that result from tourism promotion as a means to economic gain (Hoogendoorn and Visser, 2011d). As pointed out by Binns and Nel (2002) it is therefore of utmost importance that the economic gains of tourism be weighted against the resultant social and environmental costs.

3.3. South Africa's Tourism policy: From sustainable development to responsible tourism

The tourism industry has been identified as having the capacity to generate growth and wealth not only in South Africa but globally (Saarinen, 2009). This has led to its promotion within developing countries as a strategy to create jobs and generate wealth within local economies (Tefler and Sharpley, 2008). In turn, this has brought about a fast developing industry whose inappropriate development practices have resulted in overused and degraded environments, the undermining of host societies, as well as instances of negatively impacted economies (Puczkó and Rátz, 2000). Briassoulis and van der Straaten (2000) argue that with these negative impacts, the quality of the product on offer is degraded to levels unacceptable to consumers. The brunt of this deteriorating quality might be felt when further development is called to question, resulting in a system collapse (Saarinen, 2006). This has left a dilemma for developing countries that desire economic growth and development, however, this development often either does not come to be or upon conception may only benefit a small portion of the population: usually local élite or multinational corporations (Tefler and Sharpley, 2008). Added to this, Telfer and Sharpley (2008) note that the social and environmental costs of tourism development are often disproportionate to the limited economic gain. In light of this, the need for better tourism policy and practice was identified, and sustainable development became the root for the sustainable tourism approach (Liu, 2010).

Within South Africa, responsible tourism as a further derivative of sustainable tourism has become the backdrop for both tourism policy and development (Visser and Hoogendoorn, 2011). In 2002, the Department of Environmental Affairs and Tourism released a *Responsible Tourism Manual* (DEAT, 2002) for the country, in which responsible tourism was defined as tourism that promotes improved holiday experiences for tourists in conjunction with business opportunities for tourism enterprises (DEAT, 2002). One of the goals of responsible tourism is improving the quality of life of local communities through socio-economic development and improving natural resource management (DEAT, 2002). Within the key elements of responsible tourism identified in the manual, the role of establishing, monitoring and ensuring economic growth, social upliftment and environment

management are identified throughout. Thus, it is evident that responsible tourism is seen as a three-pronged approach. The goal of responsible environmental practices is essentially promoting the use of local resources in a sustainable manner (DEAT, 2002). This brings to light the relationship that exists between responsible tourism and sustainable tourism. Whilst the South African government has progressed from sustainable tourism to responsible tourism, there is seemingly no disjuncture between these two terms (DEAT, 2002).

It must be noted that whilst the South African government's *Responsible Tourism Manual,* highlights the need for responsible practices in tourism, no mention is made of second home tourism; rather the manual is a broad overview for tourism in general which mainly speaks to operators and developers (DEAT, 2002). Thus the manual lacks clarity on how to achieve responsible tourism within the very private second home tourism sector.

3.4. Responsible tourism and second home tourism research in South Africa

It was noted in 2003 that whilst international second home research has explored in some detail the phenomenon of second home tourism, South Africa has not seen the same research focus stem and therefore South Africa lacks contextual tourism research (Visser, 2003). Since then second home research has been conducted within the South African context with the majority of the scholarly work compiled by Hoogendoorn and Visser (2004; 2011a,b,c,d). Within local South African research it has been observed that much of the second home trends seen mirror those observed in international second home studies (Hoogendoorn, Mellet and Visser, 2005). Visser (2004b) has found that a number of coastal towns have come into existence as a result of second home development in South Africa. Visser (2004b) goes on to note that driving these developments are higher levels of disposable incomes combined with an increase in leisure time (Visser, 2004b). Second home developments more recently have been linked to a weekend leisure agenda and thus are closer to metropolitan areas, making them easily accessible for more frequent use (Hoogendoorn, Mellet and Visser, 2005). However, important to note is that from the outset second home development within rural areas has been inextricably linked to economic prosperity and development within South Africa's economic hub of Gauteng (Visser, 2003).

3.4.1 Second homes and the economy in South Africa

The *Manual for Responsible Tourism in South Africa* speaks to tourism in general and thus perhaps lacks interpretation when looking through the lens of second home studies (DEAT, 2002). However, the manual identifies responsible economic tourism as tourism that:

distributes the economic benefits widely and equitably; acts to diversify the tourism sector; promotes employment as well as entrepreneurs among previously disadvantaged individuals; uses local labour; links formal and informal sectors; retains revenue derived within the local economy; and lastly emphasises fair trade in both employment and purchasing (DEAT, 2002, pp. 17-18). Therefore, in order for second home tourism to be responsible it must meet the criteria as set out above.

3.4.2. Second homes and economic research in South Africa

Following on from research trends observed in South African tourism studies in general, the second home research agenda has also been dominated by studies detailing the local economic implications of second home developments for host communities. This is clearly seen in the following line up of selected published second home research titles over a number of years: *Second homes and small-town (re)development: the case of Clarens* (Hoogendoorn and Visser, 2004); *Economic Development Through Second Home Development: Evidence from South Africa (*Hoogendoorn and Visser, 2010b) and *Tourism, Second Homes, and an Emerging South African Postproductivist Countryside* (Hoogendoorn, and Visser, 2011a). Whilst these are not the only published articles on second home research in South Africa, they do form a timeline of researched works done by Hoogendoorn and Visser who have generated the staple of second home research in South Africa. Once again the economic focus comes about as a result of the emphasis placed on tourism as a local economic development strategy within South Africa (Rogerson and Visser, 2011a).

Within the research agenda on second homes in South Africa, it has been argued that second homes have been a means to rural change over the past half a century (Hoogendoorn, Visser and Marais, 2009). Second home developments have been linked to the emergence of post-productivist rural economies in areas where productivist economies dominated prior (Hoogendoorn, Visser and Marais, 2009). This transition as contended by Hoogendoorn and Visser (2011a) came about with the dismantling of the apartheid state, whereby former intensive agricultural subsidisation was dissolved by the incoming government with the addition of the inclusion of previously excluded South Africans within the local economies. The result of this was increased competition and hardships faced within the agricultural sector and rural economies as a whole, which resulted in a need for the diversification of these economies for survival (Hoogendoorn and Visser, 2011a). This, linking back to the local economic development strategy of the South African government,

meant that in order to promote economic growth within these areas, local economies need to diversify away from sectors that were characterised by hardship (Binns and Nel, 2002).

Tourism, and more specifically second home tourism, have been identified as instruments of change within rural economies aiding them to transform to post-productivist economies (Hoogendoorn and Visser, 2011a). Hoogendoorn and Visser (2010b) argue that the capital inflows into local economies that stem from the development of second home tourism illustrate the potential that this sector has to act as a local economic development strategy for small South African towns. This conclusion was reached through the study of five small South African towns, and it was argued that even though second home tourism from the onset was not promoted as a means to economic development, the results show that second home tourism does hold potential for local economic development and should therefore be embraced. It is therefore logical to assume that the dominating research agenda would follow this economic transition as it is the need for economic diversification which has characterised tourism and second home tourism development in rural areas.

A variety of positive economic impacts have been identified within local second home case studies. First and foremost Visser (2002) identified the initial purchase of a second home as having positive ramifications for the host community. He links second home purchasing with the process of gentrification whereby rural towns are actively 'saved' by incoming tourists (Visser, 2002). Evidence of this is the fact that second home tourists aid in maintaining the area through monthly payments made to the local municipality in the form of rates, taxes electricity, water and refuse removal (Hoogendoorn and Visser, 2004). Along with this, second home tourists are spending fairly large amounts of money on maintenance and renovations done to their second homes, maintaining the appearance of the local area as a whole (Hoogendoorn Visser and Marais, 2009). In De Waterkant, Cape Town, Visser (2004a) identified second home tourism as being directly responsible for the preservation of older buildings that, due to the high maintenance costs associated with their age, were likely to be destroyed (Visser, 2004a). Added to this influx of second home development and coinciding maintenance is the increase of property prices within host communities (Hoogendoorn Visser and Marais, 2009).

Further, it can be seen throughout second home research studies that tourism expenditure is linked to the generation of wealth for host communities (Hoogendoorn, Mellet and Visser, 2005; Hoogendoorn and Visser, 2011c, Baker and Mearns, 2012). Vast arrays of tourist services develop to cater for the needs of second home tourists and are subsequently maintained by these tourists (Hoogendoorn and Visser, 2011d). Second home tourism has

therefore been linked to local economic development through expenditure on tourism-related products within the host community (Hoogendoorn and Visser, 2011c). In conjunction with this, through the process of maintenance and renovations, the local economy also benefits (Hoogendoorn, Visser and Marais, 2009). Resulting from second home tourism expenditure is an increase in employment within second home areas for both skilled and unskilled labourers (Visser, 2004a). Hoogendoorn, Mellet and Visser (2005) found this to be the case in various South African locals, namely within the Overstrand Municipality, the towns of Clarens and Zinkwasi and also the neighbourhood of De Waterkant in the Western Cape, whereby an increase in employment rates had been the result of second home developments. The case study of Rhodes has also shown evidence of job creation within the town emanating from second home tourism (Hoogendoorn Visser and Marais, 2009). Hoogendoorn and Visser (2011d) note that the more accessible the second home is, the more frequently it can be visited and therefore the more potential there exists for an increase in expenditure and subsequently an increase in the positive gains associated with second home development.

While economic diversification and increased labour markets are identified as a positive economic ramification of second home tourism in general (Hoogendoorn, Mellet and Visser, 2005), upon closer examination there are also negative implications. Employment that results from second home tourism tends to be both low quality employment and proportionally low paying (Visser, 2006). This form of employment also tends to enforce the apartheid legacy whereby previously disadvantaged South Africans are employed in these low quality jobs (Visser, 2004a). Whilst Hoogendoorn and Visser (2004) argue that the positive implication here is that individuals who would otherwise not be employed have found work, the exploitative nature of this work is still of concern.

In light of the current literature that exists there is some evidence that second home tourism in South Africa can be deemed economically responsible in that it does aid to diversify the tourism industry, as well as promote employment within local economies. However, the nature and remuneration of this employment is somewhat contested. There exist no studies that have examined the fair trade aspect of these businesses maintained by the second home industry and thus there exists perhaps a lack in the depth and breadth of second home studies in South Africa in light of responsible tourism.

3.4.3. Second homes and societies in South Africa

It is acknowledged by the South African government that tourism does contribute to social and cultural change both directly and indirectly (DEAT, 2002). Responsible tourism here requires that trusting relationships be formed to foster the exchange of information and effective communication to promote understanding and to avoid the rise of conflict (DEAT, 2002). Therefore, as identified by Keyser (2002), the challenge for planners becomes how to develop tourism in a way that is rewarding and meets the needs of tourists whilst maintaining sensitivity for local communities who are directly impacted by tourism. Whilst there were no studies that could be found for South Africa where the specific foci of the research was to examine the social ramifications of second home development, some examples could be drawn from studies examining the economic implications of second home research and will therefore be discussed here.

Whilst there are positive economic impacts of second home tourism within the South African context as has been discussed, the potential exists for there also to be negative impacts that can be attributed to the development of second home tourism, which then have negative ramifications for the local community. First and foremost, as identified as a positive economic implication was the increase in property values attributed to the emergence of second homes within an area (Hoogendoorn, Visser and Marais, 2009). However, there do exist negative social ramifications that result from this as was found to be the case in Clarens, where the active exclusion of locals from the property market has taken place (Visser, 2006). This exclusion has come about as a result of the increased property prices in the area that have resulted from increased property demand from second home owners (Hoogendoorn and Visser, 2004; Visser, 2006). Exclusion from the property market is not the only form of exclusion that occurs: added to this, locals tend to be unable to afford the rising prices of goods within the town as was found to be the case in Zinkwazi in Kwa-Zulu Natal (Visser, 2006). Further, Visser (2004a; 2006) also found that gearing a local economy solely towards tourism also acted as a force of exclusion in both Zinkwazi and De Waterkant whereby locals are unable to partake in any other form of economic activity apart from tourism given the lack of diversity within the local economy. This also then has ramifications for potential future land use as was found to be the case in De Waterkant whereby it is difficult to incorporate any type of land use other than tourism in close proximity to the second home development (Visser, 2004a).

Added to this, it must be understood that second homes, “in the South African context inadvertently leads to the maintenance of apartheid’s racially segregated residential areas

and divisions of labour" (Hoogendoorn, Mellet and Visser, 2005 p. 113). When one takes the fact that second homes are generally located in areas with natural amenities high in recreational place utility (Stettler and Danelli, 2008) the result is that only a marginal portion of the population will come to enjoy these amenities, whilst resultant environmental impacts could potentially affect the entire nation, for example the pollution of water in an already water-scarce country affects not only the marginal elite building second homes on dams, but the nation as a whole. It is therefore the marginal South African demographic who then enjoy the benefits of owning additional properties, this demographic being fairly uniform in nature.

The South African second home owner demographic has been found to be fairly uniform within second home tourism studies and potentially has some social ramifications as well. Compiled from five case studies that have emanated namely from Rhodes, Greyton, Dullstroom, Clarens and Nieu Bethesda it was found that second home owners in all instances are mainly white, wealthy, highly educated, male South Africans with high earning potential (Hoogendoorn and Visser, 2010b). The high earning potential of these individuals allows them to invest in the second home market (Hoogendoorn and Visser, 2010b). This fairly marginal demographic has been identified as evidence of the unevenness that persists within South African society as a result of the exclusionary apartheid system (Hoogendoorn and Visser, 2010b). The demographic found observed within South African second home research has made evident the uneven wealth distribution within the country as well as the gendered nature of property ownership that dominates the South African market (Hoogendoorn and Visser, 2010b). This marginal demographic is not the only second home demographic at play within South Africa, Hoogendoorn (2011) has identified that low-income earners in South Africa also contribute to the second home tourist demographic. This form of second home tourism has once again been characterised by apartheid whereby second homes have resulted from post-apartheid migration within the country (Hoogendoorn, 2011). Whilst this is so, it is a fairly limited researched field and thus the main demographic identified within South African second home studies is the former.

3.4.4. Second homes and the environment in South Africa

Whilst *The Manual for Responsible Tourism in South Africa* has called for there to be a net positive impact on the environment that results from tourism (DEAT, 2002), no second home tourism studies in South Africa have looked at whether this is the case or not. However, upon the examination of the international second home literature a few potential environmental concerns were highlighted and are likely to be the case in South Africa, such as energy consumption which was flagged as being particularly high for second home

owners internationally (Hiltunen, *et al.,* 2013). The potential therefore exists for this to also be the case in South Africa. This is particularly worrying as in South Africa high polluting coal forms the staple of the limited electricity supply (Spalding-Fecher and Matibe, 2003). Added to this Hiltunen (2007) argues that the simple act of owning a second home is unsustainable given that large portions of the world's population do not even own a first home. Nowhere is this more evident than in South Africa where large portions of the population live in informal settlements with inadequate service provision, whilst a small elite of wealthy citizens spend millions on what he identifies as being unnecessary houses (Wolfe, 1977). Whilst these two examples are identified as potentially the case in South Africa the lack of South African case studies detailing the environmental impacts of second homes is concerning in light of the call to responsible tourism.

3.5. Conclusion

This chapter has shown how South Africa's policy agenda has influenced the dominance of economic studies within tourism research as a whole including second home tourism. As Visser noted in 2003 there is a lack of research on second homes within South Africa scrutinizing this development. Whilst this has since changed there is now a lack of diversity within the South African second home research agenda. However, as detailed here, responsible tourism has been identified by government as forming the basis from which tourism policy should be derived (DEAT, 2002) and therefore expanding this research agenda to ensure that tourism not only promotes economic growth but that it also promotes responsible social and environmental behaviour is essential.

Visser (2006) has noted that second home development in South Africa holds similarities to second home development within the industrialised North, making this comparison in light of the economic implications of second home tourism, means that the potential exists for this to be true of other second home research agendas that have also emerged in the Global North. Therefore, it is of great importance that we not only consider the economic implications but also the social and environmental implications of second home development as have been considered in the Global North (Marjavaara, 2007; Tosun, 2002; Müller, 2000, 2002a, 2002b, 2004). This has been put forward by Hoogendoorn and Visser (2011c) more recently as they note there are associated social and environmental impacts that require emphasis within the second home research agenda. It is to this very point that this thesis aims to make a contribution.

Chapter 4: Study Site and Methodology

4.1. Introduction

The word 'methodology' derived from Greek means, "a rational way or journey undertaken in pursuit of some specified goal" (Dann, Nash and Pearce, 1988, p.3). The goal of this research is to understand the environmental impacts of second homes as well as the perceptions of second home owners with regards to not only the impact they have on the environment, but also the impact that the environment has on them as second home owners and tourists. The most reasonable way to reach this understanding is to ask second home owners various questions, the answers to which will provide insight into perceptions held for both of these research questions. This chapter also provides an overview of the study in order to understand the current environment in Hartbeespoort. Further, this chapter outlines the methodology used to compile the questionnaire, identify and question second home owners, as well as the methods used to analyse the responses. An overview of stakeholders interviewed is also provided. Added to this, further methods used to answer the research questions such as the use of SPOT imagery and the process used to create these images is also detailed in this chapter.

4.2. Study site: Hartbeespoort

Located among the Magaliesberg Mountains, within the Cradle of Humankind, is Hartbeespoort (see Figure 1), governed by the Madibeng municipality in the North West Province of South Africa. The Madibeng municipality in total hosts a population of 419 681, with the main towns in the area being Brits, Hartbeespoort, Letlhabile, Damonsville, Mothotlung, and Oukasie. In addition, there are also 43 villages (Madibeng Local Municipality, 2013). The Madibeng economy is extremely diversified for such a relatively small municipality (3 814 km^2), with tourism, agriculture, mining and manufacturing dominating (Madibeng Local Municipality, 2013).

The Dam itself was constructed in 1925 and has a current capacity of 205 million cubic meters of water (Tourism North West, 2013). Since construction, local development has taken place and now, "the village of Hartbeespoort is situated along the shores of the Dam, and among undulating hills and panoramic views on the Dam and the majestic Magaliesberg Mountains" (Tourism North West, 2013). The panoramic views, large shoreline and the water body have made Hartbeespoort an ideal tourist location (Rogerson, 2007). In light of the dominant role tourism plays within the municipality, a department for local economic

development, tourism and agriculture was established (Madibeng Local Municipality, 2013). Within the tourism sector there are various constituents all geared towards establishing and supporting the growth of tourism within the municipality (Madibeng Local Municipality, 2013).

Due to its scenic location, Hartbeespoort, high in recreational place utility[3], has the ability to attract not only large numbers of tourists but also potential second home investors (Visser, 2006). Contributing to Hartbeespoort's recreational place utility is its location in relation to Gauteng and Pretoria (see Figure 1), the economic heartland of South Africa. Within a relatively short 70km and 35km drive respectively it is an ideal tourist and second home location for both Johannesburg and Pretoria residents. Hartbeespoort is also ideally located as a tourist site within the Magalies Meander, a route tourism initiative (Rogerson, 2007). This initiative focuses on building a tourist travel route that joins many different attractions; it is then marketed as the ideal route to take to your destination, in this case the Magaliesberg (Rogerson, 2007). For Johannesburg tourists following this route, attractions such as the Cradle of Humankind and its many caves such as Sterkfontein can easily be visited en route to their Hartbeespoort second home (Magalies Meander, 2013b) thus making the holiday potential of owning a second home along a tourism route far more lucrative.

Hartbeespoort Dam when full, has a shoreline of approximately 56km (Tourism North West, 2013), thus the Dam has the potential to accommodate 56km of homes along the shoreline, not including the number of homes built further away from the shoreline. Hartbeespoort also boasts a number of physical attractions that add to its recreational place utility. Marajavaara (2008) in his study of second home development in Sweden found that water bodies, such as rivers, lakes and oceans are major attractions for second home development[4]. Hartbeespoort Dam thus is a great draw card for a number of potential second home investors looking to engage in water related recreation. From Google Earth Images (24 October 2011), there are an estimated 172 boats on the Hartbeespoort Dam, illustrating this point. Adding to its recreational place utility are the surrounding Magaliesberg Mountains, which allow for hiking, mountain biking and climbing for tourists (Magalies Meander, 2013a).

[3] "Recreational place utility is conceived of as the sum of a set of characteristics which the individual considers constitutes an attractive environment for this type of recreational living" (Aldskogius, 1967, p.72).

[4] In terms of recreational place utility this is due to the fact that water bodies tend to provide tourists with numerous potential leisure activities such as fishing, boating and swimming (Coppock, 1977b).

Attractions such as an elephant sanctuary, a crocodile sanctuary, aquarium, and numerous nature reserves in the surrounding area act to attract nature enthusiasts. Additionally, numerous art galleries and the Lesedi Cultural Village attract culturally minded tourists. Shopping centres as well as numerous restaurants and golf courses add to making the destination one nestled in nature but with modern day conveniences, perhaps one of the reasons the area has been so popular for tourists from Gauteng, as it allows them the conveniences to which they are accustomed. Hartbeespoort clearly has a high recreational place utility and has thus attracted many tourists and second homebuyers over the years (Visser, 2006). This not without consequence as the area is now discerned as one that is over-developed and as a result is not as attractive a destination as in previous years (Hoogendoorn, Mellet and Visser, 2005). Thus, the high recreational place utility may be compromised by over-development and the resultant deterioration of the natural surroundings.

Whilst Hartbeespoort boasts tourist appeal, the area in terms of second home development remains relatively unstudied, only one study of relevance to second homes in the area has been conducted. Baker and Mearns (2012), in their study of second homes in Hartbeespoort, focused mainly on the economic implications of second homes. The authors of the study found that as a result of the increasing development of second homes, the area has seen a boom in businesses catering for tourist demands, resulting in an increase in employment for local residents (Baker and Mearns, 2012). Majority of the economic impacts highlighted by the study indicated that second home development in the area had been positive, with the main concern being locals unable to compete with soaring property prices in the area, a trend that has been identified globally (Baker and Mearns, 2012). However, it should be noted that due to the limited sample size obtained during the Baker and Mearns study (2012) the results are arguably more of a generalization than an exact portrait of the area. Nevertheless the study can be seen as a possible indication that the economy of the area has been positively affected through second home development. However, in order for second home development in the area to be considered a means of responsible tourism, further consideration needs to be given to the environmental and social implications of tourism. This study aims to do the former for the Hartbeespoort area.

4.2.1. The Hartbeespoort environment

It has been shown in the Chapter 2 (2.5) above that the natural environment has a significant impact on second home tourism development. Hartbeespoort has all the physical attractions necessary to foster second home tourism but these natural resources have not gone

unscathed. The primary environmental concern in Hartbeespoort is the pollution of the Dam. Due to rapid urban development and industrial growth within the Hartbeespoort Dam catchment area, polluted water now enters the Dam (DWA and Rand Water, 2013). The Jukskei River, which flows through Johannesburg before reaching the Hartbeespoort Dam, has been identified as the main conduit of pollution that enters the Dam (Olukunle, Okonkwo and Odusanya, 2011). The major pollutants are contamination from washing powders and the input of sewerage which has resulted from a lack of maintenance at the sewerage works (DWA and Rand Water, 2013). Added to this, wastewater is discharged into the Crocodile river from various treatment works; this water amounts to 720 million litres daily (DWA, 2013). Intensive farming within the surrounds of Hartbeespoort Dam has also been identified as contributing to the pollution of the Dam through the leaching of fertilisers (van Ginkel, Hohls and Vermaak, 2001). In 1985 Hartbeespoort Dam was classified as hyper-eutrophic, and conditions have not improved since (van Ginkel, Hohls and Vermaak, 2001).

Eutrophication of a water body does not occur without consequence as in nutrient rich water algal blooms are often present, this being the case in Hartbeespoort (van Ginkel, Hohls and Vermaak, 2001). The Department of Water Affairs (2013), notes that these algal blooms spoil the natural environment of Hartbeespoort and due to the seasonality of algal blooms this happens during the summer months which is the peak tourism period for the area (DWA and Rand Water, 2013). Further, the Department notes that not only does the algae spoil the aesthetics of the area but it also has a bad odour, and makes the water unfit for consumption (DWA and Rand Water, 2013). The Department has indicated that the algae in Hartbeespoort Dam have caused the water to become potentially harmful for humans and animals (North West Environmental Management, 2005). Cynobacteria or blue-green algae as it is commonly known, produce toxins which can be fatal for both humans and animals upon consumption (Oberholster, Botha and Cloete, 2005). The lesser symptoms associated with ingestion are vomiting, fever, muscle and joint pain, with a possibility of long-term liver damage if exposed for a prolonged period of time (North West Environmental Management, 2005). Even though local government is aware of all the potential dangers associated with blue green algae, the Hartbeespoort Dam is still periodically poisoned by cynobacteria (Oberholster, Botha and Cloete, 2005).

Algal blooms are not only potentially harmful to humans and animals but are also responsible for clogging filters and pumps resulting in deteriorated water quality and raising the cost of purification (DWA and Rand Water, 2013). Along with this, recreation is affected as tourists no longer wish to use the Dam for water based activities such as fishing and swimming (DWA and Rand Water, 2013). Given this, van Ginkel (2012) has made a call for

a basic understanding to be developed and for the effective communication of this understanding to management sectors for implementation, in order to rehabilitate and manage water resources for continued use.

Given the state of the Dam, the potential hazard, and the fact that the Madibeng Local Municipality is totally dependent upon the Dam for its water requirements, the Department has instituted the *Harties Metsi A Me (My Water)* Biological Remediation Programme (DWA, 2013). The programme entails the mechanical harvesting of cynobacteria, as well as harvesting through biological processes (Rand Water, 2012a). Added to this, storm water drainage is to be improved and wetlands, riparian vegetation and water habitats are to be protected from further damage (DWA, 2013). The ultimate aim of this framework is three pronged: firstly to protect the environment, secondly to develop water resources and lastly to conserve and control these resources (Rand Water, 2012a). In order to achieve this in Hartbeespoort, *Metsi A Me* aims to reduce the amount of nutrients in the Hartbeespoort Dam itself and the tributaries entering the Dam (DWA, 2013). However, there is no quick fix as it takes many years to reverse the eutrophication of a water body as phosphates remain in the sediments of water bodies and are slowly released over time maintaining the nutrient rich water (DWA and Rand Water, 2013). The restoration of Hartbeespoort Dam will therefore not be achieved in the short-term, and whilst this remains the case tourism and second homeowners potentially bear the brunt of the toxic, unusable water.

4.3. Compiling a questionnaire for second home owners

In order to gain an understanding of the relationship that exists between Hartbeespoort second home owners and the environment, second home owners were questioned. As a means of questioning second home owners a questionnaire had to be generated with questions relevant to the topic under investigation. Dann, Nash and Pearce (1988, p.4) note that it is essential for the theory of any good research to be clearly linked to the methodology in order to provide an, “interpretive basis for understanding”. Acknowledging this, the questionnaire when drawn up drew from the literature surrounding this topic of investigation. This was done in a bid to be certain that relevant questions would be asked that could later be an imperative basis for understanding the relationship between the second home/second home owner and the environment. In order to identify second home owners’ environmental impacts, their perceived impact, as well as the impact the environment has on their second homes, both a qualitative and quantitative approach was taken in the questionnaire (see Walle, 1997).

The questionnaire in this study consisted of four sections (Appendix 1). The first of the four consisted of questions relating to demographics to ascertain the general demographic of second homeowners in Hartbeespoort. The second section was comprised of questions that would identify the impact that second homes have on the environment as well as the perceived impact that second homeowners have on the environment. In section three the questions related to the impact which the environment has on second homeowners and their homes. In this section, the main focus was determining the motives for purchasing the second home, so as to derive the basis of attachment felt to the home and the area. The focus then shifted to questions regarding the current use of the local environment and the reasoning behind second homeowners use or non-use of the environment surrounding their home. It was identified in the literature that the environment has a direct effect on the monetary value of the second home and thus an enquiry was made with regards to the original value of the home when bought and the current value. Leading on from this, in the last section of the questionnaire, second home owners were asked what impact they perceived the environment has on them. In this section they were also asked if they were selling their homes and if so why, in order to ascertain if the argument made by Robertson (1977) for the retention of second homes as a result of a degraded environment is valid.

4.4. Identifying and questioning second homeowners

Postal surveys have been found to be the most efficient method of contacting second home owners for research purposes both in South Africa and internationally (Girard and Gartner, 1993; Hoogendoorn Mellet and Visser, 2005 and Visser, 2006). Due to the fact that second home owners may have permanent residences scattered across the country and internationally, travelling to each home to personally interview each second home owner would not only be costly but time consuming as well. Hence, personal interviews were deemed an unsound methodology to use for the purposes of this study. Whereas, by using the postal service the distance of each first home from the researcher becomes almost irrelevant as a means of making contact as a letter could be posted to anywhere in the world. A further methodology that could be used here would be to conduct an on-foot survey of the second home area interviewing the homeowners personally, however, this would again be immensely time consuming (Hoogendoorn and Visser, 2011a). Added to this, second homeowners are irregular/seasonal residents and thus there is no guarantee of each homeowner being at their second home during the time the researcher is in the field (Hoogendoorn and Visser, 2011a). This possible methodology is therefore unfit for answering the research questions. However, by posting the questionnaire to the researched permanent home the problem of irregular second home visits is once again by-passed. In

light of the above, for efficiency and reliability, this research interviewed second homeowners through a postal survey using permanent homes as the postal destination, thereby eliminating the impact of irregular second home visits.

Identifying second homes and obtaining postal addresses for second homeowners then became essential for this methodology. Rogers in 1977 noted that a lack of second home data was the greatest obstacle to researching into this form of tourism. Although this statement was made in 1977, the situation in South Africa is presently so, whereby a reliable second home database is non-existent (Pienaar and Visser, 2009). Whilst the South African census does have a category for recreational homes, it has been found to be unreliable with only a minority of actual second homes being counted (Pienaar and Visser, 2009). However, as noted by Dann, Nash and Pearce (1988) when a researcher specialises in any field of research they may discover new methodological procedures to conduct research more effectively. This has been the case in tourism research whereby specialization in this field led to the emergence of second home studies and a methodology suited to this kind of research where there is a lack of government datasets (Girard and Gartner, 1993; Hoogendoorn Mellet and Visser, 2005 and Visser, 2006).

When looking at South African tourism statistics it is evident that second home tourism is not taken into consideration, and therefore knowing the true extent of this tourism sector is difficult (Statistics South Africa, 2012b). Added to this there is a lack of government second home databases therefore leaving researchers to compile their own (Hoogendoorn and Visser, 2011b). Rates-based address listings have been used to solve this problem (Hoogendoorn and Visser, 2011b). The rates-based listing is examined and all occurrences whereby a property listed in the area of study had its monthly rates and taxes statement sent to a postal address outside of the researched area are noted (Hoogendoorn and Visser, 2004). This indicates a permanent place of residence outside of the study area and thus it is highly probable that the home is in fact a second home (Hoogendoorn and Visser, 2004). This method not only allows for second homes to be identified, but also simultaneously allowed the postal address of second homeowners to be obtained. The earliest example of using rates-based listings in this manner that could be found was in a study done by Bielckus in 1972 (cited in Rogers, 1977), and has since been adopted in South Africa by authors such as Hoogendoorn and Visser (2004, 2010, 2011a) with relative success. Using this methodology entails posting a questionnaire to each second home owner with a self-addressed envelope enclosed within (Hoogendoorn and Visser, 2004). Homeowners are then able complete the questionnaire and post it back to the researcher at no cost to them. Hiltunen (2007) has indicated that there are limitations to using postal surveys. He argues

that when conducting postal surveys it is mainly those researched who are most interested in the subject who will respond to the survey than those who are not (Hiltunen, 2007). This would undoubtedly have an impact on the results, however, this could be the case for any form of interview conducted, whether it be postal, telephonic or in person, and thus all studies need to take this into consideration. Yet this does not constitute means to abandon the methodology chosen here. Rather, the relative success of this method in the South African context makes it appropriate for this research.

Hartbeespoort falls within the Madibeng local municipality and as such, a visit was made to the municipality and the rates-based listing obtained. The listing was then examined and each home in Hartbeespoort with a postal address outside the area for rates and taxes posting was identified as a potential second home. By reviewing the rates-based listing and contacting local housing estates it was found that there are approximately 202 second homes in Hartbeespoort. Of the 202 potential second homes 92 questionnaires were returned, accounting for a 45% response rate to the survey. Postal studies conducted on a national scale on second homes using the rates based listing in the past have considered a 41 percent response rate as good (Rogers, 1977, p.87). It is argued that the reasoning behind this is that second homeowners often own these homes in order to isolate themselves and thus wish to remain isolated from being questioned (Rogers, 1977). Therefore, the 45% response rate obtained in this study can also be considered good.

4.5. Getting a second opinion on second homes

It is recognised that asking only second home owners a series of questions regarding their impact on the environment may lead to considerably biased results (Hoogendoorn and Visser, 2011b). Coppock (1977b) found in a Welsh study on the impacts of second homes that the opinions of second homeowners and local residents varied considerably. To take this variation into account and to compare perceptions held by second homeowners to the actual impacts both on the environment and on second homes, several stakeholders were interviewed. Four estate agents in the immediate second home area were interviewed in order to get a second opinion of the economic impact the environment has on second homes and their owners. Questions asked in these interviews can be found in Appendix 2. As place attachment can only be felt by second home owners, there is no method appropriate to attain a second opinion on the matter as second home owners are only able to express their opinions with regards to the impact the environment has on their attachment to the area. In order to obtain a second opinion on the impacts second homes have on the environment in Hartbeespoort the environmental specialist who has been working for the local municipality

for three years was interviewed. Added to this, the Deputy Regional Director in the Department of Water Affairs for the North West, and also the programme leader for the Hartbeespoort Dam Integrated Biological Remediation Programme, *Metsi A Me,* was also interviewed. The questions used to guide these interviews can be found in Appendix 3. The responses of each of these stakeholders were compared to the perceptions held by the second home owners in order to determine whether second home owners, local government and stakeholders agree on the extent of impact that the environment has on second homes and vice versa.

Due to the nature of this research, the ethical considerations of all three sets of questionnaires were taken into consideration; these questionnaires were subjected to the process of ethical clearance as required by the University of the Witwatersrand. Clearance was obtained (Appendix 4) and the second home owner questionnaires were subsequently posted to each identified second home owner, and the interviews with stakeholders were subsequently conducted.

4.6. Visual aids in analysis: SPOT false colour composites

Two SPOT false colour composites were also created for the Hartbeespoort Dam so as to identify the extent to which algae presents in the Dam. The images were obtained from the South African National Space Agency. The false colour composite was then created using a RGB:321 band combination, whereby band three is near infrared, band two red and band one green. Using this band combination allows for the enhanced display of photosynthesising vegetation (CRISP, 2001) and thus photosynthesising algae can be clearly displayed. To compare the seasonality of algae two images were obtained, one from February and one from April. This was done in order to see if higher concentrations of algae correspond to a reduction in visit frequency of second home tourists to the area.

4.7. Research Data, Analysis and Interpretation

Research data for this study is mainly comprised of the 92 returned questionnaires from second homeowners. Questionnaires, upon return, were coded with open-ended responses categorized into the general themes that emerged. Data was then categorized into three sections for the purpose of analysis within the research themes, namely demographics, second home owners' perceptions of their impacts on the environment and lastly a category for the perceived impact the environment has on second homes. For analytical purposes, once the questionnaires were coded and responses of each of the 92 questionnaires

entered onto an excel spread sheet, the spread sheet was then imported into SPSS the Statistical Package for Social Sciences programme and statistical analysis was completed, from this frequency tables were obtained for each question, and averages where applicable.

For the second set of data obtained from stakeholders, statistics were not needed as the dataset was small and thus manual analysis could be performed for individual responses. Both sets of data were then examined for the dominant perceptions held by second homeowners and stakeholders. Once completed, data was then interpreted in light of the literature discussed and final assessments and arguments made.

4.8. Limitations

One of the major limitations to this study, as discussed above, is the lack of a coherent accurate database of second homes in the country. Upon analysing the rates based listing it was found that as highlighted by Hoogendoorn and Visser (2011b) from most rates-based listings one cannot identify if the property is a second home or merely an empty stand; or whether the property is one single home or a complex of timeshare units, this increasing the inaccuracy of the database created. Therefore, the true number of second homes cannot be determined and thus this study can only estimate the number of homes in the Hartbeespoort area. This being the case limits the true understanding of the exact extent of the impacts associated with the environment and second homes.

The cost of a postal survey is a further limiting factor in research such as this. It is believed that if a national database of second homes with contact email address could be generated, studies of this nature may be done far more extensively and relatively cheaply. Added to this, researchers would not be limited to only posting the questionnaires. Posting reminders as has been done in the past is too costly (Rogers, 1977), yet with email addresses, multiple reminders may be emailed to recipients, possibly increasing the response rate at almost no cost.

When compiling the results, a few limitations were encountered. Whilst the response rate for the study was considerable at 45% allowing for a general overview of the area to be obtained, it must be acknowledged that 55% of sampled individuals did not respond. There is no way to be absolutely certain that these individuals follow exactly the trends observed. This does put some limitation on the accuracy of arguments that could potentially be made for second home ownership in the area as a whole. However, the trends of the 92

respondents do contribute to a broader overview of second home tourism in Hartbeespoort rather than an absolutely accurate one.

A further limitation to be considered is the accuracy and truthfulness of the responses obtained. Whilst many responses are the perceptions held by second home owners and therefore do not need to be accurate, such as the perceived impact of a devaluation in property values not being the case, there are instances where responses are not necessarily accurate. Whilst respondents were asked approximately how much they spent on certain amenities whilst at Hartbeespoort, the values given are potentially approximate guesses as it is unlikely that respondents would have or be willing to locate purchase slips for gift shops and restaurants, tally the amounts and give an accurate answer. Therefore a further limitation with the monetary results as presented here is that they are potentially more an approximation than accurate amounts. However, it is unrealistic to expect accurate answers from respondents to questions such as these and therefore once again the results as presented here are more of a general indication of what is being spent in Hartbeespoort rather than accurate figures. Lastly, when compiling the results it was thought that percentage indicators for each question would be ideal, however given the low response rate to some questions this method of displaying results was deemed unfit.

4.9. Conclusion

The potential exists to understand the impacts of second homes on the environment using Hartbeespoort as a case study, as the area has an estimated 202 second homes. Added to this the current degraded state of the environment in Hartbeespoot makes this study site ideal for investigating the impact a degraded environment potentially has on second home tourism. Therefore, as a study site for answering the four research questions Hartbeespoort is ideal.

The need for more information regarding the environmental impacts of Hartbeespoort Dam is vital for increasing the sustainability of the area as a whole. Local government through the Department of Water Affairs (2013) clearly acknowledges this through the implementation of the Hartbeespoort *Metsi a Me* program. This study aimed to provide data, using a postal survey, on the relationship that exists between second homes and the environment. The study targeted second home owners identified using the rates based address listings. It was shown above that this was the most logical method to follow being that all other methods discussed were inappropriately suited to this study. A 45% response rate to this study was obtained from the potential 202 second homes.

Chapter 4 will now turn to discussing the results as obtained from the second home owners and local stakeholders, these being the four estate agents interviewed as well as the local municipality environmental specialist and the head of the Hartbeespoort *Metsi a Me* programme. These interviews along with the SPOT images add to give the research more of an unbiased view of the state of the environment and the impacts that result from second home tourism where applicable.

Chapter 5: Results and Discussion

5.1. Introduction

Upon completion of the fieldwork, the results were analysed and are presented and discussed within this chapter. The results and discussion thereof is presented in three broad sections namely demographics, the impact of second homes and second home owners on the environment, as well as the impact a degraded environment has on second homes and their owners. The perceptions held by second home owners with regards to these two topics are also considered here. Perceptions held by local stakeholders are also presented in each of these sections. As a whole the results are examined in light of responsible tourism being the backdrop for South African tourism policy as a whole (Visser and Hoogendoorn, 2011).

The results that follow will identify the second home owner demographic within Hartbeespoort and aim to compare it with the second home owner demographic found in South African second home studies as a whole. Following this, the environmental impacts of Hartbeespoort second homes and their owners will be considered. This will then be examined in light of the international literature available. Comparisons as well as contrasts will be looked at to determine whether South African second homes follow international trends or whether the impacts associated with second homes are unique to the South African context. Environmental Impacts associated with Hartbeespoort second homes will be discussed in light of responsible tourism. Second home owner perceptions of the environment and their impact upon it will be examined in light of the role they have been found to play in determining the actions or inaction of second home owners (see Kaltenborn *et al.*, 2008).

Lastly, this chapter will detail the perceived impact the environment has on second home owner respondents and their homes. Since this has not been done previously, results will be compared to literature discussed that identifies the role the environment plays on the placement of second homes as well as the economic value. The vital role of place attachment will also be considered here and the potential a degraded environment has to debase this attachment will also be considered. Hartbeespoort has proven to be the ideal location to make such findings.

5.2. General profile of Hartbeespoort second home owners

Second home owner respondents to the survey conducted in Hartbeespoort are majority male (65 respondents, n=92) and English speaking (74 respondents, n=92), with Afrikaans speaking South Africans accounting for the remaining 18 respondents (n=92). Hartbeespoort second home owner respondents are generally well educated, with 35 respondents (n=90) having postgraduate degrees and a further 39 (n=90) having an undergraduate degree or diploma (see Table 1). When compared to the general South African population the number of Hartbeespoort second home owners who have had a tertiary education is well above the country average. In 2011 only 11.5% of the South African general population was tertiary educated (Statistics South Africa, 2011).

Table 1: Second home owner respondents' highest qualifications and occupations

Variable	Number of respondents
Highest Qualification	
Less than grade 12 (Matric)	2
Grade 12 (Matric)	12
Diploma	24
Bachelors Degree	15
Honours Degree	12
Masters Degree	20
Doctoral Degree	3
Other	2
Total	**90**
Occupation	
Self employed/Business owner	21
Financial	13
Retired	11
Director	10
Manager	7
Medical	5
Housewife	4
Legal	3
Other	17
Total	**91**

These high levels of education are reflected in the careers of the second home owner respondents whereby 21 respondents (n=91) are business owners, 11 (n=91) directors of companies, 5 (n=91) work within the medical field, 13 (n=91) in the financial sector, with a further 7 (n=91) respondents managing a business (see Table 1). Eleven (n=91) of the respondents to this question were retired. Hartbeespoort second home owner respondents are therefore a small sect of well educated, successful individuals within the greater South African population.

A further consequence of the high levels of education and associated career choices is the fact that Hartbeespoort second home owners are extremely wealthy when compared to the rest of the South African population. According to year 2010/2011 statistics released by Statistics South Africa (2012a), the average annual income for South African households was R119 542. In stark contrast to this national average 38 (43%, n=87) Hartbeespoort second home owners earn on average over a R1 000 000 per year and a further 28 (32%, n=87) earn between R600 000 and a R1 000 000 per year. Eleven (13%, n=87) respondents earn between R400 001 and R600 000 a year, still above the national average, with only 10 (12%, n=87) respondents earning less than R400 000. As demonstrated here, the demographic of Hartbeespoort second home owners are a small class of wealthy elite who have the capital to own and maintain multiple properties for recreational purposes, not at all representative of the general population. The demographic found here is similar to those found in studies conducted in Clarens by Hoogendoorn and Visser (2004) as well as in Rhodes (Hoogendoorn, Visser and Marais, 2009).

Majority (73 respondents, n=92) of second home owner respondents in Hartbeespoort are married, with a further 4 (n=92) living with a partner. An additional 15 (n=92) respondents consist of households comprising of one adult only. The large number of married home owners is reflected in the number of individuals that visit the second home. A total of 171 individuals (n=88) visit the second home and comprise of both adults and children of various ages. Forty one (n=88) visitors to the second home are minors, with a further 24 (n=88) between 19-30 years of age. The age group 31-40 is comprised of 11 (n=88) individuals. Thirty individuals (n=88) between the ages of 41-50 visit the Hartbeespoort second home. Among the adults the most prevalent age group was that of 51 years and older which is comprised of 65 individuals (n=88). From this it can be seen that it is not only the 92 second home owner respondents impacting on the environment but rather 92 households of people of various ages both using and impacting upon the environment.

Second home ownership in the Hartbeespoort area is a post-apartheid phenomenon with houses purchased mainly after the year 2000 (see Table 2). Among the reasons provided by respondents for purchasing a Hartbeespoort second home, leisure dominated with 67 (n=84) responses of which 18 (n=84) were directly related to the water body and its associated recreational utility (see Table 2).

Table 2: Year of purchase and reason for purchase

Variable	**Number of respondents**
Year of Purchase	
1960's	1
1970's	1
1980's	5
1990's	11
Post 2000	71
Total	**89**
Reason for purchasing a Hartbeespoort second home	
Leisure (golfing, use of Dam, weekends away)	67
Investment	10
Proximity to first home	10
Retirement	7
Quality of life	6
General environment	3
Security	2
Originally first home	2
Inherited	1
Possible future first home	1
Proximity to family	1
Work	1
Total	**111**[5]

[5] Due to the open ended nature of the questionnaire multiple responses were given by some respondents and all were taken into account. Thus, although the number of respondents to this question is 84, the total number of responses is greater at 111.

Some of the other prevalent reasons for buying in Hartbeespoort included investment (10 responses, n=84), proximity to first home (10 responses, n=84) and retirement (7 responses, n=84). One respondent, in reply to the question of why she purchased a second home in Hartbeespoort, noted that her reasoning directly related to the environment*: "Better environment for children"*. The environment in this case has contributed to the location and development of second home tourism in Hartbeespoort. This augments arguments made by authors such as Keyser (2002) and Stettler and Danelli (2008) that the environment and its associated amenities are a driving force in the decision making of second home owners for purchasing a second home in a specific locality.

In recent literature South African second home developments have been linked to a weekend leisure agenda and thus are closer to metropolitan areas making them easily accessible for more frequent use (Hoogendoorn, Mellet and VIsser, 2005). This trend is clearly identified in the Hartbeespoort case study. Given that leisure is the main reason identified for purchasing a second home, as opposed to investment, easy access to the home would be preferred for frequent visitation. The dominant areas where second home owner respondents reside on a permanent basis are Johannesburg (70 respondents, n=92) and Pretoria (11 respondents, n=92), this is not surprising as these are the two major economic centres closest to Hartbeespoort. Only 11 (n=92) respondents live in areas other than these two. Majority (84; n=92) of Hartbeespoort second homes are solely owned. For the 8 (n=92) individuals who are not sole owners, ownership is mainly shared with family, as is the case for four of the homes (n=8). Three (n=8) of the homes are part of a trust and only one (n=8) second home is jointly owned by friends. For the majority of Hartbeespoort second home owner respondents (87; n=92) only one property is owned in Hartbeespoort. Four Hartbespoort homeowners (n=92) own two properties and only one respondent (n=92) owns three properties in the area.

Whilst only 5 second home owners own additional properties in Hartbeespoort 31 own additional vacation properties outside of Hartbeespoort. Fourteen (n=31) of these properties are located in the coastal city of Durban with various other coastal locations making up majority of the other locations which can be seen in the map below (Figure 2) and only three (n=31) additional second home properties being located inland. This being perhaps another indicator of the strong potential water bodies hold for recreation. The only additional second home not represented on the map below is one home that is located in New York, United States of America. Literature suggests that second homes do in fact impact upon the environment, second home owners who own third properties in essence have triple the

environmental impact as a person who owns one property and still more of an impact than a person who owns two. The environmental footprint of these respondents is therefore exacerbated as well as widespread.

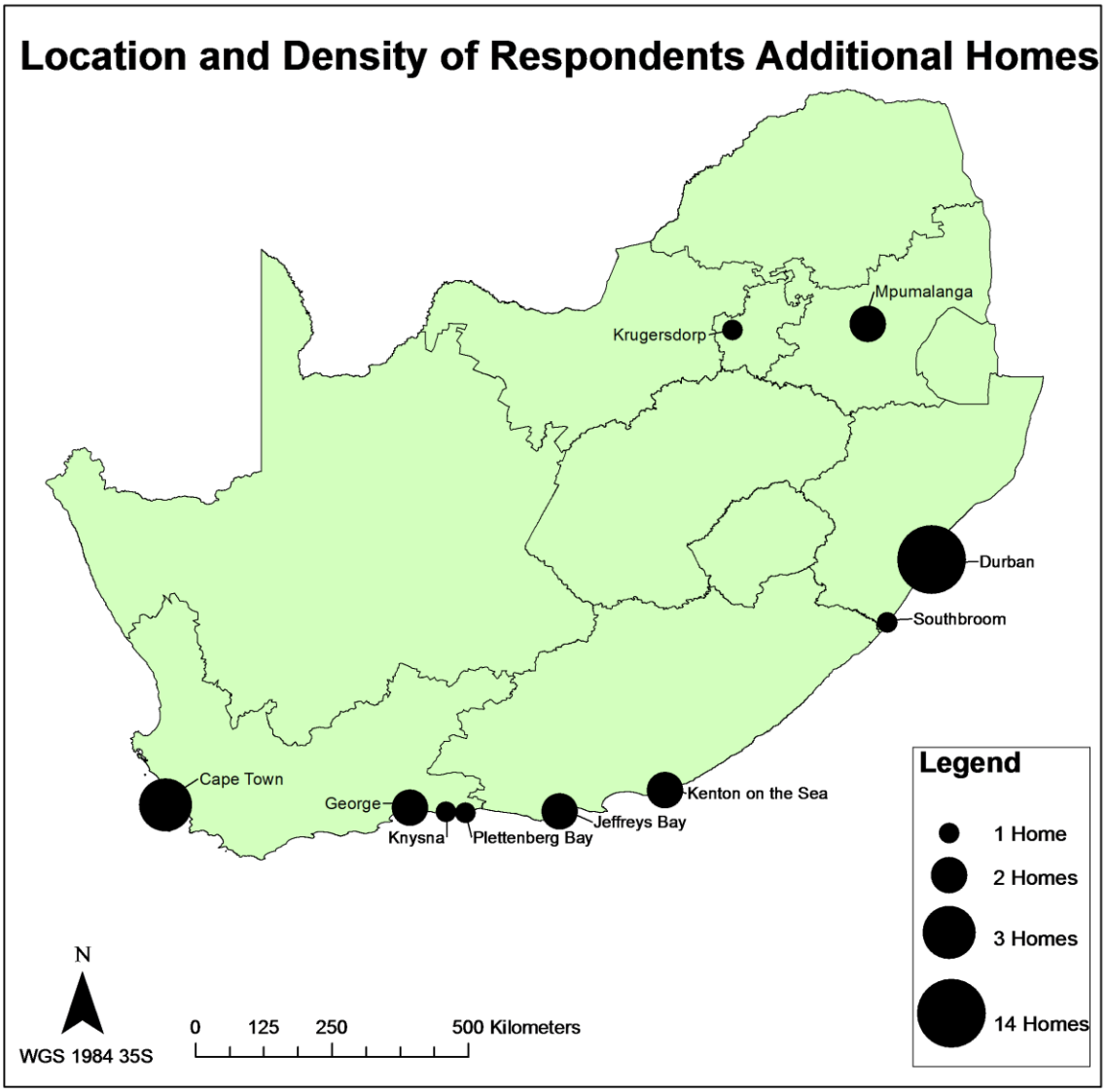


Figure 2: Additional Second Homes

In view of the fact that second home tourism has been found to be economically lucrative for local economies in South Africa (Hoogendoorn and Visser 2004, 2011a), the same potential exists for second home tourism in Hartbeespoort. An indication of the positive economic impact second home tourism has had on the local economy is the fact that 53 (n=77) Hartbeespoort second home owner respondents spent between R0-R50 000 on renovations and maintenance in 2011 alone (of these 53 respondents 13 had indicated that the amount was in fact R0), a further 20 (n=77) spent between R50 001-R400 000 and 4 (n=77) over

R400 000 in 2011. Second home owner respondents spent R11 000 000 (n=77) in total on renovations and maintenance in Hartbeespoort in the previous year (2011). Thus, second home owner respondents contribute greatly to the local economy of Hartbeespoort. They therefore are not only investing in the local property market but are also renovating and maintaining their properties, and contributing to the well-maintained appearance of the area as a whole.

Table 3: Second Home owners' amenity expenditure in Hartbeespoort

Variable	N	Amount spent over temporal scale indicated	
		Total spent by second home owners (previous trip)	**Average per second home owners for previous trip (total/n)**
Restaurants	61	R35 000	R570
Art gallery	9	R9 700	R1080
Local Petrol Station	45	R43 000	R950
Groceries	72	R61 000	R850
Gift shops	9	R3 700	R410
Other	17	R13 000	R760
		Approximate per second home owner per month	**Approximate amount spent per annum (monthly value x 12)**
Rates and Taxes	74	R1 340	R16 080
Refuse Removal	58	R190	R2 280

Not only do second home owners spend money on maintenance and renovations but they also spend on amenities such as groceries and petrol, and further contribute to the local economy through spending at restaurants and local art galleries for example (see Table 3 above). This form of spending is most beneficial to the host community as spending on amenities such as these within the area directly supports local businesses and jobs. Added to this, the monies spent by second home owners in local businesses is likely to stay within the local economy as it aids in paying local salaries, the money of which can potentially be spent once again within the area. Thus second home tourism not only supports local

businesses and jobs but acts as a base for further spending within the local economy by the locals themselves.

In addition to spending within the local economy of Hartbeespoort, second home owners also contribute to supporting the local municipality through amenity expenditure within the area. Through payments made to the local municipality for rates and taxes and refuse removal second home owners aid in maintaining the area along with local residents (Table 3). If the 74 respondents in this case spend an average of R16 080 annually for rates and taxes, when totalled for these 74 respondents the amount is R1 189 920. Thus these 74 respondents alone contribute over a million rand in rates and taxes to the Madibeng Municipality annually. This, added to refuse removal payments, means second home owners in Hartbeespoort contribute greatly to the amount of money paid to the local municipality which can be used to maintain the local area.

Given that second home owners earn large salaries in comparison to the general population of South Africa they are also able to spend more money than the average South African. According to Statistics South Africa (2012a) the average household consumption expenditure in South Africa in 2010/2011 was R95 183 annually. This amount is lower than the average R145 000 spent by second home owners in Hartbeespoort in 2011 on renovations and maintenance alone. This basic comparison is a clear indication of how high income earners such as second home owners in Hartbeespoort, have the potential to support local economies through second home tourism. Since the total annual expenditure by second home owners exceeds many local households expenditure it is arguably of great importance in local economies as well as for the locals themselves where this expenditure aids in job creation and job security within the area (Keyser, 2002). Second home development in the case of Hartbeespoort therefore aids in local economic development.

The results here correspond with those found in the 2012 study conducted by Baker and Mearns, where it was found that second home tourism in Hartbeespoort has created an economic base in the area that supports both the local government and local businesses through property ownership and additional amenity expenditure. Hartbeespoort, therefore much like Rhodes, Greytown, Dullstroom and Clarens (Hoogendoorn and Visser, 2011d) has an economy well-supported by second home tourism. Maintaining a viable second home tourism sector in Hartbeespoort as well as these other locations is therefore vital for maintaining economic prosperity within these relatively small towns, as well as South Africa as a whole (Keyser, 2002).

The Department of Environmental Affairs and Tourism (2002) identifies one of the main components of responsible tourism as tourism that promotes business opportunities for local tourism initiatives, which ultimately improves the quality of life within local communities. Given that second home owners both in Hartbeespoort and in other locations in South Africa have both high earning as well as expenditure potential, second home tourism in Hartbeespoort and nationally does attain to this one aspect of responsible tourism. It would seem therefore, on the face of it, that second home tourism in Hartbeespoort and nationally would need to be maintained in order for existing businesses that have developed to cater for the needs of second home tourists to also be maintained, the continuance of which is essential to sustain local livelihoods dependent on second home expenditure.

Hoogendoorn and Visser (2011d) note that the more accessible the second home is, the more frequently it can be visited and therefore the more potential there exists for an increase in expenditure and subsequently an increase in the positive gains associated with second home development. Hartbeespoort second home owners visit their homes on a regular basis therefore increasing their potential contributions to the Hartbeespoort economy. Hartbeespoort is regularly visited by 22 (n=92) of the respondents who visit on a weekly basis, 21 (n=92) bi-weekly and a further 29 (n=92) visit on a monthly basis. A total of 20 (n=92) respondents go less than once a month, with only one of these twenty going less than once a year. The Hartbeespoort second home owner is therefore a regular visitor to the area and upon each visit the mean number of days spent at the second home is fairly consistent throughout the year (Figure 3). The number of days spent at the home however peak between December and January in association with the Christmas festive season. School holidays also influence the use of the second home whereby months with school holidays have higher visitation times than the other months of the year, excepting in the winter season (see Figure 3:months with school holidays indicated in blue). One of the main determinants of frequency of visit and length of stay at the second home is school holidays, however the ability of parents to take vacations from work is probably a stronger determinant. Without the ability of the parents to take leave from work there would possibly be no change in visit frequency made to the second home during school holidays. Thus whilst school holidays are the peak visitation period the increased time allocated to leave for the workforce in South Africa as identified by Hoogendoorn and Visser, (2004) also has some impact on the visit frequency and length of stay at the second home.

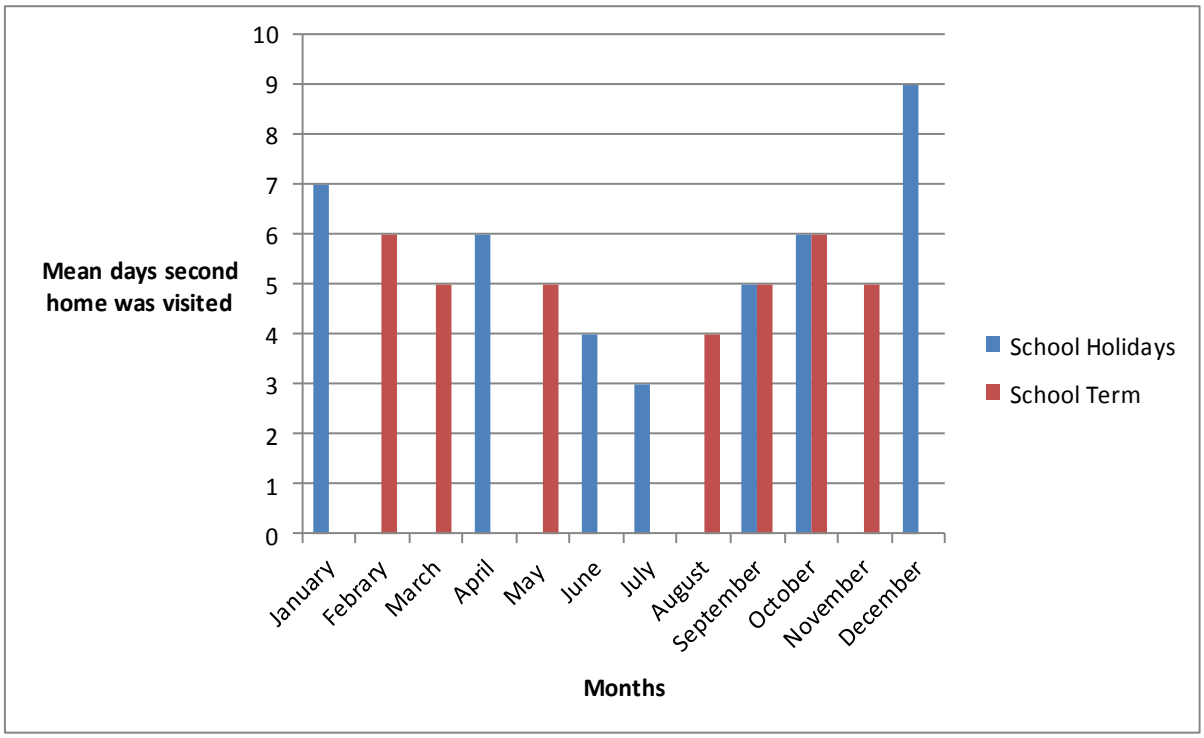


Figure 3: Mean days spent at the Hartbeespoort second home in the past year as well as school holidays (n=80)

Seasonality also affects the use of the Hartbeespoort second home. In Figure 4 below visitation to the second home is plotted again, this time taking seasonality into account. Visitation peaks in summer, declining in autumn and spring with the lowest visit frequency in winter. Given the significance of the Dam itself in terms of the decision making process for buying a home in Hartbeespoort, a prolonged peak in visitation during summer would allude to the ability to use the water body for recreation. Huhtala and Lanika (2012) note that the environment has more influence on visit frequency to the second home than even the socio-demographic characteristics of the home owner. If this is the case, the current degraded state of the Dam may have impacted on visit frequency to Hartbeespoort. Therefore, if the Dam and its surrounds are improved, the time spent at the Hartbeespoort second home may increase for those currently visiting less than once a week. In light of the earlier argument noted by Hoogendoorn and Visser (2010b) that an increased visit frequency increases the potential for economic gains, the potential exists for this to be true for environmental degradation as well. An increased visit frequency means more use of the second home and the environment and therefore potentially more of an impact as well. Here it is seen that whilst responsible tourism aims to reconcile the goals of economic development with responsible environmental practices, at times this is difficult as the two are inherently at odds with each other.

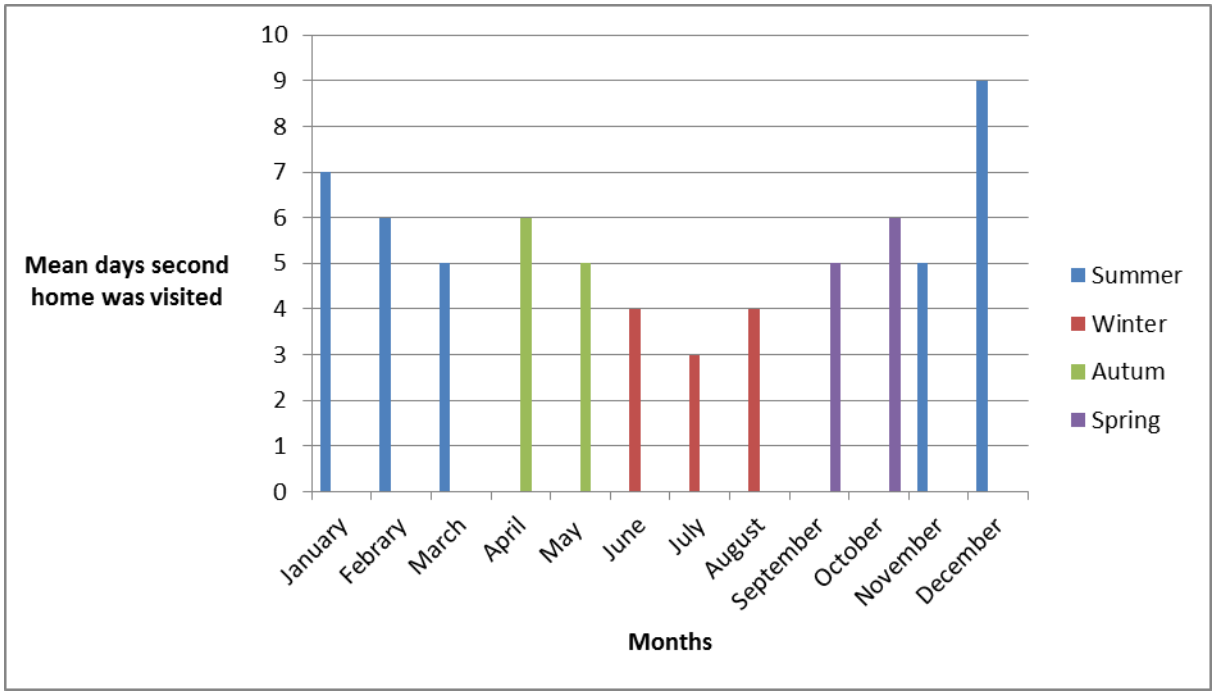


Figure 4: Influence of seasonality on second home ownership

5.3. Environmental impacts associated with Hartbeespoort Second Homes

Whilst such a minor portion of the population has the potential to support local tourism through such high expenditure, it may be the case that government may choose to promote second home tourism as a form of responsible tourism. However, responsible tourism is a three pronged approach whereby economic viability, responsible environmental practices, and social upliftment are all imperative. Therefore, on the basis of the economic expenditure alone in Hartbeespoort, second home tourism cannot be considered responsible, the environmental impacts as well as the social aspects of second home tourism must be considered. This section aims to look at the environmental impacts associated with second home tourism in Hartbeespoort. The perception held by second home owners with regards to their impacts will also be considered here,

Müller (2002b) has argued that second homes do not necessarily have to contribute to environmental degradation if they are not newly built, thus through the acquisition and maintenance of existing homes second home tourists would contribute towards the sustainability of an area. If this is the case then second home tourism could in this respect be considered responsible from the outset. However, in Hartbeespoort 33 (n=92) of the respondents own purpose-built second homes. As with any form of construction there will be associated environmental impacts as the natural environment is altered upon development.

In addition to this, not all second home owners use local builders in the construction of their second homes. Ten (n=33) respondents used local builders to build their homes, 4 (n=33) of respondents used builders situated in Pretoria and a further 4 (n=33) used builders from Johannesburg. This leaving 4 (n=33) of respondents utilising builders from other locations such as Knysna, thus increasing the environmental impact associated with the building of their second home. Materials and labour are brought into the area as opposed to using local labour and possibly local materials. The use of builders situated outside the region would therefore increase the environmental impact associated with the building of second homes. It can thus be argued that locally produced materials and local builders would be less environmentally damaging in the construction of a second home. Whilst 22 (n=33) of the respondents were aware of the location of the builders they had used in the construction of their second home 11 (n=33) respondents were unaware. This potentially indicates the lack of awareness of the environmental impacts associated with using builders from farther out locations or perhaps it is an indication of a lack of concern on the part of the second home owner as a whole.

In view of the fact that 33 (n=92) second homes in Hartbeespoort are purpose-built these 33 second homes fall into the school of thought that views second homes as unsustainable from the outset (Hiltunen, 2007). Following arguments made in international literature (Nouza, Ólafsdóttir, and Müller, 2013) the second home sector in Hartbeespoort has been developed in an ecologically sensitive area unsuited to development. This may be as a result of unconcerned developers seeking the financial gains associated with housing developments in scenic locations (Cohen, 1978; Stroud, 1985). Within Hartbeespoort it is not only the second homes that are impacting upon the local environment but essentially all the tourist facilities developed in the area. Again the case of Hartbeespoort follows on from both local and international literature where it has been found that converting land for both the development of homes and the associated tourist infrastructure and amenities is central to the tourism industry (Telfer and Sharpley, 2008; Hoogendoorn and Visser, 2011a). The result as predicted by Pigram (1980) would be the ultimate degradation of the area, and this is clearly evident in Hartbeespoort.

Whilst 33 second homes in the area are purpose-built for recreation, 59 (n=92) of the respondent homes were purchased from existing housing stock. These homes then are as Müller (2000) identifies being purchased from housing that could potentially fall into disrepair. Therefore, whilst the majority of second homes do potentially contribute to responsible tourism within Hartbeespoort, the fact that 33 (n=92) homes are purpose-built is still cause for concern. However, it may be the case as argued by Gallent, Mace and

Tewder-Jones (2005) that, through the purchasing of existing homes, second home owners create a situation where housing developments are needed to cater for locals who require first homes in an area that now has less of an available housing stock. Added to this there is no way of knowing how the other 110 second homes in Hartbeespoort came about, whilst the response rate is potentially indicative of the situation as a whole one cannot assume that the same is true for the remaining 110 homes. Thus, the impact might be greater or lesser than indicated here.

Transportation of goods and services into Hartbeespoort for the development of second homes is not the only travel-related environmental impact associated with second home ownership. Travelling to and from the second home also adds to the travel-related environmental impacts of second home tourism, due to the pollution resulting from the use of combustion engines (Rogers, 1977; May, 1991). Respondents are travelling varied distances to reach their second homes. Johannesburg residents travel a mean distance of 70km (n=77) to get to their second home, whilst Pretoria residents travel a mean distance of 63km (n=11) as they live farther east of the centre of Pretoria. Second home owners travelling from other locations (such as Mossel Bay and Harare, Zimbabwe n=2) on average travel a mean distance of 250km. Majority of respondents are travelling these distances on a frequent basis, with 43 (n=92) going more than once a month and 29 (n=92) going on a monthly basis. This commute is undertaken using SUVs and 4x4's for 63 (n=92) of the second home respondents. This is a substantial proportion compared to the 25 (n=92) of respondents who use sedans, and 4 (n=92) who use even smaller hatchbacks. The predominant usage of larger vehicles to travel to and from the second home is likely to increases the environmental impact of these second home owners, as larger vehicles such as SUVs generally have greater fuel consumption and greater emissions such as, "higher NO [nitrous oxide] and HC [hydrocarbons] emissions, similar CO_2 [carbon dioxide] emissions, and lower CO [carbon monoxide] emissions compared with sedans" (Frey, Unal, Rouphail and Colyar, 2012, p. 998). Thus the environmental impacts associated with travel to and from second homes is exacerbated by the choice of vehicle, distance travelled and number of visits made to the home.

Within the area of Hartbeespoort it may be argued that second home owners might limit damage to the local environment because of their comparatively lower usage than permanent residents (Gartner, 1987). However, it must be noted that second home owners necessarily have two impacts (two houses), whereas single home owners only have one source of impact (first home). Therefore, whilst the impact in Hartbeespoort may be lessened due to the infrequent use the total impact of second home owners is greater, as the number

of properties utilised is greater. Added to this is the reiteration of the fact that it is not only the second home owner using both these homes but the entire family unit.

In agreement with the literature, the use of amenities in the home is likely to have an environmental impact at Hartbeespoort. Respondents were thus asked how much they pay each month and annually on water and electricity, in order to infer the volumes of usage. Tress (2000) contends that high water usage at second homes is one of the major environmental concerns surrounding second home tourism. Hartbeespoort second home respondents spend an average of R300 per month on water alone (n=68). Along with this it was found that second home owner respondents spend an average of R930 a month on electricity (n=80). This substantial cost for such a short period is most likely incurred through the use of multiple electronic appliances, geysers, swimming pool pumps, and under-floor heating (Tress, 2000; Gössling, 2002). This considerable electricity usage is of direct environmental consequence, seeing that South Africa's primary electricity production relies heavily on coal-fired power stations (Spalding-Fecher and Matibe, 2003). Furthermore, the water and electricity usage are concerning as South Africa is a water-scarce country, and undergoes frequent difficulty in maintaining consistent power supply (Muller *et al.*, 2009; Pegels, 2010).

Second homes, much the same as first homes, do produce solid waste that adds to the environmental impact. This is verified by the fact that second home respondents have indicated that they do pay for refuse removal. In an effort to determine whether the environmental impacts of solid waste production are lower for second homes, respondents were asked whether they recycle waste during their stay in Hartbeespoort. A mere 24 (n=89) respondents to this question said yes with 65 (n=89) indicating that they in fact make no effort to abate the environmental impacts associated with their solid waste production. The findings here affirm the environmental literature written around second homes, indicating that the homes, as well as their owners do impact upon the environment. These impacts should therefore be considered when looking at second home tourism through the lens of responsible tourism.

Second home tourists have the opportunity to partake in a number of recreational activities whilst at their Hartbeespoort second home. Water bodies, as has been discussed earlier, hold great potential for tourism development due to the variety of tourist activities that can take place both on, in and beside the water body (Coppock, 1977b). Of the activities second home owners identified as being partakers of, boating (50 respondents, n=84) is the most prominent activity. Added to this, 15 (n=84) second home owners also jet ski on the Dam.

Recreational boating as has been identified in Chapter 2 (2.6.3) is one of the major impacting factors of tourism on the environment in areas with water bodies. Fifty (n=84) second home owner respondents indicated that they partake in boating on the Dam, this therefore implies that there are fifty second home owner boats contributing to the environmental degradation of Hartbeespoort Dam. From Google Earth Images (24 October 2011), there are an estimated 172 boats in total on the Hartbeespoort Dam, therefore the pollution created by this total number of boats is far greater. Following on from findings in the international literature, second home owners in Hartbeespoort add to the pollution of the Dam through the fuel and oil discharges commonly associated with boating and jet skis (Mosisch and Arthington, 1998). Bank erosion has also been linked to boating and thus Hartbeespoort second home owners recreationally boating are responsible for the erosion of the banks of the Dam. One of the main concerns associated with boating is the increase in the turbidity of the water body that acts to resuspend settled sediments and nutrients which may cause algal blooms (Lenzi *et al.* 2013; Mosisch and Arthington, 1998). This being the case some of the environmental degradation associated with the algal blooms in Hartbeespoort may be connected to second home owners themselves.

5.3.2. Perceived impacts of second home owners

While it can be concluded that second homes as well as their owners do impact upon the environment, the perception held by second home owners of their impact is not necessarily accurate. The accuracy of second home owners' perceptions of their impact on the environment is imperative to environmentally responsible tourism. The selection of the location for their second home alone has the capacity to affect the environment directly through development (Cohen, 1978; Stroud, 1985). Dodds (2012) notes that all stakeholders (including wealthy second home owners) hold powerful positions within sustainable environmental management practices, as they can either, "motivate or impede sustainability" (Dodds, 2012, p.55). Therefore, second home owners' perceptions of their impacts on the environment will likely determine both their actions, and their willingness to mitigate some of their impact. Understanding the ways in which second home owners perceive their relationship with the environment is therefore key in implementing policies to maintain positive tourism experiences while minimizing environmental impacts.

It therefore is significant to mention that majority (74, n=89) of second home owner respondents do acknowledge that the Hartbeespoort environment in general has been degraded. In verification of this 85 (n=87) second home owner respondents feel that the Hartbeespoort Dam itself is polluted. One respondent labelled the degradation as *"HUGE!!"*,

and another stated that the term polluted is an *"understatement"*. These comments provide some insight both into the objective state of the environment, as well as the perceived state of the environment. When asked what second home owners thought the reasons for this environmental degradation were, varied responses were provided which have been categorized into the themes presented in Table 4. The various responses identify some of the key reasons why the Dam is polluted, however none of the responses indicate that second home owners identify themselves or their homes as a cause of environmental degradation. Rather the local municipality and informal settlements situated along the tributaries of the Dam were identified by 44 (n=77) second home owner respondents as the main contributors to degradation in the area. These two parties are identified as being responsible for the algae and pollution in the Dam by 46 (n=77) second home owner respondents.

Table 4: Second home owner's opinions as to the reasoning behind Hartbeespoort Dam being polluted.

Reason Identified	**Number of Respondents (n=77)**
Municipal Mismanagement (Lack of infrastructure/ Sewerage leakages)	32
Tributaries/Algae/Hyacinth	32
Pollution/Litter	14
Informal settlements	12
Development	5
Industry	5
Farming	4
Tourists/ general population	4
Do not know	1
Total	**109**[6]

[6] Due to the open ended nature of the questionnaire multiple responses were given by some respondents and all were taken into account. Thus, although the number of respondents to this question is 77, the total number of responses is greater at 109.

Second home owners were then asked whether they feel they are in any way responsible for any of the environmental degradation of the Hartbeespoort Dam and its surrounds. A minority of 9 respondents (n=86) said yes, whilst the vast majority (76 respondents, n=86) said no and 1 respondent (n=86) was unsure. An array of reasons were provided by forty of these respondents for why they feel they are or are not responsible for any environmental degradation and these have been categorized into the four main themes that emerged. A considerable 18 respondents to this question (n=40) believe that they are not responsible simply because they have no impact on the environment. An example of one such response was, *"[I] only stay for a couple of days at a time, sometimes even take the refuse home with me, do not take part in any activities, try not to leave any footprints".* A lesser 9 respondents (n=40) argued that their actions in fact improve the state of the environment through not littering and picking up existing litter in the area. These 9 (n=40) respondents who argue that their actions improve the state of the environment may reinforce Müller's (2002b) argument that second home owners value the natural amenities of the second home location and therefore act as conservationists protecting the environment rather than degrading it. However, in light of the environmental impacts identified above these 9 respondents are more likely to be misled rather than right, although their actions do slightly abate some of their environmental impacts, they do still impact upon the environment. The remaining respondents also held strong perceptions with regards to their environmental impacts, 6 respondents (n=40) identified others as being the cause of environmental degradation and not themselves. Whilst 7 (n=40) respondents to this question acknowledge that they do in fact hold some of the responsibility for degradation in the area. One respondent noted that he is responsible simply because he owns a home. This final comment made by only one second home owner is perhaps the only perception that is accurate.

In the majority of respondents failing to acknowledge that they may be potential contributors to degradation in the area, second home owners arguably also fail to understand the potential that they have to reduce their own environmental impacts. The main parties identified by respondents as being responsible for environmental degradation were the municipality and the informal communities living on the banks of the tributaries flowing into the Dam. The perception held by second home owners is that these two parties also hold the potential to solve the problem (see Table 5). Increased municipal and government intervention was identified as a necessity to abate some of the environmental impacts in the area. A further solution offered was to *"deal with"* the informal settlers and pollution that emanates from upstream through educating the people living upstream, to the more extreme arguments that the settlers upstream should be removed from the sensitive areas in which they are living. This suggestion is hypocritical, considering that second home owners

themselves reside in similarly sensitive areas on the banks of the Dam, and do themselves contribute towards the environmental degradation of the Dam. However, they would have been required to meet formal building regulations, whereas informal residents would not have. A minor 2 (n=81) respondents apathetically argue that it is too late to solve the pollution problems of the Dam, contrasted with the 3 (n=81) respondents who are of the opinion that the state of Dam and its surrounds is improving and that the status quo should continue to be implemented.

Table 5: Second home owners' opinions as to how to improve the state of the environment

Opinion given	**Number of respondents**
Deal with pollution upstream	25
More municipality and government intervention and controls	23
Remove sewerage and fix sewerage infrastructure	9
Better environmental education	5
Better infrastructure	5
Clean up and green up	4
Remove/control informal settlers	4
The state of the Dam and surrounds is improving, continue with the status quo	3
It is too late to do anything	2
Control pollution that results from farming	1
Total	**81**

This case study demonstrates that the majority of second home owners in Hartbeespoort are unaware of their own environmental impacts. They consequently fail to acknowledge their potential to mitigate some of these impacts. When there are differing stakeholder perceptions, conflict may arise which can impede responsible tourism outcomes. In this case, conflict may arise over who is responsible for the pollution of the Dam, leading to a situation in which second home owners do not contribute to a responsible tourism outcome. Thus, when implementing initiatives in an area, it is not sufficient to simply understand the impacts of tourism as policy makers, but it is also imperative that the tourists themselves understand the consequences of their actions. Whist the respondents feel that a solution to the problem of pollution would be to educate the informal dwellers living upstream, it would appear that it is the second home owners too who require further environmental education.

5.3.3. Environmental impacts of second home tourism in Hartbeespoort according to environmental stakeholders

An environmental specialist working within the Madibeng municipality for three years notes that the main contributor to the pollution of Hartbeespoort Dam is the *"sewer package plants and pump stations both from Madibeng and Gauteng"*. If sewerage pump stations from Madibeng (the local municipality in which Hartbeespoort falls) are contributing to the eutrophication of Hartbeespoort Dam then second home owners are indirectly contributing to the degradation of the Dam and its surrounds. However, municipal mismanagement in this instance is the main culprit through lack of proper infrastructure maintenance. As noted by the specialist a solution to the problem would *be "fixing or replacing the broken sewer pump stations, [as well as] regular monitoring of the package plants"*. Thus, as Keyser (2002) has argued: second home booms can lead to a situation where insufficient infrastructure may enhance environmental degradation; this has clearly proven true in Hartbeespoort.

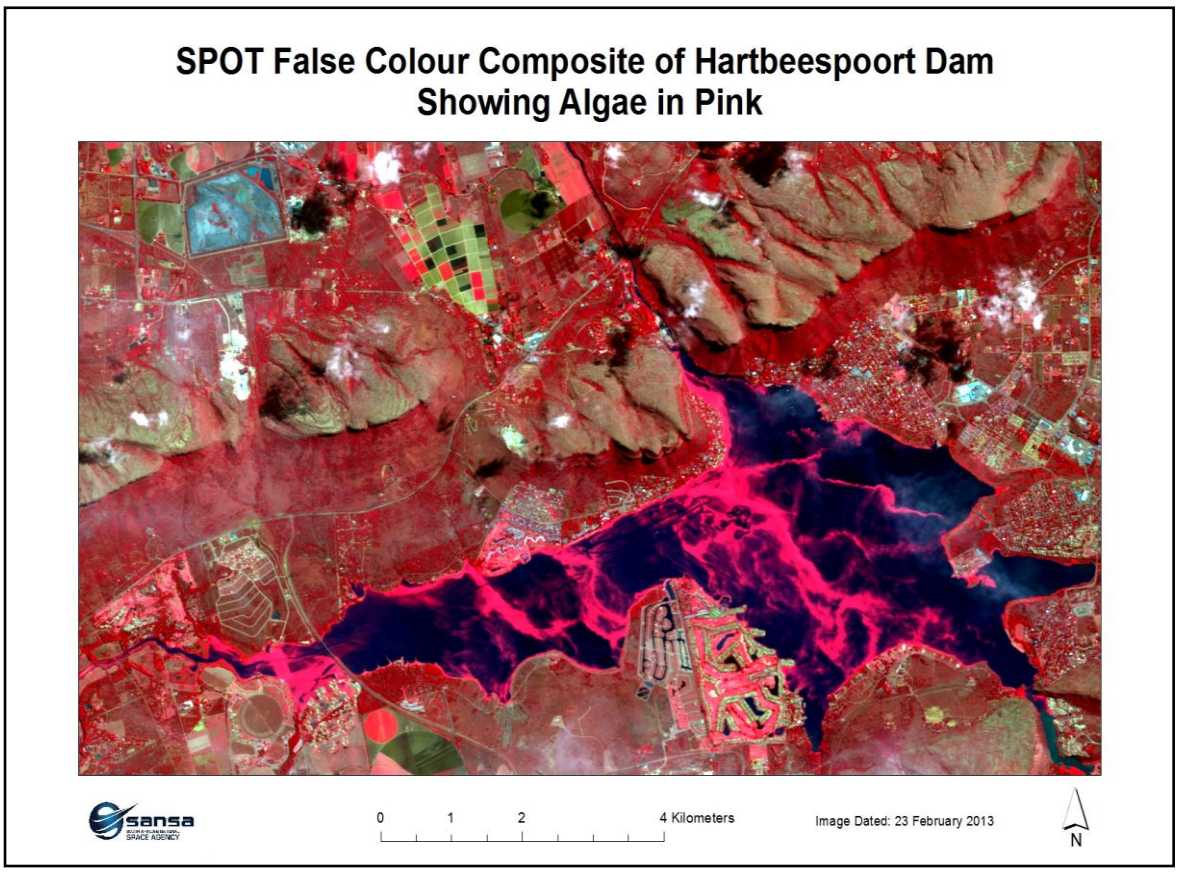


Figure 5: Satellite image of Hartbeespoort displaying algae, taken February 2013

Figure 5 above and 6 below are two SPOT false colour composite images (imagery supplied by the South African National Space Agency) in which the presence of algae is displayed in

the shade of pink. The algal blooms originating from the shoreline substantiate the argument made here that sewerage leaks are one of the sources of eutrophication and algal blooms in the Dam. This can clearly be seen in the images as the algal blooms originate from along the shore where seepages occur. In comparing the two images the seasonality of algal blooms is also clearly shown. High concentrations of algae are present in February-the summer season-whereas a substantial decrease in the presence of algae is seen in the image taken in April in autumn.

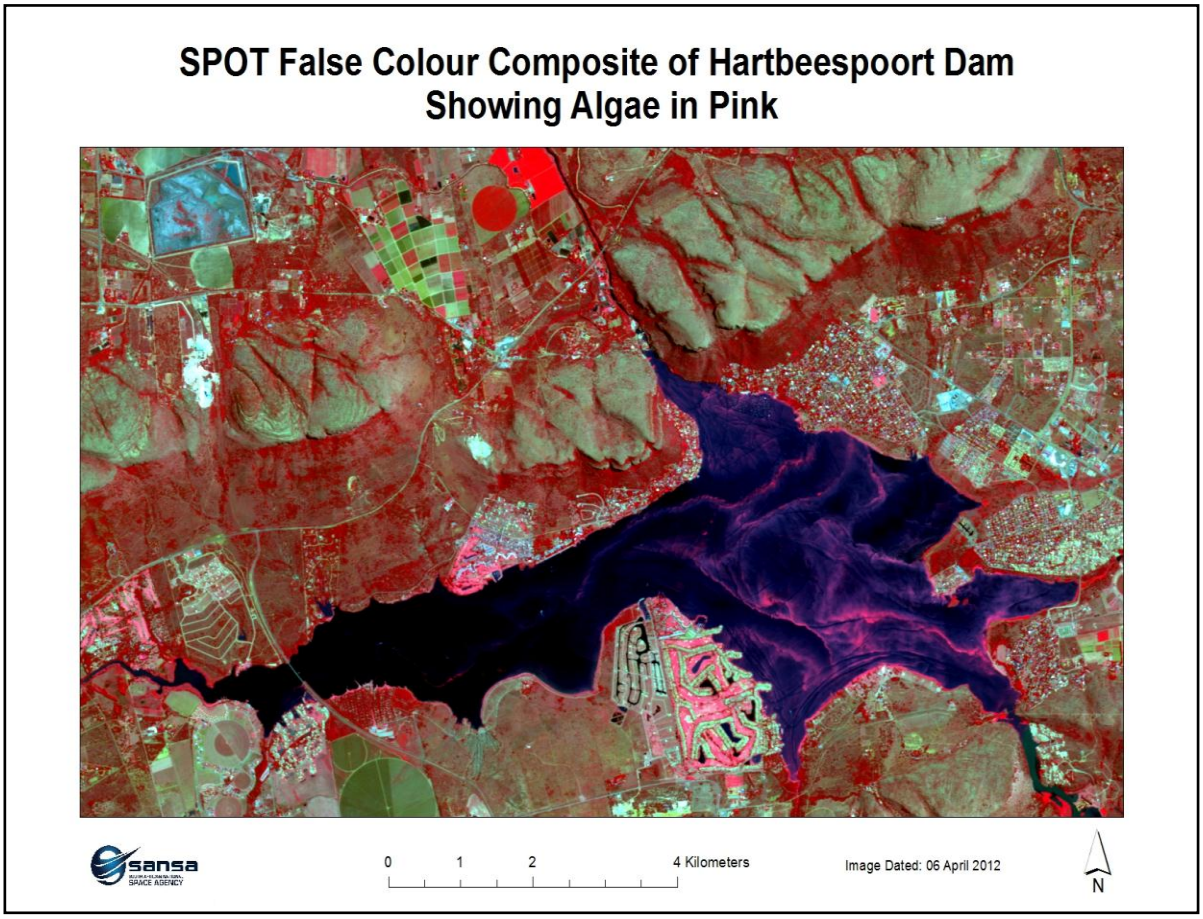


Figure 6: Satellite image of Hartbeespoort displaying algae, taken April 2012

The specialist has noted that there has in fact been an increase in the number of houses and businesses which surround the Dam. This increase has been identified as having an impact on water supply. The demand has increased to the point where the pump station cannot meet the demand. Gössling (2002) has identified the potential pressure a boom in second homes can put on an area with a limited water supply. Hartbeespoort again has succumbed to this as there is a lack of water supply in the area thus straining an already water strained environment. The interviewee identified no other environmental impacts resulting from this increase in houses and businesses surrounding the Dam. The extensive impacts associated

with this increase in development is seen in the current eutrophic state of the Dam, this clearly seen in the photo below (Figure 7). This photo illustrates plainly the contrast between the eutrophic Dam and the lavish homes built on its banks.



Figure 7: The eutrophic Hartbeespoort Dam with second homes in the background (Source: Author)

In response to the question of whether or not second homes are directly responsible for any of the impacts highlighted (in this case water scarcity) the environmental specialist said *"no"*. Added to this the environmental specialist is also unaware of any impacts that can be associated with the second home owners themselves. However, the environmental specialist does believe that the current *"low quality of water resulting from contamination resulting from excessive growth of algae which produced a bad smell and changes the colour of water"* has directly impacted upon tourism to the Hartbeespoort area (see Figure 8). It seems the perception held within the municipality is the same as the perception held by majority of the second home owners with regards to their actions and their homes: there are no, or at least very few, associated environmental impacts. This misconception may also be at the root of

municipal mismanagement in the area as the municipality cannot monitor and control impacts they do not perceive.



Figure 8: The green water a clear indication of nutrient rich water (Source: Author)

The second environmental stakeholder in Hartbeespoort interviewed was the Programme leader for the Hartbeespoort Dam Integrated Biological Remediation Programme called '*Metsi A Me'* meaning *My Water.* When asked what environmental impacts can be associated with the homes surrounding the Dam, the programme leader acknowledged that the homes around the Dam do impact upon the environment. The program leader said the development of estates such as the Peacanwood Golfing Estate have led to 2-4 kilometres of sterile and bare shorelines. Sterile shorelines are the result of estate owners removing vegetation along the shoreline of the Dam. Hall and Lew (2009) have ascribed the extinction of wild species to this destruction of land and habitat fragmentation. Hartbeespoort second home owners and the estates in which they reside are arguably contributing to this within Hartbeespoort as well through the removal of natural vegetation along the shoreline of the Dam.

Some of the more visible pollution within the Dam, such as litter, emanates mainly from upstream. As the programme leader said, it must be considered that, *"two and a half million people live upstream"* and thus they will impact upon the Dam. The homes along the Dam have not only led to sterile shorelines but there are impacts specifically related to recreation. Boating has been identified as a cause for environmental concern within the Biological Remediation Programme as well as this study (Rand Water, 2012a). In order to maintain the integrity of the programme boating restrictions were put in place to limit access to the Dam as well as to limit boaters from boating around sensitive areas through implementing a permit system for boating on the Dam (Rand Water, 2012a). According to the programme leader only two or three estates in the area have committed to this. However, he admittedly notes that this part of the programme has not been fully implemented due to the high regulatory demand it requires, which simply cannot be met. The impacts identified here confirm Holden's (2003) argument that tourism developments lead to the damage of sensitive ecosystems, in this case both on the shoreline and within the Dam itself.

Within the interview it was made apparent that home owners in general have made no commitment to engage with the programme. The programme head remarked that the lack of engagement is a *"huge disappointment"*. Home owners in the area are difficult to contact, and in an attempt to get the local community involved a database was compiled from which text messages were sent to the community regarding the programme. However, in response to this some members have requested to be removed entirely from the database so as not to receive any information. Stakeholder meetings have been arranged and advertised to invite all concerned, however very few people make an effort to attend. This may once again be an indication of the lack of ownership of the problem felt not only by second home owners but the community as a whole. A lack of community engagement is not the only disappointing facet of the programme. A lack of stakeholder support as well as governmental support has been noted. This makes implementation of the programme difficult as stakeholder and governmental support is essential for the success of the programme.

Second home owners may exacerbate the problems associated with the lack of local community support in general in the Hartbeespoort area, given that 88 (92) second home owner respondents have homes that are located in gated communities around the Dam. If nature as argued in the literature acts as a base for second home owner place attachment (Stedman, 2003), then the same could potentially be said for the locals in the area. However, if the local community in the area cannot access the Dam due to the gated communities, the local community may lack a sense of attachment to the Dam and as such not feel the need

to participate in any efforts to improve the state of the local environment. The local community as well as the second home owners in the area may therefore both feel they are not responsible and this lack of ownership could be the cause of the lack of community support as experienced by the *Metsi A Me* programme leader.

Given that responsible tourism has become the ideal for South African tourism it would seem that the results as presented here do not coincide with this. According to DEAT (2002, p.56) responsible tourism initiatives must leave "a net positive impact on the environment"; this is not the case in Hartbeespoort. In light of the environmental impacts, second home tourism in Hartbeespoort cannot be considered a form of responsible tourism as the impacts associated have contributed to the degradation of the Dam and its surrounds. However, ignorance on this issue dominates both second home owners and local government. Added to this is the lack of commitment from both municipality and second home owners for improving the local environment and therefore the practising of responsible tourism in Hartbeespoort is severely impeded. The lack of awareness by the municipality with regards to the impacts associated with second home tourism may be most detrimental to achieving responsible tourism in the area as it is local government who would be accountable for implementing and maintaining any such initiative handed down from broader governance structures. However, second home owners being the wealthy elite of the country also have the potential to implement responsible practices in their leisure homes such as solar geysers. Given this, it would seem that the greatest obstacle impeding responsible second home tourism in Hartbeespoort is environmental ignorance.

5.4. Second home owner's perceptions of the impact a degraded environment has on them and their homes

When asked if second home owners believed that the Dam and surrounding area was polluted, 85 (n=87) of the respondents said yes with 2 (n=87) saying no. One respondent stated that saying the Dam was polluted would be *"an understatement"*. It is evident from this reply that second home owners are aware of the fact that the Dam and surroundings are in a poor state, and by acknowledging this were able to indicate what they thought the possible implications of this would be for them. Second home owners were asked in an open-ended question what effect the environment has on their second home and numerous and varied responses were given. Responses were categorised (see Table 6) and will be discussed in the sections that follow.

Table 6: The effect of the environment on Hartbeespoort homes as perceived by second home owners

Perceived effect	Number of respondents
Decrease in value	58
Decreases recreational use	13
Decreases aesthetic value	12
None minimal	9
Reduction in marketability	7
Negative	5
I am selling as a result of the environment	3
Total	**107**[7]

5.4.1. Perceived economic repercussions for second home owners due to a degraded environment

A slight majority of second home owners (58, n=82) identified the degraded environment as a cause of decreasing property values in Hartbeespoort. One such response indicated that the impact of the environment on his second home was *"huge[,] the general appearance of the Dam is enough to reduce property prices"*. A further 7 (n=82) respondents alluded to the fact that their properties have become increasingly difficult to sell. One second home owner noted this when asked what impact the environment has on his second home: there is *"no demand in Hartbeespoort, poor perception due to pollution"*. Whilst these two quotes indicate that the economic impact is *"huge"*, not all second home owners feel this way. One respondent noted that the value of their home was only, *"marginally affected"* but that there were fewer prospective buyers. Second home owners have thus found themselves in possession of houses the value of which they feel is declining but which they are unable to sell. From the array of responses given it is evident that the degree of the economic impact felt by second home owners varies. Even with this variation it is undeniably evident here that there is a perceived financial impact felt by second home owners that results from the

[7] Due to the open ended nature of the questionnaire multiple responses were given by some respondents and all were taken into account. Thus, although the number of respondents to this question is 82, the total number of responses is greater at 107.

degraded environment. Moreover, this process has coincided with the global economic downturn which, though it has not affected South Africa as harshly as many other countries, when added to environmental degradation as a joint process is harmful to the general tourism industry in Hartbeespoort.

However, it seems to be a question of perception: in Figure 9 below, second home owners have noted the value of their property when bought and what they perceive they could presently sell it for. This figure essentially shows that the investment growth is not as high from the 2000s as during the 1960s to 1990s, but nevertheless, second home owners would still benefit from investing in Hartbeespoort. In spite of the fact that investment growth is apparent from Figure 9, this may be of no benefit when one takes into consideration that it is the perceived impact that will dominate the responsive actions taken by second home owners. The response in this case could potentially be to sell their depreciating asset before any greater perceived loss occurs.

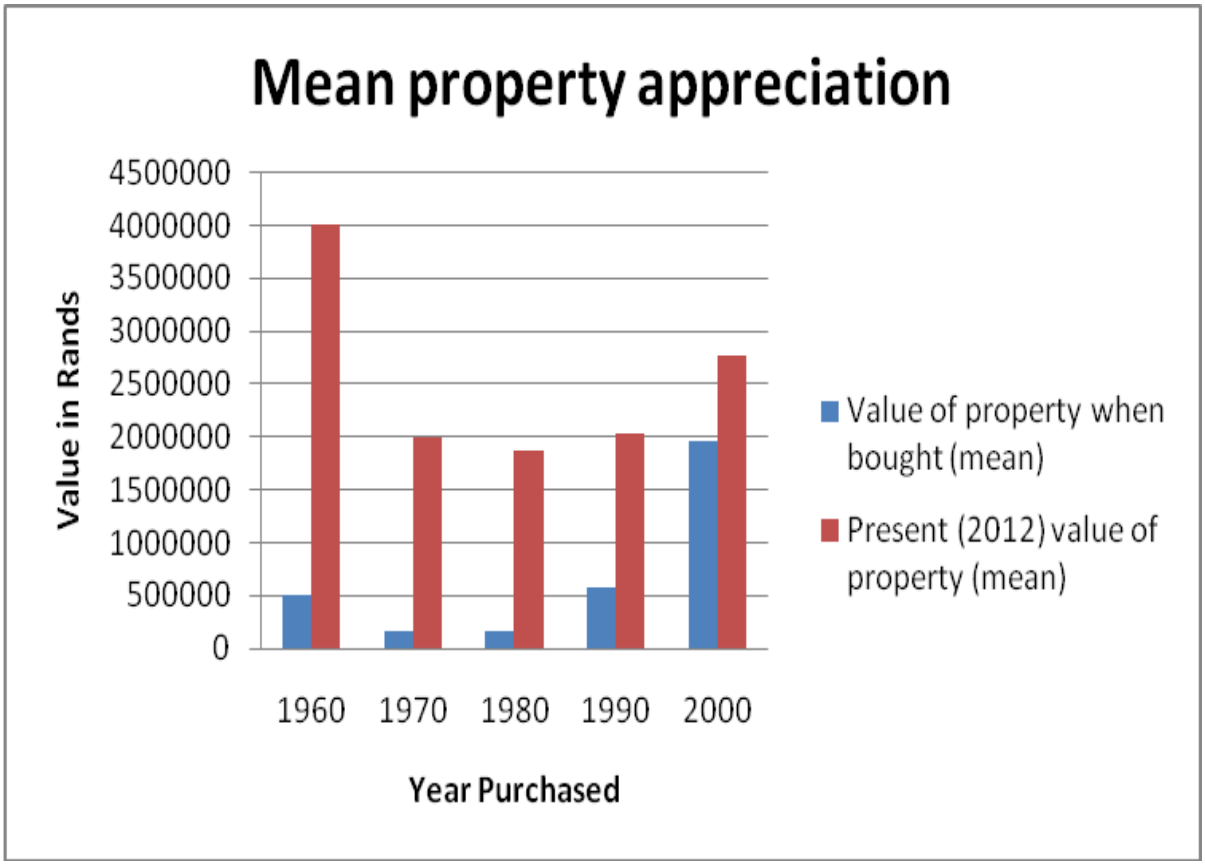


Figure 9: Graph depicting mean property appreciation

To further validate whether or not the economic perception held by second home owners is legitimate an independent opinion was sought. In order to achieve this, four estate agents

operating in the Hartbeespoort area were interviewed. All four estate agents acknowledged that both the demand and economic value of properties in the area has been on the decline since approximately 2009. The reason for this as identified by all four estate agents is the general economic decline felt not only in South Africa but the world as a whole. The state of the Dam and the surrounding area was not identified as a major contributing factor. When asked if prospective buyers ever comment on the general state of the environment, responses given included*: "yes", "Some do, minimum, [but] most still buy", "more in the past than recently", "does play a big role for waterfront buyers, people are aware, there is a negative perception, but people still buy as they see value in the area"*. Taking these responses into account, the environment does play a role in the purchasing of second homes in the area and may be limiting the demand, value and sale of a property by second home owners. However, whilst there is a negative perception, most people are still willing to buy. Consequently, the impact the environment has on the housing market in the area is somewhat abated.

Estate agents were asked what comments they had heard potential buyers make with regards to the general environment of the area. Responses indicate that there is a mix of opinions held by potential buyers that come to the area. The *"view of Dam and surroundings is beautiful, but the condition of infrastructure is a worry [and] open spaces need attention"*. From this it is clear that potential buyers do see the beauty of the area but the appeal is reduced when infrastructure and the state of open spaces is taken into account. Other responses included potential buyers complaining about the water quality, the smell of the Dam as well as the presence of hyacinth on the water. Concern was also raised around using the tap water in the area as it is filtered from the Dam. From these comments there is no doubt that whilst estate agents attribute the majority of the decline in demand and value to the general economy, and while most people (whilst concerned about the environment) will still buy, it is clear that the state of the environment does play some role in deterring potential second home owners from the area, even if it is limited, thus validating the perception as held by second home owners in Hartbeespoort.

The final question posed to estate agents in the area was whether they thought the state of the Dam had influenced potential buyers' decision making. The general consensus was yes it does, but only to an extent. Noted here was the fact that since the general appearance of the Dam has improved in the last two years, people are less deterred. Another response given by one estate agent was that the degraded environment has both a positive and negative impact on potential buyers. Some buyers are deterred from buying but others will buy in the hope that when the state of the Dam improves the value of their property will

increase extensively. When reviewing the arguments made by estate agents in the area, it seems to be the case that whilst the environment does impact on the demand and value of second homes in the area, it is limited. While this may be the case, it does not alleviate the impacts as felt by current second home owners in the area who are not recreationally satisfied in their current second home ownership. Therefore, second home owners perception with regards to this is somewhat validated by the local estate agents.

5.4.2. The degraded environment impacting on recreational place utility and place attachment of Hartbeespoort second home owners

Second home owners are known to invest in scenic areas with high recreational potential (Coppock, 1977; Wolfe, 1977). Thus the aesthetic beauty and natural amenities of Hartbeespoort have influenced the boom in second home development in the area prior to pollution becoming widespread. One second home owner's response was that the environmental impacts of the polluted Dam on Hartbeespoort is *"not on value as such, [but] perhaps on enjoyment value[,] sights and smells"*. Therefore, the degrading environment reduces the aesthetics of the area, and consequently reduces the enjoyment gained from owning and visiting the second home. This being the case, one of the fundamental factors that influence the placement and value of a second home to its owner has been undermined, and this results in a dissatisfying experience for the tourist seeking rest and relaxation. Instead the tourist is confronted with *"terrible sights and smells"* as one second home owner noted. Within the answers to this question, it was also found that 13 (n=82) Hartbeespoort second home owners felt that the environment had a direct impact upon the recreational utility of their second homes.

Activities that second home owners would not partake in as a result of poor environmental quality include fishing, boating, jet skiing and swimming in the Dam (see Table 7). Whilst this question had a very low response rate, it is still a slight indication of the loss in the recreational place utility of Hartbeespoort. Of the 34 respondents who would no longer swim in the Dam, 25 (n=34) of these noted that they would not swim in the Dam due to concern for their health.

Table 7: Environmentally related reasons preventing recreational activities

		Reasons identified by second home owners		
Activity	**n**	**Poor water quality**	**Health concerns**	**Accessibility**
Swimming	34	25	9	0
Fishing	8	6	0	2
Jet ski	6	6	0	0
Boating	5	5	0	0

Some of the more insightful responses given for why respondents would not fish or boat in Hartbeespoort included: *"no that water is disgusting"* and *"because the water is dirty and unsafe we do not use our boat anymore"*. However, the most insightful of the three activities highlighting the effect of a degraded environment on the recreational place utility of Hartbeespoort was that of swimming in the Dam. With the highest response rate of 34 respondents choosing to answer the question it is the most generally felt impact. It also suggests that environmental degradation cannot only affect the recreational place utility but can also be the cause for health concerns among second home owners. Many respondents used the word *"toxic"* to describe the water and why they would not make use of the Dam. One respondent also noted that they *"cannot use the Dam for anything. My children have been very ill"*. Hence concerns over the environment may result in the loss of recreational place utility, and a loss in place attachment, but a fear for ones' health is gained. Therefore, the overall sentiment of second home owners in Hartbeespoort is that the degraded environment has impacted upon their second homes negatively in some form or another. By the responses given it is evident that second home owner respondents no longer wish to use the Dam for recreation. Since 66 (n=84) second homes in Hartbeespoort were bought for leisure, the main purpose of these homes has therefore been undermined in the perceptions held by second home owners. This perception once again may influence the actions taken by second home owners to retain or sell their homes.

Whilst the presence of algae and the appearance of the Dam has been shown to affect the recreational utility of the second home, no correlation could be found between an increase in algae and a decrease in visit frequency. In fact, the opposite appears to be true. Second home owners frequent their homes more often in summer than winter (see Figure 4). Algae as is shown in the SPOT images (Figures 5 and 6) flourishes in summer as opposed to winter. Therefore, whilst the presence of algae makes leisure activities at the second home undesirable it does not hinder visitation at the second home. This observation is contrary to that made by Huhtala and Lanika (2012) who note that the attributes of a second home and

the environment in which it is found have an effect on the visit frequency to the second home; rather the case here is that visit frequency is maintained but use of the environment is hindered.

5.4.3. The result of a loss in economic, recreational, and place attachment utility

Briassoulis and van der Straten (2000) reason that the environment must receive the proper attention in order to preserve both it and the tourism industry as a whole. Robertson (1977), notes that when the environment is not properly maintained and the utility is undermined, as has been the case in Hartbeespoort, the result would be the possible disposal of the second home. When asked if they were considering selling their second home 35 (n=90) respondents said yes. This problem is clearly outlined in one response: *"I'm thinking to sell it and move away and there have been no buyers. Property values are dropping, investors are leaving, as cannot use Dam. People do not go to the Dam anymore"*. It seems the disposal of property is no longer just the intent of second home owners, as one respondent commented: *"I had another property at Hartbeespoort Dam but have since sold it due to it being close to the water and the water was smelling"*. Thus, this process of disposal has already begun.

Listed in Table 8 are the reasons as identified by second home owners for wanting to sell, reasons associated with the environment are most prevalent. The pollution of the Dam was the most frequently cited reason (10 respondents, n=25). Non-environmental reasons were also given such as the politics associated with municipal service delivery (6 respondents, n=25) and the cost involved with owning and maintaining a second home in an area with devaluating property values (4 respondents, n=25). With regards to the political and municipal service delivery complaint, 6 (n=25) respondents who argue that they would move to a better run municipality and criticise the politics associated with service delivery fail to take into account that the issue of the degraded environment does not only source from the municipality their second homes are situated in, but also the municipalities their first homes are in. Therefore, the critique that second home owners have regarding service delivery should be considered across municipal borders and moving to another better run municipality will not necessarily solve any problems, especially where the natural environments are impacted by river systems. These river systems then act as conductors of pollution, transporting the pollution downstream, making the impacts widespread (Atkinson *et al.*, 2007). Thus, whilst environmental reasons are prevalent they are not the only factor contributing towards the 35 (n=90) respondents wanting to sell their Hartbeespoort second home.

Table 8: Reasons why respondents would sell their Hartbeespoort second home

Reason given	Number of respondents
Pollution	10
Move to a better run municipality/ politics associated with service delivery	6
No demand in the area/ expensive to maintain/ decreased value/ better investment elsewhere	4
Moving elsewhere/want a coastal home	2
Do not use home	1
More flexible holidays without a second home	1
Overpopulated	1
Total	**25**

A further question was asked of second home owners, whether they are considering selling and buying elsewhere, to which 22 (n=88) respondents answered yes. With a response rate of 88 only two less than the 90 respondents who answered the question regarding their willingness to sell, these two responses can then be compared fairly accurately. It can be argued that if 35 (n=90) second home owners are selling and only 22 (n=88) of these buying elsewhere, a bad experience in owning one second home may result in further unwillingness to invest in the second home tourism industry in future, thus resulting in a loss of tourism revenue altogether.

Once again the results here must be considered in light of South Africa's drive for responsible tourism. In order for responsible tourism to prevail, tourists are a necessary component and in this case second home tourists. A loss in economic viability and recreational place utility has been identified as a controlling factor for the disposal of second homes. It is thus once again imperative that the environmental impacts be monitored and abated as much as is possible to ensure that second home tourism in the area thrives and may be implemented within responsible tourism initiatives in Hartbeespoort.

Although the picture painted above is one of a poorly managed environment, the role place attachment can play in retaining one's second home in light of the state of the environment

was found to be of great significance in this study. Despite identifying the degraded environment as the cause of loss in the monetary value and the recreational use of the home and environment, 55 (n=88) respondents are still not considering selling their second home. Reasons identified for this unwillingness to sell are linked to the sense of place attachment felt by Hartbeespoort second home owner respondents. Responses to this question were categorised into Table 9 where contentment as well as hope for future improvement of the environment were also identified as drivers for continuing to own a home in Hartbeespoort. One respondent said *"I love my home there, it's a place to relax and recharge my batteries and it's full of memories of my late husband"*. Another: *"No, I feel safer at Hartbeespoort Dam than in Rustenburg"*. Hope for improvement, family ties and a sense of happiness associated with the area were further identified as reasons for not wanting to sell. Thus, place attachment, whilst not being the driver behind buying a second home, over time becomes the reason to retain the second home when initial drivers are compromised.

Table 9: Reasons given as to why respondents would sell their Hartbeespoort home and buy elsewhere

	Number of respondents
Happy with Hartbeespoort	9
Good investment	3
Area will improve	2
Will sell at a later stage	1
Other	4
Total	**19**

Whilst the environment has been identified as a base for second home tourism development and place attachment in Hartbeespoort, the results here show that place attachment may also be a base for responsible tourism. Given that place attachment has been the reason behind some second home owners maintaining ownership of their properties in the face of severe environmental degradation, identifying and utilising place attachment as a means to implement responsible tourism initiatives may prove to be successful. Marketed on the base of place attachment, second home owners may be more willing to partake in responsible tourism initiatives. This being said, when considering the argument made by Vaske and Kobrin (2001) that the greater the attachment to place people have, the more likely they are to be aware of the environment and act in a manner that is environmentally responsible. This has not been the case in Hartbeespoort, where place attachment is evident through the unwillingness to sell, however second home owners do not act in an environmentally

responsible manner due to the misconception of their impact on the environment. Therefore, whilst place attachment may be the base for responsible tourism marketing, perhaps this will need to be done in conjunction with environmental education initiatives.

While this study aimed to look at the effects of a degraded environment on second homes and their owners, a warning can be signalled with regard to the possible knock-on effects of the results found. With the failure of second home tourism in the area, further property devaluation may result as the housing market has potentially fewer prospective buyers. This affects not just second home owners but first home owners in the area as well, whose first home may be their most valuable asset. As discussed, there is often social unrest that comes about as a result of second home development (Gallent, Tewdwr-Jones and Mace, 2005) and there is no doubt that the state of the environment has affected local property values. Should property values decrease, there may be a substantial decrease in property tax paid to local government each month, which could have dire implications for local municipalities now having to maintain infrastructure in an area falling into disrepair.

The local tourism industry created and maintained by second home tourism may find itself at a loss for revenue resulting in subsequent job losses and the destabilisation of the local economy, especially regarding domestic workers and gardeners that are permanently employed (Hoogendoorn and Visser, 2010). With visits occurring on average monthly or more than once a month, the impact on the local economy will be sorely felt if second home owners sell their properties and no longer visit the area. In 2011 alone, second home owner respondents contributed R1.6 million towards restaurants, art galleries, local service stations, buying of groceries and expenditure in gift shops. Nicolau (2012) examined the relationship between price and nature motivation in tourism and found that individuals who desired a nature-based holiday were less affected by the expense of the holiday. With the degradation of the nature base, second home tourists may become more cost sensitive when it comes to visiting and maintaining the second home, spending less on trips as well as maintenance. The construction industry however may be hardest hit as second home owner respondents spent an estimated R11 million on renovations on their second homes in 2011. If this constant stream of revenue had to decline substantially or even disappear, it would not only result in the continuation of environmental degradation but also substantial economic decline in a country that cannot afford for this to happen.

Furthermore Müller (2000) argues that by buying homes that would otherwise fall into disrepair as a result of rural depopulation, second home owners abate environmental degradation that results from rural depopulation. However, it would seem rather that these

second home owners have merely delayed this process, whilst inciting further development in the area and thus with second home depopulation we will see more homes falling into decay. Whilst Hartbeespoort is still a part of the Magalies route tourism initiative and day tourists will probably continue to the area, the possibility also exists that these tourists would not want to visit the area due to the state of the environment, leading to the bypassing of the area by day tourists as well.

5.5. A brief look at the social implications associated with second home development in Hartbeespoort

Whilst this thesis aimed to focus on the environmental implications of second home tourism in Hartbeespoort, a few social issues have emerged and will be discussed here. One of the positive social aspects of second home development for the local community would be that of economic upliftment found in both this study and that of the Baker and Mearns (2012) study of Hartbeespoort. Second home owners contribute large sums of money to the local community which allows for the creation of jobs within the local community. Second home owners also contribute to local infrastructure maintenance and service delivery through rates and taxes paid to the local municipality. The local community in this sense benefits financially through second home tourism in the area.

Second home owners have identified the devaluation of their properties as a consequence of the environmental degradation in the area. For second home owners these are additional properties but for locals in possession of only one home, this may be the devaluation of their main asset as opposed to an additional investment. Thus the financial implications for a permanent local resident may be far more severe than a second home owner. This, in light of the fact that second home owners earn far more than the national annual average income, makes the impact felt by average Hartbeespoort permanent residents far more severe. Second home owners as has been identified here will ultimately sell their properties when faced with severe environmental degradation. Permanent residents with less capital might not have the same option and thus be in possession of properties that could potentially be devalued if all second homes are sold at once, increasing the supply of homes in the area and actively decreasing property values.

This study has found that second home tourism contributes to environmental degradation. Local residents live in this degradation permanently as opposed to second home owners who visit only on weekends. Therefore, the impacts of environmental degradation associated with second homes is felt more severely by permanent residents who have no first home to

retreat to during the weeks. Local residents living on the immediate banks of the Dam may be most affected as they are the closest to the *"toxic" "smelling"* water. Access for local residents not living on the Dam is severely restricted; this restriction is as a result of the many gated communities that surround the Dam. Second homes play a major role in restricting access to the Dam as 88 (n=92) of surveyed homes are in gated communities around the Dam. Thus one of the social implications of second home development in Hartbeespoort has been the active exclusion of the local community from the natural amenity. As argued earlier this may have had an influence on the lack of community support for the Hartbeespoort *Metsi A Me* program as local residents have no attachment to the Dam. This being the case, Hartbeespoort second home tourism cannot be identified as responsible as one of the main goals of responsible tourism is socio-cultural equity (Puczkó and Rátz, 2000).

The social implications of second home development in Hartbeespoort should be studied more thoroughly before any solid attempts can be made to identify whether or not the local economic benefits outweigh some of the more negative social implications. Furthermore, there are potentially more social implications that need to be looked at before any effort can be made to deem second home tourism in Hartbeespoort as socially responsible. This study has, however, identified a few implications that may hopefully spur on further studies into the social justice implications of second home developments, especially where exclusion from natural amenities has taken place.

5.6. Conclusion

This study has shown that second home owners in Hartbeespoort, when compared to the national population, form a small group of wealthy, highly educated elite. This minority group of South Africans through the ownership, maintenance and utilisation of their second homes have been found to contribute to the environmental degradation in the area. However, the perception maintained by second home owners as well as the local municipality seems to be one of ignorance with regards to these impacts. This ignorance in essence limits the potential of second home owners to consider the impacts of their actions and modify their behaviour accordingly. Given that second homes and their owners contribute to environmental degradation, they do not leave a net positive impact on the environment and therefore second home tourism in this sense cannot be deemed responsible. Ignorance on this matter once again makes implementing any responsible tourism initiative difficult. Therefore, identifying the impacts associated with second home tourism is only half the battle; implementing a strategy for improving second home tourism as a whole would be the

other half. The latter, however, is inextricably linked to the former. Second home tourists in Hartbeespoort as a whole have been impacted upon by the degraded state of the Hartbeespoort environment. Impacts identified are both monetary as well as a reduction in the recreational utility of the second home. Given this, a of number second home owners in the area are considering selling their second homes. This being the case, we can conclude here that the environment not only impacts on second home tourists but on the tourism sector as a whole in Hartbeespoort. Given this, there is set to be severe financial implications for the local economy and local residents.

The economic implications for the local community may be exacerbated by the fact that there exist social implications from second home tourism. Whilst this study did not aim to look at the social implications of second home tourism, a few issues were raised and discussed here. Depending on the way in which locals view the second home tourism sector in Hartbeespoort, social unrest may result should second home owners who have contributed towards the environmental degradation flood the local property market, driving property values down for local residents as well. This may be exacerbated by the fact that local residents who do not live on the banks of the Dam would have restricted access, if any to the Dam, and yet they are forced to be partakers in the failure in the second home tourism sector.

Chapter 6: Key Findings and Recommendations

South African government has made it abundantly clear through policy directives that tourism is an ideal sector to promote local economic development (Rogerson, 2013). As a result there is a wealth of South African literature that has considered the role that tourism can play in meeting the goal of economic development within the country. Second home tourism research in the country is also dominated by this economic discourse and there is a fair amount of literature that has emanated from studies detailing the positive force second home tourism can have in driving local economic development. However, the South African government has also chosen to frame its tourism policy using responsible tourism as the overarching aim, therefore the environmental as well as social impacts of tourism need to be positive as well for tourism overall to be deemed responsible. This thesis therefore aimed to consider second home tourism through the lens of responsible tourism and look specifically at the relationship that exists between tourism and the environment in a bid to get a more comprehensive view of second home tourism within the framework of responsible tourism.

Whilst second home tourism has been found to be favourable for South Africa as a means for local economic development (Hoogendoorn and Visser, 2010b) the case in Hartbeespoort is much the same. Evidence put forward from the findings here as well as those that have emanated from the Baker and Mearns (2012) study suggests that second home tourism does contribute to the Hartbeespoort local economy. As such, Hartbeespoort second home tourism aids in meeting South Africa's general policy goal of local economic development. Whilst local economic development is ideal for the country it must happen in a responsible manner, and as such the economic gains that result from second home tourism should be attained in conjunction with a net positive environmental impact (DEAT, 2002). The case of Hartbeespoort illustrates that this is not always so, as a net positive environmental impact and economic gains are not always reconcilable. This case study also illustrates how the environment has been 'net negatively' impacted as a result of the tourism that has led to economic development in the area.

Second homes in Hartbeespoort impact on the environment, through the building of houses, travel to and from the first and second homes, water and electricity usage and solid waste disposal. In order to mitigate the environmental issues in the area, more efficient environmental management by the local government is essential. The issue here may be that local government has taken to promoting tourism as a means to generate income whilst the associated environmental impacts of this form of development are side lined. Government needs to take more of an active role in monitoring the rate of development as

well as the type of development that takes place. Perhaps through more stringent building regulations, such as making the use of local builders mandatory, the potential exists to reconcile some of the disjuncture that is evident here between the goals of economic development and environmental protection, whereby the environmental impacts of building are somewhat lessened whilst at the same time the money paid for building is retained within the local economy. This argument brings to light the fact that the problem may also be that local government has no perception of the degree of economic gains attributed to second home development and therefore is unconcerned by a degraded environment that has the potential to debase local tourism and fundamentally undermine local economic development in the area as a whole. However, some of the degradation does emanate from areas outside of Hartbeespoort and therefore is not a direct result of second home development. Good governance in these areas is also key to maintaining the second home tourism sector as a whole.

Whilst the evidence presented here is case specific, the arguments made here can be applied to tourism in general. Government has chosen to emphasise local economic development to the point where the environment has essentially been side lined in policy. This then makes allowances for situations such as Hartbeespoort to emerge whereby tourism is allowed to develop unchecked. This calls into question the environmental impacts associated with all second home developments within the country. A stringent policy approach with a broader emphasis on all three facets of responsible tourism is needed in South Africa should tourism as a whole remain a sustained source of income for the country.

Somewhat conflicting policy directives are not the only cause for concern for responsible tourism. This case study also highlights that economic development goals across governmental boundaries also has the potential to debase the tourism industry. In this case study it can be seen that broader goals of economic development within Gauteng have attributed to the declining environmental quality of a Dam through industrial waste that filters into the Dam that is essential to promoting tourism development within the North West province. Added to this relative to the environmental impacts of more permanent dwellers, sewage and pollution upstream, second home owners only contribute a small amount to the pollution of the Dam. This indicates that the relevance of this study is broader than second home tourism studies, and speaks to larger issues that geographers, town planners and environmental scientists need to consider. Added to this the goal of tourism as a means to local economic development is to alleviate poverty, however the presence of poverty stricken residents along the banks of tributaries in Gauteng may hinder this process in the North West. There is no easy solution for this problem as it would require economic concessions in

either one of the Provinces. However, understanding that cases such as these do exist and can be brought to attention might stimulate debate and an eventual solution may be reached.

While this is the case, the potential exists for some of these impacts to be abated, however the problem first needs to be understood by both second home owners and local government. Understanding the environmental perceptions of these two entities is therefore essential as perceptions determine action. The perception held by both second home owners and local government is one of ignorance with regards to the environmental impacts associated with this form of tourism development. The ignorance on the part of government may be more of a case of turning a blind eye to the environmental impacts in light of the economic gains so desperately sought after in the area. Whilst development is sorely needed in many local communities, the environmental costs of this development cannot be ignored. Given that the ultimate end of a degraded environment is a loss of second home tourists the eventual result of turning a blind eye will be the collapse of the system as a whole. In light of this it is of utmost importance that policies enforce environmental standards for tourism, especially second home tourism which is inherently dependent upon development. Having policies in place detailing this would not be enough, as this case study has illustrated. Responsible tourism whilst evident in South African policy has vastly been ignored. Therefore, realigning South African polices with one clear objective would be most beneficial in terms of implementing this policy. It would also be most beneficial if these policies would put more of an emphasis on all facets of responsible tourism.

Although a well-informed second home tourism discourse is needed, putting this information into practice may be somewhat more difficult. It seems that government and second home owners lack an understanding of the impact second home tourism has on the environment. This being the case, understanding these impacts is only one facet of the course towards responsible tourism; getting stakeholders themselves to understand and partake in mitigating these impacts is another. Whilst the second home demographic is arguably one of empowered wealthy individuals, the lack of understanding may hinder any attempts to get second home owners on board with lessening the environmental footprint of second home tourism. This being so in Hartbeespoort, means the same lack of understanding potentially exists in second home communities across the country. Getting second home owners involved and aware of their impacts and understanding of the role they can play as wealthy empowered South Africans may resonate substantial environmental benefits not just in Hartbeespoort but within the country as a whole.

The perception currently held by second home owner respondents, as polluters, is that they have no negative impact on the environment. If beliefs influence actions, we may see little to no action by second home owners to contribute to better environmental practices and responsible tourism. Education is possibly the solution; if second home owners were made aware of their impacts, they may then potentially become the environmentally ethical conservationists that Müller (2002a) speaks of. Second homes do not have to be eradicated because of these environmental impacts, but rather a change in perception and resultant action should be encouraged for both first and second homes in the region.

As discussed above, an all-encompassing government policy with stringent implementation is one option to attain to responsible environmental practices, however, it is not the only course of action to take with regards to second home tourism. Because second home tourists are tourists with a vested interest in the area, the potential to get them involved in responsible tourism practices does exist and should be utilised. Given the demographic of the second home owner they could be a powerful asset in a bid to promote responsible tourism. Second home owners, not only in Hartbeespoort as is shown in this instance but across South Africa as well, are wealthy, well educated individuals. As they are well educated they have the ability to comprehend and understand the impacts associated with their second homes. Whilst the perception as shown in this case is somewhat one of ignorance, the ability to use information to make second home owners aware of their impacts has great potential. Once informed of their environmental impacts, second home owners again have the potential to abate some of these. A simple change in behaviour could make a vast difference, for example committing to recycling: the reduction of waste, not only in Hartbeespoort but South Africa as a whole would be considerable.

Further greening of second homes is another option identified in international literature as having the potential to abate the environmental impacts associated with dwellings. Greening refers to, “the promotion of the introduction of what can be termed ‘environmentally friendly’ practices” (Leslie, 2007, p.311). Through the greening of tourism accommodation it is hoped that further growth of the sector will have a reduced environmental impact, this aligned with the goals of sustainable development and responsible tourism (Leslie, 2007). Leslie (2007) identifies a few factors that when implemented could result in reducing the impacts of second homes, for example through: increasing the energy efficiency of accommodation by way of insulation and the double-glazing of windows; recycling; and influencing the behaviour of guests, by for example promoting efficient transportation (Leslie, 2007). Rogerson and Sims (2012) found upon investigating the greening of hotels in South Africa, that the greening of these hotels has been very limited as the onus to implement such

initiatives is upon the individual hotel. The same would be the case here where taking this approach will put the onus for environmental protection on second homeowners themselves in the hope that the tourists themselves will become more responsible. Linking this back to demographics, second home owners in Hartbeespoort and elsewhere are wealthy, and thus have the ability to implement more expensive greening measures such as solar power and grey water systems. Therefore, second home owners also hold the potential to abate a large amount of associated environmental impacts themselves. Thus, whilst there is a need for good governance, personal responsibility is equally important. However, if there is a lack of greening taking place in the hotel industry the same may occur in the second home sector and thus the ideal situation would be one in which good governance and personal responsibility blossom.

South Africa's *responsible tourism manual* considers responsible tourism as tourism that has a net positive environmental impact. However it is contended here that this is not enough. For second home tourism to be responsible the impact that the environment has on second homes and the owners thereof should also be net positive. A net negative impact as is the case in this study has shown that there may be a collapse in the second home tourism sector as a whole as tourists no longer seek to own and maintain property in an area that is degraded beyond recreational use. This argument potentially applies to tourism as a whole as tourists are unlikely to visit areas that are degraded beyond the point of enjoyment even if just for a day. In this case the potential collapse of the Hartbeespoort tourism sector may be detrimental to the Magalies Meander route tourism initiative. Hartbeespoort is one of many destinations along this tourism route ending at Sun City; the potential a break in route may have for tourism as a whole along the route is unknown but would possibly be negative. Therefore when government and policy makers look to attain the goals of responsible tourism, it is not enough that the policy directive seek a net positive impact on the environment, but a net positive impact for tourists should also be sought and this is where understanding the environmental perceptions of tourists is key.

If government and second home owners make no attempt to reconcile their economic gains with environmental sustainability the potential exists that the system as a whole may collapse. Second home owners in Hartbeespoort have alluded to the fact that they feel they are negatively impacted upon by the degraded environment, and whilst the degree of degradation in Hartbeespoort may be unique to this case study, it is a warning to other areas utilising tourism development as a development strategy. This perception of being negatively impacted upon by the environment culminates in the disposal of the second home for some Hartbeepoort second home owners. Added to this, some individuals who would dispose of

their home are further unwilling to invest in another location. If this is the case in Hartbeespoort it is potentially the case elsewhere as well and thus the impacts associated with second home tourism should be more proactively monitored in order to keep the second home tourism sector thriving not just in individual locations but within South Africa as a whole.

Whilst the potential does exist for the second home tourism industry in Hartbeespoort to be undermined, the resilience of the second home tourists and the industry in the area must be acknowledged. Whilst some home owners have reached the point where they no longer consider their homes a viable investment and these homes having no residual recreational value are being sold, the larger portion of second home owner respondents in Hartbeespoort have said that they are in fact not even considering selling their homes. One of the main reasons identified for this was the place attachment felt by the second homeowners. Resilience of the second home tourism sector in Hartbeespoort is therefore to some degree attributed to place attachment as felt by second home owners. Stedman (2006) argued that as temporary residents second home owners draw the base of their attachment from the environment and its associated recreational potential. Given that this is not the case in Hartbeespoort, but rather safety and love for the home itself have presented as the bases of attachment in two instances, further studies need to be conducted into second home tourism so as to ascertain the exact basis of attachment so as to further understand the extent of resilience present in second home owners.

The Hartbeespoort case study highlights the importance of considering all impacts of tourism before it is fully promoted as the preferred development strategy. To date, second home tourism research in South Africa has presented an overwhelming case for the positive implications of this form of tourism, however only when examined through the lens of responsible tourism and the environmental implications being taken into consideration a more informed decision can be made as to whether or not tourism should be ideal for promoting local economic development. This being said, it is acknowledged that one case study is not enough to put forward a fully comprehensive argument for the irresponsible nature of second home tourism, but when compared to international literature it is evident that second home tourism lacks a net positive impact on the environment. It is therefore of great importance that further studies be conducted within the South African context so a well informed and contextualised discussion may emanate on the true responsible nature of second home tourism. Further, it needs to be acknowledged that the findings of the perceptions of second home respondents in this study are both location and South Africa

specific, and opinions may vary quite substantially if similar studies were conducted in the European or North American contexts.

Further, it is also imperative that the South African tourism research community begins to consider the social implications of second home tourism so as to make a well informed decision of the degree to which second home tourism attains to all three aspects of responsible second home tourism. Some of the social issues highlighted in this study are the fact that the second home owner demographic as found in Hartbeespoort indicates that second home tourism, whilst aiding in economic development, is evident of a persistent apartheid legacy with ownership concentrated in the hands of a small class of wealthy elite home owners. Contributing to this is the gendered nature of property ownership evident in the case of Hartbeespoort as with others whereby property ownership is concentrated in the hands of male South Africans (Hoogendoorn and Visser, 2010b). It is also advised that further research be undertaken that looks into the environmental justice implications of second home tourism, mainly for host communities, who have been excluded from housing markets and perhaps through enclosed developments are now excluded from accessing the natural amenities so often surrounded by gated second homes communities.

Additionally, broader societal issues of uplifting communities on the upper reaches of the tributaries like Alexandria will be key to solving the environmental degradation of Hartbeespoort. The poor are directly influencing the investments of the wealthy through polluting the natural environment. However, informal settlers pollute as they receive too few basic services to do otherwise. The fate of the poor is unlikely to change and the unfortunate situation is that the natural environment of Hartbeespoort has become exclusive and restricts access to many, especially the poor. The decline of the natural environment will take this away from the wealthy, but the poor will never have the opportunity to access this environment. It is environmental justice issues such as these that need to be researched, understood and addressed before second home tourism can be deemed socially responsible.

It is not enough that the intention be for responsible tourism to form the backdrop of environmental policy in South Africa, rather it is of utmost importance that action be taken on the ground in order to see responsible tourism thrive. Whilst it is highly unlikely that any tourism initiative will see net positive indicators in all three realms of responsible tourism as the case of Hartbeespoort has shown, at least an attempt to attain to this should be made. It is not enough that local government implement programs that are designed to deal only with the consequences of environmental degradation, but rather that local government and local

programs such as *Metsi A Me* work to combat the source of degradation. It is essential that resources be made available to this end as has been shown to be the case with *Metsi A Me.* Having the will to implement a program is one thing but having the staffing capacity to ensure its effective implementation is another essential component. In conclusion, responsible tourism policies are essential but responsible tourism implementation and practice are also essential. It is therefore recommended that in Hartbeespoort resources be made available to aid in the rehabilitation of the environment to ensure that the second home tourism industry continue to be as resilient as it is now.

This study has evidently shown that there exists a very definite relationship between the environment and second home tourism. In view of this, further research agendas may emanate that seek to understand all facets of this relationship. This study provides an example of second homes as being part of a broader process of environmental degradation; numerous examples exist where second homes are the main degrader of the natural environment. To an extent, second homes in Hartbeespoort are in an already degraded environment, and their existence is merely one problem among many other issues. Therefore, this case study does not present the ultimate example of the environmental impacts of second homes. More apt examples need to be identified, and it is suggested that these issues need to be considered by a variety of related disciplines rather than tourism studies alone. For example, the seasonal occupation of second homes also presents increased fire hazards, as gardens are not maintained, increasing the risk of fires, this being particularly dangerous in some of South Africa's drier regions such as the Western Cape (Hoogendoorn, 2010). Another issue which should be considered for both second homes and their surrounding environment is the rising sea levels. In time, this could spell disaster to a number of second homes located along the coastline, where rising sea levels could mean both the end of individual homes but also broader tourism infrastructure. These issues consequently require urgent investigation.

The aim of this thesis was to consider the environmental impacts associated with second home ownership and use as well as the impact a degraded environment has on second home ownership and use, the aim therefore has been reached. This thesis has considered this relationship within the framework of responsible tourism and has made an effort to contribute to the local understanding of the environmental impacts of second home tourism. This thesis has also highlighted how important the perceptions held by stakeholders are in governance and attaining to the goals of responsible tourism. These perceptions aid and guide the actions of stakeholders far more than place attachment. Whilst second home owners in Hartbeespoort are attached to the local environment as is evident by the

unwillingness to sell their homes, very few make any attempt to abate their environmental impacts. Added to this as noted by the *Metsi A Me* programme leader there is also a clear lack of community support and involvement within the programme. Therefore, it is contended here that perceptions are far more influencing than attachment to place and must therefore be considered when any move towards responsible tourism is made.

Within the international context, this thesis contributes to the fairly limited body of literature that has appeared on the environmental impacts of second homes. The result found here with regards to the impact a degraded environment has on second homes also signals a critical new research agenda that needs to be considered within second homes debates internationally. It is critical that these arguments percolate into international debates as the second home tourism sector has shown to be a vital part of local economic sustainability both locally and internationally. At present this thesis contributes to international literature that to date has not fully understood the relationship that exists between second homes, their owners and the environment. This lack of understanding is critical in countries such as Finland where there were almost half a million second homes in 2011 (Hiltunen *et al.*, 2013). Understanding fully the relationship that exists between second homes and the environment is essential when one considers how extensive the second home tourism sector is in countries such as Finland. Therefore, the extent to which these countries could abate some of their environmental impacts could potentially be significant and therefore contribute substantially to responsible tourism as a whole.

Internationally the second home industry has the potential for growth as wealthy retirees with disposable funds and unlimited leisure time has increased (Hiltunen *et al.,* 2013). With this potential for growth on an international scale, understanding the environmental impacts of second homes in fundamental. Understanding these impacts may be vital to conserving sensitive ecosystems on a global scale. Limiting the impacts associated with second homes will also see the potential preservation of the second home tourism sector as a whole where the environment, as the Hartbeespoort case study has illustrated, plays a vital role.

Internationally scholarly works on second homes have seldom considered second homes within the framework of responsible tourism. Thus, diverse opinions have emerged as to whether or not second home tourism is a positive sector or not. However, this thesis highlights the importance of examining the impacts associated with second homes within the framework of responsible tourism. Doing so allows for all three impacts that have been studied internationally, namely the economic, social and environmental to be examined and weighted against one another so as to determine the true extent to which second home

tourism can be considered responsible. It is strongly recommended that second home tourism researchers do just this, both locally and internationally.

References

Åkerlund, U., 2013: Buying a Place Abroad: Processes of Recreational Property Acquisition, *Housing Studies,* 28:4, pp. 632-652.

Aldskogius, H., 1967: Vacation House Settlement in the Siljan Region, *Geografiska Annaler, Series B, Human Geography*, 49:2, pp. 69-95.

Amsden, B., Stedman, R.C. and Luloff, A.E., 2011: Exploring Contexts of Place: The Role of Setting and Activity in High-amenity Tourism Community, *Tourism Geographies: An International Journal of Tourism Space, Place, and Environment*, 13:4, pp. 531-548.

Andereck, K.L., Valentine, K.M., Knopf, R.C.and Vogt, C.A., 2005: Residents' Perceptions of Community Tourism Impacts, *Annals of Tourism Research*, 32:4, pp. 1056-1076.

Ap, J., 1992: Residents' Perceptions on Tourism Impacts, *Annals of Tourism Research*, 19:4 pp. 665-690.

Atkinson, R., Picken, F., and Tranter, B., 2007: Second homes in Australia: Charting Community Impacts (Paper 10). Housing and Community Research Unit, School of Sociology and Social Work, University of Tasmania, pp. 1–27.

Baker, M. and Mearns, K., 2012: Hartbeespoort Evolving from Small Town to Post-Productivist Second Home Development Node, in R. Donaldson and L. Marais (eds), Small Town Geographies in Africa: Experiences from South Africa and Elsewhere, Nova Science Publishers, New York, pp. 251-262.

Becken, S. and Hay, J.E., 2007: Tourism and Climate Change: Risks and Opportunities, Channel View Publications, Clevedon.

Bianchi, R.V., 2010: Tourism Restructuring and the Politics of Sustainability: A Critical View From the European Periphery (The Canary Islands), *Journal of Sustainable Tourism*, 12:6, pp. 495-529.

Bielckus, C.L., 1977: Second Homes in Scandinavia, in Coppock, J.T. (eds) Second Homes: Curse or Blessing?, Pergamon Press, Oxford, pp. 35-47.

Binns, T. and Nel, E., 2002: Tourism as a Local Development Strategy in South Africa, *The Geographical Journal*, 168:3, pp. 235-247.

Briassoulis, H. and van der Straaten, J., 2000: Tourism and the Environment, in H. Briassoulis and J. van der Straaten (eds), *Tourism and the Environment, second revised edition,* Kluwer Academic Publishers, Dordrecht, pp.1-20.

Cohen, E., 1978: The Impact of Tourism on the Physical Environment, *Annals of Tourism Research*, 5:2, pp. 215-237.

Coppock, J.T., 1977a: Preface, in Coppock, J.T. (eds) Second Homes: Curse or Blessing?, Pergamon Press, Oxford, p. xi.

Coppock, J.T., 1977b: Second Homes in Perspective, in Coppock, J.T. (eds) Second Homes: Curse or Blessing?, Pergamon Press, Oxford, pp. 1-15.

Coppock, J.T., 1977c: The Impact of Second Homes, B. Social Implications of Second Homes in Mid- and North Wales, in Coppock, J.T. (eds), Second Homes: Curse or Blessing?, Pergamon Press, Oxford, pp. 147-153.

CRISP: Centre for Remote Imaging, Sensing and Processing, 2001:Interpretation of Optical Images, <http://www.crisp.nus.edu.sg/~research/tutorial/opt_int.htm> (accessed: 1 July 2013)

Crofts, R.S., 1977: Self-catering Holiday Accommodation: The Role of Substitution, in Coppock, J.T. (eds) Second Homes: Curse or Blessing?, Pergamon Press, Oxford, pp. 103-118.

Cuba, L. and Hummon, D.M., 1993: Constructing a Sense of Home: Place Affiliation and Migration Across the Life Cycle, *Sociological Forum*, 8:4, pp. 547-572.

Dann, G., Nash, D. and Pearce, 1988: Methodology in Tourism Research, *Annals of Tourism*, 15:1, pp. 1-28.

Davenport, M.A. and Anderson, D.H., 2005: Getting From Sense of Place to Place-Based Management: An Interpretive Investigation of Place Meanings and Perceptions of Landscape Change, *Society and Natural Resources: An International Journal*, 18:7, pp. 625-641.

DEAT., 2002: Responsible Tourism Manual for South Africa < http://www.gauteng.net/campaigns/uploads/gallery/Tourism_RT_Responsible_Tourism_Manual.pdf> (12 March 2012).

Deery, M., Jago, L., and Fredline, L., 2012: Rethinking social impacts of tourism research: A new research agenda, *Tourism Management*, 33:1, pp. 64-73.

DeFries, R.S., Foley, J.A. and Asner, G.P., 2004: Land-use choices: balancing human needs and ecosystem function, *Frontiers in Ecology and the Environment*, 2, 249-257.

Dodds, R., 2012: Sustainable Tourism: A Hope or a Necessity? The Case of Tofino, British Columbia, Canada, *Journal of Sustainable Development*, 5:5, pp. 54-64.

Dubois, G., 2005: Indicators for an Environmental Assessment of Tourism at National Level, *Current Issues in Tourism*, 8:2-3, 140-154.

DWA., 2013: Harties Metsi A Me- My Water, Overview of the Programme, <http://www.harties.org.za/hartiesdev/problem.aspx> (accessed 06/09/2013).

DWA and Rand Water., 2013: Harties Metsi A Me Parliament Progress 2013 (Information disc supplied by the Metsi A Me programme leader)

DWAF., 2011: Water Services Development Plan: Local Municipality of Madibeng, < http://www.dwaf.gov.za/dir_ws/wsdp/WSDP/WSDPList.aspx > (04 April 2012).

Frey, H. C., Unal, A., Rouphail, N. M., and Colyar, J. D., 2012: On road measurement of vehicle tailpipe emissions using a portable instrument, *Journal of the Air and Waste Management Association*, 53:8, pp. 992–1002.

Gallent, N., Mace, A. and Tewder-Jones, M., 2005: Second Homes: European Perspectives and UK Policies, Ashgate Publishing Company, Hampshire, England.

Gardavský, V., 1977: Second Homes in Czechoslovakia, in Coppock, J.T. (eds), Second Homes: Curse or Blessing?, Pergamon Press, Oxford, pp. 63-74.

Gartner, W.C., 1987: Environmental Impacts of Recreational Home Developments, *Annals of Tourism Research*, 14:1, pp. 38-57.

Girard T.C. and Gartner, W.C., 1993: Second Home Second View: Host Community Perceptions, *Annals of Tourism Research*, 20:4, pp. 685-700.

Godbey, G. and Graefe, A., 1991: Repeat Tourism, Play, and Monetary Spending, *Annals of Tourism Research*, 18:2, pp. 213-225.

Goodall, B., 1987: Dictionary of Human Geography, Penguin Books, London, England.

Google Earth, Image date October 24, 2011, Harbeespoort Dam, Hartbeespoort, 0216, South Africa, 25º44'50.79"S, 27º52'00.98"E, Eye alt 2.17km, DigitalGlobe, 2012, <www.google.com/earth/index.html> (accessed 09/10/2012).

Gormsen, E., 1997: The Impact of tourism on Coastal Areas, *GeoJournal*, 42:1, 39-54.

Gössling, S., 2002: Global Environmental Consequences of Tourism, *Global Environmental Change*, 12:4, pp. 283-302.

Graci, S., 2012: Collaboration and Partnership Development for Sustainable Tourism, *Tourism Geographies: An International Journal of Tourism Space, Place and Environment*, 15:1, pp. 25-42.

Griffin, T., 2012: Research Note: A Content Analysis of Articles on Visiting Friends and Relatives Tourism, 1990-2010, *Journal of Hospitality Marketing and Management*, 22:7, pp. 781-802.

Hall, C.M., 2009: Tourism Policy and Politics in Southern Africa, in J. Saarinen (eds), Sustainable Tourism In Southern Africa: Local Communities and Natural Resources in Transition, Chanel View Publications, Bristol, pp. 42-60.

Hall, C.M. and Lew, A. A., 2009: Understanding and Managing Tourism Impacts: An Integrated Approach, Routledge, Oxon.

Hall, C.M. and Müller, D. K., 2004: Introduction: Second Homes, Curse or Blessing? Revisited, in C.M. Hall and D.K. Müller (eds), Tourism, Mobility and Second Homes: Between Elite Landscape and Common Ground, Channel View Publications, Clevedon, pp. 3-14.

Hay, R., 1998: Sense of Place in Developmental Context, *Journal of Environmental Psychology*, 18:1, pp. 5-29.

Hiltunen, M. J., 2007: Environmental Impacts of Rural Second Home Tourism-Case Lake District in Finland, *Scandinavian Journal of Hospitality and Tourism*, 7:3, pp. 243-265.

Hiltunen, M.J., Pitkänen, K., Vepsäläinen, M. and Hall, C.M., 2013: Second Home Tourism in Finland: Current Trends and Eco-social Impacts, in Roca, Z. (eds), Second Home Tourism in Europe: Lifestyle Issues and Policy Responses, Ashgate Publishing Company, England, pp. 165-200.

Holden, A., 2003: In Need of New Environmental Ethics for Tourism? *Annals of Tourism Research*, 30:1, pp. 94-108.

Hoogendoorn, G., 2010: Second homes and the local economic impacts in the South African post-productivist countryside, *PhD thesis submitted to the University of the Freestate,* Bloemfontein.

Hoogendoorn, G., 2011: Low-Income Earners as Second Home Tourists in South Africa, *Tourism Review International*, 15:1-2, pp. 37-50.

Hoogendoorn, G., Mellet, R., and Visser, G., 2005: Second Home Tourism in Africa: Reflections on the South African Experience, *Urban forum*, 16:2-3, pp. 112-154.

Hoogendoorn, G. and Visser, G., 2004: Second homes and small-town (re)development: the case of Clarens, *Journal of Family Ecology and Consumer Sciences*, 32, pp. 105-115.

Hoogendoorn, G. and Visser, G., 2010b: The role of second homes in local economic development in five small South African towns, *Development Southern Africa*, 27:4, pp. 547:562.

Hoogendoorn, G. and Visser, G., 2011a: Tourism, Second Homes, and an Emerging South African Postproductivist Countryside, *Tourism Review International*, 15:1-2, pp. 183-197.

Hoogendoorn, G. and Visser G., 2011b: Researching second home tourism in South Africa: Methodological challenges and innovations, in C.M. Hall (eds), Contemporary Geographies of Leisure, Tourism and Mobility: Fieldwork in tourism, methods, issues and reflections, Routledge, Oxon, pp. 188-198.

Hoogendoorn, G and Visser, G., 2011c: Current paths in South African Tourism, *Tourism Review International*, 15:1-2, pp. 5-20.

Hoogendoorn, G and Visser, G., 2011d: Economic Development Through Second Home Development: Evidence from South Africa, *Tijdschrift Voor Economische en Sociale Geografie*, 102:3, pp. 275-289.

Hoogendoorn, G., Visser, G., and Marais, L., 2009: Changing Countrysides, Changing Villages: Second Homes in Rhodes, South Africa, *South African Geographical Journal*, 91:2, pp. 75-83.

Huhtala, A. and Lanika, T., 2012: Valuation of trips to second homes: do environmental attributes matter?, *Journal of Environmental Planning and Management*, 55:6, pp. 733-752.

Jaakson, R., 1986: Second-Home Domestic Tourism, *Annals of Tourism Research*, 13:3, pp. 367-391.

Kaltenborn, B.P., Anderson, O., Nelleman, C., Bjerke, T. and Thrane, C., 2008: Resident Attitudes Towards Mountain Second-Home Tourism development in Norway: The Effects of Environmental Attitudes*, Journal of Sustainable Tourism*, 16:6, pp. 664-680.

Keyser, H., 2002: Tourism Development, Oxford University Press, South Africa.

Krippendorf, J., 1982: Towards new tourism policies: The importance of environmental and sociocultural factors, Tourism Management, Butterworth and Co (Publishers) Ltd.

Law, A., De Lacy, T., McGrath, G.M., Whitelaw, P.A., Lipman, G. and Buckley, G., 2012: Towards a green economy decision support system for tourism destinations, *Journal of Sustainable Tourism*, 20:6, pp. 823-843.

Lenzi, M., Finoia, M.G., Gennaro, P., Mercatali, I., Persia, E., Solari, J. and Porrello, S., 2013: Assessment of resuspended matter and redistribution of macronutrient elements produced by boat disturbance in a eutrophic lagoon, *Journal of Environmental Management*, 123, pp. 8-13.

Leslie, D., 2007: The missing component in the 'greening' of tourism: The environmental performance of the self-catering accommodation sector, *International Journal of Hospitality Management*, 26:2, pp. 310-322.

Lew, A.A., 2011: Tourism's Role in the Global Economy, *Tourism Geographies*: *An International Journal of Tourism Space, Place and Environment*, 13:1, pp. 148-151.

Liu, Z., 2010: Sustainable Tourism Development: A Critique, *Journal of Sustainable Tourism*, 11:6, pp. 459-475.

MacCannell, D., 2012: On the Ethical Stake in Tourism Research*, Tourism Geographies: An International Journal of Space, Place and Environment*, 14:1, pp. 183-194.

Madibeng Local Municipality, 2013: Madibeng: Prosperity Through Unity and Toil, <www.madibeng.gov.za> (accessed 25/04.2013).

Magalies Meander, 2013a: "Magalies Meander" <http://www.magaliesmeander.co.za/#> (24/10/2013).

Magalies Meander, 2013b: "Magalies Meander" (map) < <http://www.magaliesmeander.co.za/wp-content/uploads/2013/map_magalies_meander.pdf> (accessed 1/11/2013).

Mago, S., and Hofisi, C., 2013: Local Economic Development for Poverty Alleviation in South Africa: A Case of Nkonkobe Local Municipality of the Eastern Cape Province, *Journal of African and Asian Local Government Studies*, 2:2, pp. 56-69.

Marcouiller, D.W., Gartner, W.F. and Chraca, A., 2013: Recreational Homes, Amenities, and their Gateway Communities: A Summary of Extant Knowledge for Planning: Draft-Version 8, unpublished paper, United States of America.

Marjavaara, R., 2007: The Displacement Myth: Second Home Tourism in the Stockholm Archipelago*, Tourism Geographies: An International Journal of Tourism Space, Place and Environment*, 9:3, pp. 296-317.

Matteucci, X., Lund-Durlacher, D. and Beyer, M., 2008: The socio-economic and environmental impacts of second home tourism: The South Pacific Coast of Nicaragua example, in Keller, P. and Beiger, T. (eds), Real Estate and Destination Development in Tourism, Erich Schmidt Verlag, Berlin, pp. 149-164.

May, V., 1991: Tourism, Environment and Development: Values, Sustainability and Stewardship, *Tourism Management*, 12:2, pp. 112-118.

McCarthy, J., 2007: Rural Geography: globalizing the countryside, *Progress in Human Geography*, pp. 1-9.

Mosisch, T.D., and Arthington, A.H., 1998: The Impacts of Power Boating and Water Skiing on Lakes and Reservoirs, Lakes and Reservoirs: *Research and Management*, 3:1, pp.1-17.

Müller, D.K., 2000: Second Home Tourism and Sustainable Development in North European Peripheries, Department of Social and Economic Geography, Umeå University, Umeå, Sweden,

Müller, D.K., 2002a: Reinventing the Countryside: German Second-home Owners in Southern Sweden, *Current Issues in Tourism*, 5:5, pp. 426-446.

Müller, D.K., 2002b: Second home ownership and sustainable development in Northern Sweden*, Tourism and Hospitality Research*, 3, pp. 343-355.

Müller, D.K., 2004: Mobility, Tourism and Second Homes, in Lew, A.A., Hall, C.M. and William, A.M. (eds), A Companion to Tourism, Oxford, Blackwell, pp. 387-398.

Müller, D.K., 2011: The Internationalization of Rural Municipalities: Norwegian Second Home Owners in Northern Bohuslän, Sweden, *Tourism Planning and Development*, 8:4, pp. 433-445.

Muller, M., Schreiner, B., Smith, L., Van Koppen, B., Sally, H., Aliber, M. *et al.,* 2009: Water security in South Africa, Development Planning Division, DBSA Working Paper Series No. 12.

Nicolau, J.L., 2012: Influence of Nature Motivation on Price Sensitivity, *Tourism Geographies: An International Journal of Tourism Space, Place and Environment*, 14:3, pp. 383-395.

North West Environmental Management, 2005: Problems of Cyanobacteria in Water, <http://www.harties.org.za/hartiesdev/factsheets/CyanobacteriaDace5.pdf> (Accessed 5/09/2013).

Nouza, M., Ólafsdóttir, R. and Müller, D.K., 2013: A New Approach to Spatial-Temporal Development of Second Homes: Case Study from Iceland, *Scandinavian Journal of Hospitality and Tourism*, 13:1, pp. 20-37.

Oberholster, P.J., Botha, A. and Cloete, T.E., 2005: An overview of toxic freshwater cyanobacteria in South Africa with special reference to rink, impact and detection by molecular marker tools, *Biokemistry*, 17:2, pp. 57-71.

Olukunle, O., Okonkwo, J. and Odusanya, O., 2011: Accelerated solvent extraction of common polybrominated diphenyl ethers from river sediment, Tshwane University of Technology and Department of Water Affairs, pp. 1-9.

Paris, C., 2009: Re-positioning Second Homes within Housing Studies: Household Investment, Gentrification, Multiple Residence Mobility and Hyper-consumption, *Housing Theory and Society,* 26, 292-310.

Pegels, A., 2010: Renewable energy in South Africa: potentials, barriers and options for support, *Energy Policy*, 38:9, pp. 4945–4954.

Pettersson, R., 1999: Foreign Second Home Purchases: The Case of Northern Sweden, 1990-96, CERUM, working paper No. 14:1999.

Pienaar, J.J. and Visser, G., 2009: The Thorny Issue of Identifying Second Homes in South Africa, *Urban Forum*, 20, pp. 455-469.

Pigram, J., 1980: Environmental Implications of Tourism Development, *Annals of Tourism Research*, 7:4, pp. 554-583.

Pitkänen, K., 2008: Second-home landscape: The meaning(s) of Landscape for second-home Tourism in Finnish Lakeland, *Tourism Geographies: An International Journal of Tourism Space, Place and Environment*, 10:2, pp. 169-192.

Priddle, G. and Kreutzwiser, R., 1977: Evaluating Cottage Environments in Ontario, in Coppock, J.T. (eds), Second Homes: Curse or Blessing?, Pergamon Press, Oxford, pp. 165-180.

Puczkó, L and Rátz, 2000: Tourist and Resident Perceptions of the Physical Impacts of Tourism at Lake Balaton, Hungary: Issues for Sustainable Tourism Management, *Journal of Sustainable Tourism*, 8:6, pp. 458-478.

Rand Water, 2012: Hartbeespoort Dam Integrated Biological Remediation Programme Phase I Consolidated Progress Report, <

file:///D:/Business%20Plan/Progress%20Report/Annual/20130130ProgressReportConsolidatedPhaseIDec2012.pdf> (accessed 15 June 2013; restricted access)

Reddy, M.V., Babu, K.S., Balaram, V. and Satyanarayanan, M., 2012: Assessment of the effects of municipal sewage, immersed idols and boating on the heavy metal and other elemental pollution of the surface water of the eutrophic Hussainsagar Lake (Hyderabad, India), *Environmental Monitoring Assessment*, 184:4, pp. 1991-2000.

Robertson, R.W., 1977: Second-home decisions: The Australian context, in Coppock, J.T. (eds), Second Homes: Curse or Blessing?, Pergamon Press, Oxford, pp. 119-138.

Rogers, A.W., 1977: Second Homes in England and Wales: A Spatial View, in Coppock, J.T. (eds), Second Homes: Curse or Blessing?, Pergamon Press, Oxford, pp. 85-102.

Rogerson, C.M., 2007: Tourism Routes and Vehicles for Local Economic Development in South Africa: The Example of the Magaliesberg Meander, *Urban Forum*, 18, pp. 49-68.

Rogerson, C.M., 2009: Strategic Review Of Local Economic Development In South Africa, Final Report Submitted to Minister Sicelo Shiceka (dplg), Commissioned by the dplg and AHI, Supported by the Strengthening Local Governance Programme of GTZ, Pretoria.

Rogerson, C. M., 2013: Urban tourism, economic regeneration and inclusion: Evidence from South Africa, *Local Economy*, 28:2, pp. 188-202.

Rogerson, C.M. and Visser, G., 2005: Tourism in Urban Africa: The South African Experience, *Urban Forum*, 16:2-3, pp. 63-87.

Rogerson, C.M. and Visser, G., 2011a: Current Themes in Tourism and Development in Southern Africa, *Tourism Review International*, 15, pp. 1-3.

Rogerson, C.M., and Visser, G., 2011b: Rethinking South African Urban Tourism Research, *Tourism Review International*, 15:1-2, pp. 77-90.

Rogerson, J.M. and Sims, S.R., 2012: The Greening of Urban Hotels in South Africa: Evidence from Gauteng, *Urban Forum,* 23, pp. 391-407.

Rye, J.F., 2011: Conflicts and contestations. Rural Populations' Perspectives on the Second Homes Phenomenon, *Journal of Rural Studies*, 27:3, pp. 263-274.

Saarinen, J., 2006: Traditions of Sustainability in Tourism Studies, *Annals of Tourism Research*, 33:4, pp. 1121-1140.

Saarinen, J., 2009: Sustainable Tourism: Perspectives to Sustainability in Tourism, in J. Saarinen., F. Becker., H. Manwa. And D. Wilson, Sustainable Tourism in Southern Africa: Local Communities and Natural Resources in Transition, Chanel View Publications, Bristol, pp. 77-92.

Saarinen, J., Becker, F., Manwa, H. and Wilson, D., 2009: Introduction: Call for Sustainability, in J. Saarinen., F. Becker., H. Manwa. And D. Wilson, Sustainable

Tourism in Southern Africa: Local Communities and Natural Resources in Transition, Chanel View Publications, Bristol, pp. 3-19.

Sharpley, R., 2010: Tourism and Sustainable Development: Exploring the Theoretical Divide, *Journal of Sustainable Tourism*, 8:1, pp. 1-19.

Spalding-Fecher, R., and Matibe, D.K., 2003: Electricity and Externalities in South Africa, *Energy Policy*, 51:8, pp. 721-734.

Spenceley, A., 2005: Nature-based Tourism and Environmental Sustainability in South Africa*, Journal of Sustainable Tourism*, 13:2, pp. 136-170.

Statistics South Africa, 2011: Statistical Release P0318: General Household Survey, < http://www.statssa.gov.za/publications/P0318/P0318April2012.pdf> (accessed 12/08/2013)

Statistics South Africa, 2012a: Income and Expenditure Survey (IES) 2010/2011, <http://www.statssa.gov.za/news_archive/press_statements/IES_%202010_2011_Press%20Statement_6_November_2012.pdf> (accessed 12/08/2013).

Statistics South Africa, 2012b: Tourism, Report No. 03-51-02 (2012), <http://www.statssa.gov.za/publications/Report-03-51-02/Report-03-51-022012.pdf> (accessed 24/10/2013).

Stedman, R.C., 2003: Is it Really Just Social Construction?: The Contribution of the Physical Environment to Sense of Place, *Society and Natural Resources: An International Journal*, 16:8, pp. 671-685.

Stedman, R.C., 2006: Understanding Place Attachment Among Second Home Owners, *American Behavioral Scientist*, 50, 2, pp. 187-205.

Stettler. J. and Danelli, G., 2008: Image, Truth and Illusion in Tourism Promotion: The Problem of the Rapid Spread of Second Homes in Switzerland and Planning Strategies, in Keller, P. and Beiger, T. (eds), Real Estate and Destination Development in Tourism, Erich Schmidt Verlag, Berlin, pp. 249-268.

Stroud, H.B., 1985: Changing rural landscapes: a need for planning and management, *Land Use Policy*, 2:2, pp. 126-134.

Telfer, D.J. and Sharpley, R., 2008: Tourism and Development in the Developing World, Routledge, Oxon.

Tjørve, E., Flognfeldt, T., and Calf Tjørve, K.M., 2013: The Effects of Distance and Belonging on Second Home Markets, *Tourism Geographies: An International Journal of Tourism Space, Place and Environment*, 15:2, pp. 1-24.

Tosun, C., 2002: Host Perceptions of Impacts: A Comparative Tourism Study, *Annals of Tourism Research*, 29:1, pp. 231-253.

Tourism North West, 2013: Hartbeespoort Dam – Bajanala Region, www.tourismnorthwest.co.za/hartbeespoortdam/, (accessed 25/04/2013).

Tran, K.C., Euan, J. and Isla, M.L., 2002: Public perception of development issues: impact of water pollution on a small coastal community, *Ocean and Coastal Management*, 45:6-7, pp. 405-420.

Tress, G., 2000: Die Ferienhauslandschaft: Motivationen, Umweltauswirkungen und Leitbilder im Ferienhaustourismus, Dänemark. Roskilde Universitetscenter, Institut for Geografi og Internationale Udviklingsstudier, pp. 365-372.

UNWTO, 2005: Sustainable Development of Tourism, <http://sdt.unwto.org/en/content/about-us-5> (26 March 2013).

Vágner, J. And Fialová., 2011: Impacts of Second Home Tourism on Shaping Regional Identity in the Regions with Significant Recreational Function, in Book of proceedings Vol.I – International Conference on Tourism and Management Studies, Algrave.

van Ginkel, C.E., 2012: Algae, phytoplankton and eutrophication research and management in South Africa: past, present and future, *African Journal of Aquatic Science*, 37:1, pp. 17-25.

van Ginkel, C.E., Hohls, B.C. and Vermaak, E., 2001: A Ceratium hirundinella (O.F. Müller) bloom in Hartbeespoort Dam, South Africa*, Water SA*, 27:2, pp. 269-276.

Vaske, J.J. and Kobrin, K.C., 2001: Place Attachment and Environmentally Responsible Behaviour, *The Journal of Environmental Education*, 32:4, pp.16-21.

Visser, G., 2002: Gentrification and South African Cities: Towards a Research Agenda, *Cities*, 19:6, pp. 419-423.

Visser, G., 2003: Visible, Yet Unknown: Reflections on Second-Home Developments in South Africa, *Urban Forum*, 14:4, pp. 379-407.

Visser, G., 2004a: Second Homes and Local Development: Issues Arising from Cape Town's De Waterkant*, GeoJournal*, 60, pp. 259-271.

Visser, G., 2004b: Second Homes: Reflections on and unexplored phenomenon in South Africa, in Hall, C.M. and Müller, D.K. (eds), Tourism, Mobility and Second Homes: Between Elite Landscapes and Common Ground, Channel View Publications, Clevedon, pp. 196-214.

Visser, G., 2006: South Africa has Second Homes Too! An Exploration of the unexpected, *Current Issues in Tourism*, 9:4-5, pp. 351-383.

Visser, G. and Hoogendoorn, G., 2011: Current Paths in South African Tourism Research, *Tourism Review International*, 15:1-2, pp. 5-20.

Vorkinn, M. and Riese, H., 2001: Environmental Concern in a Local Context: The Significance of Place Attachment, *Environment and Behavior*, 33:2, pp. 249-263.

Walle, A.H., 1997: Quantitative Versus Qualitative Tourism Research, *Annals of Tourism Research,* 24:3, pp. 524-536.

Wolfe, R.I., 1977: Summer Cottages in Ontario: Purpose-Built an Essential Purpose, in Coppock, J.T. (eds), Second Homes: Curse or Blessing?, Pergamon Press, Oxford, pp. 17-34.

Appendices

Appendix 1: Questionnaire for second home owners

The relationship between the environment and second homes [8]in Hartbeespoort

Instructions

a) Please insert a cross (X) in the appropriate space(s), or write your answer in the space provided.

b) If you feel you would like to elaborate on certain questions-please do, as it can only enhance the value of the research.

Section A

1. What is your profession? _____

2. What is your gender?

Male	
Female	

3. What is your relationship status?

Married		Widower/Widow	
Single		Divorced	
Living together		Separated	

4. What is your home language?_____

5. What is your highest academic qualification?

Less than Grade 12 (Matric)	

[8] Definition of a second home: "a fixed property which is the occasional residence of a household that normally lives elsewhere […]. Second homes may be owned or rented on a long lease and are usually located in rural areas where they are used for weekend, vacation and recreational purposes" (Goodall, B., 1987: *Dictionary of Human Geography,* Penguin Books, London, England, p. 424)

Grade 12 (Matric)	
Diploma	
Bachelor's degree	
Honours degree	
Masters degree	
Doctoral degree	
Other:	

6. What are the ages of the members living in your household (living with you)?

	< 6	7 – 12	13 - 18	19 – 30	31 – 40	41 – 50	51 – 60	>60
1. Adult 1								
2. Adult 2								
3. Child 1								
4. Child 2								
5. Child 3								
6. Child 4								
7. Child 5								
8. Other								
9. Other								

7. In which city or town is your permanent place of residence located? _____
8. How far is your second home from your permanent place of residence? _____km
9. What is your annual household income?

Under R100 000	R100 001- R200 000	R200 001- R300 000	R300 001- R400 000	R400 001- R600 000	R600 001 – R1 000 000	R1 000 001 – R2 000 000	Over R2 000 000

Section B

1. In what year did you purchase your house in Hartbeespoort?_____
2. Is your property newly developed?

Yes		No	

3. Where are the builders situated that built your second home?

_____

4. Is your second home in a gated community/enclosed area?

Yes		No	

5.1. Are you the sole owner of your second home?

Yes		No	

5.2. If you are not the sole owner of the second home, with whom do you share it?

Business Associate(s)	
Friends	
Relatives	
Timeshare	
Trust	
Other (if other please explain)	

6.1. How many second homes do you own in Hartbeespoort?

1	2	3	4	5	More than 6? Number___

6.2. Do you own other vacation and recreational properties in an area outside of Hartbeespoort?

Yes		No	

6.3. If yes,

where?_____

7.1. On average how often do you visit your second home in Hartbeespoort?

Daily	Weekly	Bi-weekly	Monthly	2-6 months	7-12 months	Less often than once a year

7.2. Please indicate the number of days per month (on average) that you have personally spent in Hartbeespoort during the last year.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Days												

7.3. How many days did you spend in Hartbeespoort during your last visit?_____

8. What type of car do you use to get to your second home?

Hatchback	
Sedan	
Bakkie	
SUV	
4 X 4	

9.1. Do you let your property out?

Yes		No	

9.2. If yes how many days per month (on average) did you let your property out during this last year?

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Days												

10.1. What was the market value of your property when you first bought it?

R_____

10.2. What do you estimate is the current value of your property? R_____

10.3. Approximately how much money did you spend on the redevelopment, renovation and maintenance of your property last year? R_____

10.4. What are the operational costs of your property per month or per year (for each option you can choose either per month or per year)?

	Per month	Per year
Electricity		
Rates/Taxes		
Water		
Refuse removal		

10.5. Do you recycle at all during your stay in Hartbeespoort Dam?

Yes		No	

Section C

1. Why did you buy a second home in Hartbeespoort?

   _____

   _____

   _____

2. During your last visit to Hartbeespoort Dam, how much did you approximately spend on each of the following activities?

Item	Amount spent per item for the full length of stay.
Restaurants	R
Art and craft galleries	R
Local petrol station	R
Groceries	R
Gift shops	R
Other: indicate:	R
	R
	R

3. During your visit to Hartbeespoort, what activities are you mostly engaged in?

Activity	Yes/No	If no why not?
Fishing		
Bird watching		
Hiking		
Nature reserves		
Aquariums		
Mountain Biking		
Horse Riding		
Boating		
Jet Skis		
Swimming in the Dam		
Quad Biking		
4 X 4 trails		
Golf		
Other: indicate		

4. Have you noticed any environmental degradation of the Dam and surrounding area?

Yes		No	

5. If yes, what do you think the main causes are? _____

_____

_____

_____

6. Do you think you are responsible for any environmental degradation of the Dam and surrounding area?

Yes		No	

Please elaborate

_____

_____

_____

7. Do you think the Dam is polluted?

Yes		No	

8. What do you think can be done to reduce the amount of pollution in the Dam?

_____

_____

_____

_____

Section D

1. What effect do you think the environment might have on **your** second home?

_____

_____

_____

2. Are you considering selling your second home in Hartbeespoort as a result?

Yes		No	

2.1. Are you considering selling your Hartbeespoort home and buying a second home elsewhere in the country?

Yes		No	

2.2. Why?_____

Thank you very much for your cooperation.

If you are interested in receiving a copy of the research report once it is finished please provide a contact email and I will gladly send it to you_____.

Appendix 2: Estate agent questionnaire

1) How long have you been an estate agent in the Hartbeespoort area?

2) Has the demand for second homes in the area increased or decreased over the past ten years?

3) Have property values in the area increased or decreased over the past ten years?
   Possible percentage?

4) Do perspective buyers ever comment on the state of the environment?

5) What are some of the comments if any made by perspective buyers that you have heard being made with regards to the Dam and surrounding areas?

6) In your opinion has the state of the Hartbeespoort Dam and surrounding environment influenced potential buyers decision making?

   How?

Appendix 3: Environmental Stakeholder Questionnaire

1) What is your current position?

2) How long have you been in this position?

3) What are the main contributors to the pollution of Hartbeespoort Dam?

4) What can and is being done to reduce the amount of pollution in the Dam?

5) In the time you have been in your position has there been an increase in the number of houses surrounding the Dam?

6) What environmental degradation are you aware of that has been the direct result of the houses surrounding the Dam?

7) In your opinion are any of these impacts the direct results of second homes (holiday homes) surrounding the Dam?

8) Are you aware of any environmental impacts that are the direct result of the second homeowners themselves?

9) Have there been any positive environmental initiatives that have come about as a result of second home tourists in the area?

10) Do you believe the current state of the Dam has had a negative impact on tourism in the area in general? And for second home ownership as a whole?

11) Any further information you would like to add?

Appendix 4: Ethical clearance

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON MEDICAL)
H120707 Long

CLEARANCE CERTIFICATE	**PROTOCOL NUMBER H120707**
PROJECT TITLE	The environmental impacts of/on second homes on/in the Hartbeespoort Dam, South Africa
INVESTIGATOR(S)	Ms D P Long
SCHOOL/DEPARTMENT	Geography
DATE CONSIDERED	20 July 2012
DECISION OF THE COMMITTEE	Approved Unconditionally
EXPIRY DATE	31 July 2014
DATE 01 August 2012	**CHAIRPERSON** (Professor T Milani)

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10005, 10th Floor, Senate House, University.

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. **I agree to completion of a yearly progress report.**

Dong
Signature

12 / 09 / 2012.
Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES