

**RESIDENTIAL SATISFACTION IN THE CHANGING URBAN  
FORM IN ADELAIDE: A COMPARATIVE ANALYSIS OF  
MAWSON LAKES AND CRAIGBURN FARM, SOUTH  
AUSTRALIA**

**by**

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Thesis submitted for the degree of Master of Philosophy

Discipline of Geography, Environment and Population  
Faculty of Humanities and Social Sciences  
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September, 2014



## TABLE OF CONTENTS

LIST OF FIGURES .....	iv
LIST OF TABLES.....	v
ABSTRACT.....	vi
DECLARATION .....	vii
CHAPTER 1: INTRODUCTION .....	1
1.1 Aims.....	2
1.1 Objectives .....	2
1.3 Differences: Suburban and New Urban Form.....	3
1.4 Adelaide: Development of a Sprawled City .....	6
1.5 Statement of the problem .....	7
1.6 Rationale .....	9
1.7 Case Study areas .....	10
1.7.1 Dwelling Types .....	14
1.7.2 Mawson Lakes, South Australia .....	18
1.7.3 Blackwood Park Development (Craigburn Farm), South Australia .....	21
1.9 Chapter Conclusions and Thesis Plan .....	23
CHAPTER 2: RESIDENTIAL SATISFACTION AND WELL-BEING: A review of the literature ..	24
2.1 Happiness, Life Satisfaction and Subjective Well-Being (SWB).....	24
2.2 The meaning of home .....	26
2.3 Residential Satisfaction.....	30
2.3.1 Theoretical Background of Literature.....	30
2.3.2 Early findings of Residential Satisfaction.....	31
2.4 Components of Residential Satisfaction .....	32
2.4.1 The Residential Environment.....	32
2.4.2 Social Environment.....	35
2.4.3 The Individual.....	36
2.5 Residential Satisfaction in the changing urban form .....	38
2.6 Chapter Summary .....	39
CHAPTER 3: RESEARCH METHODOLOGY AND DATA COLLECTION.....	41
3.1 Introduction.....	41
3.2 Research Methodology .....	42
3.3 Purpose of the study .....	49
3.4 Research Ontology and Epistemology .....	50
3.5 Paradigm .....	52

3.6 Case Study Approach.....	53
3.7 Techniques .....	55
3.8 Theoretical Framework.....	55
3.9 Limitations .....	57
3.10 Chapter Conclusion.....	57
<b>CHAPTER 4: DEMOGRAPHICS, HOUSING CHOICE AND DWELLING SATISFACTION .....</b>	<b>59</b>
4.1    Introduction.....	59
4.2    Demographics .....	59
4.2.1 Survey Population.....	60
4.2.2 Gender.....	60
4.2.3 Age.....	61
4.2.4 Labour Force.....	61
4.2.5 Tenure .....	62
4.2.6 Living Arrangements .....	64
4.2.7 Dwelling Types: Representativeness .....	66
4.3 Housing Choice.....	67
4.3.1 Housing choice by suburb.....	68
4.3.2 Housing preference by current housing type .....	69
4.4 Dwelling Satisfaction.....	71
4.4.1 Overall Residential Satisfaction and Dwelling Type .....	72
4.4.2 Private Outdoor Space .....	73
4.4.3 Value for money.....	74
4.4.4 Privacy .....	75
4.4.5 Intentions to move and dwelling type .....	76
4.4.6 Intentions to move with Residential Satisfaction.....	76
4.5 Chapter Conclusion.....	77
<b>CHAPTER 5: NEIGHBOURHOOD CHOICE, SATISFACTION AND DIS-SATISFACTION .....</b>	<b>80</b>
5.1 Neighbourhood Choice and residential mobility .....	80
5.1.1 Neighbourhood Choice .....	81
5.1.2 Residential Mobility.....	81
5.2 Neighbourhood Satisfaction.....	85
5.2.1 Satisfaction with proximity to work.....	87
5.2.2 Satisfaction with public transport .....	90
5.2.3 Satisfaction with shopping and restaurants in neighbourhood.....	93
5.3 Sources of dis-satisfaction, and intentions to move .....	94
5.4 Chapter Conclusion.....	98

CHAPTER 6: CONCLUSION.....	100
6.1 Introduction.....	100
6.2 Contribution to the field and meeting of objectives.....	101
6.3 Implications for Policy and Further Research.....	105
6.4 Recommendations for future research .....	107
6.5 Thesis summary .....	110
REFERENCES .....	111
APPENDIX A: SURVEY QUESITONNAIRE.....	128
APPENDIX B: OPEN ENDED FINAL COMMENTS.....	132

## LIST OF FIGURES

Figure 1.1: Suburban and Urban Form Comparison.....	5
Figure 1.2: Study area locations: Mawson Lakes (North) and Craigburn Farm (South) in Metropolitan Adelaide .....	12
Figure 1.3: Detached House at Craigburn Farm .....	15
Figure 1.4: Double storey detached house at Craig	
Figure 1.4: Double storey detached house at Craigburn Farm burn Farm.....	16
Figure 1.5: Townhouses at Mawson Lakes.....	17
Figure 1.6: Apartments at Mawson Lakes .....	18
Figure 1.7: Location of Mawson Lakes (as at June, 2012) .....	20
Figure 1.8: Blackwood Park development (as of June, 2012) .....	22
Figure 3.1: Sample Questions .....	44
Figure 3.2: Percentage of Questions answered by Study Area .....	49
Figure 4.1: Tenure type by study area.....	61
Figure 4.2: Overall housing preference distribution: If had to move, regardless of dwelling type ..	68
Figure 4.3: Overall housing preference distribution: If had to move, by suburb .....	69
Figure 4.4: Overall housing preference distribution: If had to move, by dwelling type currently lived in .....	70
Figure 4.5: Comparison of Overall Residential Satisfaction between detached housing and all other housing types .....	73
Figure 5.1: Proportion of study area populations living in same or other areas between 1 and 5 years ago.....	82
Figure 5.2: Location 5 Years ago by current study area (Limited to Adelaide Metropolitan Area). .	83
Figure 5.3: Number of times moved house in the last five years by study area .....	84
Figure 5.4: Overall neighbourhood satisfaction by study area.....	85
Figure 5.5: Subjective satisfaction with proximity to work by study area.....	88
Figure 5.6: Place of work by Study Area.....	89
Figure 5.7: Subjective satisfaction with public transport by study area.....	7
Figure 5.7: Subjective satisfaction with public transport by study area.....	90
Figure 5.8: Percentage of total residents of each study area that caught public transport to work by Statistical Area Level 1 .....	92
Figure 5.9: Comparison of rate of total offences per 1000 persons recorded by police by Local Government Area.....	96
Figure 5.10: Intentions to move by overall averaged satisfaction with neighbourhood .....	97

## LIST OF TABLES

Table 1.1: Physical Features of Suburban and New Urban Form.....	4
Table 2.1: Residential Satisfaction Model .....	32
Table 3.1: Minimum Samples sizes for Study Areas.....	46
Table 4.1: Percentage of females returning questionnaires .....	61
Table 4.2: Distribution of household composition by Suburb returned in questionnaires and in the ABS 2011 Census .....	65
Table 4.3: Distribution of dwelling types by Case Study area: Survey responses and ABS Census 2011 .....	67
Table 4.4: Intentions to move by overall averaged satisfaction with dwelling.....	77

## **ABSTRACT**

Higher dwelling densities in low density cities such as Adelaide are being widely promoted by planners, policy-makers and academics to reduce travel time, increase accessibility and consolidate space within the existing urban area. This is largely in response to the negative impacts of ‘urban sprawl’ in suburban, car oriented cities in Australia and the United States. Mawson Lakes, in Adelaide, South Australia, has had a lot of marketing hype as the place to ‘live, work and play’, and the diverse housing options offered come in stark contrast to typical suburban housing developments constructed in the past. This research explored residents’ level of satisfaction with this new urbanist development style, and drew comparisons to the similarly timed, suburban Blackwood Park development in the suburb of Craigburn Farm, South Australia. This study finds that higher density housing in Mawson Lakes delivered reduced levels of dwelling satisfaction, particularly in the areas of privacy, open space and value for money when compared with larger, detached homes in both developments. However, with respect to neighbourhood factors, this study finds that Mawson Lakes delivers greater levels of neighbourhood satisfaction, particularly in the areas of proximity to work, public transport services, shopping, and restaurants and cafés. This comes despite higher levels of residential dis-satisfaction in Mawson Lakes, specifically in relation to concerns surrounding noise, pollution and safety.

This project is significant because changes toward a focus of new urbanist development requires adjustments in beliefs and perceptions and will only be sustainable if higher density developments are places where the people of Adelaide want to live. Considering the strong focus toward increasing densities within the 30 Year Plan for Greater Adelaide, this project provides some insight into how changes to development influence subjective perceptions of Residential Satisfaction. In particular, this project demonstrates that while higher dwelling densities are not generally associated with the dream home that the people of Adelaide seek to achieve towards the end of their housing career; the improved accessibility associated with higher density establishes some positive outcomes in relation to neighbourhood satisfaction, despite greater awareness of the sources of dis-satisfaction.

## **DECLARATION**

I certify that this work contains no material which has been accepted for the award of any other degree or diploma in my name, in any university or other tertiary institution and, to the best of my knowledge and belief, contains no material previously published or written by another person, except where due reference has been made in the text. In addition, I certify that no part of this work will, in the future, be used in a submission in my name, for any other degree or diploma in any university or other tertiary institution without the prior approval of the University of Adelaide and where applicable, any partner institution responsible for the joint -award of this degree. I give consent to this copy of my thesis, when deposited in the University Library, being made available for loan and photocopying, subject to the provisions of the Copyright Act 1968.

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## CHAPTER 1: INTRODUCTION

The housing structure of non-inner city Australian metropolitan suburbs is continuing to undergo significant change, the largest since the post war period (Randolf, 2005). Australian cities have been dominated by low dwelling density, segregated land use housing development for decades (Kelly et al., 2011). This development style has been the norm for such a long time that it has become culturally engrained as part of the ‘Australian Dream’ for which many still aspire to (Allon, 2006, Randolph, 2005). However, rethinking how we design our neighbourhoods has been gaining public planning policy momentum for some time in car oriented cities across the globe (Delsohn, 1989, Knack, 1991), but only recently has it attracted serious thought in Australia. The increasing negative impacts of urban sprawl associated with the ‘Australian dream’ have prompted the significance of an alternate planning paradigm to foster sustainable cities through mixed land use and mass transit (Soltani and Kono, 2006). New planning guidelines focus towards the idea of the ‘compact city’ and ‘new urbanism’ which has the very real potential to become the ‘new’ Australian norm after years of suburban, car oriented development.

This thesis will investigate how a change in housing development guidelines can influence perceived Residential Satisfaction in the South Australian context. Comparative case studies within the Adelaide metropolitan area will be used to determine how the changing physical form within the residential environment satisfies its residents. The results of this study can provide an insight into the progression and uptake of some of the goals within the 30 Year Plan for Greater Adelaide (30YPGA).

This chapter will initially provide a brief background of development in Adelaide and present the problem statement. Next, the aims, objectives and rationale for the study are outlined. Following, the key issues associated with a change in urban form in the South Australian context, and how the concept of Residential Satisfaction can work to determine the relative success of housing developments is discussed. It will note the significance of the need for regulatory measures and outline the complexities associated with the impact on Residential Satisfaction in dwellings and neighbourhoods physically dissimilar to those commonly constructed in Adelaide. The chapter will then conclude with a description on how this

research contributes to knowledge on the changing urban form and Residential Satisfaction, and demonstrate the need for greater understanding of locally-specific Residential Satisfaction in the context of Adelaide, South Australia.

## 1.1 Aims

The primary aims of this study are to:

1. Improve understanding of the relationship between Residential Satisfaction, and the underlying elements which contribute to housing choice under a progressively changing urban form in Adelaide.
2. Improve understanding of how neighbourhood structure and planning influences neighbourhood satisfaction in the context of Adelaide.
3. Assess how demographic characteristics influence Residential Satisfaction in the context of Adelaide.

## 1.1 Objectives

The objective of this research is to examine how urban form and dwelling density can influence perceptions of Residential Satisfaction, and explore how these perceptions play a role in influencing housing choice in the Adelaide metropolitan region. This study will explore these perceptions between two contrasting, but similarly timed developments in the Adelaide Metropolitan Area. The expected outcome is that the project will describe a locally applicable understanding of resident satisfaction in Adelaide under changes within the 30 Year Plan for Greater Adelaide (30YPGA).

The research intends to better inform architects, urban designers, planners, academics, government and the general public in assisting and understanding how increased population growth can be managed, through a change in urban form, and determine the benefits and drawbacks as perceived by the residents themselves. The importance relies strongly on the notion of sustainability, where, in this instance, is viewed as:

“development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987).

Studies suggest that cities will not be truly sustainable unless new urban forms can deliver equal or greater levels of than traditional forms of development (Bishop and Syme, 1995). This research addresses this assertion in the context of Adelaide.

### **1.3 Differences: Suburban and New Urban Form**

New Urbanism is an urban design movement aimed at addressing the concerns presented by promoting ‘walkable’ and accessible neighbourhoods through mixed land use developments which contain a range of housing options (Kelbaugh, 2002). The design of these ‘compact’ developments advocate a restructuring of community priorities to accommodate future urban growth within existing urban boundaries. However, much research criticizes the sustainability of new urbanism, because as Jenks et al. (2000) argue, it will only be sustainable if they are high quality places where people want to live. Proponents to suburban development argue that suburbia is a part of the Australian cultural landscape, and that such sprawl is justified because this is essentially what the public demands, and that Australians want

“...to own their own houses, and to have their own bits of land around those houses” (Lewis, 1999, p. 61).

In addition, many cite a new urbanist solution as lacking any statistically significant findings into any such benefits to populations (Popkin et al., 2004). Moreover, the concept of increasing housing densities has been noted to impact on people’s quality of life, such as noise, space limitations and overcrowding (Troy, 1996).

Conversely, the benefits of new urban form have been studied significantly, and are well-documented in the literature. Such benefits include the efficient use of land, reduced reliance on automobiles and increased social activity, interaction and inclusion (Freeman, 2001, Newman and Kenworthy, 2006). With projections of significant growth in Adelaide and across Australia, finding the right balance of housing that not only addresses concerns related to urban sprawl but also housing that is what the people want can be a challenging task to balance. In Adelaide, the population is expected to grow by about 400,000 people from 2012 to 2036, with the proportion of the total persons over 65 years to increase from 16 per cent to 21 per cent of the total population (Department of Planning and Local Government, 2010). This not only presents the challenge of where to grow, but also how to connect the ageing population to the services they require. How Australia grows, and how much it will cost, and how it serves its population at present, and in the future, is critical.

For the purposes of this study, ‘suburbia’ and ‘new urban form’ are not defined by their proximity outside of the CBD, but rather in this context suburbia is defined specific physical features. It is important to note the physical differences between the two development types to form an understanding of the fundamental differences each development entails. These differences are presented in Table 1.1. Whereby Australian suburban form is largely spread out, low density, single land use, private land based and car oriented in design making walkability and mass transit largely inefficient for travel purposes. New Urbanism is denser, mixed land use and mixed building use, greater connectivity for walkability and mass transit, with buildings set right next to the footpath. These fundamental design differences are shown in Table 1.1 and Figure 1.1.

**Table 1.1: Physical Features of Suburban and New Urban Form**

Suburban Form	New Urban Form
<ul style="list-style-type: none"> <li>-dominated by buildings set back from the road in the landscape they dominate</li> <li>-the dominant spatial figures in suburban form are private buildings and private open space</li> <li>- the majority of buildings are dedicated to a single use</li> <li>- dominated by car dependence</li> <li>- roads are often organized in a branching out format, with many dead-ends and cul-de-sacs</li> <li>-lower dwelling densities</li> <li>-funded by short term investment</li> </ul>	<ul style="list-style-type: none"> <li>-focuses on buildings built close to the footpath, with very little separating the building and the road</li> <li>-strong focus on public space</li> <li>-mixed use buildings</li> <li>-focused on walkability and mass transit</li> <li>-streets are organized and maximize connectivity</li> <li>-higher dwelling densities</li> <li>-short and long term investment</li> </ul>

Source: Dunham-Jones and Williamson 2009, p. x

Figure 1.1: Suburban and Urban Form Comparison

Suburban Form



Urban Form



Source: Author

Suburban form in Adelaide is largely influenced by the ‘segregated suburbs’ in the United Kingdom in the late 19<sup>th</sup> Century (Cannon, 1975). Representing the ‘ideal home’ the middle and upper classes aspired to housing within the residential suburbs along public transport routes where they could own a detached house with their own garden (Forster, 2004). However, the development of suburbia in Australia differed substantially to that in the UK in a number of ways. Densities were much lower in Australia, and suburbia covered a much larger area of land, resulting in a sprawled formation (Jackson, 1977). The causes for this are attributed to the cheap and abundant availability of land, and a ‘fresh’ distinction away from traditional, British, high density, post-industrial style of housing (Forster, 2004). In addition to the relatively high wages in a large middle class from the mid-20<sup>th</sup> Century, home ownership was an achievable reality for many Australians, contributing to the formation of the ‘Australian dream’.

New Urbanism has a much less definitive history, with many scholars quoting multiple historical sources of the foundation of the concept (Silver, 2000). Typically originating in the US in the early 20<sup>th</sup> century, New Urbanism shares elements of a number of design features in regional plans, town planning schemes and regionalist contributions of the time. Calthorpe (1993) describes distinguished 1920’s regionalist Ebenezer Howard’s Garden City, as first evidence of Transit Oriented Development with the idea of towns focused around train stations, public open space, and a ‘village’ setting. In addition, the ‘Neighbourhood Unit’ plan by Clarence Perry in 1927 appears distinctively influential in new urbanist ideals (Calthorpe, 1993). Focused on the community, Perry gave particular attention to the significance of neighbourhood attributes as a way to strengthen the urban social fabric. Many more made contributions, but there appears a lack of consistency in pinpointing exactly who and when were distinctive in the formation of the concept today (Silver, 2000). Indeed, the ‘new’ in new urbanism appears somewhat not that new. Guiding development back to favouring public transport is reminiscent of development prior to the Second World War, and these elements are still visible in the older suburbs of Australia today. Indeed, the New Urbanism was first coined by Katz (1994) and the term ‘new’ meant the rebirth of traditional urbanism rather than the creation of a new urban form.

#### **1.4 Adelaide: Development of a Sprawled City**

Founded in 1836, Adelaide is a planned city, located on the River Torrens which is surrounded by the Mt Lofty Ranges to the east and the Gulf of St Vincent to the west. The

location of the city was originally chosen for its suitability as the center of an agricultural settlement and water availability (Stratham, 1991). Prior to the Second World War, people generally lived in either the city or a rural setting, along public transport routes, with very little in between (Commonwealth of Australia, 2010). Accelerated urban sprawl began in the period directly preceding the Second World War, as was the case many cities in Australia and Western societies across the globe (Commonwealth of Australia, 2010). This was a time where the motor vehicle became widely available and affordable, increasing accessibility for those that owned one, and people generally travelled to work outside their local area (Forster and McCaskill, 2007). As a result, development began to infill areas away from public transport routes, where only cars could access. Sprawling continued for the remainder of the 20<sup>th</sup> century, largely uncontrolled, and today, Adelaide stretches approximately 100km from the North to South (ABS, 2011), and the population as at the last national census was 1.23 million, making it the fifth largest city in Australia (ABS, 2011).

Adelaide contains one central CBD surrounded by decentralized, low density sprawling suburbs. Public transport is also centrally focused, with around 31 per cent of CBD workers using public transport to get to work (ABS, 2012). However, this drops to 6 per cent for those travelling across the metropolitan area, with an increase in the suburbanization of employment in more recent decades (ABS, 2012). Both figures represent a relatively low public transport uptake in Adelaide, typical of car dependent cities (Soltani and Kono, 2006).

## **1.5 Statement of the problem**

There are many recognized disadvantages to uncontrolled sprawling associated with suburban developments and Bruekner (2000, p.2) describes a few: outgrowth of public transport infrastructure; physical segregation of the rich and poor; increased and unnecessary travel times; consumption of fragile and viable agricultural land, and; increasing public expenditure. This inherent reliance on private transportation has also been noted to be particularly disadvantageous to the most vulnerable groups, for example; the disabled, the elderly, the sick, children and the financially impaired (Grieco, 2003). Moreover, reliance on the car oriented sprawl has attracted specific criticisms across different disciplines. Environmentalists note the contribution of pollutants in the air and loss of rural landscapes; economists are concerned about the drain on economies by inefficiencies caused by traffic congestion, and; planners and policy makers seek to mitigate reliance on the depleting

resource of oil (MacKenzie et al., 1992). The primary method to combat such issues has been the planning and development for increased dwelling densities in the existing urban area.

It was the desire for open space and the affordability of the car which provided the baseline for the promotion of suburban, low dwelling density, single land use development in Adelaide (Commonwealth of Australia, 2010). Ironically, this undeveloped, open space has been dwindled to almost extinction as this sprawl has continued with very little control, creating long vast areas of urban land. As a result, Adelaide was noted as being amongst the worst of Australian cities dominated by car orientated, low density housing expansion (Newman and Kenworthy, 1989, Hutchings, 2007). The issue is entrenched in the 30 Year Plan for Greater Adelaide (30YPGA);

“The challenges and opportunities facing the region (Adelaide) mean that the housing and suburb designs of the past cannot simply be replicated to meet the needs of the future” (GSA, 2010 p.53).

Indeed, the drawbacks of car-oriented development in Adelaide are made significantly worse by its geographical shape (Allan, 2011). Being so long, and confined in width by the coastline to the West and hills to the East, further increases distance between localities. Not only does this exacerbate the issues of environmental degradation but also increases social segregation of vulnerable communities who may have limited access to a car. Thus, the city of Adelaide presents unique and significant planning and policy challenges for sustainable urban expansion in the future.

The 30YPGA has presented a pathway to address the problems with urban development as it has occurred for some time (Allan, 2011). Significant features of focus of the plan include ‘the compact city’, carbon emissions reduction, accessibility and ‘climate change resilience’ (PIA, 2009). However, implementation of such ideals still presents a challenging hurdle to overcome, given the limited scope and resources under the plan. Add to this a strong culture of car reliance and aspirations of the ‘Australian Dream’, and there remains the question of public acceptance of the proposed changes (Buys and Miller, 2012). Given that some of the elements of the 30YPGA have now been constructed in various developments across the metropolitan area, there presents the opportunity for measurement of perceptions towards higher density development in practice.

## 1.6 Rationale

This study utilizes the concept of Residential Satisfaction is formed significantly by the liveability of the residential environment (Kennedy and Buys, 2010). While there is no universally accepted definition of liveability, we can use a broadly constructed definition as:

“...the well-being of a community and represents the characteristics that make a place where people want to live now and in the future” (Victorian Competition and Efficiency Commission, 2008).

Thus, the built environment is a significant contributor to well-being in populations.

Residential Satisfaction has been linked to a range of factors surrounding the dwelling itself (Lu, 1999) and neighbourhood (Sirgy and Cornwell, 2002), including accessibility, cost of living, quality of building design, mobility, pollution and safety of residential living and more. The extent in which the satisfaction is gained from these living requirements can be measured and liveability shares a strong connection to Residential Satisfaction. Much of the way in which Residential Satisfaction is measured is based on subjective preferential choice. However, a large portion is also composed of a combination of trade-offs in which cost and living expenses play a significant role. How we plan our cities influences these choices.

Thus, the Residential Environment is a commodity that serves to fulfill a number of human needs (Vera-Toscano and Ateca-Amestoy, 2008). Indeed, the residential environment is more than simply a housing unit, but rather a complex interface by which the resident interacts with a multitude of dimensions to satisfy their needs (Kaplan, 1985, Kelly, 2000). How and if these needs are met have implications for the satisfaction of the resident, which can provide a good indicator of quality of life and subjective well-being (Kelly, 2000, Lu, 2002). Focusing on the interactions of residential dwellers in differing spatial contexts can further develop our understanding of Residential Satisfaction in general, and also how the built environment can facilitate and impact such interactions. A significant change in the design and composition of housing developments will understandably alter perceptions of Residential Satisfaction within populations (Kelly, 2000), and it is important to measure how and why such differences may occur.

Such perceptions can be culturally influenced, creating a greater need to analyze Residential Satisfaction with consideration of geographical context (Deshmukh, 1995, Lee and Park, 2012, Smith and Krannich, 2000). Indeed, it has been noted that the push for ‘modern’

values often struggle against traditional values due to their independent and ingrained influence (Buys and Miller, 2012, DiMaggio, 1994). From this perspective, while it is broadly accepted that suburban housing development is largely excessive and in need of constraint and controlled management in this post-modern society, implementation is often restricted by social forces (Bruegmann, 2005).

As suggested by Frost and Dingle (1995), discussions on the urban future rely heavily on the determination of a ‘better city’. The determination of this concept essentially requires the effective critique of the city as it is, in order to show how and why it should be changed, when considering the broader goals of sustainable development. To date, independent analysis of Residential Satisfaction between suburban and mixed use developments in non-inner city areas of Adelaide has not been undertaken. This research seeks to analyse and report on the housing outcomes on both developments to improve understanding on the residential experience in order to guide and improve future mixed use development within the Adelaide metropolitan area.

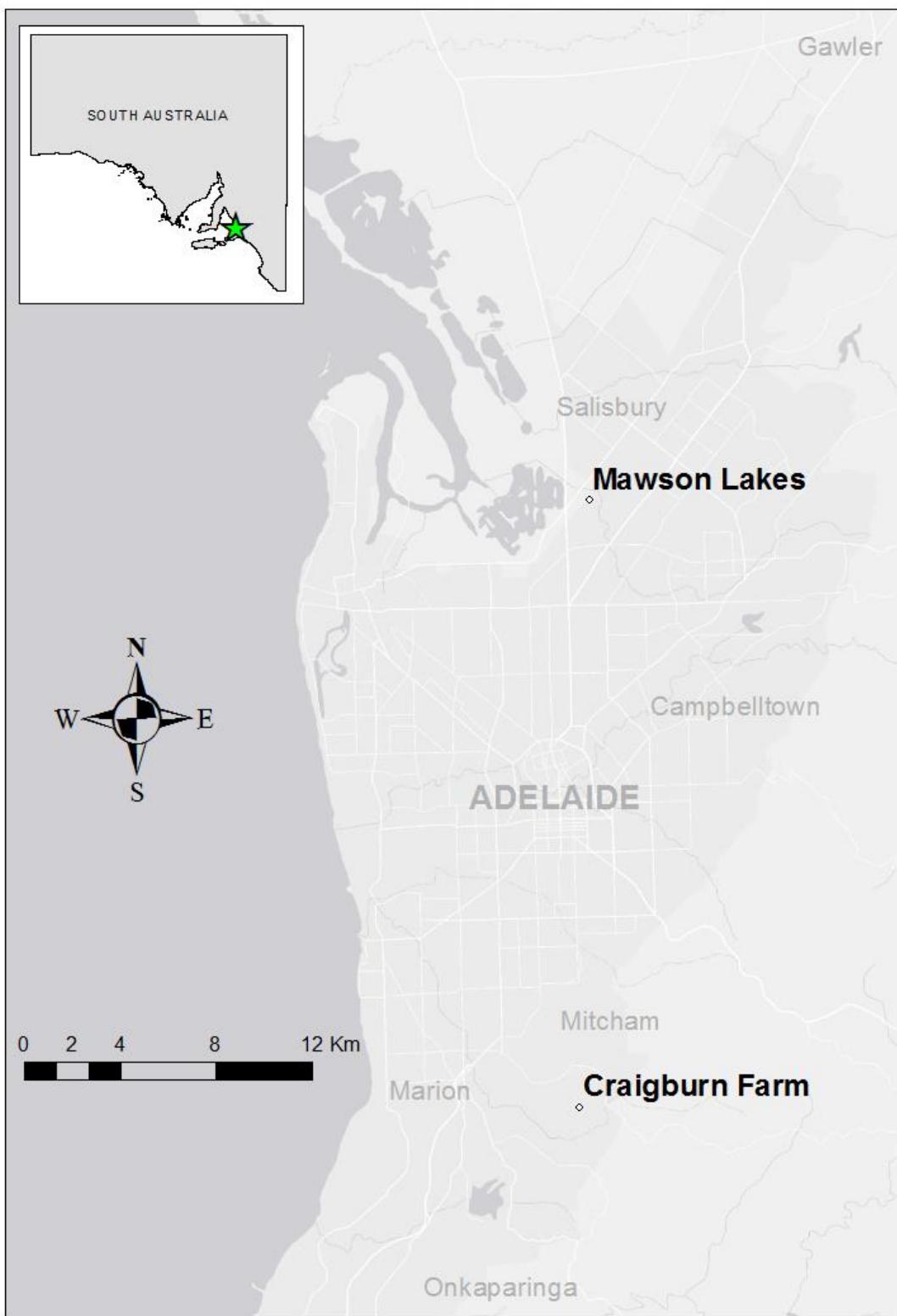
## 1.7 Case Study areas

As per recommendations of Buys and Miller (2012) concerning Residential Satisfaction and urban form in Australia, this research utilises a comparative approach to measure Residential Satisfaction between two similarly timed, but fundamentally different housing developments in the Adelaide metropolitan region. This is beneficial for future planning policy because for developments to be successful, they must first address the housing needs of the greater population for there to be a reasonable uptake (Salleh, 2008). Whether the Adelaide population is willing to accept or deliver a change in urban form will determine whether future similar developments should continue in the future under a higher density focus of the future.

The primary philosophy of the social sciences is to explore human behaviour, as is the case in this project (Peet, 1998). Therefore, this project seeks to quantify human perceptions of the built residential environment to inform future development and policy strategies in regards to housing and urban design. This linkage proposes to eliminate or alleviate potential problems associated with a lack of consideration of human interactions within and between a changing urban form.

The present study seeks to identify and differentiate satisfaction levels of residents in the constructed urban environment. How the immediate urban environment in the form of a structured urban development varies provides an intriguing investigative avenue for analysis measures. In a city such as Adelaide, which is dominated largely by low-density, sprawling housing development in the last 60 years, it is therefore justifiable to measure human interactions between this traditional format and a claimed new, fundamentally different form. Consideration of these factors directs this research to focus on two case study developments within the Adelaide metropolitan area, South Australia: the suburb of Mawson Lakes (formally known as The Levels) and the housing development named Blackwood Park (within the suburb of Craigburn Farm, see Figure 1.2).

Figure 1.2: Study area locations: Mawson Lakes (North) and Craigburn Farm (South) in Metropolitan Adelaide.



Source: Author

The urban form, housing types, density and demographics between these two housing developments promotes a comparative analysis in a numbers of ways. First, the two have significant differences in land use, development size and associated infrastructure associated with the project. One had (most) of the infrastructure built into the project, the other was built in close proximity to existing infrastructure. Second, the availability of housing types and densities differ greatly between the two projects. Third, there are notable differences in the demographic characteristics between the residents living within these two developments as noted in the 2011 census data (see Chapter 4). However, there are some similarities. First and foremost, both are within the Adelaide metropolitan area, and both are around 12km from the CBD (albeit, Mawson Lakes to the North and Craigburn Farm to the South in the hills). Third, both are predominantly within 2km of a major transit corridor (Gawler railway line and Belair railway line). Fourth, both developments began construction at roughly around the same time (1998 and 1999, respectively). Fifth, both projects are not the product of urban renewal but are both built on vacant, greenfield sites well within the metropolitan boundary. In this way, this research can focus on the specific factors influencing Residential Satisfaction in the Adelaide metropolitan region, and compare how such differences in development design and housing type affects such responses. As such, similar perceptions of satisfaction can be compared when stacked up against the delivery of such satisfaction in each development.

The two types of housing developments used in this study represent low density, residentially zoned, low density housing and new, mixed use, generally higher density housing. As such the analysis quantifies how perceptions of satisfaction vary between these two developments, drawing conclusions of determinants of Residential Satisfaction in the Adelaide example. The two case studies are different in the way they were and are marketed to potential buyers, and different in the way in which housing and neighbourhood attributes seek to fulfil the essential needs that residents require. Essentially, this study seeks to determine if, what and how a revised urban form and housing options delivers a difference in Residential Satisfaction response. Therefore, it is expected that differences in various elements of housing and neighbourhood design will generate a statistically significant difference in Residential Satisfaction scores. Whether these responses will be positively or negatively influenced under a changing urban form will be explored further in the proceeding chapters.

It is fundamentally necessary to explore Residential Satisfaction with the aid of case studies not only to create perspective across responses but also in order to gain critical knowledge concerning the residential experience itself. Within the Adelaide metropolitan area, Adelaide is in the process of changing the way housing is supplied which has been consistent ever since the conclusion of the Second World War. Such a significant change in composition and delivery of housing will no doubt need a change in perceptions of what supports the needs of modern day Australians. These perceptions are currently the focus of the present study. The sub-sections that follow discuss the case study areas in detail and the reasons behind their use in this project.

### **1.7.1 Dwelling Types**

There are four main dwelling types characterised in this study, including detached housing, townhouses, apartments and units. Each of these are defined below.

#### ***The Detached House***

The detached house is the most commonly found dwelling type in Australia, dominating 75.6 per cent of all dwellings in Australia (ABS, 2012a). According to the ABS, a detached house (or otherwise named separate house) is defined as:

“...a dwelling which is self-contained and separated from other houses (or other buildings or structures) by a space to allow access on all sides (of at least one-half metre)” (ABS, 2007 p.103).

A detached house is a dwelling on its own allotment with private land surrounding the dwelling (see Figure 1.3). This housing type is strongly associated with the Australian dream, and is a dominant aspect of suburban housing developments in Australia. However, the size of detached houses can vary significantly (Kelly, 2011).

**Figure 1.3: Detached House at Craigburn Farm**



Source: Author

This dwelling type occupies more land per dwelling than other dwelling types, and demand for such housing is a significant contributor towards urban sprawl (Buys and Miller, 2012). Detached houses come in a variety of designs, and can have more than one level (see Figure 1.4).

Figure 1.4: Double storey detached house at Craigburn Farm



Source: Author

### *The Townhouse*

This study adopts the ABS definition for semi-detached, row or terrace house for townhouse, as defined as:

“...a dwelling with its own private grounds and no dwelling above or below. A key feature is that they are attached in some structural way to one or more dwellings, or separated from neighbouring dwellings by less than half a metre. Examples include semi-detached, row or terrace houses, townhouses and villa units. Multistorey townhouses or units are separately identified from those which are single storey” (ABS, 2007, p.107).

In this way, a townhouse is identified as having more than one story, under this definition.

**Figure 1.5: Townhouses at Mawson Lakes**



Source: Author

Another aspect common to townhouse dwelling development is the minimal (if any) separation from the footpath. As in the image above the front porch steps right out onto the public footpath. Townhouses have been commonplace in Europe and Britain for centuries. However, in Australia, townhouses have been a marginal dwelling type for some time, and only recently begun to increase as a proportion of the housing market.

### *The Apartment and Unit*

This study adopts the ABS (2007) definition of an apartment or unit, described as:

“...all self-contained dwellings in blocks of flats, units or apartments. These dwellings do not have their own private grounds and usually share a common entrance foyer or stairwell”.

As shown in Figure 1.6, apartment complexes are increasingly containing retail on ground level with dwellings above on the higher levels.

Figure 1.6: Apartments at Mawson Lakes



Source: Author

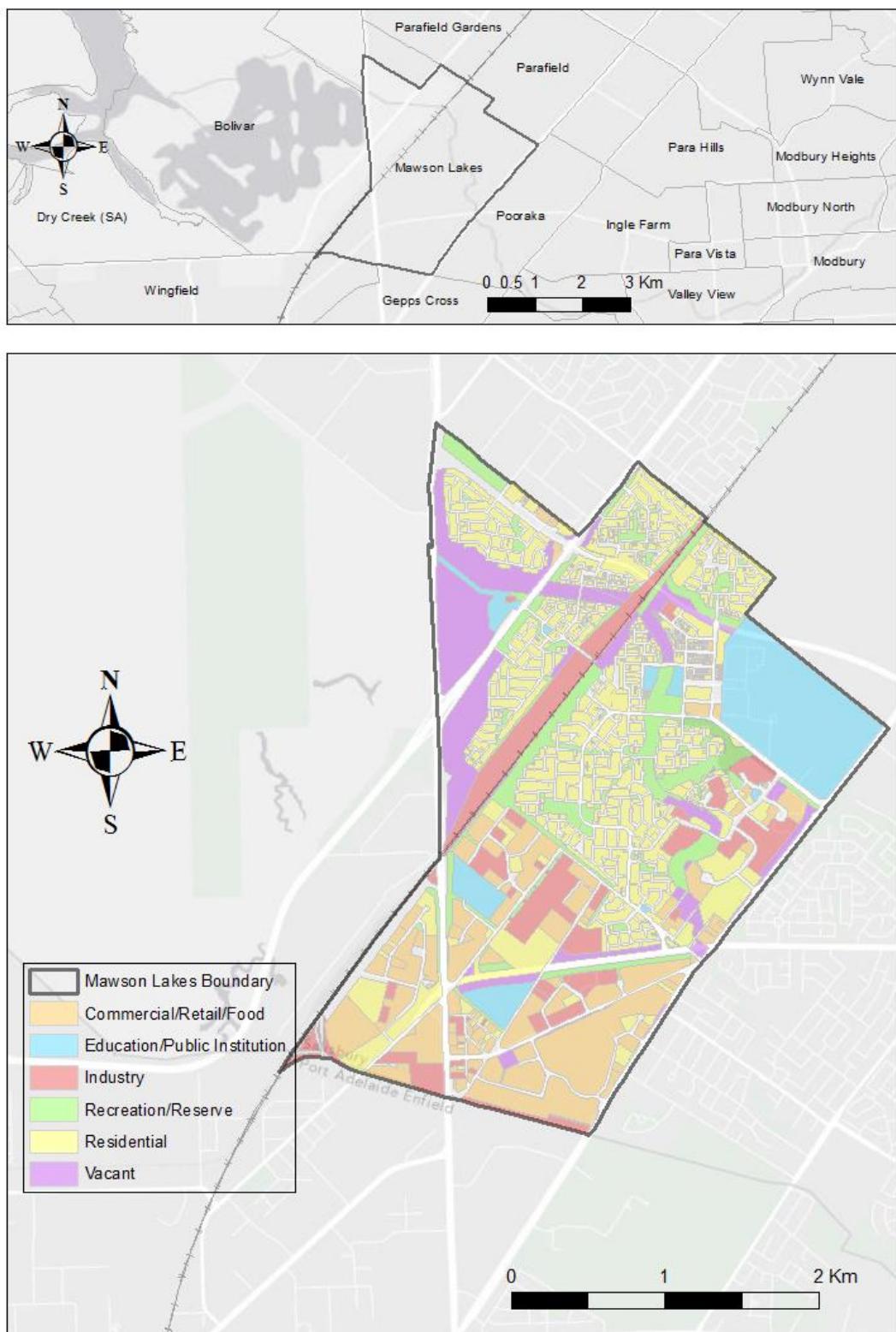
### 1.7.2 Mawson Lakes, South Australia

The first of the two case study areas for this project is the Adelaide suburb of Mawson Lakes, a recent major development in the Adelaide metropolitan region. The study area was chosen specifically because of the physical characteristics which differentiate from previous suburban development in the past in Adelaide. Indeed, some researchers including Hutchings and Garnaut (2007) describe the development as having distinct differences in urban design to much previous suburban development in Adelaide at the time, providing an opportune time for a comparative measurement of Residential Satisfaction. These features resemble the elements of new urbanism as presented earlier in this chapter. Indeed, Mawson Lakes is different from other developments at the time of construction in a number of ways. Firstly, it contains a range of housing options, including detached housing, townhouses and apartments. Secondly, the development contains a range of land uses, with retail, education and public open space adjoined with residential land uses. This land use mix and higher density housing allows for greater walkability, and the streets interconnect with each other. Some, like Allan

(2011) and Paine (2009) make the claim that Mawson Lakes is Adelaide's first Transit Oriented Development (TOD), however, while closely linked to the idea of new urbanism, this research makes no such claims.

The project has attracted much attention in recent years, partly from an intense marketing strategy from the primary developer, Deflin- Lend Lease. The strategy was based around the idea that it offered much more than other developments in the Adelaide metropolitan region at that time. In the later years of development, and the shift in promotion to higher living densities and the ideas surrounding new urbanism, Mawson Lakes has also been marked as a place offering a wide range of housing options within relatively close proximity to public transit services, public open space, retail, and employment services through the motto of '*live, work and play*'. Such claims give rise for objective analysis and critique, to examine if and how changes employed in housing structure and suburb design has filtered down in delivering a change in perceived satisfaction from the residents currently residing within the development.

Figure 1.7: Location of Mawson Lakes (as at June, 2012)



Source: DPTI (2012)

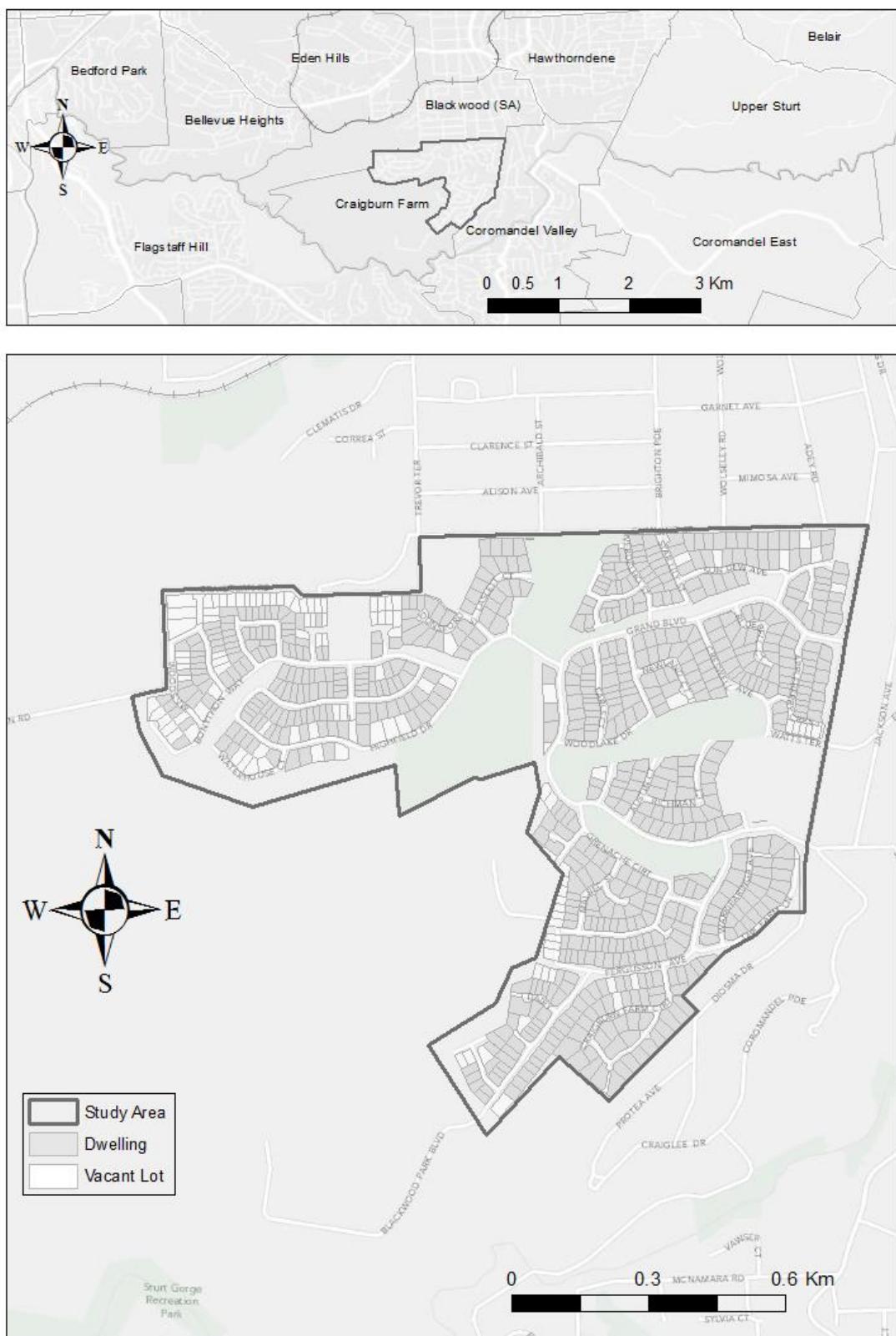
The original history of Mawson Lakes is somewhat tarnished, with the failed Multi-Function Polis project. Essentially, the MFP was first proposed as a planned community in Adelaide in 1987 but later abandoned in 1998. It was designed to house around 100,000 people in a modern set of villages encompassing housing, employment and recreation with the addition of an advanced communication system to attract technology industries.

The developer, Deflin Lend-Lease in conjunction with the Government of South Australia and have developed the site along similar lines to the proposal for the MPF, however, no direct association remains due the strong controversy associated with the name. As at Census night, for the 2011 ABS Census, 10,872 people resided within the suburb (ABS, 2012c).

### **1.7.3 Blackwood Park Development (Craigburn Farm), South Australia**

The second study area examined in this study is the housing development named Blackwood Park (located within the Adelaide suburb of Craigburn Farm). It is located approximately 12km South from the CBD in the Adelaide Hills situated next to the suburb of Blackwood, South Australia. The Blackwood Park development resembles car oriented, suburban characteristics, although allotment size has been subject to some reductions in recent years. Craigburn Farm, as the name suggests, was purchased and subdivided on farmland and has been undertaken as a joint venture by Adelaide Development Company and Brock Urban Projects. The development is divided into three “nodes”. Currently, the development is releasing land in the initial stages of the second node. As such, the current study area only includes current development to date (see figure 1.8). The development made no provision for the availability of additional services or facilities, other than the provision of mandatory open space and a limited bus service.

Figure 1.8: Blackwood Park development (as of June, 2012)



Source: DPTI (2012)

In total, at the time of the ABS 2011 Census, there were a total of 1,778 people residing within the development within 569 occupied dwellings (630 total). The dwelling structure is much what is seen in suburban developments, with 100 per cent of all dwellings being detached housing to date. The median is slightly older than that of Mawson Lakes, at 38, compared to 31 (ABS, 2012b). Median Weekly Income and monthly mortgage repayments are both higher in Craigburn Farm with \$2,217 compared to \$2,029. Most houses (97.7 per cent) appear to be family-style homes, with three or more bedrooms compared with 79.3 per cent for Mawson Lakes.

## 1.9 Chapter Conclusions and Thesis Plan

This chapter has outlined the aims and objectives of this research, as an opportunity to examine and critique the planning goals of the 30YPGA in practise through the concept of Residential Satisfaction. This chapter has also outlined why such a study is important and how Residential Satisfaction is significant in the success of the changing urban form. The issues presented in this chapter demonstrate the need for reflection of Residential Satisfaction in mixed use housing developments within the Adelaide metropolitan region and how, in comparison to suburban developments, should be designed to not only maintain but increase such perceptions in the long term. The use of comparative examples of housing developments within relative proximity to the city provides an intriguing snapshot of Residential Satisfaction in conversely different development structures. It is anticipated that the results of this study will assist in guiding future changes in housing supply and neighbourhood structure for the improvement of liveability in Adelaide and guidance under the 30YGPA.

The following chapter will present a review of the relevant Residential Satisfaction literature, including the contested factors that can influence perceptions. The third chapter will present a detailed outline of the methodology used in this project. Chapter four will then present the results of the demographic, housing choice and dwelling satisfaction responses collected, and how they compare to previous research relating to the dwelling. Next, a detailed analysis of the neighbourhood satisfaction responses will follow, and be positioned within the relative Residential Satisfaction, place attachment and community engagement literature. This thesis will then summarise with a chapter outlining the major conclusions of the research.

## **CHAPTER 2: RESIDENTIAL SATISFACTION AND WELL-BEING: A review of the literature**

The examination of the potential of alternative land use patterns has been an increasingly strong focus in academia, planning and policy development in the past two decades (Bender et al. 1997, Newman, 2005, Recsei, 2005, Allan, 2011, Buys and Miller, 2012). Metropolitan areas offer a range of residential locations and in areas such as Adelaide, segregated land use has been the norm for some time. There has been a strong focus in future planning practise and research on mixed use developments and it is therefore important to investigate whether potential residents will choose to live in them. The literature on Residential Satisfaction appears to offer the greatest explanation of the interactions between residents and the residential environment, as it is a significant determinant to an individual's quality of life (Allen, 1991, Vreugdenhil and Rigby, 1987). This chapter reviews the literature on interactions of the residential environment in contributing to subjective well-being (SWB). It does so through the concept of Residential Satisfaction. The chapter also describes the debates surrounding the meaning of home, and outlines some of the findings in the literature on Residential Satisfaction.

### **2.1 Happiness, Life Satisfaction and Subjective Well-Being (SWB)**

This study employs a rational approach that assumes that positive subjective states are able to be self-assessed (Diener, 1994). Such information is useful in providing valuable insight into the happiness, satisfaction or well-being of an individual, and the factors which influence responses. However, debate has surrounded the need for philosophers to identify a valid means for the measurement of happiness (Wilson, 1967). For many years, psychologists have focused on the impact unhappiness plays in happiness, including issues such as depression and anxiety (Hart, 1940, Hoppock, 1935) and such research continued to develop in investigations into dis-satisfaction with various aspects of life (for example, Lazarus and De Longis, 1983, Koivumaa-Honkanen et al., 2002, Paunio et al., 2009). However, in the mid-20<sup>th</sup> century, perceptions of happiness and well-being were recognised for their importance in understanding of underlying emotional states surrounding overall satisfaction with life in general (Wilson, 1967). In turn, the field progressed on the measurement of what is known as Subjective Well-Being (SWB), which can be defined as:

‘...a broad category of phenomena that includes people’s emotional responses, domain satisfactions, and global judgements of life satisfaction’ (Diener et al., 1999, p. 277).

In this way, SWB is differentiated from happiness, but the two are often discussed synonymously. Diener (1994) describes SWB as containing two parts; the affective component, referring to the positive and negative affects guided by emotions and feelings; and the cognitive component, which is essentially a reflection on life compared relatively to the aspiration of the ‘ideal’ life. This component is what is known as life satisfaction. Understanding these two components has given rise to significant academic progress in the design of methods in measuring SWB, especially in the last two decades. As a result, SWB has attracted increasing attention from government organisations and the public in understanding the importance and factors influencing SWB around the world.

Historically, the composition and definition of happiness as a product of SWB has generated debate (Headey et al., 1993). There appears to have been some division in what is constituted as important in the composition of SWB. Bradburn (1969) defines happiness as a balance of positive and negative affects, while conversely, Andrews and McKennell (1980) argue it is better related to cognitive measures of life satisfaction. As a result, researchers have debated between one, two and three dimensional methodologies in the assessment of overall well-being. Some, including Fordyce (1978), Grichting (1983) and Kamman et al (1979) argue a singular dimensional affective approach, while Bradburn and Caplovitz (1965) claim affective approaches should contain two separate dimensions, both positive and negative. This view has been supported by Warr (1978), and Watson et al. (1988). Andrews and Witney (1976), Andrews and McKennell (1980), Campbell et al.(1976) and Argyle (1987), however, argue that the use of three dimensions of life satisfaction is the best method of measurement of SWB. The third dimension is the cognitive component, as life satisfaction is differentiated from the positive and negative components of SWB (van Hoorn, 2007).

The validity of subjective research has generated some spirited debate in SWB research. While the majority conclude positive results of validity (Diener, 1994, Diener et al., 1999, Frey and Stutzer, 2002, Layard, 2005, Nettle, 2005, Kahneman and Krueger, 2006), a small minority challenge the validity subjective assumptions (Davidson et al., 2000, Frey and Stutzer, 2002). A major weakness noted in the measurement of SWB is the sensitivity to recent or daily minor events (van Hoorn, 2007). For example, recent unrelated positive news

may produce an abnormally high SWB response, while bad weather or conflict may cause a negative effect (Schwarz and Strack, 1999). Others note challenges where language and cultural factors can influence the interpretation of rating scales (Wierzbicka, 2004). This is largely apparent where scales are based on descriptive wording rather than numbered scales. Often such difficulties can be overcome with the combined use of words and numbers in scales. A higher rating of satisfaction suggests greater satisfaction with the phenomenon being measured, which can contribute to a higher level of happiness or well-being (Veenhoven, 1991). However, certain variables can have differing roles in everyday life for respondents and result in varying importance. This variability can prove problematic when each variable is measured equally.

It is clear that SWB presents a viable avenue into understanding the happiness and well-being of populations. This concept is certainly useful in a number of fields in the determination of factors which may influence such perceptions, which can assist in guiding improvement in this particular area. The reasons for increasing policy-driven focus on improved SWB are largely due to the universally recognised positive outcomes at the individual and population level.

## 2.2 The meaning of home

Before investigating how happiness is achieved through housing we must first understand how home is defined. Research focused on the meaning and experience of the home has developed significantly over the last three decades (Sixsmith, 1986, Leith, 2006). The meaning of home contains multiple associations on differing spatial extents and perspectives, ranging from the dwelling, to neighbourhood, to national levels. The vast literature in multiple disciplines such as anthropology, psychology, human geography, history, architecture and philosophy indicate that the understanding of home is a complex, multidimensional concept requiring a multidisciplinary approach (Mallett, 2004, Sixsmith, 1986, Leith, 2006). However, few have adopted this multidisciplinary method, with many researchers focusing knowledge to limited dimensions in their respective fields (Mallett, 2004). This trend has generally hindered research into the meaning of home with findings directed narrowly at individual disciplines, rather than appealing to a broader audience. This assertion comes with the exclusion of authors like Després (1991), Somerville (1997), Mollett (2004) and Moore (2007) who venture into a multidisciplinary approach in understanding the

meaning of home. In all papers, home is presented from a broader holistic perspective, adaptable and useful in the broader development of the term.

Narrow disciplinary perceptions of home have often been accompanied by insightful and structured arguments. However, these arguments often ignore developments in other disciplines and come at the expense of the expansion of broader understandings in the field. For example, architects focus on the physical aspects of home (Cramer, 1960, Hellman, 1983) with very few considering the symbolic attributes (for example, Polikoff, 1969). As a result, the multiple perspectives of home have given rise to critique of each approach, especially in the research focused on a multidisciplinary approach. For example, Moore (2007) argues that the inability of social sciences to analyse and understand the significance of home is due to the inherent ‘complexity’ of the topic. While Després (1991) argues the field of psychology has typically neglected social and cultural meanings of home. However, as home research develops it appears to be heading further toward mutual acceptance, and such critique is both necessary and insightful. It is spurred by a significant understanding of how a holistic approach can provide useful insight in future home research (Blunt and Dowling, 2006). However, Rapoport (1995) finds this pathway incomprehensible and should be abandoned, arguing everything we need from the concept of home can be expressed through other concepts.

It is interesting to note that an equivalent word of home does not exist in all languages and cultures (Benjamin, 1995). In the English language however, the term ‘home’, originates from the word ‘ham’, which means village, estate or town (Hollander, 1991). In this way, home is referred to as a locality, rather than the dwelling itself. Its original purpose was aimed at the promotion of localism in order to reinforce ownership of land and protect against enemy intrusion (Mallett, 2004). Later, the idea of home was expanded upon, to include the house, and the statement '*The Englishmen's house is his castle*' (Rykwert, 1991, p.53) provides an exemplary example. This phrase is used to define and describe the home as a place of private ownership, comprising the house itself and the land surrounding the house (Mallett, 2004). As such, there is significant difference between house and home. House refers to the physical structure of the dwelling, and can come in many forms (Bowlby et al., 1997), whereas home, implies deeper underpinnings, involving not only the house, but the area around it, with the addition of some kind of social and/or cultural attachment to that place.

Many researchers define the home from the perspective that it acts as a refuge, a place where the occupants can retreat from the outside world and relax (Mallett, 2004). Thus, the home is often recognised as a private sphere differentiated from the public realm; a place free of scrutiny and surveillance; a space of freedom, control and creativity. However, Wardhaugh (1999) disagrees with the refuge argument, suggesting that the elements that are perceived to perpetuate the experience of retreat are not necessarily associated with the home itself but rather can be found in places outside this boundary. Indeed, home can in many cases act as a place that people want to avoid or escape if negative experiences such as violence or conflict are present in the home (Jones, 1995, Goldsack, 1999, Wardhaugh, 1999, Wright, 1991). Others, such as Jackson (1995) argue that home is not, in all cases a private phenomenon, and specifically draws an example of nomadic populations, who do not differentiate beyond the outside world. Rather, home is a place where one originates from, or where significant time has been spent. This example is transferrable in the built residential environment under the concept of place attachment, as defined as:

“..the emotional or affective bonds which an individual feels to an area or place...”  
(Livingston et al., 2008, p. 1).

Thus, the feeling home is constructed through expressions of attachment which can only be attained through significant time or events experienced at that place.

Some researchers extend the Western perception of home through the idea that home is an avenue of expression or identity of one's self (Dupuis and Thorns, 1996). According to Després (1991), the type of house, interior fittings, and use of space within the dwelling all act as contributors in the reflection of the occupant(s). Tucker (1994) suggests that home is an expression of subjectivity of the world; a place where expression of self-identity is possible. As Sadalla et al. (1987, p. 570) describe:

“Houses and their contents have been regarded as objects that symbolically express the social class, personality traits, aesthetic preferences, and personal histories of their occupants”.

Thus, housing is a conscious decision making process based on symbolic appropriateness, which can further be modified and decorated to suit, and is a product of what is known as the phenomenon of housing symbolism (Becker, 1977, Cooper, 1974, Rapoport, 1959). Furthermore, Csikszentmihalyi and Rochberg-Halton (1981) suggest that the physical

dwelling can act as a symbol of exclusivity and group membership; it can unveil the qualities of the occupant(s) to others; it can demonstrate conflict within one's self, and; it can be used as a method of control over integration with the surrounding community.

This leads to further examination of the meaning of home from the perspective of the conceptualisation of the ideal home (Wright, 1991). This body of research focuses heavily on dwelling design, describing common ideas of ideal housing in the UK, US and Australian (Mallett, 2004). Overwhelmingly, Western studies have demonstrated a desire for a detached house with land surrounding that house (for example, Cieraad, 1999, Porteous, 1976); but others additionally attribute this desire to familial experience and social change (Mallett, 2004). Thus, the conceptualisation of the ideal home from this perspective is largely formulated on an individual basis, and can be influenced by personal circumstances, including factors such as employment and accessibility to work, economic constraints, perceptions of community values and household composition. However, Dovey (1999, p. 140), in his analysis of advertising discourses for display houses and communities in Australia contends that the house reflects and reproduces the social world of gender, age, and class relations as he writes:

“The ideal home is a place of safety in a world of danger, a place where certain taken for granted order prevails within a context of chaotic differences. In its architectural manifestations the experience of home constructs an inside/outside dialectic; a private spatial enclosure is protected from the public gaze. And the house as a spatial base inevitably mediates, constructs and reflects one’s social identity in a community.”

In many ways, Dovey (1999) summarizes many aspects of home by conceptualising a multidimensional, multifunctional perspective of the ideal home.

These multiple perspectives on the meaning of home raise significant questions concerning how home is understood, how it should be understood, and how it could be understood. The literature confirms that home is indeed multidimensional, and varies depending on the perspective of the individual assessing such meanings (Hollander, 1991). This has resulted in much debate from multiple disciplines and perspectives, suggesting that the concept simply ‘all depends’ on how one wishes to view it. A holistic perspective on the literature however suggests defining home is dependent on multiple factors. We must conclude that home clearly functions as an inter-related portal for socio-cultural ideas surrounding place, space and objects (Mallett, 2004).

## **2.3 Residential Satisfaction**

Investigation of what constitutes home, and how SWB can be used as a measurement of satisfaction in many aspects of life, leads to a discussion of the interrelationships between the two. Indeed, research into positive housing outcomes has been an intriguing avenue of inquiry for some time. Recent literature has paid close attention to the impact geographical context plays in shaping SWB in populations in various contexts. The residential environment has been noted as a significant contributor to SWB, and Residential Satisfaction is a commonly used measure of general acceptability and satisfaction of the circumstances within, and surrounding, the home. Residential Satisfaction is a useful, adaptive and multi-dimensional concept which has far reaching and diverse uses across a broad range of applications (Sirgy and Cornwell, 2002). In practice, and in the form used in the current study, the theory of the Residential Satisfaction model is one that considers the compositional characteristics of households and the context of the combination of the dwelling, neighbourhood and personal traits on how such characteristics influence various aspects and dimensions of satisfaction (including SWB) (Galster and Hesser, 1981). Residential Satisfaction is measured on the basis of self-assessment. How the residential environment meets personal goals and needs, and how content the assessor is with the social and physical aspects of that environment (James et al., 2009, Sirgy and Cornwell, 2002).

### **2.3.1 Theoretical Background of Literature**

The concept of Residential Satisfaction has been well documented over the past 70 years (Hart, 1940, Rossi, 1955, Rapoport, 1959, Butler, 1969, Fried and Gleicher, 1970). Davies (1938) provides a description which is still applicable today. He uses both dwelling and neighbourhood qualities in the determination of Residential Satisfaction. Others describe Residential Satisfaction as containing both social and physical components (Grillo et al., 2010, Heller et al., 1984, Hughey and Bardo, 1987, James et al., 2009, Sirgy and Cornwell, 2002). Belongingness and acceptance comprise the former and housing quality and community services form the latter. In any sense, however, Residential Satisfaction is best described as the measurement of the ‘end state’ on how satisfied individuals or entire households are with the built environment within, and surrounding, the home (Baker, 2002). Due to subjectivity in how Residential Satisfaction is composed, different individuals and households regard different components of the residential environment as major sources of satisfaction, increasing the complexity of measurement.

Residential Satisfaction is important because it contributes to an individual's psychological well-being and quality of life (Braubach, 2007, Hur and Morrow-Jones, 2008, Nelson and Preston, 2005, Prilleltensky, 2005). This in turn can influence decisions to move to, or move away from a residential environment (Amole, 2009, Chapman and Lombard, 2006, James et al., 2009, Warrick and Alexander, 1998). Thus, it is important, in this particular research, to identify these factors within a changing urban landscape.

The literature suggests there are a number of factors which contribute to Residential Satisfaction in the Western world. As expected, factors vary between studies, with some demonstrating the significance of the physical environment, including the availability of open space, amenities and housing quality in shaping perceptions of Residential Satisfaction (Braubach, 2007, Chapman and Lombard, 2006, James et al., 2009, Potter and Cantarero, 2006, Uzzell et al., 2002). Others, like Adriaanse (2007), Tartaglia (2006) and Wood, Frank and Giles-Corti (2010) have identified social factors, such as sense of belonging and proximity to family and friends as significant contributors to Residential Satisfaction. While Obst and Stafurik (2010) and Ross (2002) consider personal factors such as length of residence, tenure, history, demographics and employment as significant. Sources of dissatisfaction can also influence Residential Satisfaction. However, the construction of Residential Satisfaction is not a simple measure of the absence of dis-satisfaction. Residential dis-satisfaction is a separate phenomenon on its own, and is measured as a response to negative stimuli within the residential environment. This is in stark contrast to sources of Residential Satisfaction, whereby sources of satisfaction are varied and much more dependent on the individual.

### **2.3.2 Early findings of Residential Satisfaction**

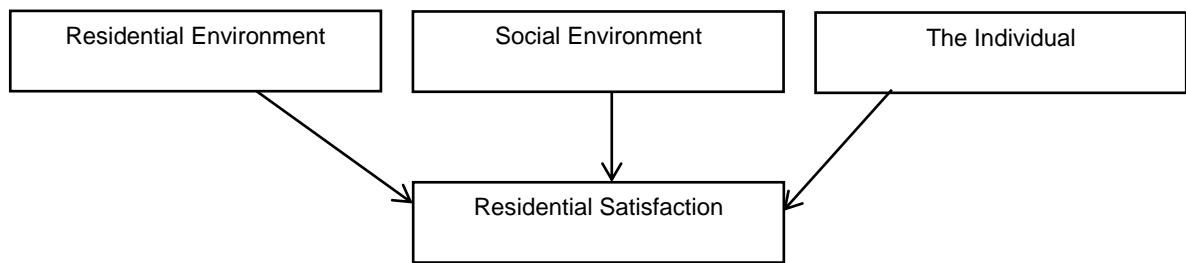
Foote et al. (1960) in their definitive book '*Housing choices and housing constraints*' supply an overview of early research findings into Residential Satisfaction. Firstly, tenure type was noted to influence perceptions of Residential Satisfaction, more so than urban form. In particular, home ownership generally positively influenced Residential Satisfaction. Secondly, Foote et al. (1960) found that those who were satisfied with their neighbourhood were more likely to be also satisfied with their dwelling. This further emphasises the role that neighbourhood and place plays in the overall residential experience, and lead to the early

discovery that social attributes of the neighbourhood can influence perceptions of Residential Satisfaction. Lastly, Foote et al. (1960) note that with respect to suburban developments, Residential Satisfaction shares a positive correlation to family households; and as such, development has been noted for visual amenity, outdoor space, safety and local schooling. However, men have been noted as being more satisfied with suburban living than women, and later research has indicated the inequalities that suburbia promoted (England, 1993).

## 2.4 Components of Residential Satisfaction

These early findings provided the basis for further investigation and development of the concept of Residential Satisfaction. Contemporary findings summarise Residential Satisfaction as comprising three distinct components which comprise a model for Residential Satisfaction. These components include: the residential environment, the social environment and individual characteristics. Figure 2.1 below outlines the model for Residential Satisfaction which will be discussed in more detail in the proceeding sections.

Figure 2.1: Residential Satisfaction Model



### 2.4.1 The Residential Environment

Much historical and contemporary research suggests the residential environment contributes significantly to perceptions of Residential Satisfaction in the built environment (Lu, 1999, Troy, 1971, Burby and Rohe, 1989, Weidemann and Anderson, 1982, Buys and Miller, 2012). This understanding of the residential environment can be defined as a composition of housing, the neighbourhood surrounding the housing and the perception of neighbourhood quality. This perception of quality is not only associated with visual amenities, building quality and open space, but also the access to services that are located nearby.

Some research has found a greater influence of the dwelling and the immediate surroundings

within the allotment than neighbourhood and social factors (Tognoli, 1987, Troy, 1971, Fried, 1982). This is due to the fact the dwelling comprises a greater proportion of the time a resident spends in the residential environment. Thus, the quality of the dwelling has been noted as the most important element of home, more so than the surrounding neighbourhood (Fried, 1982, Troy, 1971). After all, the home is the place where residents attain most control (Csikszentmihalyi and Rochberg-Halton, 1981).

The literature has defined some consistent trends in regards to particular dwelling features that tend to correlate with higher satisfaction responses. Apart from outright ownership, the objective quality of the construction of the dwelling is one of the strongest influences of positive Residential Satisfaction responses (Lu, 1999, Weidemann and Anderson, 1982, Marans and Rodgers, 1975). Some researchers have attributed this to the security, privacy and low maintenance costs that associated with quality-built housing (Fried, 1982, Burby and Rohe, 1989, Weidemann and Anderson, 1982). Space has also been noted to impact perceptions of satisfaction (Lu, 1999, Schwirian and Schwirian, 1993, Loo, 1986). Indeed, detached housing has consistently delivered higher perceptions of satisfaction in the residential environment (Marans and Rodgers, 1975, Tognoli, 1987). Day (2000), found that detached housing provided space and privacy between neighbours with in turn positively affected perceived satisfaction. Indeed, fact that detached housing offers the private control of open space has been noted as a significant contributor for higher satisfaction levels in detached housing (Michelson, 1977) which is particularly prominent in Australia (Buys and Miller, 2012).

Within the residential environment, the neighbourhood is significant in contributing to satisfaction, regardless of the significant time spent within the dwelling. There are many aspects of life that the dwelling cannot fulfil, thus the need for consideration of the surrounding factors in the assessment of Residential Satisfaction. Within the Residential Satisfaction literature, neighbourhood physical quality has been measured using a number of different indicators including but not limited to noise, pollution and open space (for example, Bender et al., 1997, Buys and Miller, 2012). However, despite the variety of measures, many studies note the positive influence physical quality of the neighbourhood environment has on perceptions of neighbourhood satisfaction. Indeed, it was often found that access to natural features (for example, parks and greenery) was a major factor - if not the most important factor - in shaping perceptions of Residential Satisfaction (Bender et al., 1997, Fried, 1982,

Burby and Rohe, 1989). Other physical factors, such as infrastructure, amenity (Weidemann and Anderson, 1982), low housing density (Amerigo and Aragones, 1997), and a lack of clutter and noise (Bender et al., 1997) all have been found to contribute to satisfaction.

Perceptions of safety in the residential environment have been noted to impact Residential Satisfaction (Varady and Preiser, 1998, Loo, 1986, Tognoli, 1987, Weidemann and Anderson, 1982, Fried, 1982, Amerigo and Aragones, 1997, Bruin and Cook, 1997, Greenberg, 1999, Adriaanse, 2007, Uzzell et al., 2002, James et al., 2009) which can influence intentions to remain in an area (Grillo et al., 2010). The impact of feeling unsafe in the residential environment can negatively shape perceptions of freedom and comfort of individuals in the residential environment (Baker, 2002). Perceptions of crime and physical degradation of neighbourhoods raised most concerns about safety, impacted on perceptions of neighbourhood quality, and therefore negatively influenced perceptions of Residential Satisfaction (Greenberg, 1999). Indeed, Schwirian and Schwirian (1993) found similar findings of a significant relationship between safety and Residential Satisfaction, though safety does not explain satisfaction on its own. However, Burby and Rohe (1989) found no statistical significance between perceptions of crime and Residential Satisfaction.

Accessibility to essential services has been found to be a critical factor in Residential Satisfaction research. In smaller Australian cities such as Adelaide, access to the CBD has been found a contributor to satisfaction (Lee, 1978). This is either determined by reliable and frequent public transport, free flowing traffic conditions, or general proximity (distance). With regard to services within the neighbourhood, generally proximity shopping centres and schools provide evidence of correlation with satisfaction (Bender et al., 1997). The extended literature on accessibility is vast and complex, with a variety of methods used to address the issue (Neutens et al., 2008, Geurs, 2006). This research focuses greatly on the idea that accessibility has the potential to greatly impact quality of life. However, it must be noted that proximity and accessibility are two related, but not interchangeable concepts, having one does not guarantee the other (Weber, 2003). Thus, being within close proximity to a service or facility does not guarantee access, where other aspects of individual factors such as transportation infrastructure, land use patterns and economic considerations need to be addressed (Haugen, 2011). Therefore, while proximity does place a role in the former place based accessibility measures, it does not, on its own, fulfil the criteria of accessibility in all cases, especially in complex situations.

Accessibility, or at the least, perceptions of accessibility are important in this research because accessibility is often seen as influential in residential choice (Haugen, 2011). However, actual proximity is regarded as less important as income of respondents increase (Praschker et al., 2008). Thus, personal characteristics and changes in life (eg: employment), regardless of residential location, can influence accessibility, which can vary over time within the same residential environment (Ben-Akiva and Bowman, 1998, Devisch et al., 2009).

## 2.4.2 Social Environment

Whilst the primary focus of this study is to assess the major design factors of the dwelling and neighbourhood in a changing urban form, social factors are significant in the development of perceptions of Residential Satisfaction. The social environment is a critical component to Residential Satisfaction, because social ties create a sense of place attachment to a particular environment (Fried and Gleicher, 1970).

Hourihan (1984) has noted that a positive social environment can compensate for poor physical conditions in the built environment, which has led some authors to the assumption that the social component to housing is more important than the physical (Tognoli, 1987, Amerigo and Aragones, 1997, Fried and Gleicher, 1970). This is especially important within the goals of the 30 Year Plan for Greater Adelaide (GSA, 2010), which specifies objectives to redevelop housing in the existing urban area through urban regeneration, while physical problems are addressed, social aspects of urban change are left to fix themselves (Aryal, 2011). In new housing developments, as in the current study, social issues require consideration in the development stages. Some argue the view of some architects in defining Residential Satisfaction as happiness one gets with the purchase of a house is too simplistic, suggesting a failure to consider social factors in the built environment (Mohit et al., 2010, Sam et al., 2012). Thus, the conclusion in much of the literature on the role of the social environment remains; at the individual level, without a strong social network, perceptions of Residential Satisfaction are likely to be lower than those with strong social ties (Amerigo and Aragones, 1997, Fried and Gleicher, 1970, Hourihan, 1984, Loo, 1986, Tognoli, 1987).

The strongest and most influential social ties are with family and friends. Family attachments especially, have been noted to positively influence Residential Satisfaction (Hourihan, 1984). In addition, an increasing number of family ties and family significance to an area has been

demonstrated to significantly increase perceptions of attachment to an area (Fried and Gleicher, 1970). Likewise, friendship ties, either developed before or after moving to a specific place is significant to Residential Satisfaction (Tognoli, 1987). Not surprisingly, neighbour relationships fall under this banner, and have been shown to have considerable influence on perceptions of Residential Satisfaction (Amerigo and Aragones, 1997, Marans and Rodgers, 1975, Weidemann and Anderson, 1982), especially with the elderly and disabled.

The social environment is also influenced by the degree of social interaction within the community (Rent and Rent, 1978). The positive impact of community involvement in shaping Residential Satisfaction has been documented significantly within the literature (Amerigo and Aragones, 1997, Fried, 1982, Greenberg, 1999, Weidemann and Anderson, 1982). This is because neighbours are an integral component to the neighbourhood, thus, positive interactions increase perceptions of neighbourhood quality, which in turn increase overall perceptions of Residential Satisfaction (Greenberg, 1999). However, this does not correlate to quantity of interactions, rather the quality of them. As Fried (1982) notes, ‘privacy and social distance’ were found to have higher importance than social interactions, which relate back to physical factors of the residential environment, such as housing type and quality in creating this privacy and perception of social distance.

#### **2.4.3 The Individual**

The third element of Residential Satisfaction, the individual, is the third and final component to Residential Satisfaction. It is the individual that describes, through a subjective perspective, their level of satisfaction in their residential environment. Indeed, some have noted subjectivity as contributing greatly to Residential Satisfaction (Hourihan, 1984, Lu, 1999, Schwirian and Schwirian, 1993). In addition to the components of SWB mentioned previously, Residential Satisfaction is a complex phenomenon, comprised of individual aspirations and desires (Loo, 1986, Lu, 1999); perception of degree of control over residential choice (limited by factors of individual circumstance) (Bruin and Cook, 1997, Schwirian and Schwirian, 1993); and personality and perception (Amerigo and Aragones, 1997).

Housing aspirations and affordability also play a significant role in the subjective formation of Residential Satisfaction (Loo, 1986, Burby and Rohe, 1989). These aspirations are formed through the group which individuals aspire to become a part of, as a component of achieving

social identity through housing (Bruin and Cook, 1997, Burby and Rohe, 1989, Tognoli, 1987). However, the housing which can be achieved is limited by the financial means of the resident. Thus, Residential Satisfaction is formed through consideration of housing which surrounds the household, and significant disparities can form negative associations. In addition, these aspirations are tied to the future as well as present (Varady and Preiser, 1998). Affordability of such housing and whether an individual or family are living within their means also contributes to positive residential satisfaction outcomes.

Personal components of Residential Satisfaction, such as demographic detail (Fried, 1982) and how individual's perceive 'what is important' (Schwirian and Schwirian, 1993) in the composition of Residential Satisfaction provide significant considerations in the determination of how Residential Satisfaction is composed. Demographic detail not only provides other sources of satisfaction with life, but also determines what type of residential environment is available to the individual (Fried, 1982). Tognoli (1987) found that higher socio-economic groups displayed higher perceptions of Residential Satisfaction. Fried (1982) contributes this to the increase of residential quality that comes with increasing social position.

Conversely, personality works as a filter by which external stimuli associated with the residential environment are processed to form the perception of Residential Satisfaction in the individual (Amerigo and Aragones, 1997). Personality can therefore affect the perception of residential environment within identical housing conditions. In this way, the contribution of personality in Residential Satisfaction is based on perception of the residential environment and not the residential environment itself (Lu, 1999). As mentioned previously, Residential Satisfaction is formed based on individual aspirations and desires, which vary between individuals and based on a number of factors, including the surrounding environment, current needs and available resources to support such aspirations, all of which can change over time.

Individual Residential Satisfaction is also influenced significantly by the level of attachment they feel to their residential environment. Place attachment essentially refers to the phenomena of the formation of a human emotional attachment to a physical and/or social environment (Low and Altman, 1992, Mesch and Manor, 1998). This attachment can be linked to any aspect of the residential environment, including the community. Many researchers have adapted the functioning model by Williams and Roggenbuck (1989) which points place attachment as a two-dimensional conceptualisation comprising both place

identity (sense of belonging to a place) and place dependence (social and economic resources) (Bricker and Kerstetter, 2000, Kyle et al., 2003, Moore and Graefe, 1994). This emotional attachment is generated through investment in both individuals housing and the surrounding neighbourhood, which comes as a result of the perception that the residential environment is a suitable place to live (Baker, 2002). Economic investments, such as tenure type, are a significant indicator to feelings of attachment. Indeed, higher levels of attachment have been found in homeowners than renters, and provide some motivation for moving (Mesch and Manor, 1998). However, as Tognoli (1987) describes, regardless of tenure type, the longer a person lives in an area, the stronger the associated attachment to the area, which in turn results in a positive influence on Residential Satisfaction.

## **2.5 Residential Satisfaction in the changing urban form**

A large proportion of contemporary debate concerning urban consolidation policy is related to discussions surrounding the costs and benefits between higher and lower density development.(Newman, 2005, Recsei, 2005). Such debate has focused strongly on sustainable transport, infrastructure and environmental considerations. Regardless of these discussions, the literature demonstrates associations between urban form and Residential Satisfaction. Some researchers note that a changing urban form towards higher density living hinders aspirations of housing affordability and accommodation choice, service provision and healthy social mix pertaining to a sense of community (Atkinson and Kintrea, 2000, Thompson-Fawcett, 2003). Conflict and social segregation has been noted to be an issue in higher density housing, where there becomes a clear distinction between affordable and other types of housing, which in turn creates barriers between residents of higher and lower density housing within the same development (Tunstall, 2003). Other factors influencing liveability include effectiveness of public transport and community services, which can have an effect on residents' mobility and participation in the community by reducing the number of places for interaction. However, in contrast to accessibility, proximity isnot necessarily a limitation to access to services, as residents tended to access services outside the immediate development boundaries anyway and there was little evidence of the effectiveness of localised living in practise (Jarvis, 2001). However, as Foth and Sanders (2008) note, new urban architecture is yet to meet the challenges of how public open space can foster improved communication and meet the social needs of the urban dweller. Indeed, higher density

housing is often viewed as an unappealing housing option (Randolf, 2006). However, Bunker et al. (2005) argue higher density, mixed use developments encourages community interaction and therefore delivers higher Residential Satisfaction responses.

Further research on a new urban form containing mixed land use also suggests greater walkability, lower travel costs and fuel consumption (Newman and Kenworthy, 1998). This is in contrast to segregated land use developments which discourage walkability and encourage people to drive (Frank et al., 2004, Wen et al., 2006). Thus, mixed use developments not only have the obvious health benefits by promoting active communities, but also creating a neighbourhood where positive community interactions are much more possible (Bunker et al., 2005). It has been assumed that integration of urban consolidation policies offers a wider range of housing opportunities better matched to the changing demographic composition of households (Easthope and Judd, 2010). However, in Australia at least, such assumptions have been widely questioned (Troy, 1996, Judd et al., 2010), and there is a great deal of evidence that higher density households do not necessarily attract professional single person households or couples without children (Bunker et al., 2005).

## 2.6 Chapter Summary

This chapter demonstrates the complexity of understanding the factors which influence Residential Satisfaction, especially when comparing developments that are expected to deliver diverse outcomes for residents. In addition, this chapter has recognised how the role of pre-conceived ideas that are tied to location-specific social values shape perceptions of Residential Satisfaction, which interlink with how housing and neighbourhood attributes support individual expectations and needs in the residential environment. This chapter has presented an overview of the literature in understanding how individuals subjective perceptions of the residential environment are influenced and offers a pathway forward for the construction of a rigorous methodology that will accurately capture ‘what is important’ in quantifying and analysing such perceptions.

The chapter expanded on the context of Chapter 1 and discussed the literature concerning the meaning of home and the concepts of subjective well-being and Residential Satisfaction. It has dissected what are quite complex yet interrelated themes to describe how the residential environment influences individuals’ quality of life and SWB. From this chapter, it is evident

that the meaning of home is difficult to describe, and the identification of an ideal residential environment is equally difficult to establish. The components which construct Residential Satisfaction are complex, and there is a wide variety of research in the field. This chapter also reveals a significant gap in the literature on the impacts of Residential Satisfaction in Adelaide, which is currently undergoing significant change in the delivery housing supply. It is evident from the literature review that capturing contributors of satisfaction in houses and neighbourhoods has significant potential to contribute in building a knowledgebase for guidance of future housing developments in the context of Adelaide.

## **CHAPTER 3: RESEARCH METHODOLOGY AND DATA COLLECTION**

### **3.1 Introduction**

Residential Satisfaction is an intricate, integrated concept which is conceptualised differently across a multitude of disciplines (Buys and Miller, 2012). In a broad context, Residential Satisfaction is a subjective measurement by which individuals quantify how the residential environment fulfils individual needs and aspirations through housing and neighbourhood attributes (Amerigo and Aragones, 1997). Thus, the concept of Residential Satisfaction itself is complex due to the variation of these needs, which is additionally influenced, and constructed differently by individual experiences. As part of urban planning theory, Residential Satisfaction is generally analysed by the measurement of satisfaction of various variables associated with private (Lu, 1999, Phillips et al., 2005), public (Sirgy and Cornwell, 2002) and social (Amerigo and Aragones, 1997) components which make up the residential environment. These private components relate primarily to the dwelling, including type, size, cost (both initial and ongoing), quality of structure, outdoor space as well as water and energy efficiency (Buys and Miller, 2012). Public components relate directly to neighbourhood factors including proximity to services and facilities, visual amenities and transport factors. Social components are related to proximity to family and friends, availability of social activities and above all, a sense of community (Buys and Miller, 2012). This sense of community, appears deeply entrenched with the individual, and in communal identification with the neighbourhood, otherwise perceived as a sense of belonging (Katz, 1960).

The challenge for planners and policy makers remains to deliver a sustainable urban solution whilst retaining Residential Satisfaction levels normally associated with the suburban model. As Salleh (2008) notes, the failures of many new housing developments focused on density and access is contributed significantly by a lack of consideration of the concept of Residential Satisfaction. How housing developments fulfil the desires and needs of residents can be analysed. This research employs a comparative case study research design; utilising a mixed methods approach (qualitative and quantitative data collection); executed through a self-administered letter box drop survey questionnaire; through a quasi-random sampling technique to record perceptions of Residential Satisfaction in two contrasting housing developments: one suburban form and the other new urban form.

Whilst the concept of Residential Satisfaction in regard to housing in the built environment in Australia and across the globe has been well researched (for example, Buys and Miller, 2012, Amerigo and Aragones, 1997, Atkinson-Palombo and Kuby, 2010, Sirgy and Cornwell, 2002), there are still few to date that have examined a comparative relationship with development design and Residential Satisfaction in the Adelaide metropolitan region. The role social constructs and the general public play in the implementation of the changing form is necessary and requires further investigation.

### **3.2 Research Methodology**

The research questions employed in this study were generated through an extensive review of the literature of Residential Satisfaction in the urban environment. Of significant importance to this project is the recommendation of Buys and Miller (2012) to further explore issues of Residential Satisfaction and compare the views and experiences of residents within a higher density, new urban form and those in more traditional suburban developments in Australia. Upon closer examination of the literature as discussed in Chapter 2, there is a growing need for the recognition of the relationship between urban design and Residential Satisfaction. However, how Residential Satisfaction is perceived and used varies greatly between disciplines (Sam et al., 2012).

Study areas were chosen based upon four essential basic criteria. The first primary prerequisite was that each development had to have commenced development around the same time, within recent years (less than 15 years). The second requirement was that there must be areas which are completed, and these areas must be established and have a reasonable amount of people living there for a considerable amount of time, to allow for residents to form a sense for attachment to their place, as defined by Low and Altman (1992, p.1) as “*...a bonding of people to places*”. Thirdly, the developments must be distinguished by different designs, housing composition, location and available resources and facilities in order to make an effective comparison. Fourth, each development must be a similar distance from the CBD. Therefore, the assessment of satisfaction with public transport can be assessed solely on the delivery of access and not based upon uncontrollable variables associated with travelling time as a result of pure distance.

Questionnaires were distributed within the case study area which was explicitly defined by the suburb (SSC) boundary for Mawson Lakes, and the residentially-zoned areas within the

suburb boundary of Craigburn Farm. If individuals of the selected sample were willing to participate, they answered the questions in their own time and sent their completed surveys back by post in the reply-paid envelopes provided.

The questionnaire was designed in conjunction with a thorough review of Residential Satisfaction literature. The survey uses a mixed-methods approach, incorporating both closed (quantitative) and open-ended (qualitative) questions. Questions were designed to allow participants to assess their own perception of satisfaction with a number of pre-determined variables within their residential environment, and provide opportunity to explain the reasoning behind such responses. These variables can be broadly categorised into two main sub-groups under Residential Satisfaction, being satisfaction with dwelling elements and satisfaction with neighbourhood elements.

The survey commenced construction initially through an extensive review of literature and an initial set of questions was composed. In preliminary form, the survey contained a multitude of questions, largely repeated but with different wording. Through discussions with researchers, supervisors and fellow postgraduate researchers, the survey was cut down significantly for the promotion of a higher response rate (given that an unnecessarily long and complicated survey may impede response rates) (Edwards et al., 2002). It was these discussions which in turn formulated the survey questionnaire into the final product which was delivered to participants.

The final structured survey contained a total of 27 questions across 4 pages (20 closed and 7 open). Some of the questions required multiple responses. The questionnaire was divided in 3 basic sections representing the major aspects which make up Residential Satisfaction in the urban environment:

1. The Dwelling
2. The Neighbourhood
3. Demographics

The closed questions within the survey consisted of a number of types: binary ‘yes, no’; Likert scaling horizontally in both tables and on their own; ranking of lists; and answer of best fit options. Conversely, open-ended questions gave participants the opportunity to provide further explanation concerning the reasoning behind their answers to the closed questions. Such questions simply provided space for participants to respond (Figure 3.1).

Figure 3.1: Sample Questions

Closed Binary “YES, NO”																								
<b>6(a) Would you recommend your suburb to live in to others?</b>																								
<input type="checkbox"/> Yes <input type="checkbox"/> No																								
Likert																								
<b>3(a) To what extent are you bothered by noise in your neighbourhood?</b>																								
<input type="checkbox"/> Not at all <input type="checkbox"/> A little <input type="checkbox"/> Quite a bit <input type="checkbox"/> A lot <input type="checkbox"/> A great deal																								
Likert Table																								
<b>4 How satisfied are you with your proximity to the following:</b>																								
<table border="1"> <thead> <tr> <th></th> <th>Not at all</th> <th>Little</th> <th>Fairly</th> <th>Very Much</th> <th>Extremely</th> </tr> </thead> <tbody> <tr> <td><b>Family/Friends</b></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td><b>Work</b></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> <tr> <td><b>Public Transpor</b></td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> </tr> </tbody> </table>		Not at all	Little	Fairly	Very Much	Extremely	<b>Family/Friends</b>	1	2	3	4	5	<b>Work</b>	1	2	3	4	5	<b>Public Transpor</b>	1	2	3	4	5
	Not at all	Little	Fairly	Very Much	Extremely																			
<b>Family/Friends</b>	1	2	3	4	5																			
<b>Work</b>	1	2	3	4	5																			
<b>Public Transpor</b>	1	2	3	4	5																			
Ranking																								
<b>2(b) If you had to move, which dwelling types would you consider first? Please rate the following dwelling types from 1 (first) to 4 (last).</b>																								
<input type="checkbox"/> Detached <input type="checkbox"/> Townhouse <input type="checkbox"/> Unit <input type="checkbox"/> Apartment																								
Open-Ended																								
<b>13(c) Why did you move here?</b> _____																								

A quasi-random sampling method was undertaken to select participants in each of the two study areas. The purpose of sampling, as defined by Rea and Parker (2005, p. 15):

“...is to be able to make generalisations about a population based on a scientifically selected subset of that population”.

Therefore, without surveying every household within the study areas, a scientific selection method was used to make general observations concerning Residential Satisfaction within the entire study areas for both sites. The reasoning behind using the quasi-random sampling

method is, in this instance, to gain a relatively even spread of the population while still containing the element of randomness for which is vital for effective research techniques. Indeed, this sampling method is recognised as the simplest system that also contains a systematic structure whilst being independent of both the content and observer (Gunderson et al., 1988). Essentially, the quasi-random sampling method randomly defines the first position of the sample, with following participants selected in a controlled pattern (Mayhew, 1991). In this way, each household within the study areas are given an equal chance of selection, reducing bias whilst simultaneously gaining an equally distributed sample. The reasoning for the need for equal distribution lies within the type of research being conducted, because Residential Satisfaction will vary depending on location within a suburb or dwelling type (Sivam and Karuppannan, 2008). Therefore to truly use sampling to make generalisations about the population, each area within the study area should be given equal opportunity to participate. For example, certain areas of the study area may contain variances in distances to facilities or quality of services which need to be accounted for. Missing areas could give rise to distorted results. Thus, the quasi-random sampling method significantly diminishes the error of variance of the estimate and also increases the efficiency of the estimation process (Gunderson et al., 1988).

The sampling frame included all residential dwellings (that were recorded as being at a residential address with DPTI) in March of this year that were within the Suburbs of both Mawson Lakes and Craigburn Farm as defined through the provisions of the *Geographical Names Act 1991*. Therefore, it is important to note that generalisations can only be drawn for residents residing in each of these two study areas only. However, some information, or example dwelling attributes, might be used to make some assumptions for the broader housing supply in Adelaide and future changes under the 30 Year Plan for Greater Adelaide.

The survey was for any person in the household, aged over 18 years, who was willing to participate. There was no individual information available to the author regarding who lived at any address, the type of ownership or any other personal information which could be directly linked to any specific household. The selected person was asked to complete the survey in their own time. There was no obligation to participate, nor in this instance, was any incentive provided to participate as it was determined that each locality demonstrated certain elements which were specific to each study area which in itself would promote an efficient response rate.

The sample size is an important aspect of the data collection process in research. It must be of adequate size in order to make generalisations or to undertake comparative analysis of the population within each study area, but also work within the financial limitations of the project. Therefore, the sample size necessary to achieve these goals was dependent upon a number of elements to ensure that they were chosen carefully. However, for greater accuracy in research, a greater sample size should be used, so the most efficient size within the study limitations must be chosen (Rea and Parker, 2005). For this study the overall population size of each study area, comprised Mawson Lakes, a total dwelling count of  $n = 4575$ , and Craigburn Farm  $n = 630$ . They therefore require a different calculation to larger sample sizes in order to calculate sample size. However, it should be noted that such a calculation is only useful when the sample taken is random in nature and represents a truly representative spread of the total population, under the specific research integrity guidelines as performed in this study.

**Table 3.1: Minimum Samples sizes for Study Areas**

	<b>Mawson Lakes</b>	<b>Craigburn Farm</b>
N (total dwellings)	4575	630
Z (confidence level)		1.96
P (true proportion)		0.05
MoE		0.05 (5 per cent)
n0 (minimum required sample size)	352	240
Minimum Total		592
n1 (actual sample size)	810	330
Actual Total		1140

The final sample sizes was decided to be much greater than these calculations, because of budget availability was relieved by the letter box drop method of delivery, creating more funding for printing and other costs. Such a method had no delivery costs (other than time spent by the researcher to deliver). The higher proportion delivered to residents of Mawson Lakes (810) compared to Craigburn Farm (330) is not only because of the much larger total population, but in anticipation of a reduced response rate possibly due the higher number of younger, working families, and mixed tenure types shown by initially consulting the ABS 2011 Census data. The probability of a sampled resident responding to a survey is dependent

on how important the survey topic is to the participant (Groves et al, 2000); and older Australians, especially home owners, want to age to age at home, are more satisfied with their housing, and are therefore more interested in the topic of Residential Satisfaction (AIHW, 2013). It was therefore determined that residents of Craigburn Farm, who are older, and more likely to be retired and own their home would have a greater interest, and therefore would be more likely to respond to the survey .

The quasi-random sampling method was undertaken on the day of delivery. Surveys for Craigburn Farm were delivered by hand on the 18<sup>th</sup> of August, 2012. In order to conform to the required quasi-random sampling procedure, every second house (50 per cent) on every street within the suburb boundary had a survey delivered into their letterbox. For Mawson Lakes, a total of 810 surveys were hand delivered on the 1<sup>st</sup> of September, 2012. These were delivered using the quasi-random sampling method by delivering to every fourth dwelling (25 per cent) on each street within the suburb boundary. There were some exceptions to this rule, where houses did not have a letterbox and where letterboxes were inaccessible to the general public (for example, some apartment buildings). In which case, the questionnaire was delivered to the next available letter box.

The dates were chosen as the most convenient time to hand out the surveys, with Craigburn Farm chosen first as it was the smallest study area (and therefore easiest) to work out the most efficient method to distribute the questionnaire. On both days, the surveys were delivered on a Saturday, which meant that some residents were gardening or the like which gave the researcher an opportunity to briefly converse with residents on the purpose of the delivery. In addition, Saturday was chosen as it was the most likely time that residents would be available to have a detailed look at the survey rather than receiving it in the middle of a potentially busy and hectic working week (provided residents noticed they had mail delivered over the weekend). However, there is in fact no solid evidence that timing of delivery plays a significant role in affecting response rates (Dillman, 2007).

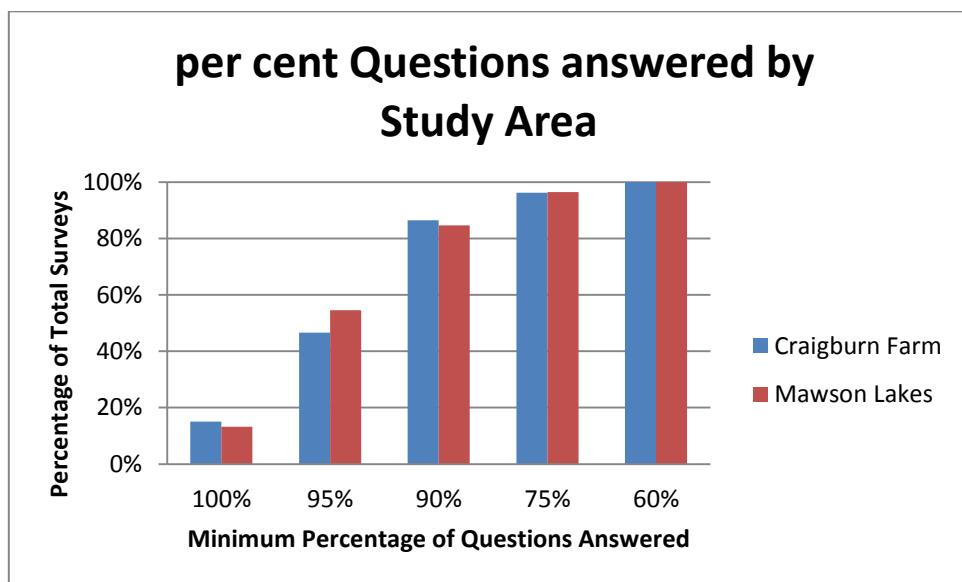
There was no consideration for the application of measures to boost response rates. There was a number of reasons behind this decision. Firstly, it was determined that each study area was relatively new, and therefore, residents of these developments would have moved there for a specific reason, either related to the marketing or otherwise, and therefore, the experience of that suburb would not be as yet common knowledge. As such, it was predicted that residents would be more willing to comment on how initial impressions of life within the

developments were, and how they compared in reality. Secondly, the budget limitations and ethics conditions for this project mean there was no reason to use some form of incentive (ie: prize draw. Thirdly, there was no specific address linked to name data used in this study, so therefore the method of personal delivery labels was deemed to unfairly compromise privacy, which could therefore affect response rates for this type of study. This was also the reasoning behind not using a follow up reminder letter. The ability to personally identify participants would not be granted ethical approval in any case for this type of project.

In total, 277 of the 1140 delivered surveys were returned via the reply-paid envelope provided, making a 24.0 per cent total response rate. While the number of responses for Craigburn Farm and Mawson Lakes were relatively even in actual numbers (134 and 143, respectively), as expected, there was a much higher response rate from Craigburn Farm (40.6 per cent) than Mawson Lakes (17.7 per cent). Such a significant difference implies that Craigburn Farm residents were in fact more than twice as likely to respond than residents of Mawson Lakes. Such information will be analysed in more detail later.

Of the total 50 variables within the survey questionnaire, all respondents completed at least 60 per cent or more of the questions (see Figure 3.2). Over half of all respondents completed 95 per cent of the questions, and most (85.5 per cent) completed 90 per cent or more. By study area, there was very little difference in questions answered, with 15.0 per cent of Craigburn Farm participants compared with 13.3 per cent for Mawson Lakes completed all 50 questions adequately. Chapter 4 will detail the specific data analysis performed in this project and present a detailed overview of the results of the survey.

Figure 3.2: Percentage of Questions answered by Study Area



(n=277)

### 3.3 Purpose of the study

The purpose of social research, according to Henn et al. (2005), is to build an understanding of the motives and intentions that underpin social behaviour. Knowledge is generated through the investigation of two types of problems in this type of research; social problems and social sciences problems (Sanders and Pinhey, 1983). Social problems, as defined by Sanders and Pinhey (1983, p.3) are defined as "...problems in society" whereas social sciences problems are "...defined by theoretical issues". In practice, this study considers both.

This study builds knowledge through social phenomena that people face in day to day living (Sanders and Pinhey, 1983). These phenomena relate to the influence of housing and neighbourhood factors , which can enhance or impede life, or in this case, the achievement of Residential Satisfaction within the residential environment. In this way, the absolute backbone of scientific knowledge is the empirical observations they bring through the collection of sensory information (Sanders and Pinhey, 1983). Perceptions of what is seen, heard, felt, smelt and tasted are all methods by which sensory information can be gathered by human researchers. Information collected by social scientists comprise pieces of a much larger social phenomenon, which, if executed correctly, becomes clearer as an overall empirical observation.

The second aspect of this project deals with social science problems, which is related to theoretical issues. The mentioned empirical observations come together so theory can be generated from such observations (Sanders and Pinhey, 1983). However, in the social sciences, the purpose of social theory research can be classified into four broad classifications: (i) contextual; (ii) explanatory; (iii) evaluative; and (iv) generative (Ritchie, 2003). This research focuses on fulfilling an evaluative function.

This project evaluates the different styles of housing and neighbourhood structures in meeting the needs of the residents that reside within. However, in order to make an accurate evaluation, perceptions of Residential Satisfaction need to be measured from two distinctively different housing developments. In this study, an evaluation is made by how well a new urban form delivers Residential Satisfaction to its residents compared to a traditional development. Thus, this study contributes to developing a greater understanding of Residential Satisfaction in Adelaide by evaluating the effects of a range residential environments and their contribution to the overall residential experience.

### **3.4 Research Ontology and Epistemology**

The term ontology is broadly defined as the analysis of the nature of existence, and the questioning of reality. This research adopts the approach expressed by Hammersley (1995), labelled at “subtle realism”. This ontology essentially forms the perspective that while an objective reality does exist outside the bounds of human awareness, the reality being measured is the only one that is known on the individual level, and that is our own. This assumes that the experience of reality can only be measured from human perspectives. This view is essentially a combination of realist and interpretivist understandings (Hammersley, 1995). Thus, this research, rather than be focused on certainty, validates itself based on a fundamental view of confidence. The audience assesses the level of confidence which should be placed in the interpretation of the residential experience conveyed in the selected study areas, rather than an absolute measure of certainty (Snape and Spencer, 2003). In this way, the research accepts the existence of the objective reality; however such a reality is only available through a participant’s individual perceptions of this reality. Plausibility, relevance, and importance of the topic play crucial roles in the evaluative process of subtle realism (Hammersley, 1995). Indeed, Silverman (1993) describes subtle realism as the only way to build confidence in social science research. Similar ontologies provide similar views for

validity, including Wakefield (1995, p. 283) under the concept of “humble realism” and Maxwell (1992, p.17), “critical realism”.

Shaped by the ontological position of the project, the Epistemology considers views about the most appropriate method of enquiry into the nature of the world (Easterby-Smith et al., 2008) and the definition, sources and limits of knowledge (Eriksson and Kovalainen, 2008). Hatch and Cunliffe (2006), describe epistemology as ‘knowing how you can know’ while Chia (2002) expands on this, describing it as ‘how and what it is possible to know’ through reliable knowledge. Essentially then, the epistemology considers how the knowledge gained through the methods can be used to make a valid argument (Eriksson and Kovalainen, 2008), where validity is broadly defined as the

“truth of, or correctness of, or degree of support for an inference” (Shadish et al., 2002, p. 513).

This particular research grounds itself on a subjectivist epistemology in which the observer and phenomena are associated (Blaikie, 2007). This linkage is bridged through the concept of subjectivism, whereby the observer, consciously or not, induces meaning over the phenomena, thus influencing how the knowledge is gained (Eriksson and Kovalainen, 2008). In which case, it is theoretically possible that the same phenomena could retain different meanings from different observers (Blaikie, 2007). A high importance is placed on the researcher’s perceptions and beliefs with regard to the phenomena, and understandings and interpretations of such perceptions (Ritchie and Lewis, 2003). Thus, while such observations are open for critique, this epistemology recognises the sources and limits of the knowledge used in this study (Eriksson and Kovalainen, 2008).

This is in direct contrast to an objectivist epistemology in which the observer and phenomena remain completely separate. This is, however, a primary working objective for the subtle realist ontology employed in this research, under the endeavour for rigorous and valid research findings (Hammersley, 1995). Such an objective is, however, epistemologically impossible in the social sciences, as argued in Hammersley (1995) and Snape and Spencer (2003). Thus, this subjective epistemology is used.

There are many criticisms over the use of subjective interpretation in research, which often surround the overreliance on researcher’s views of what is significant. A noted consequence of this, is that it appears problematic to make generalisations of such qualitative aspects of data in other areas and that transparency is somewhat hindered in this process. In addition, it

has been noted that there is an assumption that subjective knowledge is often masked as objective. Critique then is offered on the false interpretation subjective knowledge must present its observations in the same form as objective to maintain equal acceptance. However, it is fundamentally incorrect to demonstrate a subjective epistemology as an unchanging objective truth, but rather as the motivation of the observer's mind.

This project addresses the concerns of a subjective epistemology through the use of a structured survey questionnaire delivered to residents within the study areas. In this way the researcher maintains a high level of confidence in the observations, while gathering knowledge on perceptions of Residential Satisfaction in the sample. In addition, justification, through an extensive literature review and for the selection of the study areas, strengthens plausibility of the observations presented. In this way, the researcher is using the best possible mitigating elements to not only best present the information gathered, but to increase confidence that the information is suitable.

### **3.5 Paradigm**

This research project adopts an interpretivist paradigm, which is arguably well suited to social science research (Blaxter et al., 2001). From an interpretivist perspective, the results of research are understood to be an individual interpretation of fact (Denscombe, 2002). Such assumptions rely heavily on systematic unbiased approach to analysis, however, the very nature of interpretation leaves the potential for bias, regardless of the rigor of the methodology. In this study, participants' perceptions and experiences in relation to Residential Satisfaction within the residential environment are considered important, and there is a stringent focus on the use of language in the method of data collection, as the interpretation of the respondent is equally important (Easterby-Smith et al., 2008). Franklin (1989) argues data drawn in the social sciences should contain a qualitative component. Satsangi and Kearns (1992) encourage the use of more speculative methods of enquiry such as focus groups and interviews in Residential Satisfaction research, however they acknowledge that such methods are time consuming and can increase costs significantly. As an alternative, qualitative data collection could be incorporated into the survey methodology as in this study, through the use of open-ended questions.

### 3.6 Case Study Approach

While the case study approach still remains contested with respect to data collection, such a method is commonly used in the social sciences, and in particular, when explanations of social behaviour are investigated (Johnson, 2006), like perceptions towards the residential environment as used in this study. The recognition of this approach as a legitimate tool for investigation came to light after concerns in research presented the limitations of quantitative methods in use as an appropriate explanation of social phenomena (Zainal, 2007). By means of the innovative case study approach, the observer is able to build upon quantitative data and deepen the investigation into the perspective of the actors. Thus, the combination of both quantitative and qualitative data provides an improved, more elaborate explanation of the phenomenon by means of more complete observations (Tellis, 1997).

The case study method considers data within a specific context. In many instances, the case study approach confines data collection to a selected geographical area, as in this study. In this way, the purpose of case study methods is to:

“...explore and investigate contemporary real-life phenomenon through detailed contextual analysis of a limited number of events or conditions, and their relationships” (Zainal, 2007, pp.1-2).

This study follows this definition, as it explores and investigates Residential Satisfaction in through detailed contextual analysis of different housing developments, and housing types and their relationships. This is further realised as Walton (1992, p. 122) asserts that the:

“...logic of the case study is to demonstrate that the causal argument about how general social forces shape and produce results in specific settings”.

Thus, the demonstration of relationships between certain phenomena acts as evidence in the construction of generalisations concerning the observations. Similar observations in similar instances on other occasions therefore strengthen such generalisations (Ruddin, 2006).

Critics of case study research site a lack of generalizability of results as a fundamental limitation to the practise (Flyvbjerg, 2006). However such a huge limitation can be mitigated through the use of a random sampling technique, as used in this research (Bryman, 2004). The case studies, both Craigburn Farm and Mawson Lakes, are both the focus of this study, which is particularly useful in revealing the unique features (in this instance, levels of Residential Satisfaction) within specific cases.

This research is a deductive study, meaning that it will test theory through observations, and differs from longitudinal and cross-sectional approaches in that it uses two contrasting cases to form a comparative approach with the use of identical methods for both cases. Thus, the phenomena is better understood when two contrasting case studies are used as meaning of the results is generated, which put such results in perspective (Bryman, 2004). Indeed, theory is best generated through the use of case studies (Walton, 1992). As Bryman (2004) describes, the initial theory from the literature is used to generate the hypothesis, which informs the data collection methods, which produce the findings, whereby then the hypothesis is then confirmed or rejected, and then the theory is either accepted or revised.

Within research on Residential Satisfaction in a changing urban form, the case study method is the most appropriate approach as it generates knowledge on the social and physical factors which influence perceptions of satisfaction in the residential environment. Such information is useful because it can identify sources of satisfaction and dis-satisfaction which could potentially impact on the uptake of a changing urban form, which forms a significant part of the 30YPGA. Identification of such externalities could form the focus of mitigation to inform policy in the reduction of any such negative implications. The use of two fundamentally different housing developments in two different environmental areas within the Adelaide Metropolitan area not only provides context but provides a better understanding of how perceptions of Residential Satisfaction are influenced by the residential environment. This policy-driven shift from traditional low density housing to higher and more efficient urban densities signifies an important change in direction for the urban environment, not only in Adelaide, but across Australia. The current urgency which surrounds the management of future urban growth and mitigation of urban sprawl highlights the need for higher densities to be accepted and embraced by the community (Kennedy and Buys, 2010). As such, this study seeks to identify the social, environmental and economic impacts of a changing urban form and put forward methods for such impacts to be managed. Thus, understanding the factors that influence residents perceptions of satisfaction in more traditional housing compared with higher density living, can provide knowledge for planners and architects in the promotion of higher density neighbourhoods in the construction of sustainable cities (Kennedy and Buys, 2010). A key policy concern surrounds the potential for these higher density cities to not be accepted and consequently, becoming at risk of turning into a ghetto.

### **3.7 Techniques**

The primary technique adopted here involves the multivariate analysis of housing and neighbourhood variables which have the potential to influence subjective perceptions of Residential Satisfaction. Used in conjunction with methodological triangulation, by using more than two methods in studying the same phenomenon (Mitchell, 1986, Thurmond, 2001), this study seeks to build a broad and robust evidence base surrounding the real life perceptions in the changing urban form. This type of triangulation is especially prevalent in the social sciences (Hussein, 2009) and within the subtle realist ontologies (Hammersley, 1995). This study gathers Residential Satisfaction responses through the survey questionnaire, researcher observation and secondary data sources, in qualitative and quantitative forms.

There is currently debate on the practicality of both qualitative and quantitative research. Arguments for qualitative research state it is the only method to accurately study the world through the eyes of the people within, whereas quantitative researchers argue observations can only be made through the tally and classification of features by which statistical models can be constructed to explain the phenomena (Bryman, 2004). Miles and Huberman (1994) cite two historical statements which provide fuel to this ongoing debate, with Fred Kerlinger arguing:

“There’s no such thing as qualitative data. Everything is either 1 or 0” (p. 40).

Coversely, Donald Campbell argues that:

“All research ultimately has a qualitative grounding” (p. 40).

Its seems neither statement can be accepted as truth, nor be discounted, and acceptance usually depends on the ontological and epistemological positioning (Ritchie, 2003). However, Bryan (2004) noted a growing number of researchers who combine quantitative and qualitative methods to form a mixed methods approach. This is especially prevalent in the social sciences, where today the majority do so, as is the case in this research.

### **3.8 Theoretical Framework**

This study focuses strongly on capturing an individual’s needs and aspirations of their living situation. How perceptions of the performance of the dwelling and neighbourhood compare

to such aspirations can be measured and assumptions can be made on such performance. Many studies have assessed Residential Satisfaction in a number of settings, including in the analysis of the changing urban form.

The critical element of ‘satisfaction’ is firmly based on a person’s perception of the benefit that they are receiving from an external stimulus. This is known as Need-Fulfilment theory, as first defined in Vroom (1964). The individual needs of the recipients determine the level of motivation to obtain a certain product. If the product fulfils the needs of the recipient, then the resulting level of satisfaction experienced will be higher. In this study, the product is the living environment surrounding the residents, and the extent to which this environment meets the individual needs can be quantified and measured as a level of satisfaction for the household.

However, Residential Satisfaction is more than product; it is a gateway for interaction within and between family, household members and the rest of the community. The level of satisfaction is connected to the ability and ease of access to do the things that satisfy one’s daily needs. Amerigo and Aragones (1990) have designed a theoretical model which examines how a person interacts with the surrounding environment. The model demonstrates how certain elements can influence Residential Satisfaction and how this is connected to general satisfaction with life. Objective variables of the environment such as urban layout and accessibility significantly influence Residential Satisfaction. The degree to which the environment meets the needs of personal characteristics can be directly calculated as an objective Residential Satisfaction. However, these objective attributes can also become subjective when they are evaluated by residents. It is these objective and subjective differences which explain variations in Residential Satisfaction (Amerigo and Aragones, 1997, Young et al., 2004). Objective attributes refer to measurable spatial features, for example geographical location in proximity to services or the availability of public open space (Amerigo and Aragones, 1997, Young et al., 2004). Conversely, subjective attributes are comprised of the individual personal characteristics and aspirations of the residential experience (Amerigo and Aragones, 1997, Young et al., 2004). Therefore, Residential Satisfaction is a combination of the two (Wasserman, 1982). This, study, through the subtle realist ontology, and mixed methods approach, seeks to address each of these criteria.

### **3.9 Limitations**

Although this research was carefully prepared, there are number of initial limitations with the research. The first is that the study is based on a single snapshot in time, and not over an extended period. Individual perceptions can change at different at different point in time, subject to both long term and short term external stimuli. For example, the respondent may be having a good day, or a bad day, influences by positive or negative experiences in the residential environment, or social interactions in the community or at home. The second is that the residents themselves change over time. Perceptions of satisfaction are largely based on individual characteristics and needs through housing which the literature suggests changes over time. Thirdly, the quality of housing and neighbourhood attributes assessed may change over time as the study areas get older, which may alter the outcome. Lastly, resident satisfaction is only measured by using the perceptions of one individual per dwelling in the sample population. Perceptions of satisfaction within the same dwelling may be different.

Nonetheless, the limitations described to not detract from the viability of this study. The methods provide a means to assess the changing urban landscape in the Adelaide metropolitan area from a Residential Satisfaction perspective. Such an analysis will provide a useful insight into attitudes towards the changing urban landscape in conjunction with goals expressed in the 30 Year Plan for Greater Adelaide.

### **3.10 Chapter Conclusion**

Capturing subjective perceptions of Residential Satisfaction in a structured and meaningful way presents challenges to urban researchers because various aspects of the residential environment are more important to some than others. Presenting an overall picture of what is good and bad in a different housing development and making comparisons requires a methodology robust enough to capture these broad perceptions and draw accurate evidence for the study areas as a whole. This chapter has presented the rigorous methodology of the research undertaken, demonstrating how a comparative case study approach can accurately and effectively fulfil the purpose of the research. It has outlined the basic parameters for the survey, and the adequacy of the sampling methodology, delivery method and the survey questions themselves. This chapter has described the fundamental basis for this study and justified the type of information collected, how it was interpreted and how these conceptions

are suitable for investigation of Residential Satisfaction. The following chapters will proceed to analyse the results and draw some comparative conclusions from the research.

## **CHAPTER 4: DEMOGRAPHICS, HOUSING CHOICE AND DWELLING SATISFACTION**

### **4.1 Introduction**

The housing we need, the housing we choose, and the satisfaction we gain from the housing we have are complex, interlinked thought processes that strongly influence the supply and demand for housing in any given geographic context (Kelly, 2011). Given a long history of dominance of the detached house in metropolitan Adelaide, a significant shift in the supply of types of housing, especially in non-inner city suburbs such as Mawson Lakes, warrants investigation of housing outcomes, especially for future planning under policies increasingly focused on densification. This chapter will assess the linkage with demographics, housing choice and dwelling satisfaction with respect to the two study areas used in this study. More specifically, this chapter will first outline the important demographic differences between the two study areas; it will then assess the housing choices of participants with consideration of current housing compared with housing that is desired, and; it will conclude by identifying influences of dwelling satisfaction within the context of this study.

### **4.2 Demographics**

Demographic characteristics have long been recognised as an important contributor to dwelling satisfaction and housing consumption, and many researchers identify trends in consumption with points in a person's life (Myers, 1990; Gober, 1992; Masnick, 2002; Clapham, 2002; Beer and Faulkner, 2009). In addition, Myers and Pitkin (2009) demonstrate how long term demographic changes in populations can alter housing demand, with the potential of the creation of a mismatch between the current housing stock and the types of housing wanted in cities (Kelly, 2011).

This section discusses the key demographic characteristics of the survey respondents, and outlines the key similarities and differences between the two study areas, Craigburn Farm and Mawson Lakes for comparative purposes. The demographic detail is then discussed in conjunction with the most recent ABS Census data for the assessment of representativeness of the returned surveys.

#### **4.2.1 Survey Population**

Response rates have specific consequences on the representativeness of the demographics of the survey sample (Holbrook et al., 2008). Conversely, many studies have noted how the demographic composition of a survey sample can influence response rates (Traugott, 1987; Shaiko et al., 1991; Merkle et al., 1993). The survey populations in this study varied significantly in both the response rates and demographics between the two study areas, both of which should be considered when analysing the responses at the aggregate level.

As a whole, the response rate well exceeded initial expectations without the need for the introduction of incentive to boost responses. At 24.4 per cent, it is slightly above industry standard of 20 per cent in the social sciences (Kelley et al., 2003). However, with consideration of suburb size by private dwellings (4575 and 624 respectively) (ABS 2012), and relative proportions surveyed (810 and 330 respectively), it was clear that a much higher proportion of Craigburn Farm residents (40.6 per cent) responded than those from Mawson Lakes (17.8 per cent). Whilst there was neither any additional incentive nor difference between surveys delivered to each suburb, it is not initially clear why such a disparity occurred.

#### **4.2.2 Gender**

While the proportion of females in each study area is similar, gender has been noted as a contributor to Residential Satisfaction, particularly in suburban developments similar to Craigburn Farm (Chapman and Lombard, 2006, Lu, 1999). Smith (2011) notes gender as being a significant contributor to both Residential Satisfaction and a sense of community. Table 4.1 shows that females are over-represented in the survey sample, when compared with ABS figures (ABS, 2012). Other studies have found that women are more likely to participate in a survey questionnaire than men (Curtin et al 2000; Moore and Tarnai, 2002; Singer et al 2000). The higher proportion of female respondents is consistent with such observations, and has the potential to influence satisfaction ratings, given that gender have previously been found to influence Residential Satisfaction responses. However, given that the over-representation of females is almost identical for both study areas, the differences will have little impact on comparisons between both housing developments.

**Table 4.1: Percentage of females returning questionnaires**

	% Females	
	Survey Population	ABS
Craigburn Farm	55.1	49.6
Mawson Lakes	54.7	49.0

Source: Residential Satisfaction Survey (2012) and ABS (2012)

#### **4.2.3 Age**

Research suggests age plays a factor in shaping perceptions of the built environment (Amerigo and Aragones, 1997, Golant, 1992, Rosenberg and Everitt, 2001). Older residents have been noted as more satisfied with their dwelling, making them less likely to move house (Dekker et al., 2011, Feijten and van Ham, 2009, Varady, 1989). In the current study, the age of respondents differed between the two suburbs surveyed. Such differences were statistically significant with Mawson Lakes residents being overrepresented in the younger age categories under 40 years, and underrepresented in the older age groups. This is consistent with ABS (2012) figures. The median age for Mawson Lakes residents, according to the 2011 Census was 31, with those in Mawson Lakes being 38. However, those aged 65+ make up 9.6 per cent of the population in Craigburn Farm, when compared with just 4.6 per cent in Mawson Lakes.

Studies have found that older residents do demonstrate higher Residential Satisfaction responses (Dekker et al., 2011, Feijten and van Ham, 2009, Varady, 1989). Williams (2003) demonstrates how older residents, particularly in their early 60's, are progressed at the 'optimal' point in their housing careers. Any children are generally moved out, and the family home is progressing close to outright ownership, and in post-industrial Australia, older residents are more often choosing to age 'in place' rather than spend a long period in specialist aged care (Beer et al. 2006). Thus, the literature suggests that the differences in the age profiles between the two study areas are likely to influence comparisons in Residential Satisfaction responses.

#### **4.2.4 Labour Force**

Clark and Oswald (1994) suggest that employment status can influence Subjective Well-Being (SWB). In particular, Wilson and Walker (1993) describe how unemployment can

negatively impact on physical and mental health, which in turn can influence a Residential Satisfaction response in snapshot study. In the current study, analysis of labour force statistics from the survey indicate a statistically significant disparity between Mawson Lakes and Craigburn Farm residents currently employed (see Figure 4.1). In total, more Mawson Lakes residents were currently in the labour force (81.0 per cent when compared to 66.9 per cent in Craigburn Farm. Indeed, retirement is a major event in life, and can impact on other aspects of life, including housing (Aguiar and Hurst, 2003, Hurd and Rohwedder, 2003, Skinner, 2007). Dekker et al. (2011) note that retired residents are the least mobile of all employment status groups, probably because moving costs are relatively high for the retired, or are outweighed by the benefits of staying. Furthermore, Bonsang and Klein (2011) claim retirement can have a negative effect on SWB for those who still want to work, which can negatively impact on Residential Satisfaction. In addition, particularly in suburban developments like Craigburn Farm reliance on motor vehicles are essential due to distance between facilities, and higher maintenance of larger homes can negatively influence Residential Satisfaction responses. It is therefore anticipated that the higher proportion of Craigburn Farm residents that are retired will negatively influence Residential Satisfaction responses.

Of the respondents that those chose to disclose their main occupation (this includes main occupation prior to retirement or unpaid work including house duties and being a student), there was no statistically significant relationship between study area and occupation type. The majority of employed respondents, 40.6 per cent across both study areas indicated occupations classified as Professionals (Males 47.4 percent, Females 34.8 per cent), with the next highest being Clerical and Admin (Males 7.9 per cent, Females 21.5 per cent), Managers (Males 15.8 per cent, Females 8.9 per cent) and Community and Personal Service Workers (Males 17.0 per cent, Females 4.4 per cent). In addition, there was also no statistical relationship between suburb and estimated household income, with the majority falling the \$80,000 - \$120,000 (29.5 per cent) and \$120,000-\$200,000 (29.1 per cent) income groups.

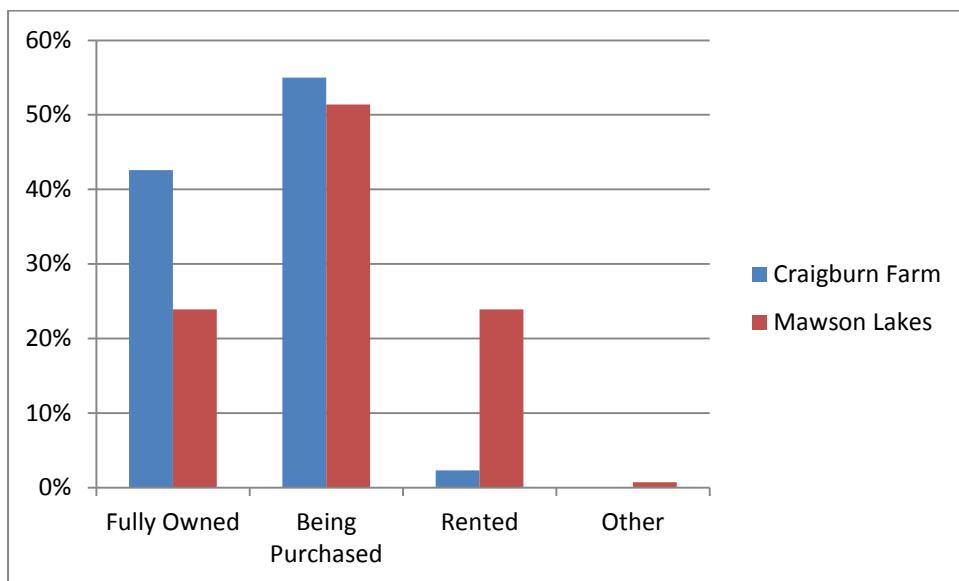
#### **4.2.5 Tenure**

Tenure, particularly whether one owns their home has been noted to influence Residential Satisfaction (Foote et al., 1960, Obst and Stafurik, 2010, Ross, 2002). In this study there was a statistically significant higher portion of Craigburn Farm residents in general owning their

home outright (43.5 per cent to 22.8 per cent) as well as a significant difference in the number of renters (2.3 per cent for Craigburn Farm as opposed to 23.9 per cent for Mawson Lakes. This is particularly consistent with the themes presented in Beer et al. surrounding housing careers, as older residents are more likely to have their home paid off than younger residents. This is likely to substantially influence Residential Satisfaction responses between the two study areas, as with outright ownership comes psychological and financial freedom and long term financial security that many aspire to achieve.

Between both study areas currently purchasing their home under a mortgage dominated tenure type for both study areas, with 54.2 per cent for Craigburn Farm and 52.2 per cent for Mawson Lakes. This similarity is largely due to the substantial length in time a mortgage takes to pay off, despite the fundamental differences in life cycle demographics between the two study areas. In many cases, mortgages can last 25 years or more, and what the data reflects is those that are further into paying off their mortgage and have paid it off are more likely to live in Craigburn Farm, and those still currently renting but also first home buyers and those quite early on in the mortgage are in Mawson Lakes. According to the ABS 2011 Census, weekly rent was significantly higher for Craigburn Farm (\$420 compared with \$330), median monthly mortgage repayments were fairly similar for both study areas, (\$2029 compared with \$2019). However, according RP Data (2014) median house prices varied significantly between the two study areas, with Craigburn Farm (\$667,500) substantially higher than Mawson Lakes (\$435,000). The similarities in mortgage repayments but differences in median property prices between the two developments can be attributed to differences in age, as older residents are likely to have had more equity when moving to a new development, thus only needing to borrow the same amount to purchase a more expensive property. This also depicts a picture of residents with greater financial freedom in Craigburn Farm as a result of greater purchasing power which inevitably leads to greater opportunity and diversity in the housing market. Greater choice in the housing market could lead to greater Residential Satisfaction, due to the greater likelihood of achieving an individual's ideal preference of housing.

**Figure 4.1: Tenure type by study area**



(n=267)

Source: Residential Satisfaction Survey (2012)

James (2008) concludes that tenure type is the product of societal and cultural assumptions surrounding success. Furthermore, Kelly (2011) points out that, particularly in Australia, the dream for many Australians is to own their own home. Therefore, the influence of tenure type on dwelling satisfaction is predominantly linked stages in an individual's point in their housing career, more so than to features of the dwelling itself. In addition, potential for higher dwelling satisfaction responses influenced by tenure type indirectly represents an aspiration for individuals to progress and achieve the dream, and the associated societal and cultural assumptions attached to owning a home. As such, these differences also represent disparities in the markets to which each development is appealing to, those closer to the dream are more likely to consider Craigburn Farm, whilst those entering the housing market are more likely to move to Mawson Lakes.

#### 4.2.6 Living Arrangements

Household composition plays an important role in housing choice, and in the decision process of planning future intentions to move (Clapham, 2002). Table 4.2 shows that the majority of respondents within both suburbs have indicated that family with children, or couple only best described their household composition. However, Mawson Lakes has a higher proportion of

survey respondents indicating living alone or with others than Craigburn Farm. A comparison with ABS 2011 Census data reveals a similar proportionate snapshot, demonstrating overall representativeness between the sample and total population of each suburb.

**Table 4.2: Distribution of household composition by Suburb returned in questionnaires and in the ABS 2011 Census**

	Mawson Lakes		Craigburn Farm	
	Survey Population (%)	ABS (%)	Survey Population (%)	ABS (%)
Family with Children	44.9	45.7	49.2	57.1
Couple only	37.7	28.5	43.1	32.2
Living alone	13.0	19.5	6.9	9.2
Living with others	4.3	6.2	0.8	1.6

(Responses: n=268; ABS: Craigburn Farm, n= 630; Mawson Lakes, n = 4575) Source: Residential Satisfaction Survey (2012) and ABS (2012)

The higher proportion of Mawson Lakes residents indicating living alone or living with others demonstrates the potential for greater mobility of respondents within Mawson Lakes. Coupled with the higher proportion of renters, it appears Mawson Lakes residents are more likely to be temporary residents of the suburb are therefore less likely to have formed an attachment to the suburb, which can influence Residential Satisfaction responses. It is therefore anticipated that this will negatively influence Residential Satisfaction responses in Mawson Lakes, and the frequency of moving will be much higher.

Couple only responses are significantly higher in Craigburn Farm. This is also a function of the older age of respondents. Whilst the housing on offer in Craigburn Farm is larger, more expensive than in Mawson Lakes, the differences in life cycles between the two study areas are depicting to distinctly different groups under the same banner of ‘Couple Only’. The former represents those in Mawson Lakes who are in the early stages of their housing career, either renting or just purchased their home, prior to having children. Conversely, the couple only group in Craigburn Farm is likely to represent households where children have grown up and subsequently moved out of the family home. Therefore, it is more likely that Craigburn Farm residents are (or about to) experience the freedom of no longer caring for dependents but also the luxury greater use of space in the household. These significant aspects life

courses (Beer et al., 2006) are expected to have a substantial impact on SWB and thus, Residential Satisfaction.

#### **4.2.7 Dwelling Types: Representativeness**

A major aspect of this study is the investigation of variations of dwelling satisfaction and dwelling type. Table 4.3 shows the distribution of housing type within both study areas. Considering this project focuses strongly on the role housing type plays in shaping Residential Satisfaction, it is important to see how the representativeness of the returned surveys compared with ABS Census data on housing types within each area. The distribution of the dwelling types indicated in the returned surveys were highly representative of the sampling frame.

Research conducted in the Australian context by Kelly (2011) indicates that the detached house was frequently nominated as an aspiration for housing choice, and many studies have found strong correlations between detached housing and dwelling satisfaction, when compared with more dense dwelling types (Marans and Rodgers, 1975; Tognoli, 1987; Day, 2000; Michelson, 1977, and; Buys and Miller, 2012). Given the higher proportion of detached housing in Craigburn Farm, it is anticipated that higher dwelling satisfaction responses will be yielded in this study area than in Mawson Lakes.

Indeed what the Table also shows is that the housing options on offer in two developments are distinctly different. Mawson Lakes offers a diverse range of housing options, from small apartments to detached houses, while Craigburn Farm exclusively only contains low density, detached homes. Indeed, the two developments are marketed towards different buyers. Mawson Lakes has been promoted as a place of convenience and relative affordability, which focuses on increasing densities around commercial services; whilst in contrast Craigburn Farm is aimed at those wanting to get away from it all in search of a ‘tree change’.

**Table 4.3: Distribution of dwelling types by Case Study area: Survey responses and ABS Census 2011**

	Mawson Lakes		Craigburn Farm	
	Survey Population (%)	ABS (%)	Survey Population (%)	ABS (%)
Detached	72.9	69.5	100.0	100.0
Townhouse	19.3	17.7	0.0	0.0
Unit/Apartment	7.8	12.7	0.0	0.0

(Responses: n=274; Mawson Lakes Sampling Frame n = 4571, Random Sample, n = 810, Returned Surveys n= 144; Craigburn Farm Sampling Frame n = 630, Random Sample, n = 330, Returned Surveys n= 134)

Source: Residential Satisfaction Survey (2012) and ABS (2012)

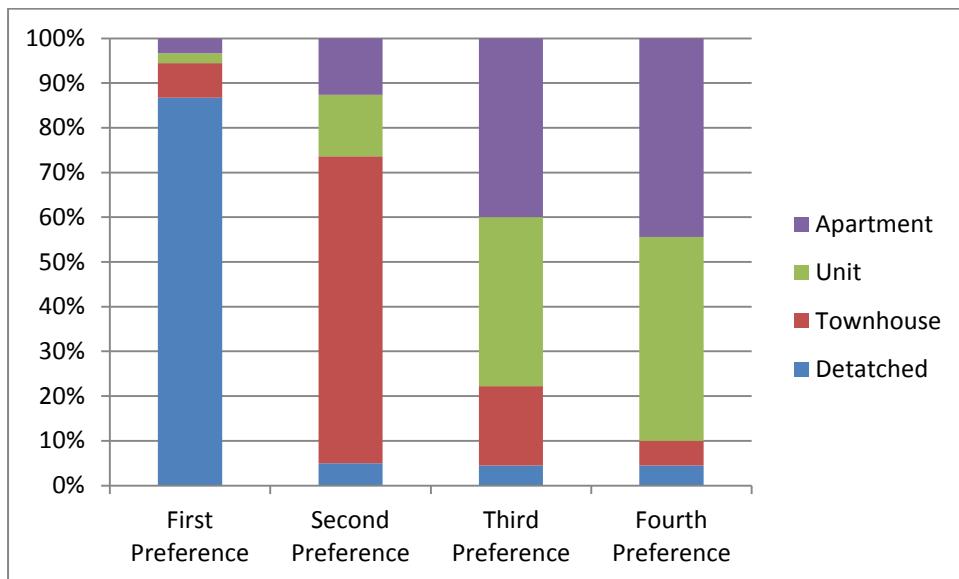
### 4.3 Housing Choice

Housing choice is an important influence on the structure of cities (Kelly, 2011), and is a significant predictor of dwelling satisfaction (Day, 2000). This is important because once housing is built, it is difficult and costly to demolish or modify. Considering the long term goals in the 30YPGA surrounding increasing dwelling densities to meet demand, it is important to recognise disparities such as this to ensure housing supply bridges the gap with the types of housing wanted (Kelly, 2011). A common assumption in the literature on housing choice is that an individual first decides they want to move (in response to certain aspects of their housing needs not being met) and then decides where (Rossi, 1955, Onaka and Clark, 1983). If the types of housing on offer in a particular area are not suited to the needs or aspirations of potential residents, then they will simply choose somewhere else to live, or modify their homes to best suit their needs.

In Adelaide, the detached house has dominated the housing market for many years, and continues to be the most common housing type today. Figure 4.2 shows that detached housing was the dominant preferred housing type in this study, which was over-represented as 86.7 per cent of all first preference responses, regardless of the study area. For second preference, townhouse dwelling types were significant with 68.7 per cent of all second preference responses. Third and fourth preferences were relatively evenly shared between unit and apartments. This, however, does not consider the current housing or neighbourhood

attributes and any changes to housing as a first preference from what their current dwelling type is.

**Figure 4.2: Overall housing preference distribution: If had to move, regardless of dwelling type**



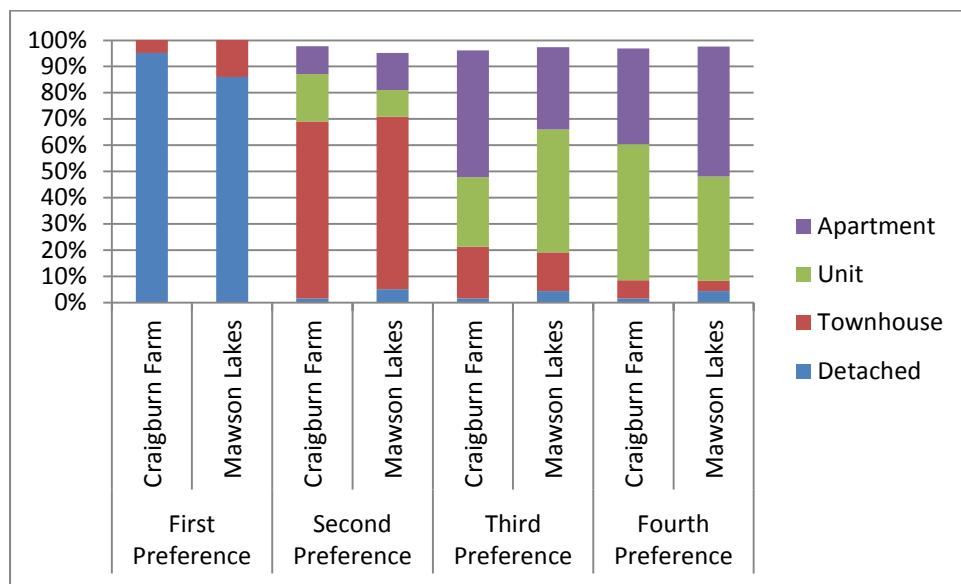
(Detached housing preference n= 260; Townhouse preference n= 188; Unit Preference n=181; Apartment preference n=184)

Source: Residential Satisfaction Survey (2012)

#### **4.3.1 Housing choice by suburb**

When housing preference was broken up between the two study areas, there was minimal difference on housing type preferences. Interestingly, a small amount of Craigburn Farm residents (5.7 per cent), indicated that they would prefer to live in a townhouse than a detached house, despite detached housing being the only housing type on offer in the development. This is potentially the result of the older age demographic looking to downsize for lower maintenance and housing closer to facilities. However, the preference for townhouses in Mawson Lakes was higher (16.0 per cent), a reflection of the housing offered matching current housing needs and aspirations of the resident. Undoubtedly however, in both study areas, the vast majority indicated detached housing as the first preference, notwithstanding the significant differences in the composition of both developments.

.Figure 4.3: Overall housing preference distribution: If had to move, by suburb



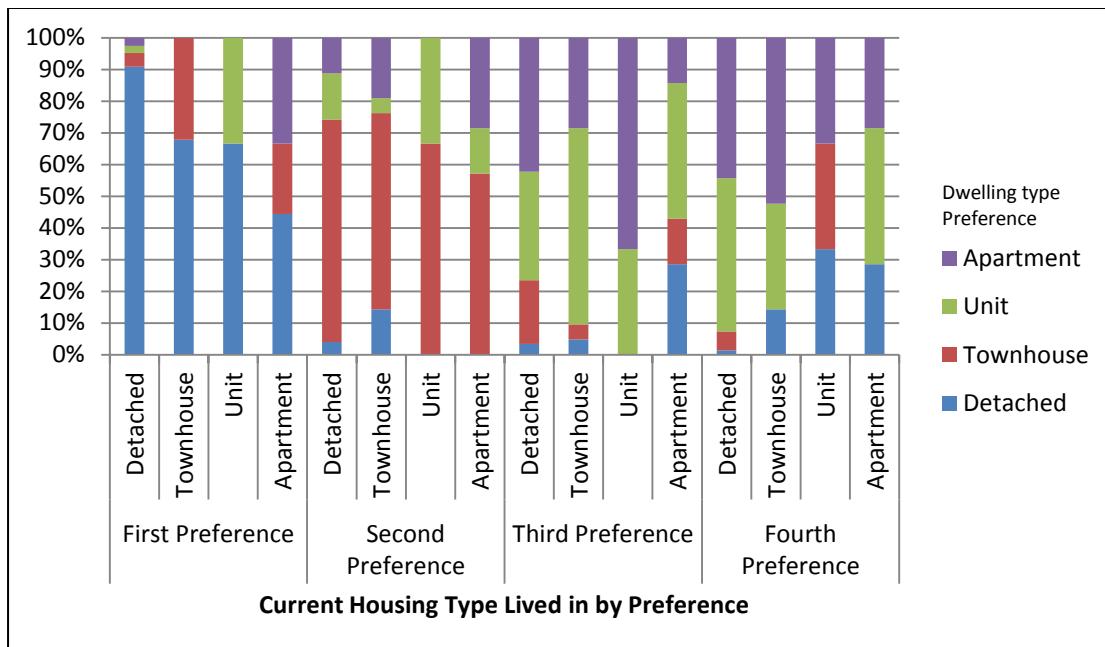
(Detached housing preference n= 260; Townhouse preference n= 188; Unit Preference n=181; Apartment preference n=184)

Source: Residential Satisfaction Survey (2012)

#### 4.3.2 Housing preference by current housing type

Figure 4.4 indicates a strong preference for detached housing as a first preference for residents of all dwelling types, should they have to move. Townhouses are largely over-represented as a second preference. Third and fourth preferences appear largely mixed between unit and apartment dwelling types between residents of all dwelling types. This is possibly the result of a hierarchical preference system predominantly influenced by the freedom, space and privacy that comes with larger housing, which is evidence that the size of a dwelling is a highly valued asset for residents of both developments.

**Figure 4.4: Overall housing preference distribution: If had to move, by dwelling type currently lived in**



(Detached housing preference n= 260; Townhouse preference n= 188; Unit Preference n=181; Apartment preference n=184)

Source: Residential Satisfaction Survey (2012)

Interestingly, for all types of housing currently lived in, the majority living in all housing types indicated detached housing as the first preference if they had to move in the future (Detached housing as first preference by dwelling type currently lived in: Detached 90.9 per cent; Townhouse 67.9 per cent; Unit 66.6per cent, and; Apartment 44.4 per cent). Indeed, less than a third of the people currently living in townhouses (only available in Mawson Lakes) indicated if they had to move, that a townhouse would be the first preferred housing type, which is less than half than the proportion indicating a change to detached housing. This demonstrates that even for those people currently living in higher density dwellings, there is still a strong desire to move from these housing types into detached housing.

Around two-thirds of all current residents of all dwelling types except detached housing would be lost to other dwelling types if they had to move, and achieved their first housing preference. Conversely, current residents of detached housing only indicate a loss of 9.1 per cent, which can be attributed to the older residents wanting to downsize. Most importantly most residents of higher density housing want to move away from these types of housing to detached housing. What this demonstrates is, at least within the study areas, that there is a mismatch between the housing achieved and the types of housing wanted. Similar results were found in Kelly (2011), which demonstrated a desire of Australians to move away from higher density housing, despite making the choice to live in these types of housing currently.

Furthermore, the most frequent negative theme mentioned in the open-ended feedback within the survey for Mawson Lakes residents was the expression of dis-satisfaction with the increased higher density housing. Respondent 123 sums up these concerns effectively, stating:

“Too many apartments near train station area. Do not want this to turn into a ghetto area. Land allotments are continuously shrinking, larger lots would be better for families with children” (Female, 30-39 years).

The concern with the apartments turning into a ghetto area was shared with respondent number 126, who stated:

“I am concerned that the apartment area in Mawson Lakes will become a ghetto” (Female, 60-69 years).

Likewise, 162 writes:

“A good wide range of housing, although I wonder about the amount of multi-story apartments in the future becoming a ghetto. They keep building but a lot remain empty!” (Gender not stated, 70+ years).

These responses demonstrate an anxiety about higher density housing in the context of Adelaide, not only living in them, but near them as well, and many question whether anyone will want to live in them.

#### **4.4 Dwelling Satisfaction**

The method of collecting subjective perceptions of sample populations to present evidence on Residential Satisfaction and thus residential quality is supported by the vast array of published, peer-reviewed literature on the topic (Buys and Miller, 2012, Smith, 2011). This

project in particular relies heavily on the use of dwelling and neighbourhood indices to derive a fundamental basis of difference between the two study areas. The major advantage of the indices methodology as used in this study is the ability to identify individual contributors to overall Residential Satisfaction. However, selection of such criteria is critical and can significantly affect results, which is why they must be chosen carefully. The factors chosen in this research were the result of an extensive review of the literature to determine ‘what is important’ in the household and neighbourhood.

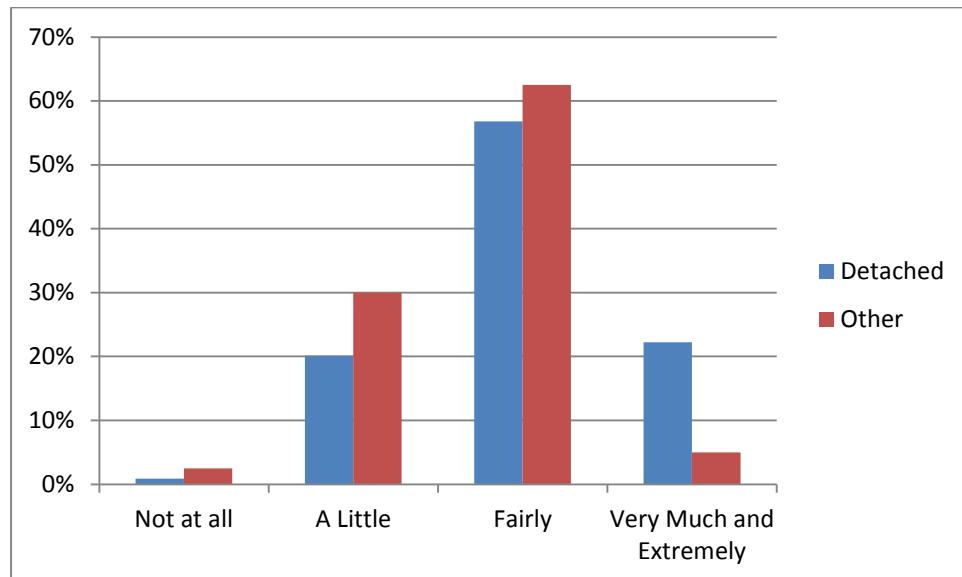
This section details the results of the survey questionnaires returned by respondents in relation to perceptions of dwelling satisfaction, and specifically relates to the primary objective of this project; ‘to better understand the relationship between dwelling satisfaction, and the underlying elements which contribute to housing choice in Adelaide’. In addition, this section will identify the presence of differences in dwelling satisfaction between the two study areas, with consideration of their different demographic profiles, and will position such findings within the broader literature on the topic.

#### **4.4.1 Overall Residential Satisfaction and Dwelling Type**

The literature suggests that dwelling type is fundamentally linked to perceptions of not only dwelling satisfaction but also neighbourhood satisfaction, because the dwelling design and neighbourhood design will inherently determine a resident’s awareness and interaction with the neighbourhood that surrounds them (Michelson, 1977, Buys and Miller, 2012). That is, in the case of increased dwelling densities, the interaction and awareness of the outside world are brought into the private sphere by simply being in closer proximity to it. Negative experiences of the neighbourhood are therefore associated with the dwelling itself, thus influencing both dwelling and neighbourhood satisfaction .

When responses of overall Residential Satisfaction (dwelling and neighbourhood satisfaction combined) from residents of detached housing is compared with all other dwelling types the result is statistically significant. Figure 4.5 shows that detached housing is disproportionately over-represented in the highest satisfaction categories of ‘very much’ and ‘extremely’ satisfied.

**Figure 4.5: Comparison of Overall Residential Satisfaction between detached housing and all other housing types**



(n= 274)

Source: Residential Satisfaction Survey (2012)

However, a heavily diluted analysis of the combined indices of dwelling and neighbourhood satisfaction such as this only promotes further investigation into the particular individual aspects of dwelling and neighbourhood factors which might contribute to the evidence described in the literature. At present, the result only provides evidence suggesting the theory of distinction between public and private residential experiences based on density are only potentially attributable to this theory.

#### 4.4.2 Private Outdoor Space

Detached housing has been noted to positively influence satisfaction with private outdoor space, due to the sense of control residents have over this space, which is largely unique to this type of housing (Michelson, 1977, Kelly, 2011). Once again, detached housing is over-represented in the higher satisfaction groups, with other dwelling types under-represented. Most notably, detached housing was the only dwelling type where residents rated their satisfaction with private outdoor space as ‘excellent’.

The value of private outdoor space is especially prevalent for those residents of Craigburn Farm, where many have specifically purchased in the area for the larger block sizes. With increased focus on restricting further development on the fringes, there has been greater

emphasis on consolidating within the existing urban area. As a result, local councils and developers have sought to maximise the number of dwellings within a given area by reducing maximum lot sizes in recent years. The decreased size of allotments and the resulting increased dwelling density in the development was mentioned on six occasions as a negative issue in Craigburn Farm in open ended general feedback responses. As respondent 111 states,

“Houses quite close together with smaller blocks...” (Female, 18-29 years).

Respondent 212 sheds more light on the issue, stating:

“We own one of the 'older' properties in our suburb and are disappointed that the new properties are built on much smaller blocks and are very close to neighbours. We feel this reduces opportunities to have the space and privacy many families are seeking, and portrays the suburb in a more negative light” (Female, 30-39 years).

Respondent 276 also explains his grief with small block size, stating:

“Blocks too narrow, houses so close together. Because of smaller blocks, do hear dogs barking!” (Male, 60-69 years).

And respondent 18 is particularly concerned:

“Blocks are too small, so the houses are too close. Our neighbour's air conditioner condenser is 2m from our bedroom window. It's so loud. We also get woken up by him blowing his nose inside the house with windows closed. I'd prefer to live on a bigger block away from neighbours” (Female, 40-49 years).

This particular point highlights how concerns surrounding dwelling density are not limited to dwelling type. Indeed, increased density is a concern for purchasers of detached housing, particularly as larger blocks are normally associated with the dwelling type. Such associations originated from baby boomer dream of the detached house on the quarter-acre block, which have faded over time as residential land has become an increasingly scarce resource.

#### **4.4.3 Value for money**

Detached housing is over-represented in perceptions of satisfaction with purchase price/rent over other dwelling types. Conversely, townhouses and apartments are under-represented, and over-represented in lower satisfaction responses. This indicates that the respondents perceive that detached housing provides better value for money (quality per dollar spent) in the two study areas. However, the majority of those living in townhouses were ‘fairly’ satisfied with purchase price and/or rent, meaning they are not completely satisfied nor are

they dis-satisfied either (a neutral response). Of the self-reported tenure type of townhouses in this study, two-thirds were being purchased or fully owned. As Kelly (2011) explains, detached housing is commonly an aspiration for many home-owners in Australia, and the decision-making process of the purchase of a home comprises a number of trade-offs to be made. A townhouse in Mawson Lakes is generally cheaper and therefore more affordable, making them a potential option for those new or in the early years of their housing career. In addition, a townhouse is very much like a detached house in many ways; there is an element of control of private outdoor space; on average they are larger than an apartment or unit; and no dwellings are above or below as is the case with apartments and units. However, generally, walls are shared with the neighbours next door and land size is on average much smaller than that of a detached house. When we consider that buyers are constrained to their budget, the difference is potentially evidence of the trade-off theory (Kelly, 2011). If people cannot afford a large detached house, they will settle for a smaller, more affordable option, with a long term housing career goal to purchase their ‘dream home’, if not in the first instance (Baldassare, 1986). Thus, the results demonstrate evidence of the life cycle theory. Mawson Lakes has a younger demographic which are more likely to be in the early stages of their housing career, which often limits their purchasing capacity.

#### **4.4.4 Privacy**

Indeed, this more affordable option can, in many cases, come at the expense of other dwelling factors. In this study, distribution of satisfaction with privacy by dwelling type was tested, and detached housing was compared with all other housing types which returned a statistically significant result. Significantly higher proportions of participants currently living in detached housing indicated they were either ‘very much’ or ‘extremely’ satisfied with the privacy of their dwelling (the two highest satisfaction options). Conversely, residents of other, higher density dwelling types were less likely to be as satisfied with privacy in this study. Indeed, density has long been associated with privacy and crowding concerns in the literature (Newman, 1983), and the results in this study are in alignment with such findings. Altman (1976) argues that dwelling satisfaction depends on the gap between the desired and actual level of contact with neighbours in a high density environment. Thus, feelings of crowding occurs when individuals get less privacy than desired (Smith et al., 1981; Chan, 1997). Furthermore, Forest et al. (2002) demonstrate evidence suggesting reduced contact with neighbours may reflect feelings of crowding in higher density environments. The

evidence suggests that despite the promotion of improved community interactions in higher density housing; this is not necessarily what the residents of such housing necessarily want; nor the reasons for moving there.

#### **4.4.5 Intentions to move and dwelling type**

Intending to move can be the result of a change in circumstances which shift residential requirements, or also have been found as a response to negative influences on Residential Satisfaction (Amole, 2009, Chapman and Lombard, 2006, James et al., 2009, Warrick and Alexander, 1998). When intentions to move where compared with dwelling type, the result was statistically significant. Detached housing residents have the lowest proportion indicating their intention to move within the next year (13.2 per cent), followed by apartments (22.2 per cent), units (33.3 per cent) and with the greatest proportion, townhouses (40.7 per cent). These results are consistent with lower dwelling satisfaction responses of higher density housing, indicated that housing type doe influence intentions to move, and that residents of detached housing are least likely to intend to move within the next year.

Intentions to move in the next year were also influenced by tenure type in this study. Those renting were significantly over-represented (52.8 per cent) as intending on moving within the next year as opposed to 9.1 per cent and 11.3 per cent for ‘Fully Owned’ and ‘Being Purchased’. However, these results are expected as the purchase of a new home is generally a long term decision, with large fees involved in the purchase of a new home. While renting is traditionally is only as long as the lease of which tenants can opt to move in this time, which is generally a year or less (the lease of course, can be renewed).

#### **4.4.6 Intentions to move with Residential Satisfaction**

When intentions to move were compared with overall averaged satisfaction with the dwelling and neighbourhood (separately), and overall averaged sources of dis-satisfaction (noise, pollution and safety concerns) all returned significant relationships which indicated the proportion of responses indicating intentions to move within the next year tended to decrease as satisfaction increased, and dis-satisfaction decreased. Thus, the perception of Residential Satisfaction, influences intentions to move in the near future. In this case, it appears that the higher the Residential Satisfaction, the least likely a participant intends to move in the next

year. This is, of course, not to say that these residents will move, just at this particular point in time, they desire to. This is a particular limitation of snapshot studies when compared with longitudinal studies. Residential Satisfaction may change in the future which would alter their decision to move.

Table 4.4 details intentions to move by overall averaged satisfaction with dwelling. Apart from the first two categories indicating relatively even proportions, as satisfaction with the dwelling increases, the proportion of respondents indicating their intention decreases, all the way to 0 per cent for the highest satisfaction category. The difference between yes and no responses were found to be statistically significant.

**Table 4.4: Intentions to move by overall averaged satisfaction with dwelling**

	Not at all (%)	A Little (%)	Fairly (%)	Very Much (%)	Extremely (%)
Yes	33.3	33.9	13.1	5.8	0.0
No	66.7	66.1	86.9	94.2	100.0

Source: Residential Satisfaction Survey (2012)

## 4.5 Chapter Conclusion

This chapter has presented the demographic characteristics of the two study areas which has outlined potential influences on Residential Satisfaction. In addition, the representativeness was tested, and found to be proportionately similar to 2011 ABS Census data. It was noted that Craigburn Farm residents have a much higher response rate, are older, are more likely to be retired, are more likely to own their home outright. Mawson Lakes residents are typically younger, in the work force, and tenure and dwelling types are far more diverse.

This study has identified higher dwelling satisfaction of respondents currently living in detached housing when measured against all other dwelling types, regardless of study area. Particular components of detached housing were noted as significant contributors to dwelling satisfaction, including the private control of open space, value for money and improved provision of privacy. These findings are in alignment with similar Australian studies to date, and correspond to preferences on housing choice indicated by respondents in this study.

The responses on housing choice may not be the result poor housing to suit the needs of the resident, but rather, it's simply a representation of the point in life that an individual is at.

The highest proportion of people currently living in townhouses, apartments and units in this study were under 30 years old which makes them likely to be very early in their housing career. Medium to high density housing have a significantly lower median purchase price in Mawson Lakes than detached houses. These types of housing are a popular choice for investors, renters and younger purchasers seeking to enter the property market alike. This does not appear to influence aspirations to later seek to purchase a larger home as they work their way up the housing career ladder, and this is reflected in the preferred housing responses.

Some studies have argued that higher density housing offers greater diversity which is better matched to changing demographic profiles (Easthope and Judd, 2010). This argument is largely based on the assumption of a broadening mismatch of demand for smaller households and market dominance of the larger, detached house. Publications on the topic have questioned such assumptions, particularly the notion that smaller households will choose to live in smaller dwellings, especially in the Australian context (Easthope et al., 2010; Judd et al., 2010; Troy, 1996; Yates, 2001). This study argues that housing choice, particularly the purchase of a home, forms part of a long term life plan, and that housing is a reflection of life events. Thus, while housing aspiration and reality do not necessarily meet at any given point in time, the satisfaction we gain from our housing situation is often influenced by these housing career objectives.

The findings suggest that in what has been a highly competitive and relatively expensive housing market in the last decade, the option for cheaper (and thus more dense) housing options in the suburbs comes at the price of decreased dwelling satisfaction, particularly in the areas of privacy and private outdoor space. However, the opportunities presented as a result of cheaper purchase prices of higher density housing potentially fulfil a market gap for entry level first home buyers within a comparatively close distance to the CBD (12km).

The significant differences in the demographic profiles and expected life stages between the two study areas have influenced Residential Satisfaction responses in this case. In effect, the two study areas are substantially different housing estates, aimed at different demographic markets, which explains the differences in age, tenure and living arrangements between them. With respect to the higher proportion of retirees in Craigburn Farm, given the probability that these residents are more likely to be more advanced in their housing career and as a result have greater residential choice, it was expected that higher Residential Satisfaction responses

would be returned. However, the suburban, low density structure of Craigburn Farm has the potential to negatively influence satisfaction responses of residents, as some studies have noted decreased mobility and access, loneliness and difficultly of maintenance and upkeep of large houses as contributing factors. These factors will be tested within the proceeding chapter within this study.

## **CHAPTER 5: NEIGHBOURHOOD CHOICE, SATISFACTION AND DIS-SATISFACTION**

The increasing focus directed at the composition of neighbourhoods has renewed interest in neighbourhood satisfaction studies in recent times (Parkes et al., 2002). Identifying the factors which foster improved residential outcomes is a primary focus of this study due to the fundamental differences in the layouts of both the study areas investigated, in a city where suburban development has been the norm for many decades. The measurement of the benefits and shortfall of neighbourhoods provides useful insight for planners for the improvement of neighbourhoods in the future in a given geographical context. Historical studies have correlated neighbourhood satisfaction with residential mobility patterns and neighbourhood stability (Speare, 1974, Brown and Moore, 1970). More recent studies have found that those that are more satisfied with their neighbourhood are less likely to move, and have a higher quality of life, which positively influences Subjective Well-Being (Mohan and Twigg, 2007, Sirgy and Cornwell, 2002).

This chapter firstly details the factors involved in neighbourhood choice and assesses prior residential mobility patterns of participants of each study area. Next, it examines the neighbourhood satisfaction responses of participants, and draws comparisons between the two study areas. In closing, this chapter outlines the sources of dis-satisfaction in each study area and draws comparisons with satisfaction responses and intentions to move in the future.

### **5.1 Neighbourhood Choice and residential mobility**

Although there is a large body of knowledge on housing choice and mobility, there is comparatively little understanding about the decision making mechanisms of residents behind neighbourhood choice on urban composition. Given the distinct differences in the urban layout of both developments, there is substantial potential to improve the understanding of the decision making process of neighbourhood choice.

### **5.1.1 Neighbourhood Choice**

Participants were asked their reasoning behind moving to each of the study areas, and responses were categorised. When these reasons were compared by study area it was noted that there was a statistically significant difference between the two suburbs in responses. For Craigburn Farm, both ‘Visual amenities’ and ‘Good place to build a home’ were significantly over-represented as reasons for moving to the development. This is reflective of the tree change phenomenon, involving house buyers looking for a forested picturesque area to buy in. Tree-changers usually move for lifestyle reasons rather to improve their financial position (Burnley, 2005). Given that Craignburn Farm is quite separated from the remainder of the Blackwood community, many respondents have indicated how the development feels like a country town located in the middle of metropolitan Adelaide.

Reasons for moving to Mawson Lakes were substantially different, with ‘Close to facilities’ and ‘work’ frequent responses, meaning the development attracted residents with very different expectations to Craigburn Farm. This type of resident was focused strongly on convenience and supporting a fast paced work and life balance, while Craigburn Farm appeals to those looking to ‘slow down’ and settle amongst the trees. These results reaffirm and validate the assumptions made in the previous chapter on housing choice and demographics.

However, these responses represent the reasoning why residents moved to the area in the first instance. How this relates and compares to the end state of Residential Satisfaction and dissatisfaction will be investigated further in the proceeding sections of this chapter.

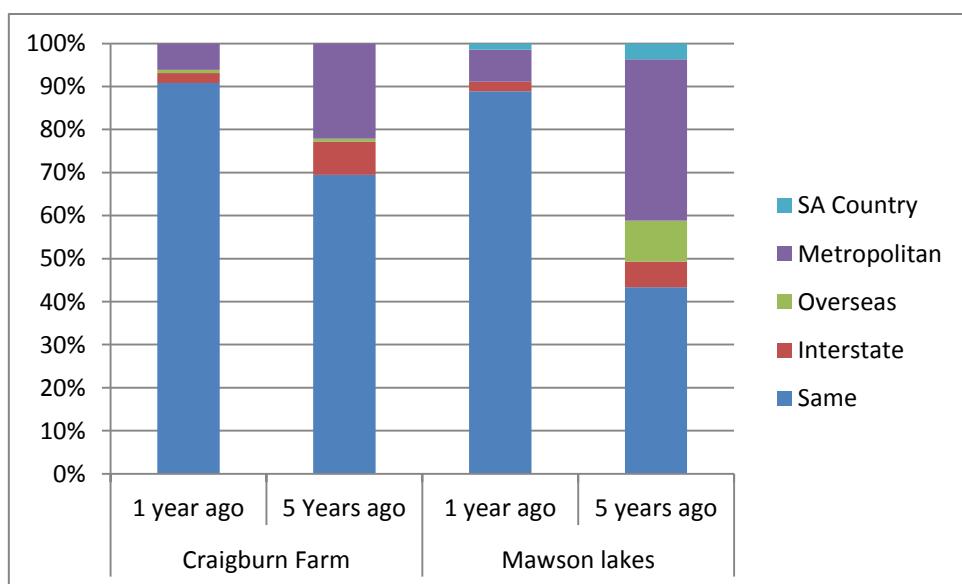
### **5.1.2 Residential Mobility**

Participants were also asked to state where they were living one year ago and five years ago to establish mobility patterns which may influence neighbourhood choice. Figure 5.1 demonstrates the proportion of residents living within the same post code as their study area compared with other areas (note that Mawson Lakes shares its post code with Pooraka and The Levels, and Craigburn Farm shares its post code with Blackwood, Coromandel Valley and Hawthorndene).

The proportion of residents indicating they lived in the same postcode 5 years ago is much higher for Craigburn Farm than Mawson Lakes (69.5 per cent to 43.4 per cent). This is likely

due the higher proportion of renters living within Mawson Lakes. A similar link is evident when a higher proportion were living in other SA metropolitan postcodes five years ago (only 22.1 per cent in Craigburn Farm to 37.5 per cent for Mawson Lakes). Participant responses for their location 1 year ago were much more comparable, with less than 2 per cent difference for each category. Interestingly, it appears 4 per cent of Mawson Lakes residents were previously from South Australian Country areas, with Craigburn Farm having none, despite its appeal as a ‘country-style’ development in the metropolitan area. In addition, Mawson Lakes has attracted a higher proportion of people from overseas, with 9.6 per cent to 0.8 per cent, indicating their location in the last 5 years.

**Figure 5.1: Proportion of study area populations living in same or other areas between 1 and 5 years ago**

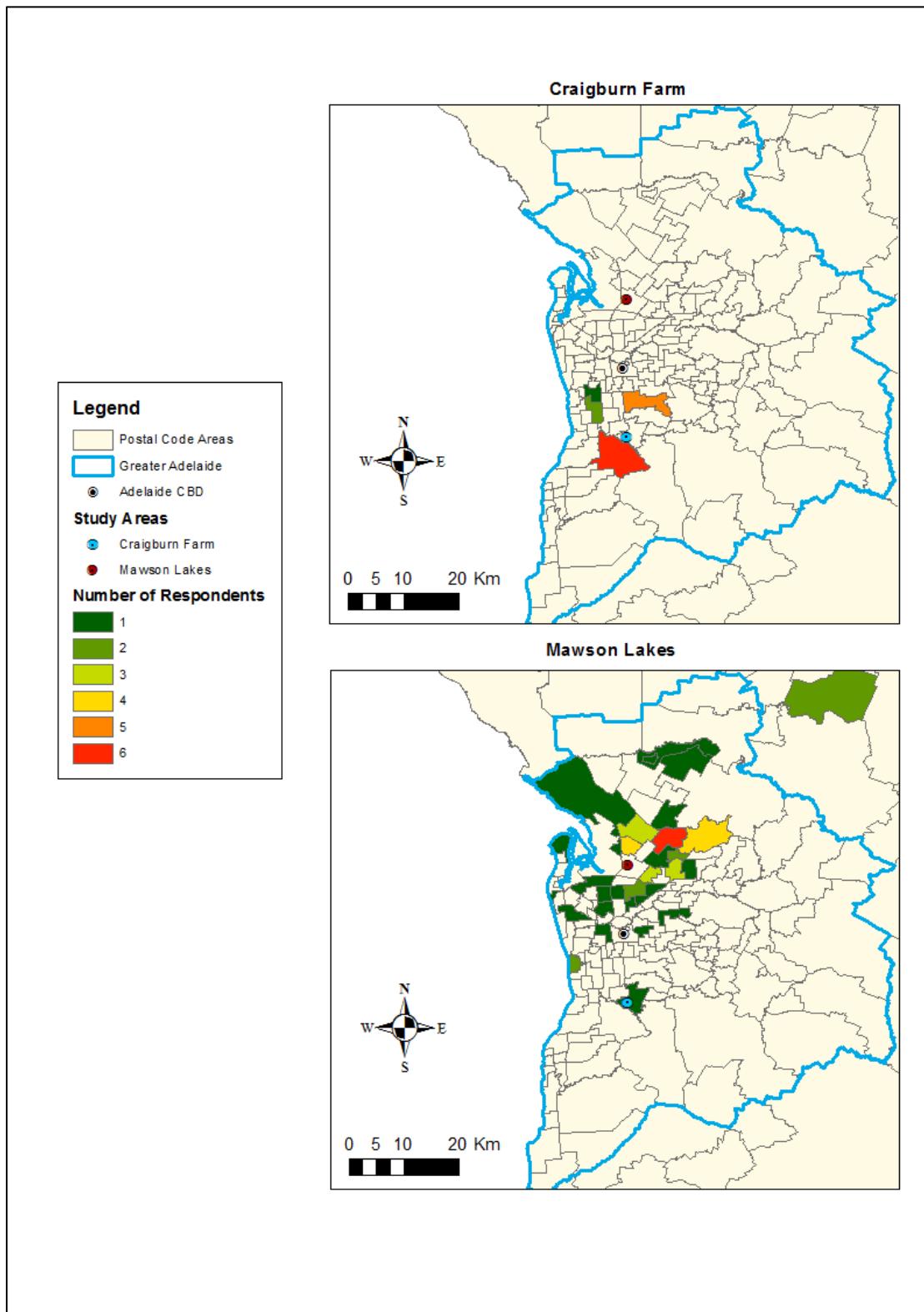


(Craigburn Farm, n = 131; Mawson Lakes, n = 135)

Source: Residential Satisfaction Survey (2012)

In addition, Mawson Lakes and Craigburn Farm residents have moved from different locations with the Adelaide Metropolitan Area prior to living at their current address. Most notably, current residents of Craigburn Farm in the last 5 years appear to have been living South of the CBD in areas surrounding the study area. Current residents of Mawson Lakes, are generally living across a broader area 5 years ago, but are mostly North of the CBD (with an exception of a limited few (see figure 5.2).

**Figure 5.2: Location 5 Years ago by current study area (Limited to Adelaide Metropolitan Area)**

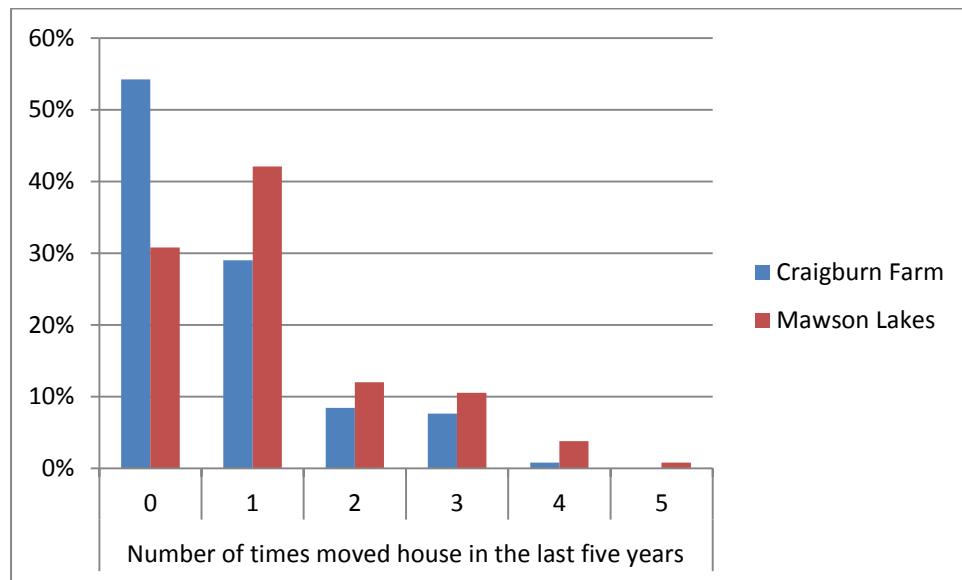


(n = 266)

Source: Residential Satisfaction Survey (2012)

When comparing the two study areas, there was a statistically significant difference in number of times residents had moved house in the last five years. Craigburn Farm was over-represented with 54.2 per cent not once moving house in the last five years, compared to 30.8 per cent for Mawson Lakes. A higher proportion of Mawson Lakes residents indicated that they had moved house more times in the last five years than Craigburn Farm residents (see Figure 5.3). The older age demographic of Craigburn Farm appears to support research which finds that older residents are less likely to move house (Dekker et al., 2011, Feijten and van Ham, 2009, Varady, 1989).

**Figure 5.3: Number of times moved house in the last five years by study area**



(n = 264)

Source: Residential Satisfaction Survey (2012)

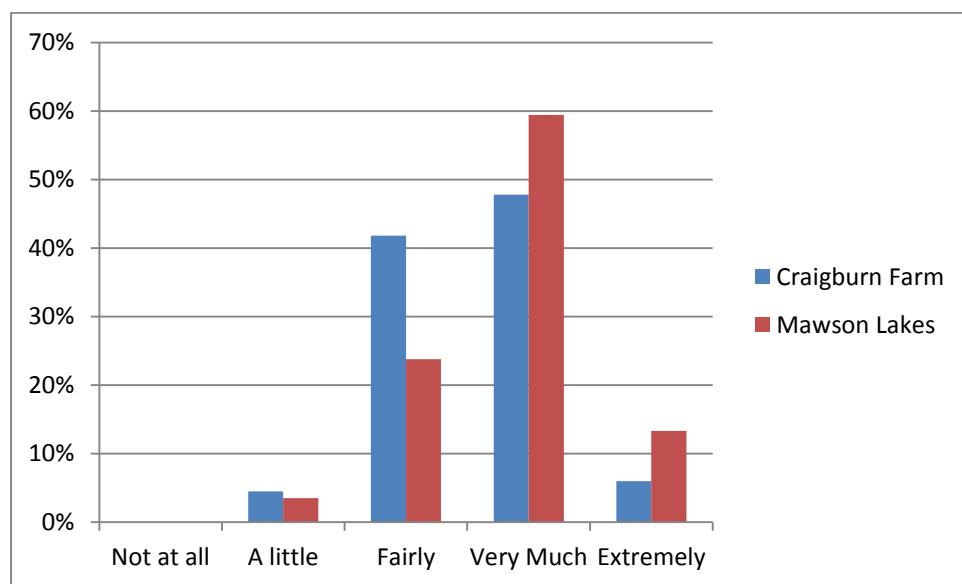
The mobility results present a number of conclusions. Residents from Mawson Lakes are drawn from a greater spread of locations across the Adelaide metropolitan area. Secondly, residents of Mawson Lakes are more likely to have higher residential mobility, which is likely associated with demographic differences and life stage differences between the two developments, noting the younger age and higher proportion of renters in Mawson Lakes, which have both been associated with increased movement patterns (Mesch and Manor, 1998).

## 5.2 Neighbourhood Satisfaction

Like dwelling satisfaction, neighbourhood satisfaction is an important contributor to Residential Satisfaction. In this study, which seeks to identify how changes in urban structure can influence liveability for residents, measurement of neighbourhood satisfaction can provide guidance on how urban form influences outcomes for communities. This study finds significant differences in neighbourhood satisfaction between the two study areas.

Tests were conducted to test the variation of study area with overall neighbourhood satisfaction, and the results were statistically significant. It was evident from the responses from the survey that there were distinct differences in neighbourhood satisfaction between the two study areas. Indeed, residents of Mawson Lakes were significantly more satisfied with the neighbourhood attributes overall than participants of Craigburn Farm, as depicted in figure 5.4. Analysis of the data reveals that residents from Mawson Lakes are over-represented in the higher satisfaction scores of 'Very Much' and 'Extremely' satisfied with their neighborhood. Therefore, participants from Mawson Lakes were more likely to be satisfied with their neighbourhood than those from Craigburn Farm.

Figure 5.4: Overall neighbourhood satisfaction by study area



(n=277)

Source: Residential Satisfaction Survey (2012)

Whilst there were significant differences in recorded neighbourhood satisfaction, each study area did receive a number of positive, open ended responses in relation to general

satisfaction. Positive themes were mentioned a total of 40 times for Craigburn Farm. The most commonly mentioned theme (11 times) was respondents' general satisfaction with the development. As participant 44 states:

"It's a great place to live" (Male, 50-59 years).

Likewise, participant 38:

"Craigburn Farm is a lovely place to live and we can't see ourselves moving away from here" (Male, 50-59 years).

Conversely, positive themes were mentioned 30 times for Mawson Lakes, participant's general satisfaction with the development being most common, with 13 responses. A brief example is participant 117, who states:

"Impressed!" (Male, 30-39 years).

Respondent 98 is similarly brief:

"I'm very lucky to be here" (Male, 18-29 years).

Likewise, Respondent 77:

"I'm very happy living here" (Female, 30-39 years).

Other positive themes mentioned include good shops/services (4), an appreciation for the visual amenities in the area (3), satisfaction with accessibility (3) and satisfaction with the amenities in the area (2). Respondent 194 sums each of these points up well:

"Nice area; new; offers a lot of social and entertaining opportunities. Close to the city (fairly close). Good access to public transport. Good mix of educated, employed people with a good lifestyle. This is the only big area in Adelaide where people greet others on the street even if they don't know them personally" (Male, 50-59 years).

Contrary to the dwelling satisfaction responses, these results depict an initial indication that developments influenced by new urban principles in the geographical context of Adelaide can foster higher neighbourhood satisfaction responses than suburban developments. This finding tends to support points by Bunker et al. (2004) and Newman and Kenworthy (1998) which argue that critical physical differences in the shape and composition in mixed use developments support positive outcomes for residents, which in turn positively influence neighbourhood satisfaction responses.

To find out the individual contributors to neighbourhood satisfaction, this study identified 4 individual variables which demonstrate statistically significant differences based on study area, including: subjective proximity to work; subjective proximity to public transport; satisfaction with shopping in the neighbourhood, and; satisfaction with restaurants and cafés in the neighbourhood. In all these cases, Mawson Lakes has been over-represented in the higher satisfaction categories, meaning participants are statistically more satisfied with these features.

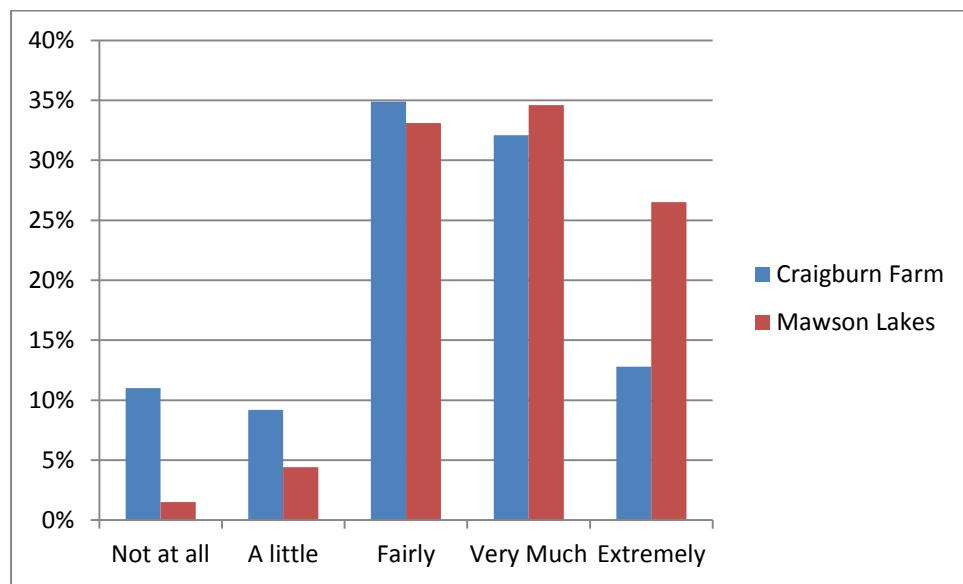
### **5.2.1 Satisfaction with proximity to work**

In a study of new and long term residents of Toronto, McGirr et al. (2014) found that perceiving to be close to work is important for many residents. Likewise, Lee (1978) found that proximity to the CBD in smaller, centralised cities such as Adelaide is a significant positive predictor of Residential Satisfaction.

Proponents of mixed use developments argue that increased accessibility to the ‘things we need’ is a critical aspect that improves the quality and equality of the residential experience in such developments. Additionally, by creating improved mechanisms to reach these necessities by strategic placement and integrated infrastructure, it is argued that perceived proximity to amenities and services will increase, not only to places within the development, but also outside.

In this study, Mawson Lakes residents are over-represented in the higher categories of satisfaction with subjective proximity to work, despite both developments being equal distance to the CBD (see Figure 5.5). This is not to say either suburb is further way from places of work, rather the connections which facilitate travel to work may be better in Mawson Lakes. People work in different places however, which also will affect the result.

Figure 5.5: Subjective satisfaction with proximity to work by study area



(n=245 valid entries)

Source: Residential Satisfaction Survey (2012)

Traffic congestion was noted a number of times in the open-ended feedback responses, which could influence perceptions of proximity to work. For example respondent number 12, who highlights the need for more exit points in the development to ease congestion:

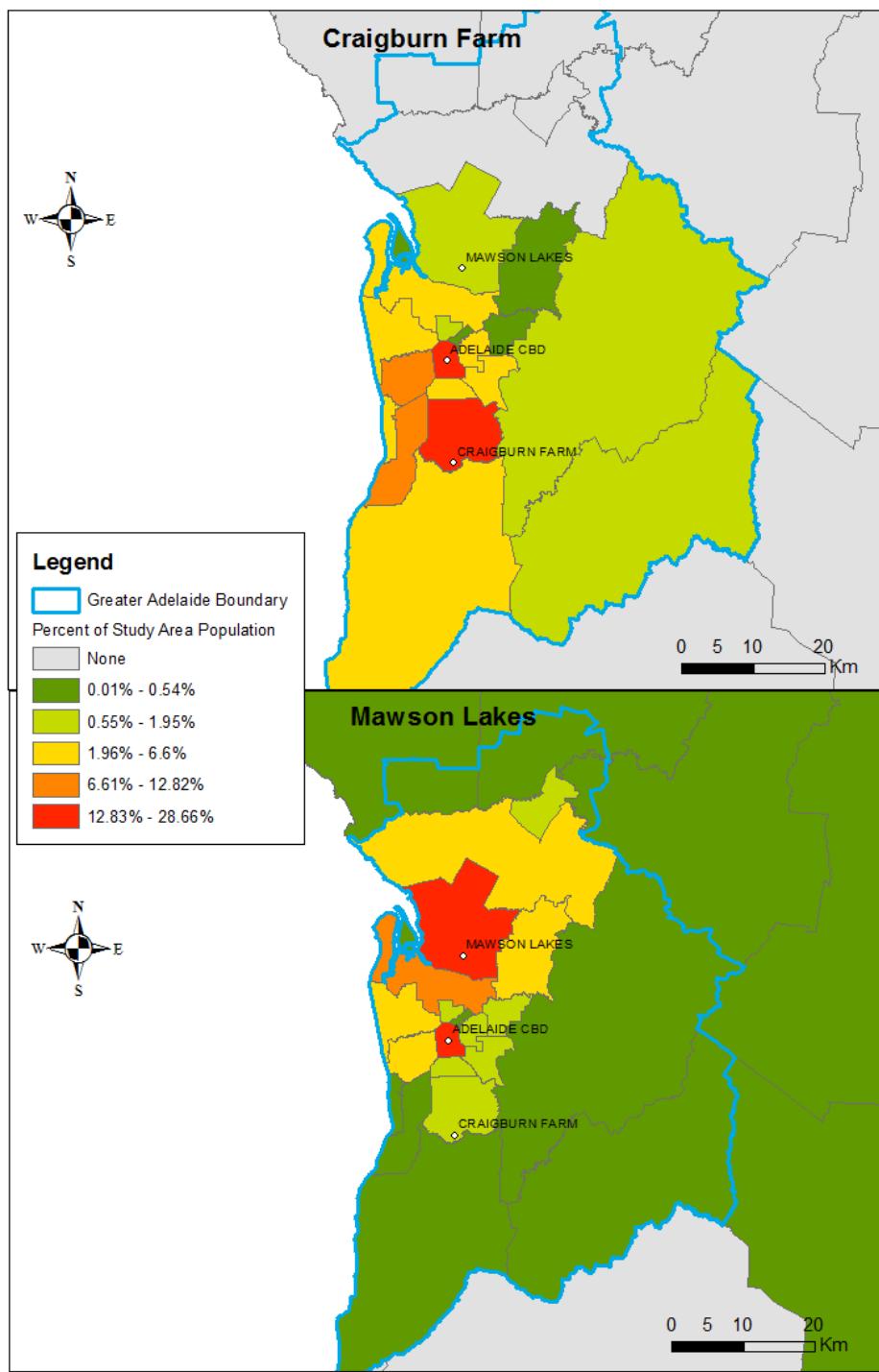
“...other road exits would lessen the amount of traffic on The Boulevard” (Female, 50-59 years).

Indeed, the road infrastructure appears to be falling behind in the surrounding areas of the development in the Blackwood area, as respondent 41 states:

“The one downside of Craigburn Farm is that the majority of traffic enters and exits via Corromandel Parade. Along with the large numbers of vehicles who use this road from Flagstaff Hill etc. it can become very busy and leads to a bottleneck at the Sheppards Hill Road roundabout” (Female, 40-49 years).

When we compare the two study areas by residents' place of work we can see some distinctive spatial patterns. One thing is the same, a high percentage of each study area population work within the CBD, and also a high proportion work within the same LGA as their current residence (see figure 5.6). Next highest proportion are LGAs that border their local LGA. However, what is vastly evident is that small proportions of Mawson Lakes residents travel to a greater number of LGAs than Craigburn Farm for work. This is interesting considering the greater satisfaction with proximity to work responses above.

Figure 5.6: Place of work by Study Area



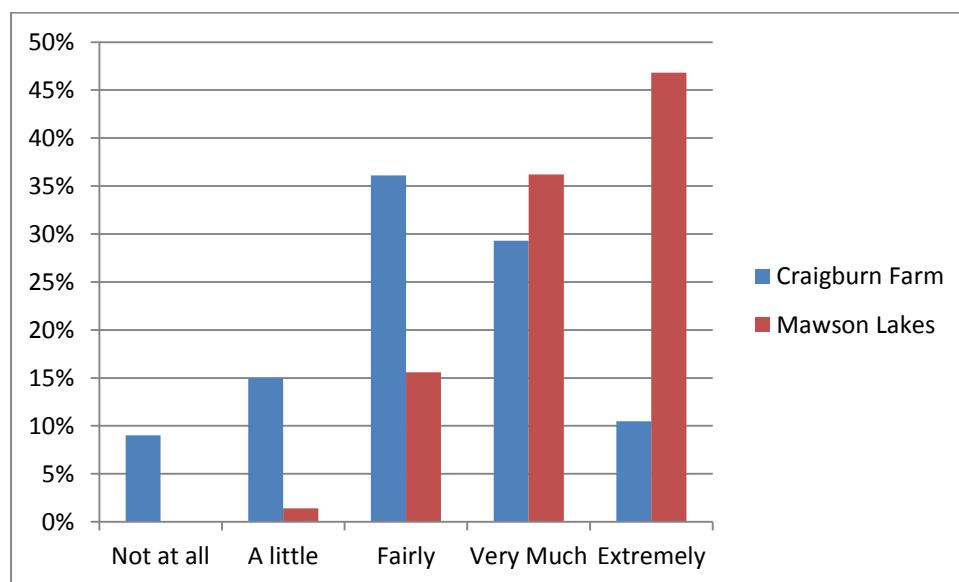
Source: ABS Census Data 2012

## 5.2.2 Satisfaction with public transport

When we consider proximity to work responses, and the majority of residents of both developments working in the CBD, then the facilitation of those travel patterns by public transport is an important factor. The idea of newly designed communities situated around a mass-transit public transport services has gained much attention in recent years. Given that both developments investigated in this study are situated near a rail line, satisfaction with public transport services provides a vital component towards understanding how the role of public transport influences Residential Satisfaction.

As in figure 5.7 below, Mawson Lakes is over-represented in the higher categories of satisfaction with public transport. Most notably, participants from Mawson Lakes significantly outweigh the ‘Extremely’ satisfied category with 46.8 per cent compared to just 10.5 per cent in Craigburn Farm.

Figure 5.7: Subjective satisfaction with public transport by study area



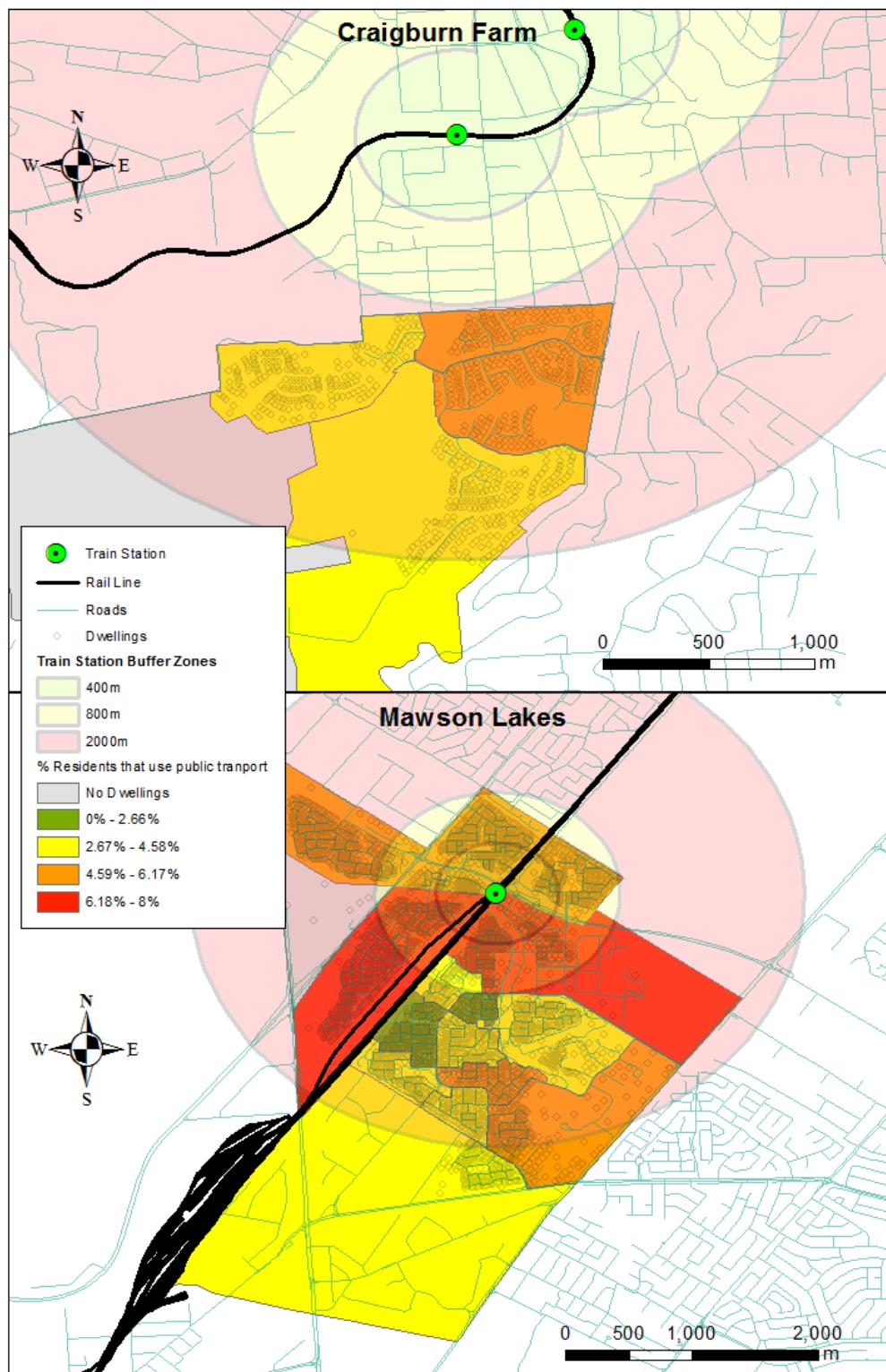
(n=274)

Source: Residential Satisfaction Survey (2012)

When compared with ABS Census for the each of the study areas, in Craigburn Farm, 4.9 per cent utilised public transport in their travel to work, compared with 5.9 per cent for Mawson Lakes. We can relate that to the proportion of residents within distance parameters to the major transit stations (ie: rail). As can be seen in Figure 5.8, 97.6 per cent of the dwellings within Craigburn Farm were between 800m and 2000m from the major transit stops available

in the area. The remaining 2.4 per cent were beyond 2000m (the maximum walking distance). None were less than 800m. However, it appears the zones within Craigburn Farm that were closest to the major transit stops appear to have a higher proportion of residents who catch public transport, indicating the influence distance to transit stop makes in public transport uptake. Conversely, at Mawson Lakes, 10.9 per cent of the total dwellings are within a close distance of 400m of the major transit station, and 45.7 per cent within 800m, rising to 95.0 per cent within 2000m (incidentally less than Craigburn Farm) with the remaining 5.0 per cent beyond this boundary. In summary, Mawson Lakes has a much higher proportion of residents closer to the major transit stop. In addition, Mawson Lakes has higher proportions of residents using public transport to get to work, further supporting the observation that distance to transit stops influences public transport uptake. This partly explains the difference in satisfaction with proximity to work between the two study areas, but largely explains the differences with satisfaction with public transport.

**Figure 5.8: Percentage of total residents of each study area that caught public transport to work by Statistical Area Level 1**



Source: ABS (2012), DPTI (2012)

Public Transport was mentioned a number of times in open ended responses for Craigburn Farm with some negative experiences shared by respondents. Respondent 100 states:

“There is readily available public transport (bus and train) but the train station car parks are over-flowing. The buses no longer go direct to the city; you need to change at Blackwood station. Therefore, I never use public transport” (Female, 30-39 years).

Respondent 30 indicates a similar opinion, but in a less descriptive fashion, stating:

“Poor public transport!” (Female, 40-49 years).

It should be noted that such perceptions were expressed while public transport services were completely functional, before the shutdown for upgrading of the rail line. With the shutdown of the Belair line six months from January to July 2013, no doubt there would be an increase in such negative perceptions. For Mawson Lakes, there was only one reference to poor public transport.

Some of this dis-satisfaction surrounding poor public transport may have a lot to do with the indirect train line to the city for the Belair line servicing the residents of Craigburn Farm. According to the latest timetable information, the train trip from Mawson Lakes to the CBD is only 17 minutes, compared to 32 minutes from the closest station to Craigburn Farm, despite both developments being equal distance from the city. In addition, Craigburn Farm residents are located further from the train line, either requiring a long walk or having to drive then park which can discourage people away from using public transport and driving a car instead. As mentioned in the responses, parking facilities at the stations surrounding Craigburn Farm are limited when compared with Mawson Lakes.

### **5.2.3 Satisfaction with shopping and restaurants in neighbourhood**

As shown in Figure 5.9, a higher proportion of Mawson lakes participants are ‘Extremely’ satisfied with shopping in the study area. Likewise, Mawson Lakes is over-represented in the higher satisfaction categories for satisfaction with restaurants and cafés. .

Craigburn Farm does not contain any shopping facilities within the development but rather residents rely on the shopping facilities located at Blackwood. Indeed, poor shopping facilities were second highest mentioned theme in the open ended responses, with 14 references to the topic. Many respondents described their dis-satisfaction with the local shopping facilities located at Blackwood as it was perceived to be largely insufficient in keeping up with the increased development within the area. As respondent 79 states:

“Blackwood shopping centre is an absolute mess that has not kept up with the times” (Female, 50-59 years).

Respondent 107 adds to this, saying:

“The local shops - supermarkets are in need of modernising, parking in Blackwood village is a problem. A lot of people have come to live in Craigburn Farm but the shopping facilities have not grown with the development” (Male, 40-49 years).

In addition, parking at the shopping centres and within the development was mentioned as inadequate on six occasions. As respondent 179 states;

“Blackwood is a nice area but parking and shopping is a nightmare in Blackwood due to poor development of shopping precinct and expanding population” (Female, 60-69 years).

Respondent 28 also highlights these parking issues, despite their general satisfaction within the development itself:

“Traffic and parking issues are bad at Blackwood due to increased housing. It is fabulous living up here. I wouldn't want to live anywhere else” (Female, 50-59 years).

Indeed, respondent 7 mentions the need for improved on street parking within the development itself, stating:

“On street parking can be a concern with no parking bays available” (Female, 60-69 years).

As Craigburn Farm does not include development of commercial or retail land use within its boundaries, consideration of the capacity of surrounding facilities should have been taken into account in the early development stages. The shopping precinct at nearby Blackwood is largely out-dated and is failing to keep up the rising demand associated with the increased population as a result of the development at Craigburn Farm. Investment in improved facilities in the Blackwood area would likely improve many aspects of residential satisfaction of residents.

### **5.3 Sources of dis-satisfaction, and intentions to move**

A review of Residential Satisfaction literature has identified three potential sources of dissatisfaction in the residential environment. These include subjective perceived concerns with safety, noise and pollution, which were included in the survey questionnaires. This research has identified, that there is a statically significant difference in responses when divided by study area. Concerns are subjectively expressed through a scale, ranging from ‘Not at all’

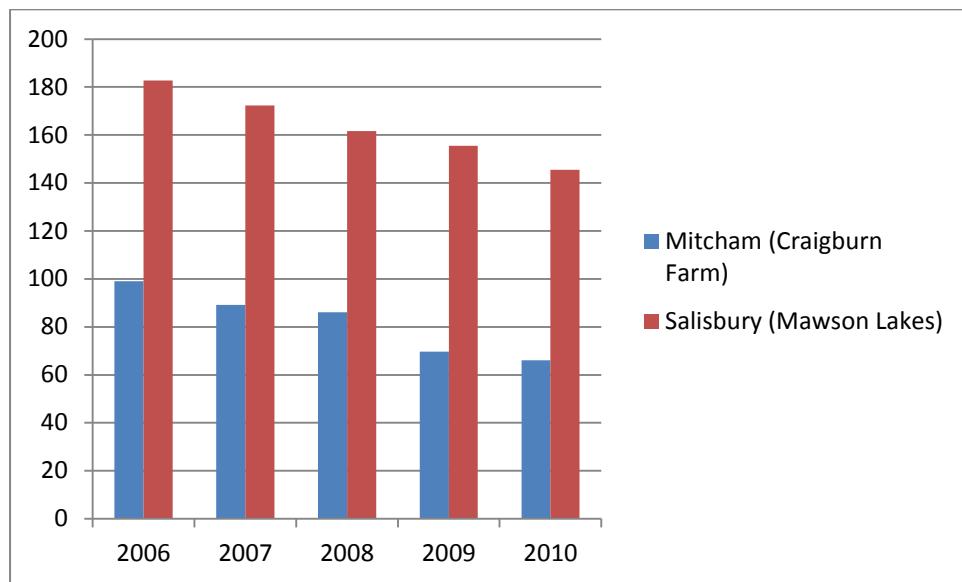
concerned, ‘A Little’ concerned, ‘Quite a bit’ concerned, ‘A lot’ concerned, to ‘A Great deal’. Mawson Lakes is over-represented higher categories of concern with safety, noise and pollution combined, meaning greater sources of dis-satisfaction for residents in the study area.

Over a third of Craigburn Farm respondents (67.7 per cent) were ‘not at all’ concerned about noise in their neighbourhood, compared with 39.2 per cent from Mawson Lakes. In the next three categories above, respondents from Mawson Lakes are over-represented. This indicates that Mawson Lakes residents, generally are more concerned about noise than residents of Craigburn Farm. This can be largely attributed to the overall higher housing density in the area, but also the incorporation of shopping and facilities in close proximity to a large number of dwellings in the area.

There were statistically significant differences in perceptions of safety between the two study areas, with almost two thirds of Craigburn Farm respondents (61.2 per cent) ‘not at all’ concerned about noise in their neighbourhood, compared with over a third (37.8 per cent) from Mawson Lakes. Again, Mawson Lakes residents are over-represented in the higher dissatisfaction categories. This indicates that Mawson Lakes residents are generally are more concerned about safety than residents of Craigburn Farm.

Taking a look at the state crime statistics for South Australia, it appears these perceptions are a valid concern. There is a much higher crime rate in Salisbury Council (Local Government for Mawson Lakes) than in Mitcham (Local Government for Craigburn Farm).

**Figure 5.9: Comparison of rate of total offences per 1000 persons recorded by police by Local Government Area**



Source: Office of Crime Statistics and Research 2012

Safety and crime was also mentioned for Mawson Lakes in the open ended feedback responses a number of times, for example (Respondent 119):

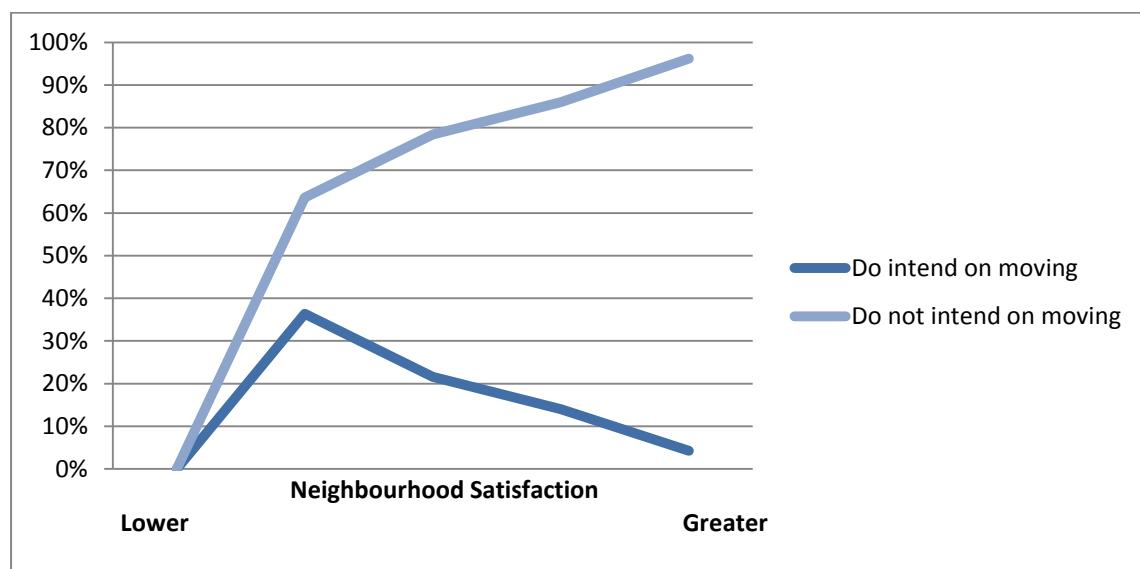
“A number of family members have moved home from Golden Grove to Mawson Lakes. Most have had their Mawson Lakes homes broken into in the last 3 years. We are hoping that the new shopping precinct will lift house prices in the area and we will sell and move back towards Golden Grove for better schools and more yard space for the kids” (Male 30-39 years).

Additionally, over three quarters of Craigburn Farm respondents (74.2 per cent) were ‘not at all’ concerned about pollution in their neighbourhood, compared with almost half (48.3 per cent) from Mawson Lakes. In all categories above, respondents from Mawson Lakes are over-represented, and these differences were statistically significant. This indicates that Mawson Lakes residents are generally more concerned about pollution than residents of Craigburn Farm.

Deane (1990) notes that dis-satisfaction with neighbourhood features is a key motivation to form intentions to move. The responses in this study did reveal some significant differences between study areas with regard to intentions to move, with Mawson Lakes residents indicating a highly likelihood to move in the next year (24.6 per cent to 7.7 per cent for Craigburn Farm).

Figure 5.10 below details a similar scenario with the relationship with satisfaction with satisfaction with neighbourhood attributes. Indeed, the relationship is statistically significant, as it is notable that as satisfaction increases, intentions to move within the next year decreases. Simultaneously, there was an increasing intention to move house within the next year as overall averaged concerns with safety, noise and pollution increase. Those that are more dissatisfied are more likely to move than those who are not, supporting the claim by Deanne (1990).

**Figure 5.10: Intentions to move by overall averaged satisfaction with neighbourhood**



(n = 268)

Recommending to others to move to an area is interpreted as a positive outcome in this study. Overall, 98.5 per cent of Craigburn Farm respondents indicated that they would recommend their suburb to live in to others, compared with 95.7 per cent for Mawson Lakes. In addition, a statistically significant difference between overall averaged satisfaction with neighbourhood and whether or not respondents would recommend their suburb was found. The lower overall satisfaction reported, the less likely respondents would recommend their suburb to live. For the most part, the difference between being ‘A Little’ satisfied and ‘Fairly’ satisfied resulted in a change from 72.7 per cent recommending their suburb to 95.6 per cent, which increased to 99.3 per cent and 100 per cent for the highest satisfaction categories. This was across both study areas.

This is also the opposite for overall concerns with safety, noise and pollution, where there were statistically significant differences. As concerns grow, less respondents stated they would recommend the suburb to others. There also appears to be a large difference between an average concern of ‘Quite a bit’ and ‘A lot’ with a change from 5.6 per cent to 60 per cent in those stating they would not recommend the suburb.

Respondents were also given the opportunity to indicate why they would (or not) recommend their suburb to others. Results were categorised into 8 categories and it was found that there were statistically significant differences as to why they would recommend the suburb to others. The main reasons why Craigburn Farm residents recommended their suburb was visual amenities and lifestyle, while proximity to services and generally all round good place/liked the area were dominant reasons for recommending Mawson Lakes.

## 5.4 Chapter Conclusion

This chapter has demonstrated distinct differences with respect to neighbourhood choice, mobility, satisfaction and future intentions to move. Residents of Mawson Lakes demonstrate greater residential mobility in the past five years, and the development has attracted residents from greater number of areas around Adelaide. In addition, the two study areas seem to be attracting residents for different reasons. Mawson Lakes residents were attracted for the facilities and convenience while those from Craigburn Farm were more attracted by the visual amenity and quiet of the landscape in the hills. Given these particular differences, residents of Mawson Lakes are more satisfied overall with their suburb, especially with factors such as shopping facilities, public transport, cafés and restaurants, and proximity to work. This seems to be driven by the integrated approach at Mawson Lakes, while at Craigburn Farm existing infrastructure and facilities in the area are feeling the strain of increased population as a result of the development. However, sources of dis-satisfaction were more prevalent in Mawson Lakes, with all three factors including concerns with safety, noise and pollution, which appear to influence intentions to move in the near future. With respect to housing density, both study areas had residents which had concerns about increasing density which seem to exacerbate perceptions of dis-satisfaction. The valued aspects of Craigburn Farm such as quietness, visual amenities and lifestyle benefits resemble characteristics of qualities closely related to the tree change phenomenon, which Sivam and Karuppannan (2011) note as a popular choice for older, retired residents in the Adelaide context. However, it appears it has come at the cost of convenience, in which Mawson Lakes

excels. The differences clearly demonstrate how the two developments in this study are offering two substantially different urban packages aimed at demographically different markets, which resulted in differences in neighbourhood satisfaction outcomes.

## CHAPTER 6: CONCLUSION

### 6.1 Introduction

This study investigated Residential Satisfaction in two dissimilar housing developments in metropolitan Adelaide, comparing the suburban development of Craigburn Farm with the new urban development of Mawson Lakes. This research acknowledges the unique challenges faced in Adelaide for future housing supply, and recognises the need to assess Residential Satisfaction in Adelaide, which has been dominated by suburban, low density housing developments for many decades. This investigation into resident's subjective assessment in these dissimilar developments provides insight into the aspects of houses and neighbourhoods which support positive Residential Satisfaction outcomes.

The fundamental basis of this study was that a policy driven change toward higher density, mixed use developments in Adelaide should be investigated through the measurement of Residential Satisfaction in order to make assumptions on the experience of a change in the delivery of housing. The study focus arose from discussions and research concerning urban sprawl, and the negative impacts which could affect the population and environment of cities if such development was to continue. Now that state government policy is in place which recognises such concerns and focuses to increase consolidation of housing within the existing urban area under a rising population, the densification of housing and the mixture of land uses arises as the a legitimate alternative. However, researchers and the public have at times questioned this policy driven change as it will only be viable if the housing offered is where people want to live (Jenks et al. 2000), with some arguing a lack of any benefit to populations (Popkin et al. 2004). In addition, the inadequacy of smaller, denser housing units to deliver favourable outcomes in meeting the needs and aspirations of the occupants was argued (Troy, 1996).

The current study has argued that the characteristics of new urban, mixed use neighbourhoods may have a greater positive influence on neighbourhood satisfaction when compared with a similarly timed suburban development. However, this study also argues that higher density housing in Mawson Lakes such as townhouses and apartments may have a negative impact on dwelling satisfaction when compared with lower density, detached housing. These findings might initially seem conflicting, however, they do demonstrate how much of it

comes down to the individual defining ‘what is important’ and demonstrates the trade-offs with living within these two development styles. However, the findings are only true for the study areas investigated, and should only be used as a guide for making broader assumptions on Adelaide in general.

This study also argues that Residential Satisfaction is an essential tool for understanding the relationship between the residential environment and the residents themselves in the determination of well-being through housing. However, this study does not argue that Residential Satisfaction is a direct determinant to life satisfaction, but that housing and neighbourhoods are but a mere component in the complex and inter-related dimensions of Subjective Well-Being.

Other Australian studies, such as Buys and Miller (2012), undertook a comparative study of similar, higher density developments in the Australian context. This research differs from many Residential Satisfaction studies in that it explores the dissimilarities in perceived Residential Satisfaction in different styles of housing developments in the unique Adelaide metropolitan landscape. Fortunate timing and coincidence has allowed for the control of similar distance and development age for both study areas to assess each from an equal perspective. The question of whether perceptions of Residential Satisfaction line up with the residential aspirations certainly requires further investigation. While this project has provided a mere snapshot of perceptions of Residential Satisfaction at one point in time, and while it is likely that such perceptions would change from time to time, it has nonetheless provided useful insight into perceptions of the changing urban landscape within the Adelaide metropolitan region.

## **6.2 Contribution to the field and meeting of objectives**

This study comes at a very crucial time of change for urban planning and housing supply in Adelaide. With the release and now periodic review of the 30 Year Plan for Greater Adelaide, it is an important time to reflect on the relative success of Adelaide’s first attempt at producing a housing development which reflects new urban principle’s outside of the inner city. The research highlights the importance of demographics and locational-specific cultural themes in the determination of the housing we want and how mixed used developments,

while not typically a cultural icon, can still deliver positive Residential Satisfaction outcomes, at the cost of reduced satisfaction in other aspects of the residential environment.

The first aim of this study was to improve understanding of the relationship between dwelling satisfaction, and the underlying elements which contribute to housing choice under a progressively changing urban form in Adelaide. It was found that respondents showed higher dwelling satisfaction if they were currently living in detached housing when compared with higher density housing such as townhouses and apartments. Three aspects of detached housing were found to contribute to greater dwelling satisfaction, which included the private control of open space, value for money and improved provision of privacy.

Furthermore, detached housing residents were far more likely to be ‘extremely’ satisfied on all scales, when compared with all other dwelling types. In fact, density, in many ways, was expressed as a fear for those in currently in detached housing, with many participants in this worried about reduced block sizes, while others shared concerns of living near other, denser types of housing. Similar results were found in Varady et al. (2001), where residents of detached housing were found to have higher dwelling satisfaction than those in other housing types. In addition, for those living in apartments and townhouses in particular, satisfaction with privacy was significantly less, when compared with detached housing. Walls are typically shared in these dwellings, decreasing the verbal privacy of dwellings. In detached housing land and a fence usually separate houses creating distance and space between houses. Indeed this result has supported results in other studies, eg: Day, 2000 and Fried, 1982, on how privacy in higher density housing can negatively influence overall dwelling satisfaction. In addition, a lack of private outdoor space in higher density living has negatively influenced dwelling satisfaction in this case, despite the availability of public open space. Indeed, the culturally ingrained desire for detached housing has contributed to the view that high density living is largely an unappealing housing option (Randolf, 2006), that is basically reserved for lower income groups or those early in their housing careers and is more a ‘transitional housing type’ (Varady et al. 2001).

Thus, this study proposes that open space, particularly private forms, positively influence overall perceptions of both dwelling and neighbourhood satisfaction. Such a theory is no new concept, with the link between open space and well-being dated back as far to the ancient Egyptians (Ulrich and Parsons, 1992). Indeed, many studies note how the aesthetically pleasing features of open space, such as plants and trees have on subjective (and

physical) well-being in humans (Ulrich, 1983, Gullone, 2000, Kahn, 1997, Wilson, 1984). This study reflects this trend, however, the presence of private open space appears to have a greater effect on dwelling satisfaction than public open space does on neighbourhood satisfaction. This can be explained as Morris and Winter (1975) describe, under the idea of housing deficit as a significant component to the conceptualisation of Residential Satisfaction. Their theory explains that individuals judge their overall dwelling satisfaction against defined norms, which involve locational specific cultural influences. These norms are set by societal standards, and other personal perceptions of normality (Lu, 1999). In Australia, it has been widely accepted the detached house surrounded by private open space has been a cultural norm for decades (Buys and Miller, 2012). Therefore, the influence of the cultural norm in Australia to own a detached house with private open space appears to have a greater impact on Residential Satisfaction than the delivery of open space through public means. Indeed, the detached house and home ownership are strongly linked to the conceptualisation of the Australian dream and success in traditional post-war culture. It seems, therefore, there is still evidence that this perception still occurs (Galster, 1987).

The second aim of this study was to improve understanding of how neighbourhood structure and planning influences neighbourhood satisfaction in the context of Adelaide. Overall, residents of Mawson Lakes had greater satisfaction with their neighbourhood than those in Craigburn Farm. Interestingly, negative perceptions of noise, safety and pollution did not have any impact on overall neighbourhood satisfaction scores, but they did influence intentions to move in the future. As the results show, concerns about these sources of dissatisfaction were higher for Mawson Lakes, while concurrently, greater overall neighbourhood satisfaction was achieved when compared with Craigburn Farm.

A major contributor to the significant difference in neighbourhood satisfaction can be attributed to the fact, by comparison, Mawson Lakes has shopping and facilities incorporated into the development plan, whereas in Craigburn Farm, the existing facilities in nearby Blackwood had to service the additional population from this new development in addition to the existing population, with little or no improvements or increased capacity to do so. Likewise, road networks are far more free-flowing out of Mawson Lakes than Craigburn Farm, with additional public transport facilities specifically considered in the plan. For Craigburn Farm however, many main roads out of Blackwood remain single lane, causing congestion in peak hour, and public transport commuters must rely on existing public

transport services in the area. Much of future improvement in this area seem largely limited to the topographical limitation of the hilly landscape and comparatively large costs to rectify and improve.

However, another main reason why perceptions of neighbourhood satisfaction were greater for Mawson Lakes is not only the provision of shopping and other facilities, but also due to the proximity of these services, through changes in urban design. A significantly larger proportion of residents in Mawson Lakes are within closer proximity to everything, due to the density and ‘walkable’ design surrounding places of interest. If certain places are perceived difficult to get to, then the perceived proximity to these things will be less. This research also found that more people were able to access retail facilities easier by foot or other non-car related means, increasing perceptions of satisfaction with proximity to such places. In addition, this research found that a much higher proportion of the population of Mawson Lakes subjectively perceived proximity to public transport than those of Craigburn Farm. Not only this, residents of Mawson lakes appeared more satisfied with the quality public transport. The fact that Craigburn Farm is settled on hilly terrain and is separated from the nearby Blackwood retail precinct places a further barrier to access, especially given the older age demographic of residents who may be reducing the amount of driving they undertake. Some residents even mentioned that insufficient parking spaces available were a further barrier to accessing shopping at Blackwood.

This study makes concludes that based on this evidence, the sources of satisfaction and dissatisfaction are not related, but rather viewed subjectively by participants as two entirely different concepts, which in turn are not influenced by each other in any way.

Neighbourhood satisfaction appears largely influenced by the accessibility of facilities, in the case of higher density there’s improved accessibility. While neighbourhood dis-satisfaction is associated with awareness of negative aspects of neighbourhood, where in higher density areas awareness is heightened by being simply closer to others.

The third and final aim of this study was to assess how demographic characteristics influence Residential Satisfaction in the context of Adelaide. This study found significant differences in the age profiles between the two study areas which suggests the likelihood that, between the two study areas, that there were differences in stages in housing careers of residents, which will influence housing choice.

These differences can be explained by the differences in the target market that each development is appealing to. Residents on Craigburn Farm appear to be more advanced in their housing career and thus, more likely to own their homes outright. Indeed, tenure type was found to be a significant determinant to Residential Satisfaction in this study. As such, those who owned their homes (or purchasing through a mortgage) were found to be significantly more satisfied with their dwelling than other tenure types (renting and other). This can also be explained under Morris and Winter's (1975) theory of Residential Satisfaction as composed from social and cultural factors. Indeed, the idea of home ownership forms part of the Australian dream for which many Australians aspire to. In addition, home ownership is linked with perceived success and is the symbol of achievement of economic status (Rohe et al., 2001), and as this study argues, the achievement of home ownership is a significant contributor to overall dwelling satisfaction. Similar findings have been found in other studies such as Obst and Stafurik (2010) and Ross (2002).

Furthermore, the findings suggest that as a result of increases in property prices, particularly in the last decade, the option for comparatively cheaper and denser housing options is an appealing option for those early in their housing career. As a result Mawson Lakes is appealing to younger households looking to enter the property market, and townhouses and apartments come at a cheaper price. However, this comes at the cost of decreased dwelling satisfaction, particularly in the areas of privacy, demonstrating evidence of Kelly's (2011) trade-off theory in housing choice decision making processes.

### **6.3 Implications for Policy and Further Research**

The issues explored in this research are real and gaining increasing significance for future housing development in Adelaide. While this study has provided significant insight into Residential Satisfaction in a changing urban form in Adelaide, it also raises additional questions for future research.

This research presents an improved understanding of the complexities involved in the determination of Residential Satisfaction in two different urban developments in the Adelaide metropolitan region. This research can inform state and local government policy decision making, especially in conjunction with the 30 Year plan for greater Adelaide in detailing how Residential Satisfaction is changing with a changing Adelaide, but also by providing an

understanding of the types housing and neighbourhoods that foster improved Residential Satisfaction in the context of Adelaide. Such information is also useful to developers, architects and urban designers in designing integrated communities. Considering the role perceptions of the general public play in shaping how housing will be delivered in the future, this research provides a significant overview of the first new development in Adelaide to demonstrate a change in how housing is delivered in non-inner city developments. This insight has been used to assess the strengths and weaknesses of such developments to improve development into the future under the plan.

It should be acknowledged, however, that the perceptions are but a single snapshot in time, and such perceptions of Residential Satisfaction are expected to change over time. Regardless, these perceptions are an accurate subjective portrayal of the interactions and evaluations of residents' reviews of the housing and neighbourhood conditions at that particular point in time. The fact that Mawson Lakes is currently undergoing an extension to the shopping centre facilities and that the Craigburn Farm development is still mid-way through its development will alter such perceptions. It is expected, however, that in the future, perceptions of Residential Satisfaction in Mawson Lakes will increase with increased shopping facilities and Blackwood Park will decrease due to the increase housing construction and its further detrimental effect on local infrastructure (ie: roads) in the area.

Typically Residential Satisfaction studies of the 20th Century have found a negative association with neighbourhood satisfaction and mixed housing, and land use developments (Yang, 2008, Randolph, 2006), with density the major contributor to dis-satisfaction (Dahmann, 1983, Speare et al., 1975, Lee and Guest, 1983, Marans and Rodgers, 1975, Rossi, 1955). However, the study areas are often focused on older areas where existing unrelated social issues may have significantly biased the results (Yang, 2008). There has been some more recent evidence where new, compact and mixed use developments have demonstrated improved results (Volk and Zimmerman, 2001, Buys and Miller, 2012). This study is consistent with such research. However, other studies have also found populations traditionally accustomed to low density housing demonstrate a willingness to consider in more compact lifestyles (Myers and Gearin, 2001, Nelessen, 1994) and some even document the provision of desirable living environments in practise (Frantz and Collins, 1999, Plas and Lewis, 1996, Schleimer, 1993). This study does not reflect the latter, which in turn presents a significant policy implication for the future. As part of the 30 year plan for greater Adelaide, higher density housing plays an important focus. This research indicates that this type of

housing is not necessarily unsatisfactory but rather an undesirable or transitional form of housing, reserved for the financially disadvantaged. And most strikingly, this study has found that those currently living in low density housing would not even consider anything else, higher density housing was often associated with an urban ghettos and poor quality housing. Thus, there appears to be a stigma associated with high density housing and not even it in practise has seemed to change such associations.

The findings come in direct contrast to Kelly et al. (2011) which found a shortage of semi-detached and apartment dwellings in Melbourne and Sydney in respect to the housing that people want. This research however large identifies higher density housing as largely a temporary housing option. Many people rent and or buy there for reasons such as the convenience to facilities and affordability. Therefore, given that housing affordability in Adelaide has decreased significantly in recent times, it is still far more affordable than many of the larger capital cities in Australia; it appears that the detached house is still somewhat affordable in Adelaide.

#### **6.4 Recommendations for future research**

Following on from this research this study recommends and prompts further future research to build upon the knowledge generated in the current study.

This study makes a total of six recommendations for future research, including:

- Incorporating further case studies for replication
- Incorporating longitudinal methodologies
- Examine incentives and motivation to adapt a new urban form
- Develop further understanding between accessibility and Residential Satisfaction
- Investigation into the link between residential mobility and Residential Satisfaction
- Interviews with key stakeholders within planning and housing development in South Australia

The first of these recommendations relates to incorporating additional case studies for replication. Such a focus should be limited to the Adelaide metropolitan area, not simply limited to new developments, but sites also proposed for urban renewal and past and present planned suburban developments as well as non-planned, older areas. The replication could

essentially target different neighbourhood structures with varying distances to the CBD (including city dwellers) to gain a better understanding of what Adelaide residents want in the residential environment and to gain a better understanding of the contributors to Residential Satisfaction. A broader focus would target a broader proportion of housing types in a broader number of neighbourhood settings across the Adelaide metropolitan region building a better understanding of Residential Satisfaction and the implications of such perceptions under the 30YPGA.

The second recommendation suggested is the incorporation of a longitudinal approach within the methodology. Due to the importance of understanding Residential Satisfaction and the admission that perceptions are bound to change over time, this research recommends tracking such perceptions over a period of time to gain greater understanding of Residential Satisfaction and the contributors for such change. Indeed, many Residential Satisfaction studies have used longitudinal data to track changes in such perceptions (for example, Shaw, 1994, Kley and Mulder., 2010, Buck, 2000, Ferreira and Taylor, 2009). In the context of the current study, longitudinal research would promote greater refinement of the survey instrument so that developers or local governments may conduct their own investigation into Residential Satisfaction within target communities in the Adelaide metropolitan area to gain greater understanding of how Residential Satisfaction, well-being and the physical built environment are linked (Shaw, 1994).

The third recommendation is a feasibility study into how to improve the appeal for higher density residential dwellings in the future specific to Adelaide. Compact urban form is no doubt a critical factor in combatting uncontrolled urban sprawl. However, as indicated in this research, if there is not significant interest from the Adelaide public to live in such housing then such plans are doomed to fail. As many Mawson Lakes residents have expressed their concern of the apartments within the development turning into an urban ‘ghetto’ there is still some need to address these concerns to make it appealing to all. With the exception of the Adelaide CBD it appears that apartment complexes in the suburbs only seem to attract residents for their affordability. In Adelaide, there is no significant difference in prices between apartments and other housing types nearby to warrant purchasing such dwelling types so renters become the dominant tenure type in these housing types. In Adelaide, apartment complexes in the suburbs could potentially be at risk of being deserted due to their lack of appeal. This is a significant factor which requires further research.

The fourth recommendation for future research revolves around developing a linkage between an accessibility index and Residential Satisfaction using Adelaide as an example. Accessibility, as demonstrated in this study, appears to significantly affect Residential Satisfaction. Further research, analysing the connection between urban form, demographics, health and accessibility could shed further light on the relationship between the two and how these variables interact. Such research would be valuable for future planning and policy within the Adelaide metropolitan area not only for sustainable development, but also for the livelihoods and well-being of residents and the creation of vibrant active communities as one of the goals of the 30YPGA.

The fifth recommendation that this study makes is a stronger focus on the reasons for residential relocations. This study only scratches the surface on investigating the reasons for current residents moving to the study areas. Further in depth investigation into the reasons for moving, compared to the other options available and in conjunction with Residential Satisfaction after the move could shed some more light on the housing Adelaide residents want. Such a study could capture residents before they move and their housing choice options and track the end result. In this way, the project could choose a study area of residents thinking of moving, there reasons for wanting to move, and track where they end up moving to in the future through the already mentioned longitudinal methodology. Such research would broaden the spectrum on the reasons of moving away from a certain study area, rather than to, and measure Residential Satisfaction in a multitude of locations as an end state creating a broader understanding of Residential Satisfaction from an alternative perspective. Essentially then, the research would address a need to fill the gap for research in residential mobility within the Adelaide metropolitan area.

The sixth recommendation this research suggests is investigation into the view of key stakeholders in planning and housing development in the Adelaide metropolitan area. This would vary depending on the study areas chosen but could include (and not limited to) state and local government entities, academics, developers, planners, architects and economists on the topic of future housing supply and the benefits urban consolidation and higher density living in mixed use neighbourhoods compared with traditional suburban developments. In this way, a greater understanding can be gained for the competing interests in delivering housing supply into the future in Adelaide. An interesting ‘spanner in the works’ is the new Premier for South Australia and his position on the promotion of the continuation of traditional suburban developments in to the foreseeable future. This aspect of research was

beyond the scope of the current study but no doubt would further promote greater understanding of how Adelaide will grow in conjunction the 30YPGA.

## 6.5 Thesis summary

This study builds on existing knowledge on Residential Satisfaction in the context of Adelaide. It has presented the factors which influence positive outcomes in dwelling and neighbourhood satisfaction to determine a complex understanding of Residential Satisfaction.

It presents a pathway forward for planners and policy-makers to improve dwelling satisfaction in higher density housing, and to improve neighbourhood satisfaction in low density developments. The former requires a focus on improved privacy, available open space, and to improve perceptions of value for money. The latter presents challenges to existing suburban developments in the improvement of accessibility to residents, but also demonstrates how increasing dwelling densities around shopping and services promotes greater neighbourhood satisfaction. However, the issues surrounding dis-satisfaction present a challenge to retain residents in such developments. Indeed, higher density mixed use developments are still a long way off forming a critical mass as houses where people want to aspire live, which is reflected in the results of this study.

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## APPENDIX A: SURVEY QUESITONNAIRE



### **A comparative study of residential satisfaction in the Adelaide suburbs of Mawson Lakes and Craigburn Farm (Blackwood Park Development), South Australia.**

As part of my postgraduate study at the University of Adelaide I am investigating residential satisfaction in the Adelaide suburbs of Mawson Lakes and Craigburn Farm, South Australia. We are interested in your level of satisfaction with your dwelling and surrounding neighbourhood and the reasons you have chosen to live here. Your home has been selected for you to have the opportunity to participate in this study.

To assist us to gain a better understanding of what it is like to live in Mawson Lakes/Craigburn Farm, please take this opportunity to voice your opinion, as it is highly valued.

#### **Who should complete this survey?**

We ask that only one person per household complete this survey. This person must be over 18 years of age. You are in no way obligated to complete the survey. If you choose to participate, please answer the questions and return the survey in the reply paid envelope provided.

#### **Why complete this survey?**

Your input is highly significant to this study. It will assist in building a profile for what Mawson Lakes and Craigburn Farm residents think about their area and the different types of housing offered within it. This is especially helpful for future planning within the Adelaide Metropolitan Area. This is an opportunity to have your say on the positives and negatives of what works and what doesn't within your neighbourhood. Such information will help in shaping a better Adelaide of the future.

You will not be individually identifiable or linked to your responses in anyway. Aggregated results will be presented in the thesis and may also appear in presentations in relation to this research. The University of Adelaide is committed to researcher integrity and the ethical conduct of research projects. If you have any concerns about the ethical conduct of this project you should contact the University of Adelaide Human Research Ethics Committee at [HREC@adelaide.edu.au](mailto:HREC@adelaide.edu.au).

The survey will take around 5 minutes to complete. We appreciate the time taken out of your day to complete it.

If you have any questions, or need further information, please contact my supervisors by email:

Prof. Andrew Beer – [andrew.beer@adelaide.edu.au](mailto:andrew.beer@adelaide.edu.au)

Dr Di Rudd – [dianne.rudd@adelaide.edu.au](mailto:dianne.rudd@adelaide.edu.au)

## Section 1: Your Dwelling

1(a) What best describes the type of dwelling you live in?

Detached       Townhouse       Unit       Apartment

1(b) How many of the following do you have in your home? (Please Specify)

Bathrooms: \_\_\_\_\_

Bedrooms: \_\_\_\_\_

Car Spaces: \_\_\_\_\_

2 How satisfied are you with each of the following features of your dwelling: (Please circle)

	Not at all	A Little	Fairly	Very Much	Extremely
Size	1	2	3	4	5
Purchase Price\Rent	1	2	3	4	5
Privacy	1	2	3	4	5
Quality of Building	1	2	3	4	5
Position	1	2	3	4	5
Costs of utilities	1	2	3	4	5
Open Space	1	2	3	4	5
Water efficiency	1	2	3	4	5
Energy Efficiency	1	2	3	4	5

## Section 2: Your Neighbourhood

3(a) To what extent are you bothered by noise in your neighbourhood?

Not at all       A little       Quite a bit       A lot       A great deal

3(b) To what extent are you worried about safety in your neighbourhood?

Not at all       A little       Quite a bit       A lot       A great deal

3(c) To what extent are you aware of pollution in your neighbourhood?

Not at all       A little       Quite a bit       A lot       A great deal

4 How satisfied are you with your proximity to the following:

	Not at all	A Little	Fairly	Very Much	Extremely
Family/Friends	1	2	3	4	5
Work	1	2	3	4	5
Public Transport	1	2	3	4	5

**5 How satisfied are you with your neighbourhood in terms of:**

	<b>Not at all</b>	<b>A Little</b>	<b>Fairly</b>	<b>Very Much</b>	<b>Extremely</b>
<b>Social Life</b>	1	2	3	4	5
<b>Schools</b>	1	2	3	4	5
<b>Shopping</b>	1	2	3	4	5
<b>Sport/Fitness Facilities</b>	1	2	3	4	5
<b>Accessibility (footpaths, bikeways)</b>	1	2	3	4	5
<b>Restaurants/ Cafés</b>	1	2	3	4	5
<b>Parks/Playgrounds</b>	1	2	3	4	5

**6(a) Would you recommend your suburb to live in to others?**

Yes       No

**6(b) Why?**

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### **Section 3: Demographics**

**7 What is your age?**

Less than 30 years       30-39 years       40-49 years  
 50-59 year       60-69 years       70+ years

**8 What is your sex?**       Female       Male

**9 What is the highest level of education you have completed?**

Year 11 or below       Certificate and Diploma       Postgraduate Degree  
 Year 12 or equivalent       Bachelor Degree       Trade Qualification

**10(a) Are you currently employed?**

Yes (go to 10b)       No (go to 10c)       Retired (go to 10c)

**10(b) What is your employment status?**

Full-time       Part-time       Casual       Self Employed

**10(c) What was/is your main occupation? (Please State)**

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**11 What is your marital status?**

Single       Married       Defacto       Divorced       Widowed

**12 What best describes your living arrangements?**

Family with children       Couple only       Living alone       Living with others       Other

**13(a) Where were you living:**

One year ago? Postcode \_\_\_\_\_ Five years ago? Postcode \_\_\_\_\_

13(b) How many times have you moved house in the last five years? \_\_\_\_\_

13(c) Why did you move here? \_\_\_\_\_  
\_\_\_\_\_

13(d) Do you intend to move house in the next year?  Yes       No

**14 What best describes the tenure type of the dwelling you live in?**

Fully Owned     Being purchased (incl. mortgage and rent to buy)     Rented (incl. rent free)     Other

**15 How many people currently live in this dwelling?**

Total number of adults: \_\_\_\_\_

Total number of children under 18 years: \_\_\_\_\_

**16 Please estimate your annual household income:**

Under \$50,000     \$50,000-\$80,000     \$80,000-\$120,000     \$120,000-\$200,000     \$200,000+

**Please provide any other comments about your neighbourhood or housing below:**

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**THANK YOU FOR COMPLETING THIS SURVEY**

## APPENDIX B: OPEN ENDED FINAL COMMENTS

This section provides an overview of the results from the open ended responses in the final section of the survey questionnaire.

Responses providing any other comments on the neighbourhood or dwelling: Craigburn Farm

CRAIGBURN FARM	
Negative Themes	Frequency
Need for better road infrastructure (emergency fire concerns)	20
Poor Shopping	14
Poor Parking	6
Concern about increasing dwelling density	6
Poor Planning and maintenance	6
Poor Public Transport	5
Poor Accessibility	3
Expensive	2
Poor energy efficiency	2
Bad Internet/Phone connection	1
Bad Neighbours	1
Hoon Behaviour	1
Poor Quality Housing	1
Total	68

Positive Themes	Frequency
Generally happy/Good place to live	11
Good community	10
Great Amenities	6
Good infrastructure/services/access	5
Good for Retirement	5
Quiet	3
Safe	2
Quality Housing	1
Total	40

Responses providing any other comments on the neighbourhood or dwelling: Mawson Lakes

MAWSON LAKES	
Negative Themes	Frequency
Concern about increasing dwelling density	10
Bad Internet	8
Poor Parking	8
Poor Council Maintenance	7
Poor Streets	6
Poor Energy Efficiency	5
Need more services (especially a post office)	4
Safety/crime concerns	3
Hoons	2
Poor family oriented activities (eg: pool)	2
Bad neighbours	2
Noise from pilot training	2
Noise	1
Poor Planning	1
Need more greenery	1
Pollution	1
Too far from city	1
Poor Housing quality	1
Poor Public Transport	1
Poor social activities	1
Not happy with recycled water	1
Total	68

Positive Themes	Frequency
Generally happy/Good place to live	13
Good community	5
Good shops/services	4
Visual Amenities Good	3
Good Access	3
Good amenities	2
Total	30