



**PROJECT REPORT:
CREATING LIVEABLE COMMUNITIES IN THE LOWER HUNTER REGION**

June 2007



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2 Executive Summary

Background

This report outlines the details of a research program that sought to identify the key components in building liveable communities in the Lower Hunter context.

Funding

The project was funded over an eighteen-month period (2005-2007) by The University of Newcastle Research Associates (TUNRA).

Aims

The aims of the research were:

1. To identify key components in building liveable communities in the Lower Hunter Region; and
2. To develop a resource to enable property developers to ensure that the work they undertake is contributing to the building of liveable communities.

Research process

To inform and guide the project, a literature review, stakeholder consultation and community consultation were undertaken.

1. Literature relating health to urban form characteristics and the urban development process was reviewed.
2. The stakeholder consultation process involved a series of face-to-face interviews, telephone interviews and workshops.

The consultation processes aimed to:

- Capture stakeholders' knowledge about the urban planning and development process in the Lower Hunter Region;
 - Provide an opportunity for stakeholders to inform the definition of a liveable community in the Lower Hunter.
3. The community consultation process involved a community telephone survey of 703 people. The objective of the survey was to obtain a community perspective on what constitutes a liveable community in the Lower Hunter. The survey participants were drawn from suburbs within the Lower Hunter Region's five local government areas of Cessnock, Lake Macquarie, Maitland, Newcastle and Port Stephens. The community consultation was undertaken using the Computer Assisted Telephone Interview method. The 25 minute telephone survey included questions on: the physical environment, the built environment, community facilities, crime and safety, social capital, neighbourhood layout, transport, and policy. Demographic information and general comments were also addressed, as well as an allocation task to determine general community priorities.

Outcomes

- The key findings of the literature review, the stakeholder consultation and community consultation were examined and synthesised. The synthesis revealed four guiding principles that should be considered when planning or building a liveable community: accessibility, connectivity, sustainability and flexibility. Within each principle, a series of elements defining a liveable community are identified.
- A locally designed resource to assist both planning and development industries in creating liveable communities was developed. The resource highlights design and planning considerations that relate to the above principles.

Future Directions

The information gained from the current research has provided a better understanding of what constitutes a liveable community in the Lower Hunter that will inform future work. In particular, initiatives to further investigate the health and wellbeing of the Lower Hunter community by engaging with local government, planners and developers are planned to:

- Establish a liveable community index, based on the resource that was developed by the current research.
- Collaborate with one or more of the five local governments in their production of development or structure plans.
- Assist in building the capacity of local government to undertake health and social impact assessments.
- Scope the inclusion of other agencies, such as the Hunter Regional Coordination Management Group, in the planning of liveable communities.

3 Introduction

3.1 Relationship between the Physical, Social and Built Environment and Health

Data collected from health surveys indicate that over the last 25 years there has been:

- increased food consumption (particularly energy dense food);
- a shift to more sedentary work and leisure activities;
- increasing use of cars for transportation; and
- fewer opportunities to spend time with family and friends.

These trends are suggested to have contributed to an increasing incidence of heart disease, obesity, chronic asthma and depression (Gebel et al, 2005).

Evidence suggests that the built and social environments specifically have an impact on health (Capon, 2005). At the macro level, these influences arise from the impact of spatial planning, land-mix use (Lavin et al, 2006). At local level, the design, maintenance and use of buildings, availability of public spaces and transport networks, the design of street networks, the perceived and actual safety of an area, as well as personal resources, are suggested to be important environmental and social influences on health and wellbeing (Lavin et al, 2006).

Negative health outcomes are suggested to arise from these influences, due to their impact on:

- level of physical activity,
- social cohesion,
- personal safety,
- food supply,
- air and water quality, and
- open space, (Dannenberg et al, 2003; Jackson & Kochtitzky, 2001; Capon, 2005).

3.1.1 Opportunities for Developers

Research has identified the importance of creating neighbourhoods or communities that are both healthy and liveable as a means of enhancing the wellbeing of residents (Butterworth, 2000). As a consequence, developers are increasingly interested in, and are being encouraged to build communities in a way that promotes the health and social wellbeing of residents. Developers are seen as critical key players in achieving innovative liveable communities.

Health issues are already taken into consideration by developers and planners when designing new communities (Capon, 2005). Historically, urban planning and public health have long been closely linked. For example, the concept of 'sanitary ideas', which began in England in the mid-1800's, successfully advocated for improvements to physical infrastructure, such as publicly funded sewerage systems, public water supplies, paved streets, and increased standards of hygiene and housing to improve the wellbeing of residents (Butterworth, 2000). More recently, urban planning has been confronted with the need to accommodate increasing car dependency (Frumkin, 2004).

Despite these advances, public health practitioners, developers and planners express concern regarding how health issues can be best addressed in the design of communities. As public health seeks to re-examine the links between health and the physical, social and built environment, it is suggested that there is a need to create a closer alliance between planners, developers, other urban development stakeholders and public health professionals, to identify common goals and work collaboratively towards improved future urban health strategies (Cave & Molyneux, 2004).

From a local perspective, the need to reaffirm the links between the environment and public health is evident as the Lower Hunter population grows over the next 25 years. The recently released Lower Hunter Regional Strategy (NSW Department of Planning, November 2006) has identified a number of possible new housing development sites across the region, as well as urban consolidation in existing areas. Given the development of this plan, an opportunity exists to more effectively incorporate health considerations in the planning of proposed new developments.

In the context of current debate regarding climate change, and the proposed population growth in the Lower Hunter, developers and planners are in a strong position to be catalysts for enhancing the development of liveable communities, and in doing so, contribute to the creation of positive health and social wellbeing outcomes for the community.

3.1.2 Role of Developers in Creating Healthy Communities

Although it has been recommended that all stakeholders, including developers, need to be better educated about the health outcomes of community design (Johnson, 2004) there has been very little research that has focused on the role of developers in this process. As a consequence, the role of developers remains unclear, the knowledge and capacity of developers in this regard remains unknown, and a consensus regarding what a development must have in order to maximise the health outcomes for a community has not been achieved.

In the absence of such information, the claim that “no manufacturer would set out to deliver a new product without first having designed it carefully and market-tested it in a sample of consumers” (Egan, 2004), appears not to apply to the planning of healthy liveable communities. Whilst there is research indicating that urban planning and design can foster positive health outcomes (Butterworth, 2000), there is a lack of evidence regarding how developers can deliver such outcomes. In an attempt to guide future scientific research in this area, the Centres for Disease Control and Prevention in the United States identified 37 essential research questions regarding the relationship between public health, community design and land-use choices (Dannenberg et al, 2003).

In terms of the current practice of developing new residential areas, a number of major development companies are attempting to address the creation of healthy and liveable communities. For example, in Australia, one developer, Landcom, has attempted to address the need for sustainability in the design of new communities through the use of sustainability targets in their development initiatives. These targets address water cycle management, moderate income housing, community consultation, community facilities, welcome program, consumer education on sustainable living, percentage of materials reused on-site, energy efficient design, design guidelines for built form, sustainable energy technology use, native vegetation management, riparian corridor management, conservation of indigenous heritage, conservation of non-indigenous heritage, and compliance with environmental legislation (Landcom, 2005). The targets were informed by the review of best practice models and principles as well as stakeholder consultation, including state and local government organisations, non-government organisations, community groups and industry partners (Landcom, 2005).

Another company, Lend Lease, similarly reports being focused on social, environmental and economic sustainability in their developments (Lend Lease, 2005). These values appear to focus on ensuring the occupational health and safety of their workers and engaging in community consultation. Delfin (or Delfin Lend Lease) a subsidiary company to Lend Lease, and an award winning Australian developer of master-planned communities, undertakes a number of steps to create quality communities. These steps include innovative community design techniques to enhance community interaction; ‘best practice’ environmental protection; a dedicated Community Liaison Officer; community facilities, such as bike trails and neighbourhood centres; and a Community Connections program (Delfin, 2006).

Delfin Lend Lease has also jointly funded a project in this field in collaboration with The Community Service and Research Centre at The University of Queensland titled "Building sustainable social capital in new communities" (Lance & Woolcock, 2003). The first of a series of papers produced by the group offers a review of case studies which were deemed to demonstrate an emphasis on social capital in new communities. Ensuing papers are planned to address the identification of successful planning tools which developers can use to build social capital in new communities, how social scientists and developers can work together in the future to effectively build sustainable communities, and the role of property developers in providing social or employment services rather than merely houses (The Faculty of Social and Behavioural Sciences, 2007).

A number of governments also have taken steps to encourage the development of healthy communities. For example, the Liveable Neighbourhoods Community Design Code (LNCDC) was released by the Western Australian Planning Commission in 1997 (Taylor Burrell Barnett, 2004). This internationally recognised code was released as an alternative design and assessment tool to the existing development control policies, and was designed to promote sustainable community development by addressing urban structuring, balanced transport provision, housing choice/diversity and support for local employment (Taylor Burrell Barnett, 2004).

In 2004 a review of the LNCDC was undertaken to investigate its utilisation. The review identified that between 1996 and 2002 the LNCDC was the strongly preferred approach to development applications (Taylor Burrell Barnett, 2004). The review also found that the use of reduced turn around time for application approval was an important determinant of its use.

Whilst the shortened timeframe for approval may have influenced the uptake of the LNCDC, the quality and relevance of the code itself was also considered to have contributed to its success, outcomes that were the result of extensive consultation with stakeholders. The consultation involved government and non-government industry members such as engineers, planners, developers, as well as representatives from the Department of Environment, Main Roads WA, Department of Planning and Infrastructure (DPI) transport and DPI Sustainability Directorate (Taylor Burrell Barnett, 2004).

A further Western Australian initiative that has addressed the development of healthy communities has been the Sustainable Land Development Study (The Planning Group, 2005). This project reviewed literature to determine the important elements of sustainable land development, elements such as urban structure, landform, vegetation and open space, water, infrastructure, roads, services, energy, waste and management (The Planning Group, 2005). In developing an approach for sustainable land development, this study recommended that contemporary market education and awareness raising should be conducted to ensure developments will sell, and to foster community acceptance of sustainability principles (The Planning Group, 2005).

The second phase of the project involved a demonstration project that involved the testing of various development scenarios for the site (The Planning Group, 2003). Three design options were developed and tested, with the results indicating that costs and benefits of sustainability were balanced out. Evaluation using a Triple Bottom Line assessment of societal benefits indicated net overall societal benefits as a result of the use of sustainability elements in subdivision design. A Benefit-Cost assessment of return to the developer, household and state revealed potential additional increase in revenue from land sales to the developer for well marketed 'high quality' neighbourhoods. The third and most current phase of the study validated the planning, built form, landscape and development implementation of the scenarios against the LNCDC. The results of this study confirm that improved sustainability does not necessarily result in decreased yield for developers, and can lead to the development of communities that are more likely to lead to a healthier population (The Planning Group, 2005).

3.2 Research Aims

Given the growing recognition of the importance of the relationship between the built environment, planning and the health of communities, and the acknowledgement that the Lower Hunter Region will be subjected to increased population growth over the next 25 years, the research team undertook a study:

1. To identify key components of what constitutes a liveable community in the Lower Hunter Region; and
2. To develop a resource to enable property developers to ensure that the work they undertake is contributing to the building of healthy and liveable communities.

This report describes the methods and results for Aim 1. The development of the resource and the resource itself is described in a separate document: *Building Liveable Communities in the Lower Hunter Region*.

4 Research Management

A research partnership was formed consisting of representatives from the University of Newcastle, Hunter New England Population Health (Hunter New England Health, NSW Health) and Deakin University (Victoria). The membership of the research team included the two Chief Investigators from Newcastle University and Deakin University, a project manager from Hunter New England Population Health (HNEPH), one project officer from HNEPH, and two project officers funded via the TUNRA grant.

5 Research Methods

5.1.1 Literature Review

A literature review was undertaken to identify the health impacts of the urban development process. Literature relating health to urban form characteristics and the urban development process was reviewed.

5.1.2 Stakeholder Consultation

In order to better understand what constitutes a liveable community in the context of the Lower Hunter Region, a number of individual stakeholder consultations and workshops were undertaken. The objectives of the stakeholder consultation were to:

- Capture stakeholders' knowledge about the urban planning and development process in the Lower Hunter Region;
- Provide an opportunity for stakeholders to inform the definition of a liveable community in the Lower Hunter.

Individual consultations were undertaken with fifteen urban development stakeholders to gain an understanding of current roles, opportunities and challenges perceived by stakeholders in relation to the urban development process. The results of the consultations were analysed using qualitative analytical processes.

Representatives from a number of organisations were invited to be part of a group stakeholder consultation process that involved attendance at two workshops.

The workshop process aimed to:

- Explore the question: 'What is a liveable community in the Lower Hunter Region?';
- Identify the key elements of a liveable community;
- Identify the avenues for intervention to enhance positive health impacts and minimise negative health impacts of new residential developments; and
- Provide an opportunity for stakeholders to inform the development of a resource for the planning and development industries.

The notes from the workshops were summarised and sorted into themes using qualitative analysis techniques.

5.1.3 Community Consultation

A community telephone survey of 703 people was undertaken over a two-month period. The objective of the survey was to obtain a community perspective on what constitutes a liveable community. The survey participants were drawn from suburbs within the Lower Hunter Region's five local government areas of Cessnock, Lake Macquarie, Maitland, Newcastle and Port Stephens. A random sample of households was selected from the Telstra White Pages. The households were sent a letter explaining the purpose of the telephone survey and then contacted by telephone. Consent to complete the survey was sought from the person in the household with the next birthday.

The survey was specifically developed to ascertain levels of community perception with regard to a number of physical, built and social aspects of people's suburbs and neighbourhoods. The survey was based on existing surveys found in the literature (Belden, Russonello & Stewart, 2004; NSW Premiers Department (2000) and Bullen & Onyx, 1998).

Participants were asked a series of questions about the suburb and neighbourhood they lived in. The 25 minute telephone survey included questions on:

- the physical environment,
- the built environment,
- community facilities,
- crime and safety,
- social capital,
- neighbourhood layout,
- transport, and
- policy.

Demographic information and general comments were also obtained, as well as an allocation task to determine community development priorities.

6 Research Outcomes

6.1 Literature Review Outcomes

Table 1 presents a number of urban form characteristics and the influence these have on the health and wellbeing of people.

Table 1 Urban form characteristics and influence on health and wellbeing

Urban form characteristic	Influence on health and wellbeing
Social infrastructure	Access to community services Access to education Access to employment Employment security Adequacy of job, income Access to health services
Housing	Housing affordability Housing accessibility Housing conditions Housing density
Built and Physical Environments	Exposure to pollutants and hazards Water quality Safety of recreational waters Neighbourhood layout Neighbourhood aesthetics Access to recreation facilities Design of public space and open space Access to open spaces Levels of provision of natural areas Safety and perceptions of safety Rates of crime Street network Building design Intensity and frequency of environmental noise
Social Environment	Cultural diversity Population characteristics Social cohesion, sense of belonging Social inclusion Participation in community activities Opportunities for participation in community planning and decision making Retention of valued local and/or cultural features
Retail Facilities	Availability of fresh food/ goods & services Cost of food/ goods & services
Transport	Access to public transport Active transport levels Car usage Availability and quality of footpaths and cycle ways Pedestrian hazards and injuries

(National Heart Foundation of Australia, 2004; Butterworth, 2000; Edwards & Tsouros, 2006; Jackson & Kochtitsky, 2001; Ball et al, 2001; Humpel et al, 2002; Lavin et al, 2006; Department of Human Services, 2001.)

6.2 Stakeholder Consultation Outcomes

6.2.1 Stakeholder Participation

The stakeholder consultations were undertaken with representatives from the organisations listed in Tables 2 and 3:

Table 2 Agencies involved during individual consultations

Agency
Centre for Urban and Regional Studies
Department of Planning, Hunter
Environmental Health, Hunter New England Health
Integrated Water Planning
Lake Macquarie City Council
Landcom
Local Government Shires Association
Ministry of Transport
Newcastle City Council
Newcastle University
Planning Institute of Australia
Premiers Council on Active Living
Urban Development Industry of Australia

Table 3 Agencies involved in the workshops

Agency
Moir Landscape Architect, NSW Representative for the Australian Institute of Landscape Architecture
Community Dimensions
Family Action Centre
Hunter Business Chamber
Hunter Economic Development Corporation
Hunter New England Population Health
Landcom
McCloy's Property Development
Ministry of Transport
Monteath & Powys
Newcastle City Council & representative from Hunter Region Organisation of Councils
NSW Council of Social Services
NSW Sport and Recreation
Premier's Department - Hunter
Samaritans
School of Economics, Politics and Tourism, University of Newcastle

6.2.2 Stakeholders' perceptions of the urban planning and development process in the Lower Hunter Region

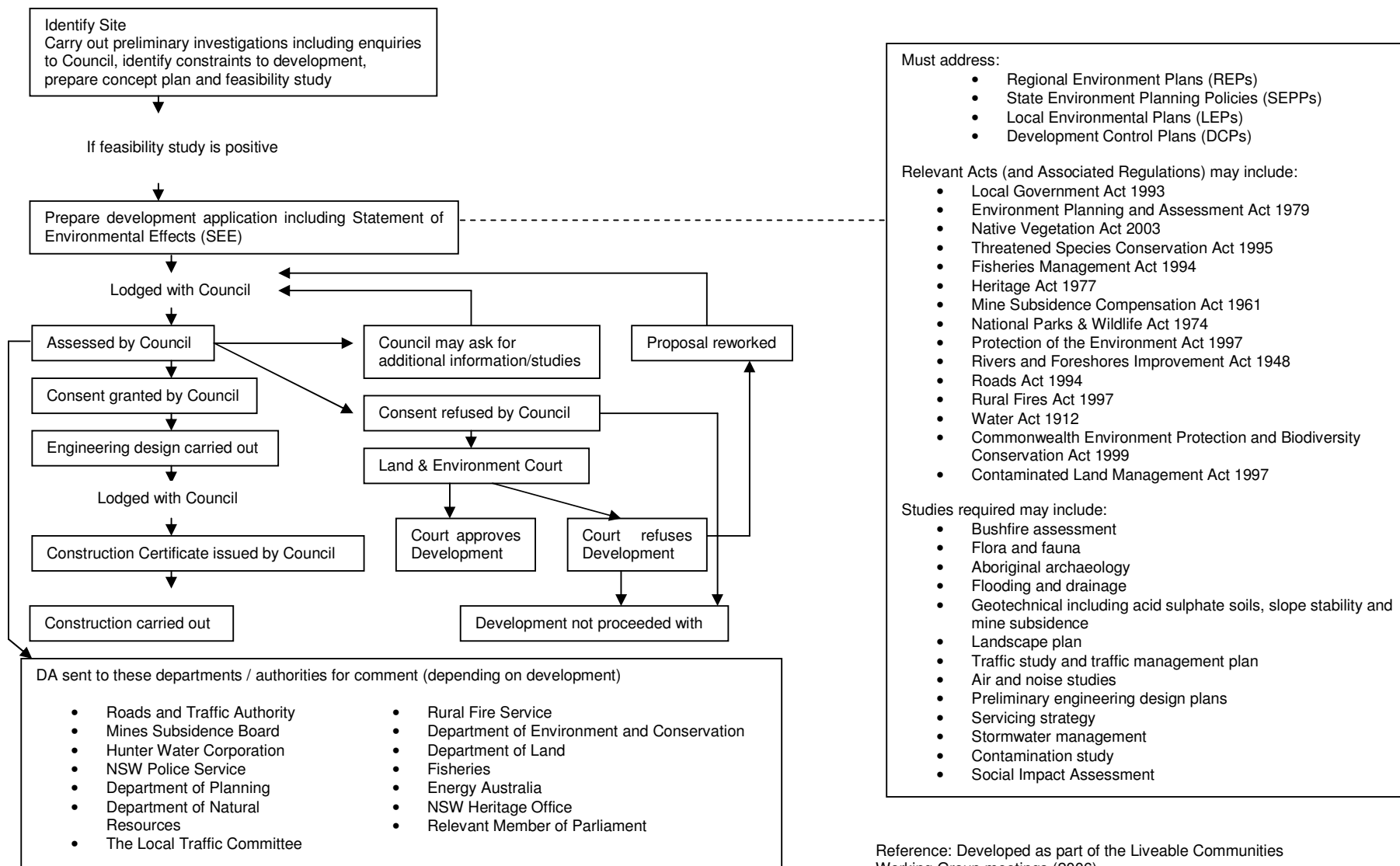
The consultations with individual stakeholders resulted in the identification of current strengths, limitations, opportunities and challenges in relation to the urban planning and development process in the Lower Hunter Region, as shown in Table 4.

Table 4 Current strengths, limitations, opportunities and challenges

Strengths
<ul style="list-style-type: none"> • State, Regional and local government decision making framework exists. • Strong regulatory framework exists for assessing development applications. • Favourable economic climate at present. • Strong theoretical background and expertise in building liveable, sustainable communities. • Health is already on local government agenda. • The Hunter Region has evolved successfully as an integrated urban settlement and as a mixed community.
Limitations
<ul style="list-style-type: none"> • Time pressures on council planning staff due to heavy workload may only be able to consider mandatory issues. • Checklist process not used when considering development applications. • Long development approval process. • Limited professional development opportunities for council staff. • Regulatory environment that sometimes produces 'compounding effects' that reduce viability of development. • Tension around stakeholders' long and short term commitments (e.g., council maintenance issues). • There are developments on different scales and no existing guidelines exist regarding when health of a community should be considered. • A more car dependent community is emerging, and as a result, public transport links need to be considered. • The capacity to deliver on 'healthy' urban design is developer driven.
Opportunities
<ul style="list-style-type: none"> • Need to learn more about developer culture. • Supporting information about how to incorporate specific health targets into urban planning would be welcomed by local government. • Improvements to approval process would be welcomed. • Developers are always seeking to improve their product. • Coordination between government bodies to serve a common goal would improve the urban development system. • Many health objectives align with other planning objectives so health outcomes could be linked with environmental and economic outcomes to support better planning. • Need to encourage small scale development, be creative, taking advantage of existing historical or natural features, and encourage small businesses into new communities.
Challenges
<ul style="list-style-type: none"> • Political decisions can override town planners' professional judgements, resulting in poor development. • Effects of economic cycles. • Using up all of the available land which will not allow for future generation or expanding population needs. • Poor quality development which is not well supervised. • The way in which councils are approached – proposed changes need to be negotiated, not imposed. • Ongoing bland, boring development. • Developers can bypass regulation structures if pushed.

The stakeholder consultation assisted in mapping the Lower Hunter residential development process (as shown in Figure 1).

Figure 1 Flow chart of Lower Hunter residential development process, as identified by stakeholder consultation process



Reference: Developed as part of the Liveable Communities Working Group meetings (2006).

As part of mapping the residential development process, a number of opportunities and challenges facing the development industry were highlighted.

It was identified that the most opportunistic time to influence developer planning of new residential developments is in the early feasibility stages, before a development application is submitted, and that Impact Assessments (eg, Health Impact Assessment (HIA) or Social Impact Assessment (SIA)) offer best practice methods of assessing and addressing impacts at this stage.

The consultation with stakeholders revealed the complicated nature of the development process, and the difficulty of negotiating with a wide range of stakeholders in that process. An incongruity appeared to exist between local government requirements, evidence from the available healthy community literature and developers' expectations. Although operating under the one Act, different councils have differing requirements according to local needs and therefore a one size fits all approach is inappropriate. This incongruity resulted in the proposal for a resource to be developed for a range of stakeholders, including councils and developers, and that it not be prescriptive, but rather offer guiding directions.

6.2.3 Stakeholder definition of a liveable community

Based upon the consultation with individual stakeholders and group workshops, a number of key components of a liveable community were identified:

The four major components that make up a liveable community were identified as being: the built environment; the natural environment; the availability and accessibility of services; and its people. Within each of these components, a range of subsidiary elements were also identified as shown in Table 5.

Table 5 Key components of a liveable community

Built Environment
<ul style="list-style-type: none">▪ Affordable housing;▪ Housing variety;▪ Mixed use development;▪ Open space; and▪ Connectivity.
Natural Environment
<ul style="list-style-type: none">▪ Air quality;▪ Safe and reliable water supply;▪ Availability of green space;▪ Protection of soil and trees;▪ Effects of climate change; and▪ Protection of resources.
Availability and Accessibility of Services
<ul style="list-style-type: none">▪ Access to food;▪ Access to health and education;▪ Religious involvement;▪ Access to employment;▪ Access to recreation;▪ Access to transport;▪ Safety;▪ Well designed and aesthetically pleasing indoor and outdoor spaces.
People
<ul style="list-style-type: none">▪ Diversity;▪ Supportive environments;▪ Social cohesion;▪ Culture and choice;▪ Tolerance; and▪ Participation in community.

6.3 Synthesis of literature review and stakeholder consultations

Synthesis of the findings of the literature review and those of the consultation with stakeholders resulted in the identification of four major components that make up a liveable community: physical structures; natural features; service provision; and social principles (Table 6).

Table 6 Key components of a liveable community, as identified by literature review and consultations

<p>Physical Structures</p> <ul style="list-style-type: none"> ▪ Affordable, acceptable, adaptable, manageable housing; ▪ Mixed use zonings including private and public housing; ▪ Public green space with community facilities such as BBQ, sporting and disabled access; ▪ High quality walking, wheelchair and cycling paths; ▪ A level of housing density which will promote walkability without adversely affecting housing affordability; ▪ Low traffic volume incorporated into housing design.
<p>Natural Features</p> <ul style="list-style-type: none"> ▪ Minimal pollution levels and good indoor air quality; ▪ Equitable access to a safe and reliable water supply; ▪ Availability of green space; ▪ Environmental sustainability; and ▪ Balancing housing needs with that of farming, agriculture, bushland, parks and open space.
<p>Service Provision</p> <ul style="list-style-type: none"> ▪ Improved access to health services; ▪ Effective waste management; ▪ Local opportunities to access basic services such as post office, newsagent, library, GP, groceries, restaurants; ▪ Well maintained, easily accessible recreation sites; ▪ Accessible, well linked public transport services; ▪ Adequate street lighting; and ▪ Youth services.
<p>Social Principles</p> <ul style="list-style-type: none"> ▪ A socially inclusive and supportive neighbourhood fostering a sense of belonging; ▪ A legible, efficient and amenable environment; ▪ Strong social cohesion; ▪ Respect for neighbourhood diversity, ▪ Culture and choice; ▪ Participation in decision making process; ▪ Well designed and aesthetically pleasing indoor and outdoor spaces; and ▪ Ecologically sustainability.

6.4 Community Consultation Outcomes

The community survey provided an opportunity to identify what community members perceive constitutes a liveable community in the Lower Hunter.

6.4.1 Sample

Table 7 Community sample characteristics

LGA	Proportion of Lower Hunter Region population	Proportion of Sample	Proportion of Completed Interviews
Cessnock	9.60%	9.65%	9.25%
Lake Macquarie	37.80%	35.35%	38.41%
Maitland	11.40%	11.20%	11.95%
Newcastle	29.10%	30.24%	27.45%
Port Stephens	12.00%	13.65%	12.94%

At the end of the survey, the final status of the 1,700 phone numbers that were randomly selected was as follows:

- Of the 1,700 phone numbers sampled, 118 were unable to have letters sent to them due to incomplete address details, 244 phone numbers were disconnected, 135 weren't able to be contacted (due to the number being a fax machine or answering machine), and 108 were deemed ineligible.
- This left a sample of 1095 that were contacted.
 - Seven hundred and three (64%) of these completed the survey.
 - Three hundred (28%) refused to complete the survey.
 - Ninety two (8%) did not complete the survey (due to unanswered call-backs and partially completed interviews).

The overall response rate was 64%.

Tables 7 and 8 describe the characteristics of the sample of people who participated in the survey.

Table 8 Demographic characteristics of the sample

Variable	Categories	Total Sample n (%)
Gender	Male	225 (32%)
	Female	478 (68%)
Mean age (yrs)	55 yrs	
Language at home	English	697 (99%)
Born in Australia		620 (88%)
Aboriginal/Torres Strait Islander origin		11 (2%)
Marital Status	Single - never married	51 (7%)
	Married	468 (67%)
	Defacto relationship	39 (6%)
	Separated not divorced	18 (3%)
	Divorced	48 (7%)
	Widowed	79 (11%)
Home ownership	Own your own home	599 (85%)
	Rent	50 (7%)
	Live in public housing	32 (5%)
	Live with relative/friend	20 (3%)
	Other	1 (0%)
Living Arrangements	Alone	123 (17%)
	With partner only	238 (34%)
	With children only	40 (6%)
	With partner & children	248 (35%)
	With extended/blended family	34 (5%)
	With friends	8 (1%)
		12 (2%)
Own income source	Wages or salary	325 (46%)
	Pension or benefit	258 (37%)
	Self-funded retiree	93 (13%)
	Other	27 (4%)
Household income source	Wages or salary	374 (53%)
	Pension or benefit	223 (32%)
	Self-funded retiree	92 (13%)
	Other	14 (2%)
Highest level education	None or some primary school	2 (0%)
	Completed primary school	15 (2%)
	Some high school	89 (13%)
	Y10/Intermediate/4th form	177 (25%)
	HSC/Leaving/Year12/6th form	67 (10%)
	TAFE certificate/diploma	192 (27%)
	University/CAE/ other degree	159 (23%)
	Other	2 (0%)

6.4.2 Perceptions of Physical Environment

Participants were asked to rate the perceived importance (Tables 9 & 11) and satisfaction (Table 10) with a series of statements about the physical environment in their neighbourhood and suburb. (See Appendices for detailed results).

Table 9 Reported importance of physical environment features

	Very important n (%)	Somewhat important n (%)	Not very important n (%)	Not at all important n (%)
Level of street lighting in neighbourhood	482 (69%)	150 (21%)	52 (7%)	19 (3%)
Number of trees in neighbourhood	423 (60%)	194 (28%)	69 (10%)	17 (2%)
Access to open space and parks	477 (68%)	147 (21%)	57 (8%)	22 (3%)
Gardens and lawns in suburb	366 (52%)	263 (38%)	65 (9%)	9 (1%)
Own gardens and lawns	458 (66%)	191 (28%)	31 (5%)	5 (1%)

Table 10 Reported satisfaction with physical environment features

	Happy/very happy n (%)	Neither happy nor unhappy n (%)	Unhappy/very unhappy n (%)
Level of street lighting in neighbourhood	463 (66%)	85 (12%)	155 (22%)
Gardens and lawns in suburb	520 (74%)	111 (16%)	72 (10%)
Own gardens and lawns	528 (77%)	68 (10%)	89 (13%)
	Should be more	Right amount	Should be less
Number of trees in neighbourhood	198 (28%)	449 (64%)	55 (8%)
Access to open space and parks	182 (26%)	517 (74%)	0 (0%)

Table 11 Overall ratings

	Street Lighting n (%)	Number of trees n (%)	Access to open space/ parks n (%)	Gardens and lawns in suburb n (%)	Own gardens and lawns n (%)
“Overall which one is most important?”	293 (42%)	65 (9%)	219 (32%)	50 (7%)	66 (10%)

6.4.3 Perceptions of Built Environment

Participants were asked to indicate how important (Table 12) it was to be within walking distance/ have access to a number of built environment features and how satisfied (Table 13) they were with a number of features of the built environment in their neighbourhood. (See Appendices for detailed results).

Table 12 Reported importance of built environment features

	Very Important n (%)	Somewhat Important n (%)	Not Very Important n (%)	Not at all important n (%)
Being within walking distance of public transport	370 (53%)	150 (21%)	119 (17%)	63 (9%)
Being within walking distance to schools	196 (28%)	101 (14%)	147 (21%)	258 (37%)
Being within walking distance to shops and restaurants	309 (44%)	229 (33%)	128 (18%)	37 (5%)
Having pathways and places to take walks	545 (78%)	129 (18%)	21 (3%)	8 (1%)
Being within a 45-minute trip to work	343 (49%)	61 (9%)	55 (8%)	241 (34%)
Having easy access to a highway	241 (34%)	275 (39%)	134 (19%)	52 (8%)

Table 13 Reported satisfaction with built environment features

	Too much n (%)	Too little n (%)	Right amount n (%)	Don't Know n (%)
Shops or restaurants within walking distance of your home	6 (1%)	249 (35%)	444 (63%)	4 (1%)
Footpaths or pathways	0 (0%)	385 (55%)	317 (45%)	1 (0%)
Public transport within walking distance	0 (0%)	158 (22%)	511 (73%)	34 (5%)
Access to parks and playgrounds	1 (0%)	166 (24%)	535 (76%)	1 (0%)
Places to walk or exercise for fun	0 (0%)	199 (28%)	500 (71%)	4 (1%)
Places to cycle	2 (0%)	354 (50%)	315 (45%)	32 (5%)
Housing for people with low incomes	71 (10%)	165 (23%)	348 (50%)	119 (17%)
Housing for people with middle incomes	6 (1%)	88 (13%)	565 (80%)	44 (6%)
Housing for people with high incomes	58 (8%)	70 (10%)	503 (72%)	72 (10%)
New shops and offices being built	58 (9%)	167 (24%)	377 (54%)	89 (13%)
New houses being built	130 (18%)	60 (9%)	502 (71%)	11 (2%)
New apartments being built	147 (21%)	58 (8%)	456 (65%)	42 (6%)

6.4.4 Knowledge of Community Facilities

Participants were asked to think about the type of community facilities that were available in their suburb and to indicate the most important facilities to them and their household. Table 14 shows the highest recorded responses. (See Appendices for detailed results).

Table 14 Knowledge of existing community facilities (most frequently reported)

Community Facilities Important to the Respondent	n (%)
Sporting Fields/Courts	95 (24%)
BBQ/Picnic Area	31 (8%)
Walkway	28 (7%)
Community/Indoor Pool	27 (7%)
Access to Foreshore/Waterway	23 (6%)
Cycle way	22 (6%)
Community Centre/Hall	20 (5%)
Park	20 (5%)
Reserve/National Park	20 (5%)
Playground	18 (5%)

Participants were also asked to specify whether there was a type of community facility that was not in their suburb, and they would like to see there (Table 15).

Table 15 Most commonly requested community facilities

Community Facilities Important to the Respondent	n (%)
Youth Service/Facility	32 (10%)
Playground	26 (8%)
Park	24 (7%)
BBQ/Picnic Area	22 (7%)
Sporting Fields/Courts	22 (7%)
Community/Indoor Pool	21 (7%)
Cycle way	21 (7%)
Community Centre/Hall	18 (6%)
Gym/Sports Centre	18 (6%)

6.4.5 Perceptions of Safety

6.4.5.1 Reported perceptions of safety

Participants were asked to rate their agreement against a series of statements about safety in their neighbourhood (Table 16). (See Appendices for detailed results).

Table 16 Perceptions of safety

	Strongly Agree n (%)	Agree n (%)	Neither agree nor disagree n (%)	Disagree n (%)	Strongly disagree n (%)
When I am alone in my home during the day, I feel safe	239 (34%)	422 (60%)	24 (3%)	17 (3%)	1 (0%)
I feel safe walking alone around the neighbourhood during the day	199 (28%)	452 (64%)	15 (3%)	35 (5%)	2 (0%)
When I am alone in my home during the night, I feel safe	120 (17%)	430 (61%)	73 (10%)	73 (10%)	1 (1%)
I feel safe walking alone around the neighbourhood during the night	29 (4%)	146 (21%)	60 (9%)	264 (37%)	204 (29%)

6.4.5.2 Reported perceptions of existing crime problems

Participants were asked to agree or disagree with a series of statements about their perceptions of crime in their neighbourhood (Table 17). (See Appendices for detailed results).

Table 17 Perceptions of existing crime problems

	Yes n (%)	No n (%)	Don't Know n (%)
Break-ins burglaries/theft from homes	411 (58%)	273 (39%)	19 (3%)
Car theft	273 (39%)	386 (55%)	44 (6%)
Other theft	411 (58%)	265 (38%)	27 (4%)
Louts or youth gangs	299 (42%)	399 (57%)	5 (1%)
Prowlers/loiterers	120 (17%)	558 (79%)	25 (4%)
Drunkenness	300 (42%)	399 (57%)	4 (1%)
Vandalism/graffiti/ damage to property	405 (58%)	297 (42%)	1 (0%)
Dangerous or noisy driving	502 (72%)	199 (28%)	2 (0%)
Illegal Drugs	265 (38%)	312 (44%)	126 (18%)
Sexual Assault	54 (8%)	563 (80%)	86 (12%)
Other Assault	181 (26%)	488 (69%)	34 (5%)
Problems with neighbours	110 (16%)	590 (84%)	3 (0%)
Domestic violence	104 (15%)	569 (81%)	30 (4%)

Participants were also asked to indicate if there were any other crime and safety issues relevant to their neighbourhood. 'Other' perceived problems included problems associated with youth, noise and problems associated with licensed premises.

6.4.6 Social Capital

Participants were asked to rate their agreement against a series of statements about the social aspects of their neighbourhood (Table 18).

Table 18 Reported levels of Social Capital

	Strongly Agree n (%)	Agree n (%)	Neither agree nor disagree n (%)	Disagree n (%)	Strongly disagree n (%)
"Overall I am very attracted to living in this neighbourhood"	380 (54%)	280 (40%)	25 (3%)	11 (2%)	7 (1%)
"I feel like I belong to this neighbourhood"	278 (40%)	336 (48%)	52 (7%)	31 (4%)	6 (1%)
"I visit my neighbours in their homes"	71 (10%)	305 (43%)	64 (9%)	250 (36%)	13 (2%)
"The friendships I have with other people in my neighbourhood mean a lot to me"	166 (24%)	404 (57%)	57 (8%)	73 (11%)	3 (0%)
"Given the opportunity, I would like to move out of this neighbourhood"	27 (4%)	72 (10%)	36 (5%)	366 (52%)	202 (29%)
"If I needed advice about something, I could go to someone in my neighbourhood"	101 (14%)	466 (66%)	33 (5%)	101 (15%)	2 (0%)
"I believe my neighbours would help me in an emergency"	338 (48%)	348 (49%)	10 (1%)	7 (1%)	0 (0%)
"I feel loyal to the people in my neighbourhood"	176 (25%)	449 (64%)	47 (7%)	31 (4%)	0 (0%)
"I borrow things from my neighbours"	37 (5%)	215 (31%)	40 (6%)	368 (52%)	43 (6%)
"I would be willing to work together with others on something to improve my neighbourhood"	114 (16%)	512 (73%)	23 (3%)	54 (8%)	0 (0%)
"I plan to remain a resident of this neighbourhood for a number of years"	216 (31%)	390 (55%)	40 (6%)	49 (7%)	8 (1%)
"I like to think of myself as being similar to people who live in this neighbourhood"	85 (12%)	488 (69%)	85 (12%)	37 (5%)	8 (1%)
"I rarely invite people in my neighbourhood into my house to visit"	40 (5%)	279 (40%)	50 (7%)	279 (40%)	55 (8%)
"A strong feeling of friendliness exists in this neighbourhood"	104 (15%)	456 (65%)	75 (11%)	63 (9%)	5 (0%)
"I regularly stop and chat with people in my neighbourhood"	96 (14%)	469 (67%)	56 (8%)	77 (11%)	5 (0%)
"Living in this neighbourhood gives me a sense of community"	79 (11%)	482 (69%)	63 (9%)	76 (11%)	3 (0%)
"I'm actively involved in one or more local groups or clubs - like sports, church, craft or social clubs"	73 (10%)	291 (41%)	5 (1%)	318 (45%)	16 (3%)
"Recently I have been involved with others to help improve the area"	32 (4%)	151 (21%)	23 (3%)	488 (69%)	9 (1%)
"If I were to buy a new house, I would want to buy a house in this area"	130 (19%)	342 (50%)	45 (7%)	135 (20%)	30 (4%)
"This is a good place to raise children"	182 (26%)	429 (61%)	49 (7%)	34 (5%)	9 (1%)

Participants were also asked to indicate how important it was to be involved in their neighbourhood (Table 19).

Table 19 Overall perceptions

	Very Important n (%)	Somewhat Important n (%)	Not very Important n (%)	Not at all Important n (%)
“How important to you is it to be involved in your neighbourhood”	238 (34%)	362 (51%)	88 (13%)	15 (2%)

6.4.7 Neighbourhood Layout

Participants were asked about the general layout of their neighbourhood and whether the layout could be improved. Of those participants that indicated “Yes” (51%), their responses on how the layout of their neighbourhood could be improved are listed in Table 20.

Table 20 Perceptions regarding layout of neighbourhood

Suggested Improvements	n (%)
BBQ/Picnic area	1 (0%)
Bigger blocks/decreased housing density	26 (7%)
Establishment and maintenance of parks/public space/playgrounds	32 (9%)
Establishment of bus shelters/stops	4 (1%)
Establishment of cycle ways	12 (3%)
Establishment of/improved footpaths	49 (14%)
Fix up mix of public/rental homes	17 (5%)
Improved curbing/guttering	13 (4%)
Improved disability access	1 (0%)
Improved drainage	9 (3%)
Improved lighting	23 (6%)
Improved neighbourhood design	6 (2%)
Improved pedestrian access	13 (4%)
Improved policing	5 (1%)
Improved roads/street design	88 (25%)
Improved signage	5 (1%)
More educational/children’s facilities	4 (1%)
More shops	12 (3%)
More trees	12 (3%)
Reduction of speed zones	13 (4%)
Removal of railway line	2 (1%)
Improved parking	6 (2%)
Industry too close to homes	2 (1%)
Keep development out of rural areas	3 (1%)

6.4.8 Transport

Participants were asked about access to transport. 95% of participants reported having access to a car on weekdays, and 96% reported having access to a car on weekends. Tables 21 and 22 detail how participants usually get to shops and work.

Table 21 Means of transport for shopping

How do you usually get to the shops?	n (%)
Car	623 (89%)
Bus	20 (3%)
Walk	47 (7%)
Other	7 (1%)

Table 22 Means of transport for work

How do you usually get to work?	n (%)
Car	312 (44%)
Bus	6 (1%)
Walk	25 (4%)
Bicycle/scooter/skates/rollerblades	1 (0.5%)
Motorbike/motor scooter/electric wheelchair	2 (0.5%)

All participants were asked whether any members of the household had trouble doing an activity because they have no transport. One hundred and eighteen participants (17%) responded yes. Of these, the most commonly reported activities that weren't able to be done due to lack of transport included: accessing the shops, accessing a doctor or health service and accessing entertainment.

Participants were also asked how important bus/train transport was in getting them to where they wanted to go. Four hundred and twenty nine (61% of participants) reported that bus/train transport were somewhat or very important to them.

6.4.9 Urban Development Priorities

Participants were asked about a number of policy issues that the State Government could be faced with over the next few years. Participants were asked to prioritise each of the issues (Table 23).

Table 23 Perceptions with regard to funding

	Extremely High Priority n (%)	High Priority n (%)	Low Priority n (%)	Extremely Low Priority n (%)
Slowing rate at which open space being developed	205 (29%)	349 (50%)	137 (20%)	6 (1%)
Fixing up older suburbs	107 (15%)	426 (61%)	160 (23%)	4 (1%)
Fixing up cities	129 (18%)	391 (56%)	160 (23%)	18 (3%)
Creating new development outside the cities	79 (11%)	339 (49%)	253 (36%)	25 (4%)
Establishing zones for farming and forests outside of existing cities and suburbs that would be off-limits to developers	338 (48%)	305 (44%)	47 (7%)	7 (1%)
Have government use tax dollars to buy land for more parks and open space and to protect wildlife	220 (31%)	399 (57%)	74 (11%)	6 (1%)
Have government do more to protect the environment	255 (37%)	396 (57%)	43 (6%)	3 (0%)

6.4.10 Allocation Task

Participants were asked to complete a hypothetical task involving the allocation of funds to public services. Participants were asked to allocate \$100 to one or more of a range of services in their local area. Table 24 describes the distribution of funds aggregated for all participants.

Table 24 Allocation of \$100 to a range of priorities

Services	Amount Allocated	% Allocated
Council Services	\$4,243.00	6%
Crime Prevention	\$10,045.00	15%
Neighbourhood Improvements	\$5,201.00	8%
Health	\$16,980.00	26%
Public Housing	\$1,748.00	3%
Transport	\$4,126.00	6%
Unemployment	\$5,099.00	7%
The Environment	\$5,478.00	8%
Community Facilities	\$5,019.00	8%
Playgrounds/Parks	\$8,312.00	13%
Total	\$66,251.00	100%

As show in Table 24, participants allocated 26% of the hypothetical funds towards health services, 15% towards crime prevention and 13% towards playgrounds and parks.

6.5 Synthesis of Literature, Stakeholder and Community Consultations

In order to progress the development of a resource for developers and planners, the key findings of the literature review, the stakeholder consultation and community consultation were examined and synthesised.

The current research resulted in the identification of four principles that should be considered when designing or planning for liveable communities in the Lower Hunter Region, as shown in Figure 2.

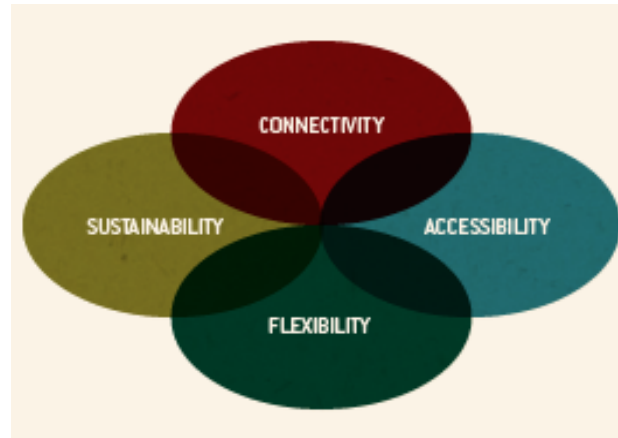


Figure 2: The principles of a liveable community

The principles for a liveable community were defined as follows.

Connectivity

Being connected implies that something or someone is united, linked or joined together. Building connectivity into developments is about providing the pathways that enable people to come together and to use the facilities and amenities in their local area, including footpaths, bicycle paths and public transport.

Sustainability

Sustainability is the ability to provide for the needs of the current population without damaging the ability of future generations to meet their own needs. It is about conducting business in a resource conservative and resource efficient manner. When a process is sustainable it can be carried out over and over without negative environmental effects or high costs to anyone involved. Sustainable new developments incorporate best practice principles into the design of housing and open space to promote efficient water and energy use, and avoid adverse impact on areas of ecological and/or cultural significance or sensitivity.

Flexibility

Flexibility can be defined as the ability to change, to fit to particular circumstances or to accommodate and support a range of needs. Flexibility includes concepts such as adaptability, diversity and adjustability. Building flexibility into new developments includes consulting the community to make sure that open space facilities accommodate the appropriate range of uses, and that housing stock is adaptable, affordable and allows for ageing in place.

Accessibility

A community which provides equal opportunities is an environment that ensures people are not excluded from the activities of society and everyone has access to the necessary items to achieve a task or goal. Opportunities can be built into communities, through provision of infrastructure and services that encourage active participation by people of different ages, ethnicities, abilities and genders.

Further synthesis of the literature and consultation data identified a number of key elements of a liveable community, which were categorised under each principle. A list of these elements is shown in Table 25.

Table 25 Principles and key elements of a liveable community

<p>Principle 1: Connectivity</p> <p>Key Elements:</p> <p>Design for those who walk and cycle via:</p> <ul style="list-style-type: none">The design of the footpaths and shared pathsThe location of the footpaths and shared pathsThe usability & aesthetics of footpaths, shared paths and streetsThe safety of footpaths, shared paths and streets for all usersProviding end use infrastructureEnsuring connections between streetsConnection to public and private servicesConnections to parks, open space and public space <p>Design to increase use of public transport options via:</p> <ul style="list-style-type: none">Promoting & enhancing access to public transportEnhancing usability & safety of public transport and stops <p>Design for neighbourhood connections via:</p> <ul style="list-style-type: none">Ensuring connections between surrounding residential areasEnsuring the connections to the neighbourhood centresEnsuring the connections to the town centre
<p>Principle 2: Sustainability</p> <p>Key Elements:</p> <p>Design to promote less energy consumption via:</p> <ul style="list-style-type: none">Designs to conserve energy usePassive solar design and solar orientation <p>Design for better water management via:</p> <ul style="list-style-type: none">Sustainable local water supplySustainable water use in building and community designWater re-use systemsProtecting natural watercoursesCreating artificial watercoursesEstablishing water habitats <p>Design for waste management via:</p> <ul style="list-style-type: none">Assessment of waste management options <p>Design to incorporate existing landscape via:</p> <ul style="list-style-type: none">Lot and street designLocation of development <p>Design a less car dependent neighbourhood via:</p> <ul style="list-style-type: none">Promoting walking, cycling and public transport optionsMore efficient use of car parking space

Principle 3: Accessibility

Key Elements:

Design to increase access to services via:

- Providing local destinations

Design to increase housing options via:

- Providing affordable housing
- Providing housing diversity and appropriate density
- Providing housing in appropriate locations

Design to increase use of parks, open space and public space via:

- Ensuring that there is an adequate amount of open green space and parks
- Providing cultural and natural retention in parks, open space and public space
- Revitalising old or disused areas
- Enhancing safety in parks, open space and public space
- Enhancing usability and aesthetics of parks, open space and public space

Design to increase use of recreational space via:

- Pool fencing design
- Co-location and integration of facilities

Design to increase educational/employment options via:

- Location of major institutions
- Providing allocation of land for employment

Design to preserve historical heritage via:

- Consultation and preservation

Design to increase opportunities for participation in social life via:

- Providing recreational public spaces for community members

Principle 4: Flexibility

Key Elements:

Design to meet a variety of people's needs via:

- Providing housing that is adaptable
- Providing housing diversity within a neighbourhood
- Providing service diversity within a neighbourhood
- Providing multi-purpose building use within a neighbourhood
- Providing multi-purpose public space within a neighbourhood

7 Building Liveable Communities in the Lower Hunter Region – A Resource

The key elements, as identified in Table 25, are general design objectives set out to guide future enhancement of liveable communities within the Lower Hunter Region. In the guide that was developed as part of the current research, *Building Liveable Communities in the Lower Hunter Region*, each objective has a set of related design suggestions, based on reputable sources of urban planning and health literature, and on community and stakeholder perspectives on what makes a liveable community. The resource is available as a separate document.

8 Conclusion

A review of the literature has revealed a number of urban form characteristics have an effect on the health and wellbeing of a community, including: availability of and access to social infrastructure; housing characteristics; components of the built, physical and social environments; availability of and access to retail facilities; and accessibility of transport. Consultation with local key stakeholders further revealed that a liveable community in the Lower Hunter can be broadly defined by a set of physical structures, natural features, availability and accessibility of services and the existence of social principles. The consultation identified that the most opportunistic time to influence developer consideration of these factors in the planning of new residential developments was in the early feasibility stages, before a development application is submitted. Impact Assessments (eg Health Impact Assessment (HIA) or Social Impact Assessment (SIA)) were considered to offer a best practice approach to including these factors, and addressing the impacts of planned development.

The current research revealed a number of principles and key elements of a liveable community, on which a resource to assist both planning and development industries in creating liveable communities could be based. Principles for enhancing the liveability of the Lower Hunter Region were: accessibility, connectivity, flexibility and sustainability.

A number of documents have been produced in Australia that outline healthy planning and design considerations. However, those produced have generally focused on one aspect of health, for example, physical activity or sustainability. The outcomes of this research and the resource produced as a consequence of this research have broadened this evidence base by its inclusion of multiple aspects of health, an inclusion informed by evidence and on local stakeholder and community need.

8.1 Future Directions

The information gained from the current research has provided a better understanding of what constitutes a liveable community in the Lower Hunter region that will inform future work. In particular, initiatives to further investigate the health and wellbeing of the Lower Hunter community by engaging with local government, planners and developers are planned to:

- Establish a liveable community index, based on the resource that was developed by the current research.
- Collaborate with one or more of the five local governments in their production of development or structure plans.
- Assist in building the capacity of local government to undertake health and social impact assessments.
- Scope the inclusion of other agencies, such as the Hunter Regional Coordination Management Group, in the planning of liveable communities.

8.2 Dissemination

Findings of the current research have been discussed at the following forums:

- Environments For Health – One Day Interactive Workshop on the NSW Planning System, 5th July, 2007, North Sydney, NSW.
- Healthy Planning Course – University of NSW, February, 2007, Sydney, NSW.

A request from the Premier's Council on Active Living has been made to the research team for a copy of the resource and research findings to be posted on their website.

Copies of the resource will be sent to local government representatives, developers, planning representatives in the Lower Hunter Region.

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10 Appendices

10.1 Community Consultation

10.1.1 Perceptions of Physical Environment, by LGA

10.1.1.1 Street Lighting

Participants were asked to indicate how important the level of street lighting in their neighbourhood was to them.

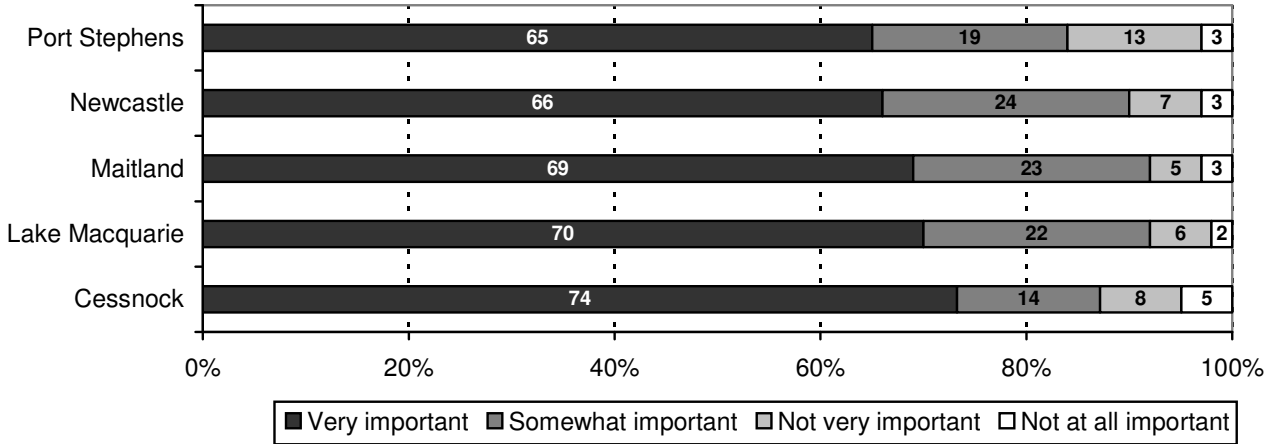


Figure 3 Reported importance of street lighting

Participants were asked to indicate how happy they were with the current level of street lighting in their neighbourhood.

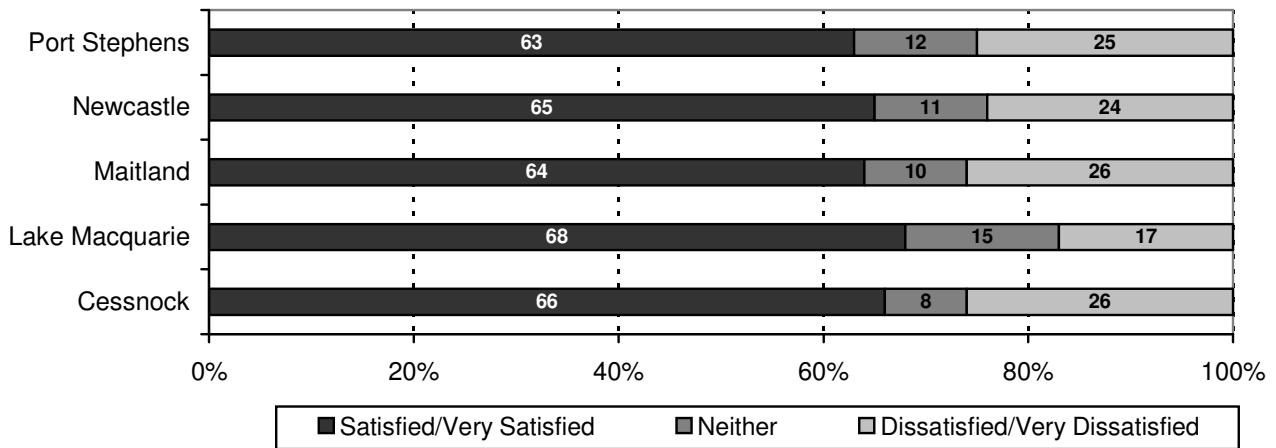


Figure 4 Reported satisfaction with street lighting

10.1.1.2 Number of Trees

Participants were asked to indicate how important the number of trees in their neighbourhood was to them.

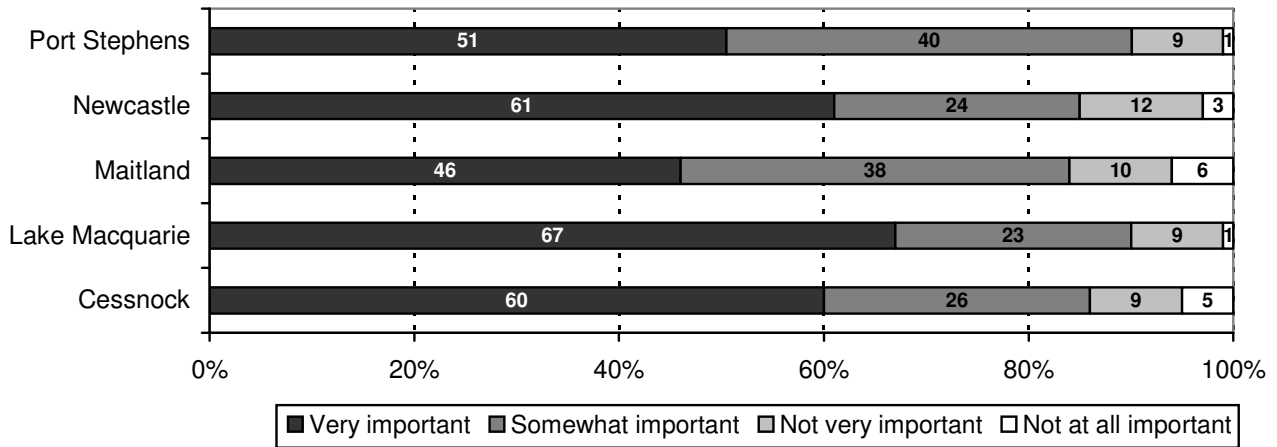


Figure 5 Reported importance of number of trees

Participants were asked to indicate how happy they were with the current number of trees in their neighbourhood

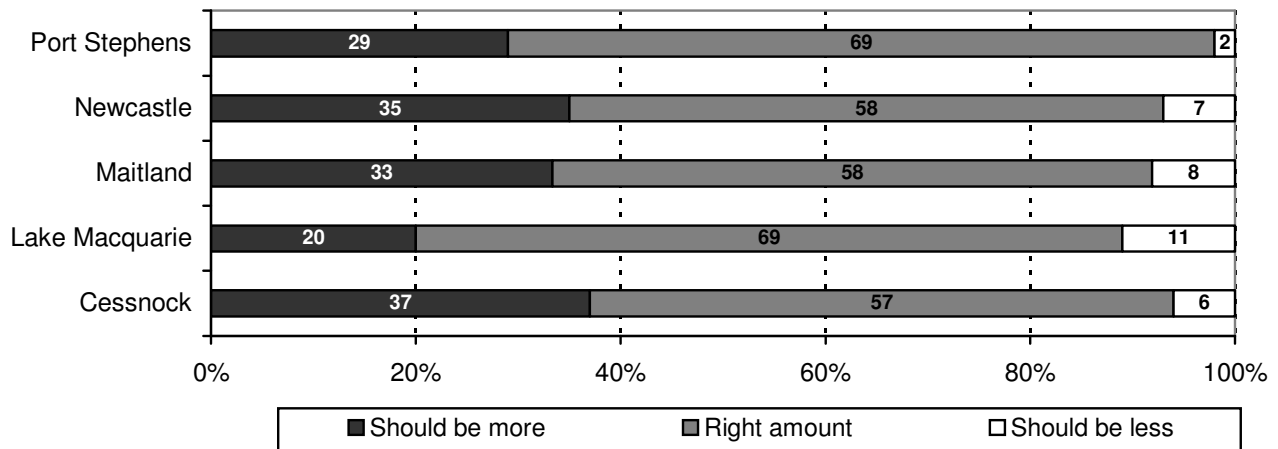


Figure 6 Reported satisfaction with number of trees

10.1.1.3 Open Space

Participants were asked to indicate how important it was to access open space and parks.

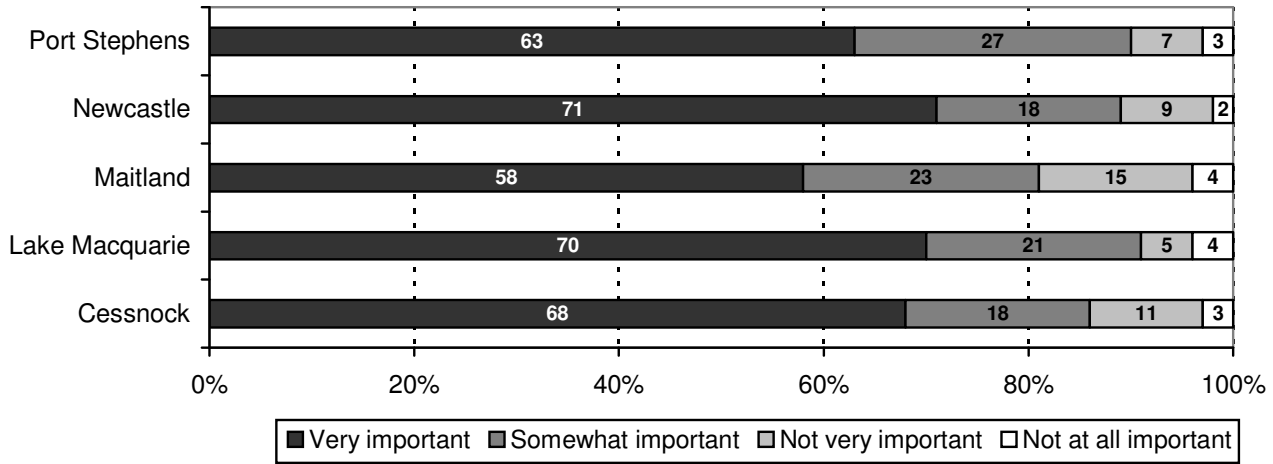


Figure 7: Reported importance of open space

Participants were asked to indicate how happy they were with the current access to open space and parks in their neighbourhood.

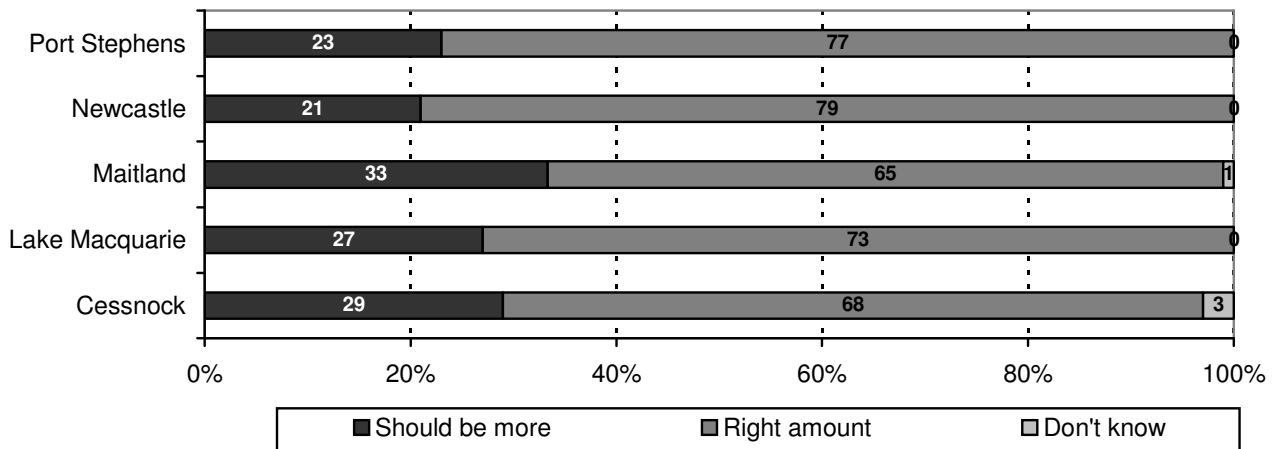


Figure 8: Reported satisfaction with open space

10.1.1.4 Gardens and lawns

Participants were asked to indicate how important the neighbourhood gardens and lawns were to them.

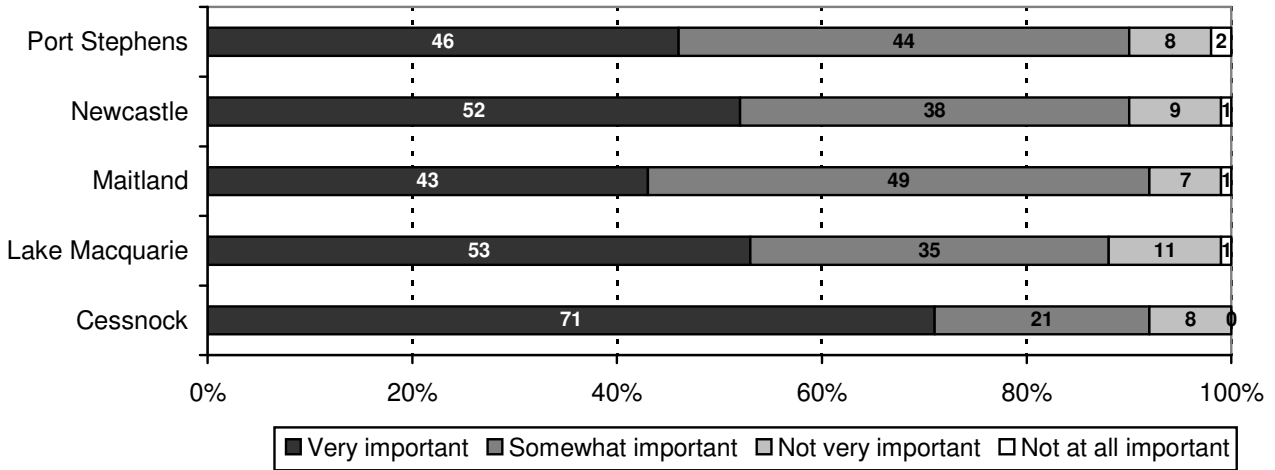


Figure 9: Reported importance of gardens and lawns in neighbourhood

Participants were asked to indicate how happy they were with the current gardens and lawns in their neighbourhood.

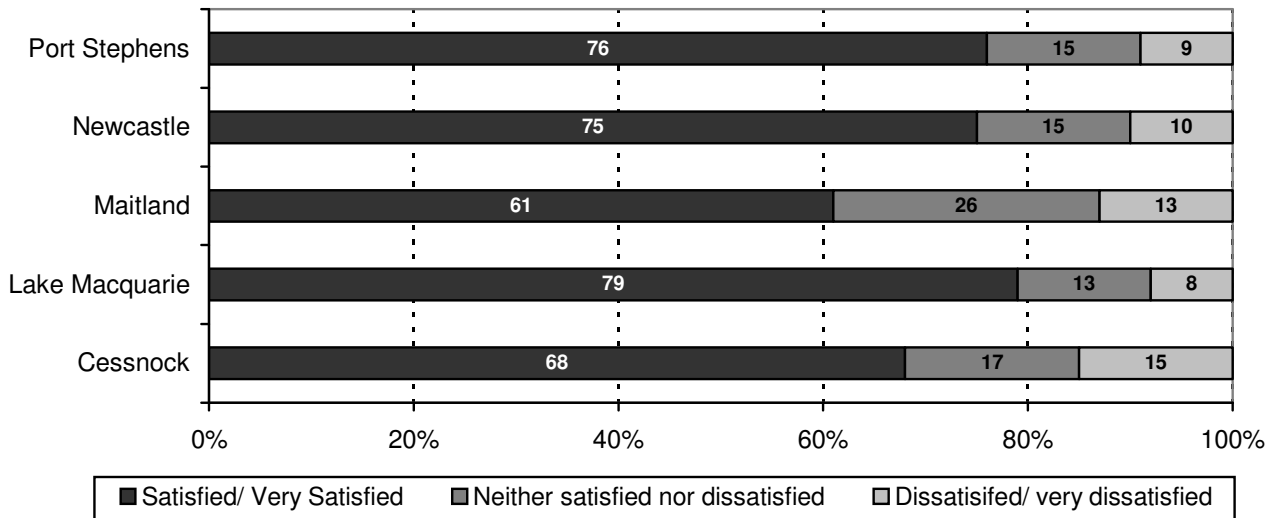


Figure 10: Reported satisfaction with gardens and lawns in neighbourhood

10.1.1.5 Own gardens and lawns

Participants were asked to indicate how important their own gardens and lawns were to them.

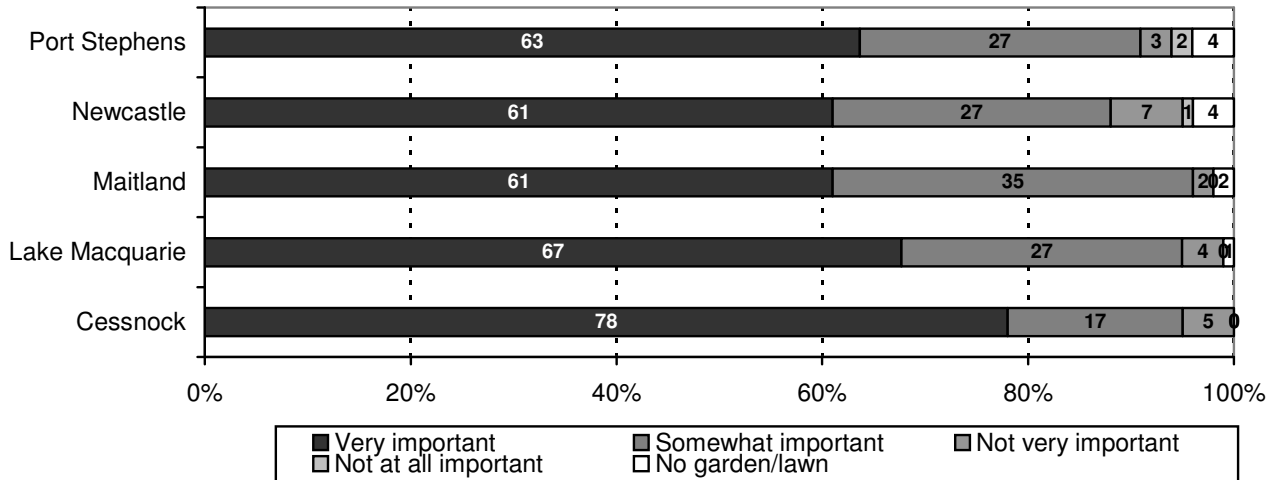


Figure 11: Reported importance of own gardens and lawns

Participants were asked to indicate how happy they were with their own gardens and lawns.

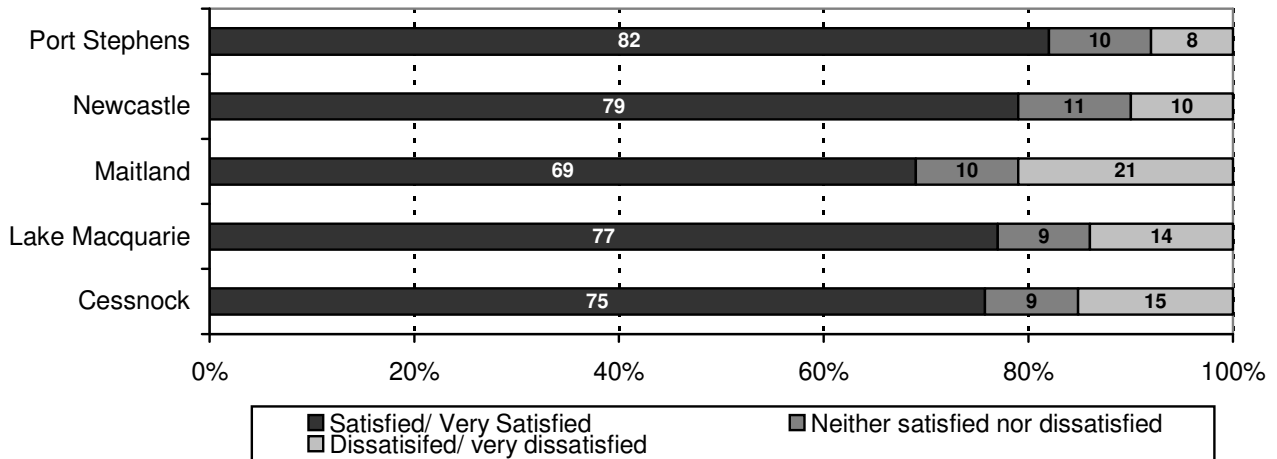


Figure 12: Reported satisfaction with own gardens and lawns

10.1.1.6 Most important aspect

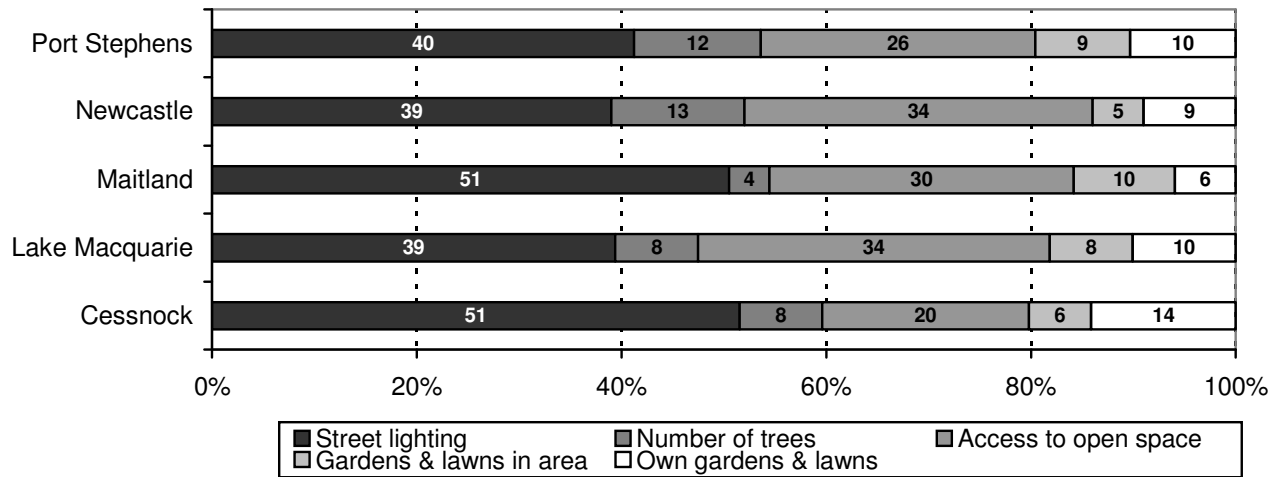


Figure 13: Most important aspect of Physical Environment

10.1.2 Perceptions of Built Environment, by LGA

Importance of built environment aspects

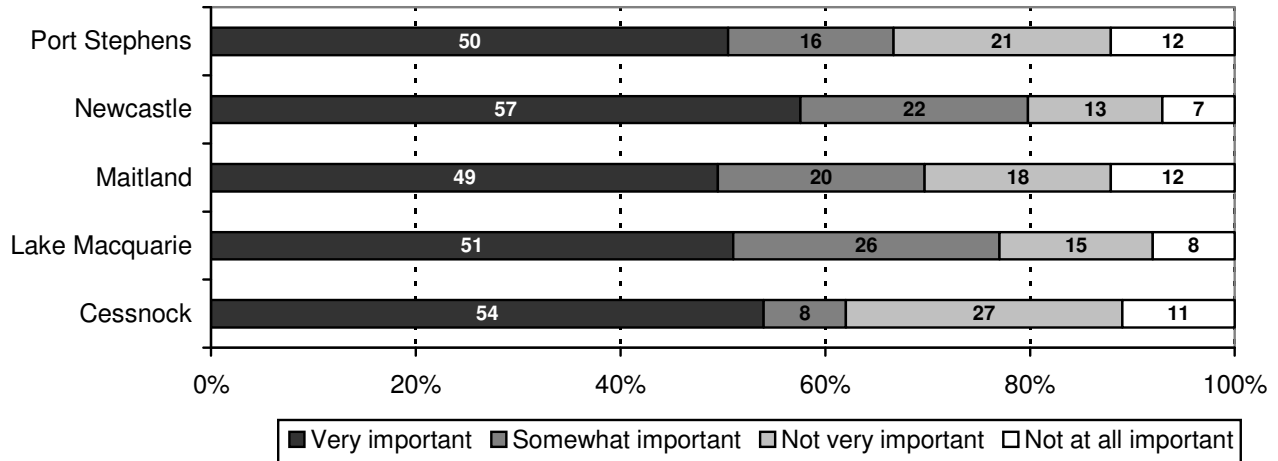


Figure 14: Reported importance of being within walking distance of public transport

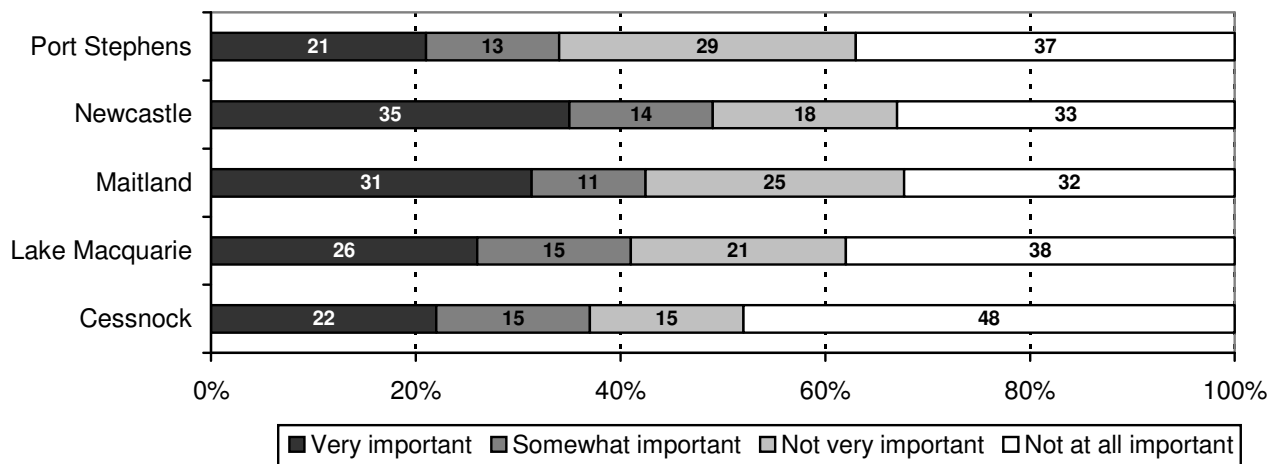


Figure 15: Reported importance of being within walking distance to schools

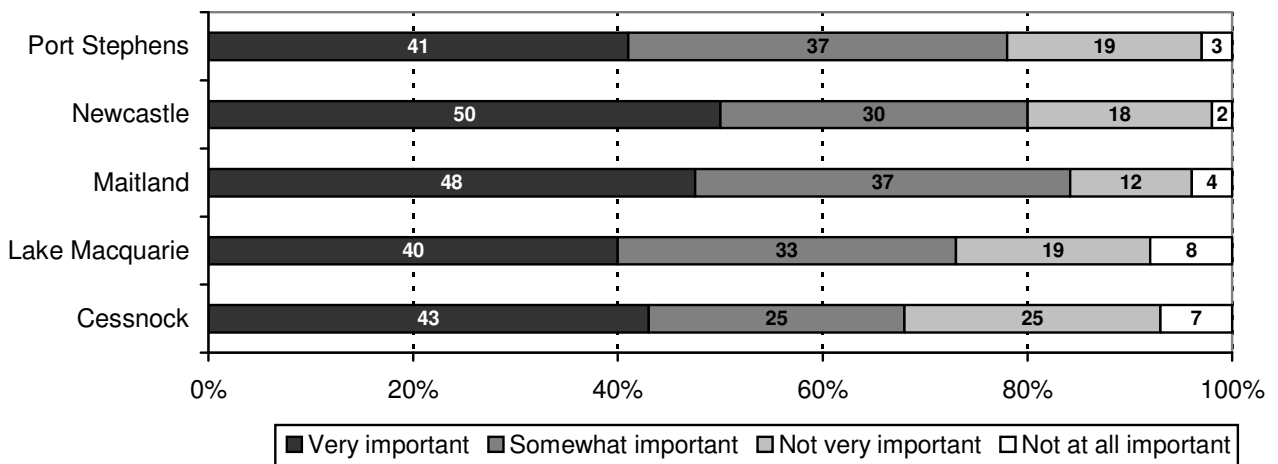


Figure 16: Reported importance of being within walking distance to shops and restaurants

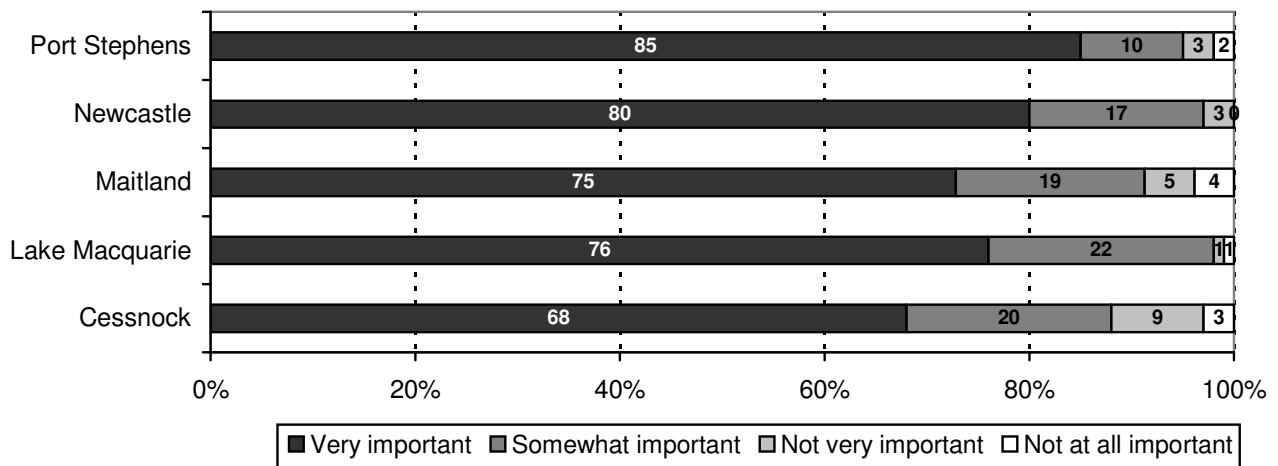


Figure 17: Reported importance of having pathways and places to take walks

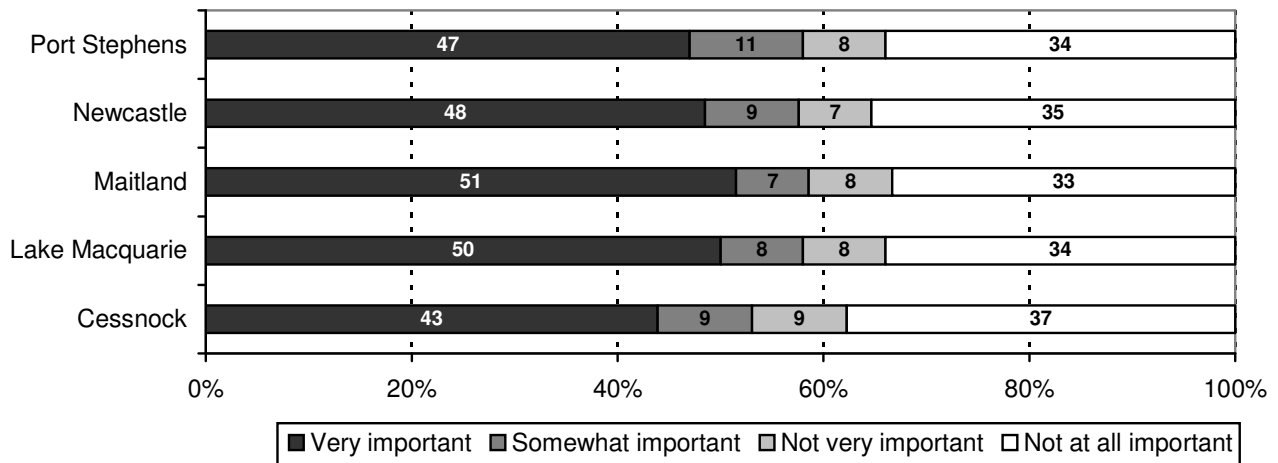


Figure 18: Reported importance of being within a 45-minute trip to work

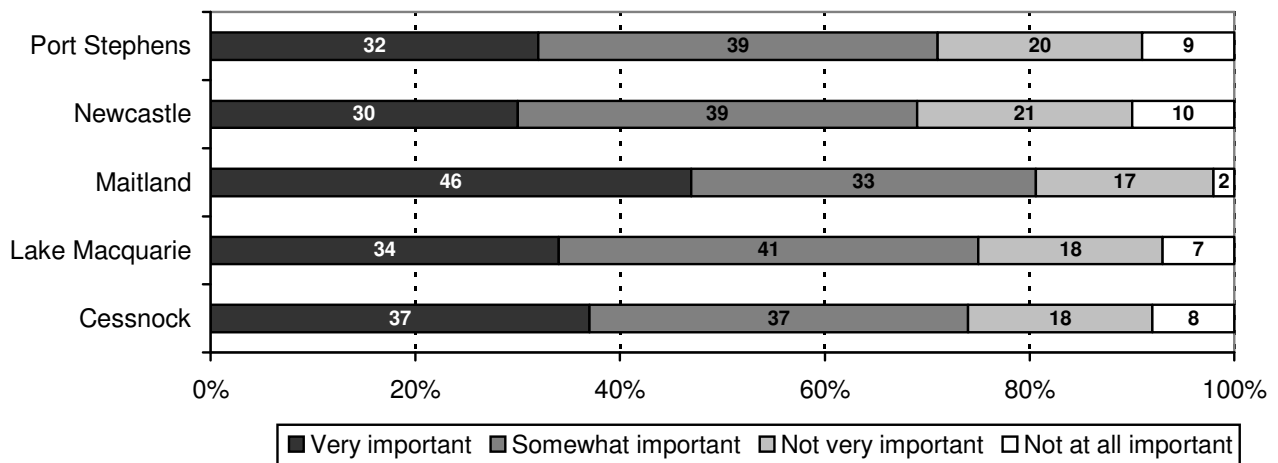


Figure 19: Reported importance of having easy access to a highway

Satisfaction with built environment features

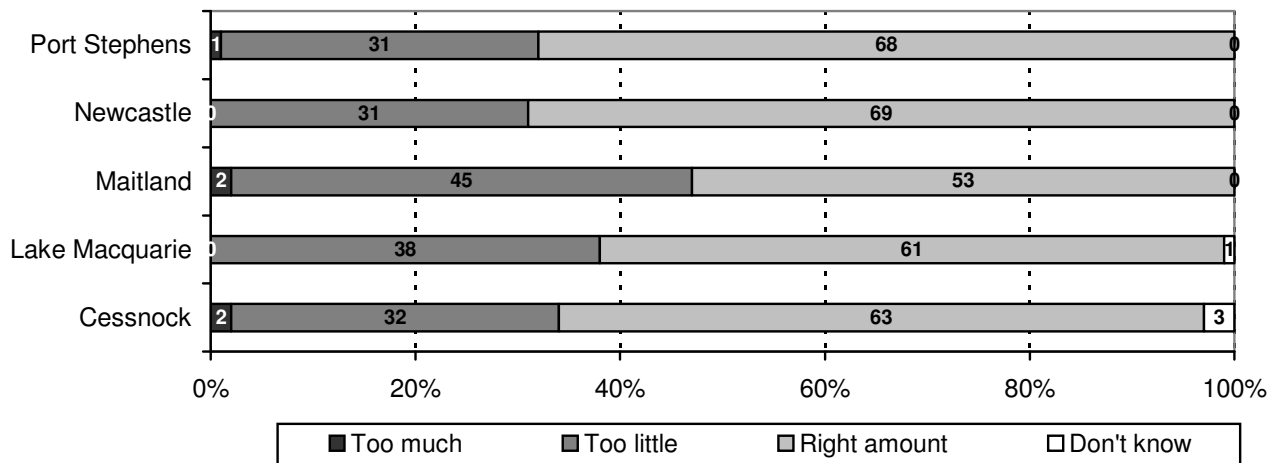


Figure 20: Reported satisfaction with amount of shops or restaurants within walking distance of your home

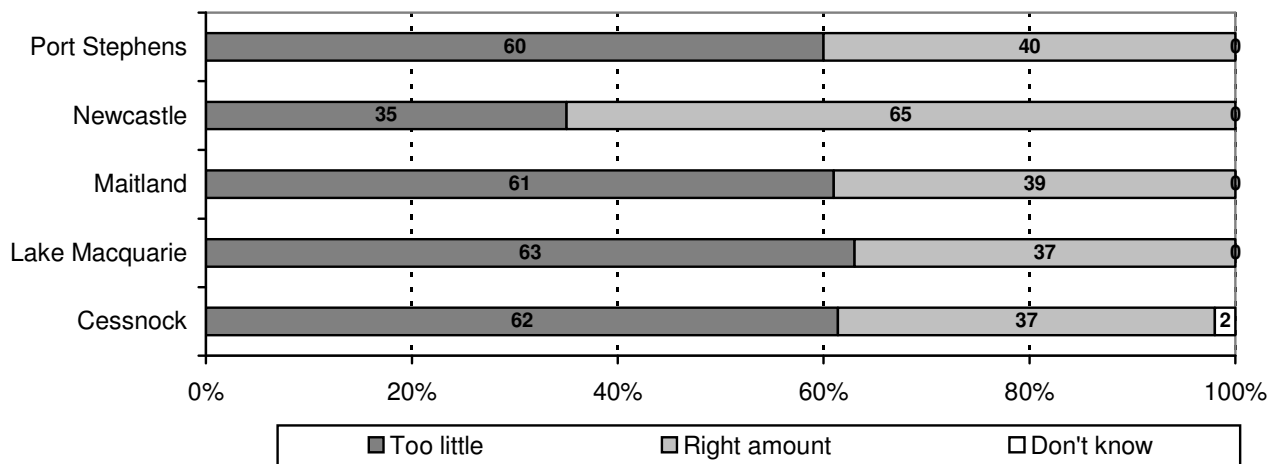


Figure 21: Reported satisfaction with amount of footpaths or pathways

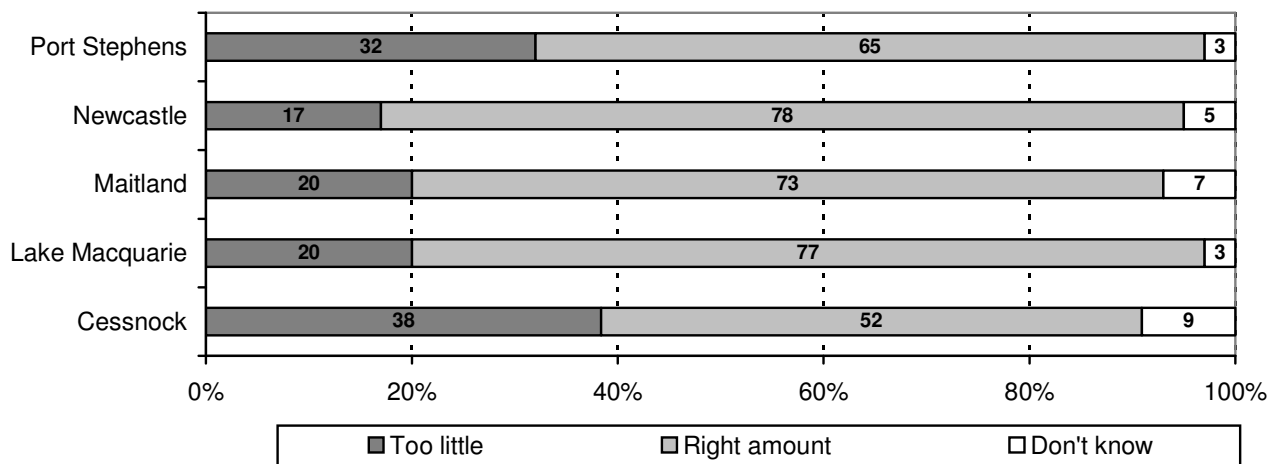


Figure 22: Reported satisfaction with public transport within walking distance

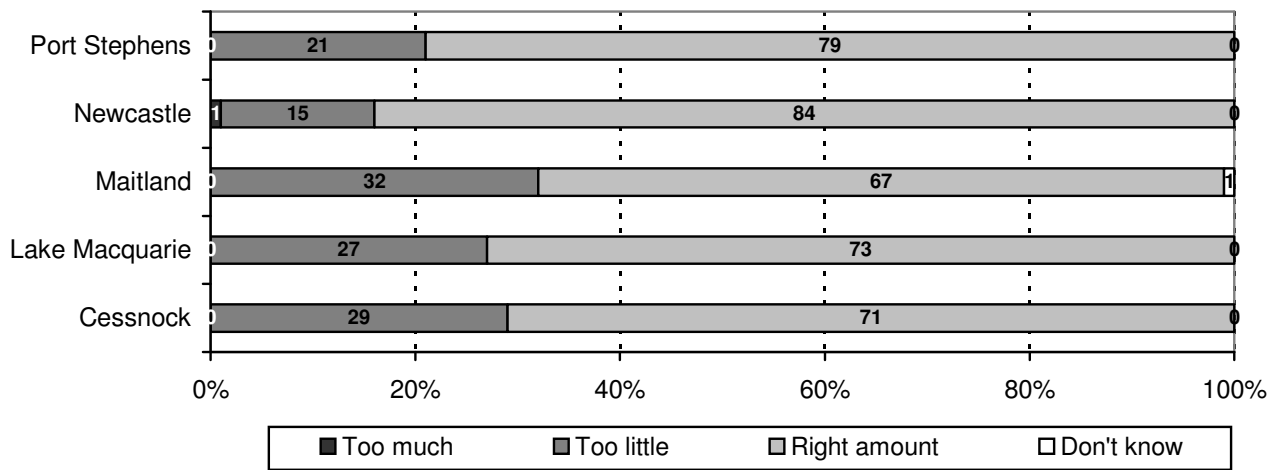


Figure 23 Reported satisfaction with access to parks and playgrounds

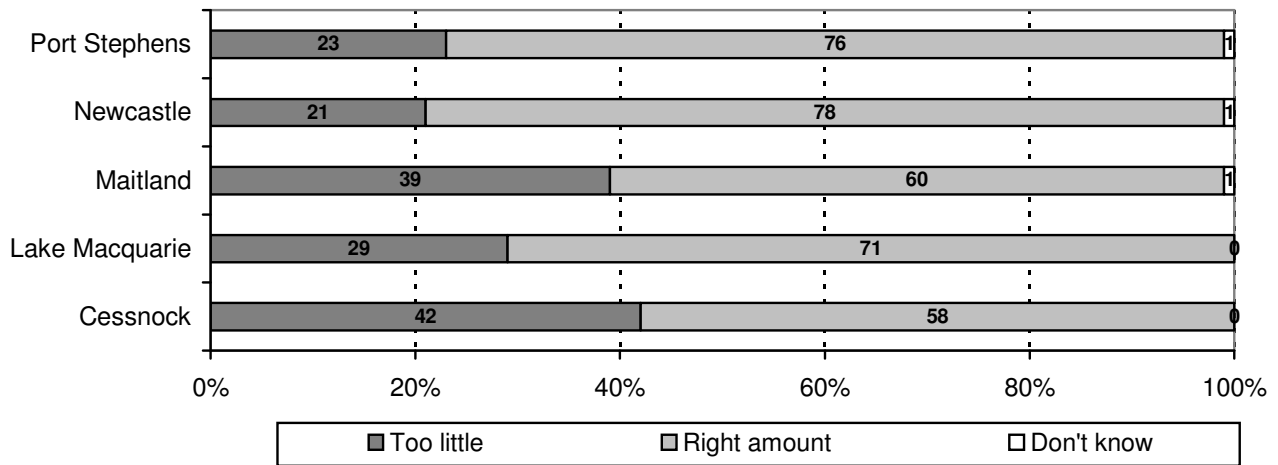


Figure 24: Reported satisfaction with amount of places to walk or exercise for fun

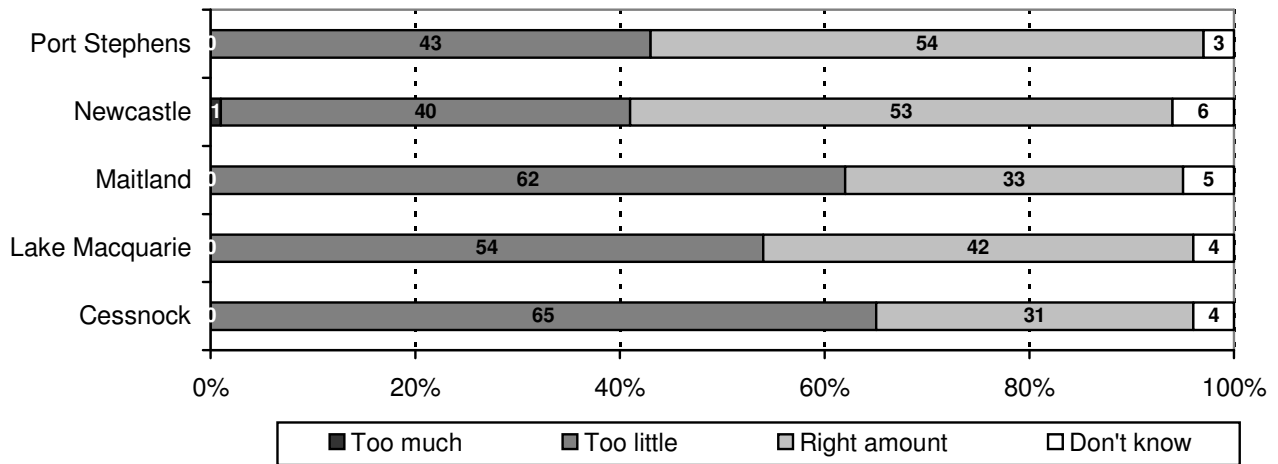


Figure 25: Reported satisfaction with amount of places to cycle

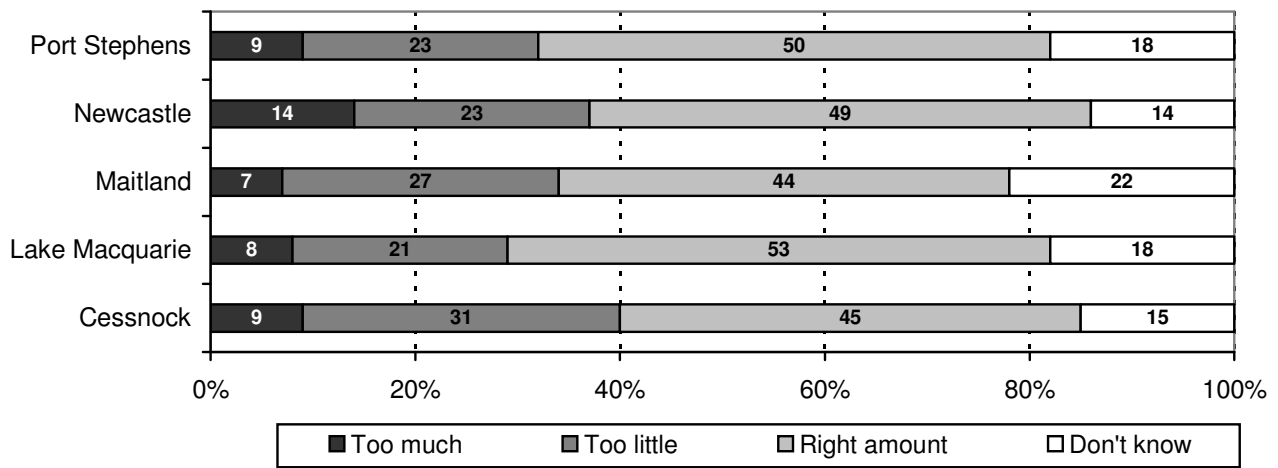


Figure 26: Reported satisfaction with amount of housing for people with low incomes

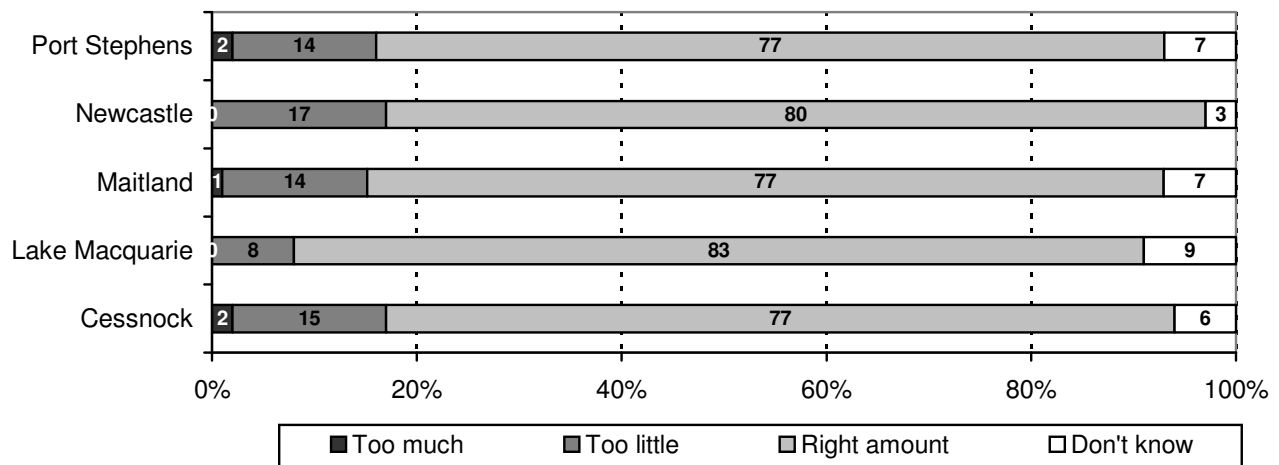


Figure 27: Reported satisfaction with amount of housing for people with middle incomes

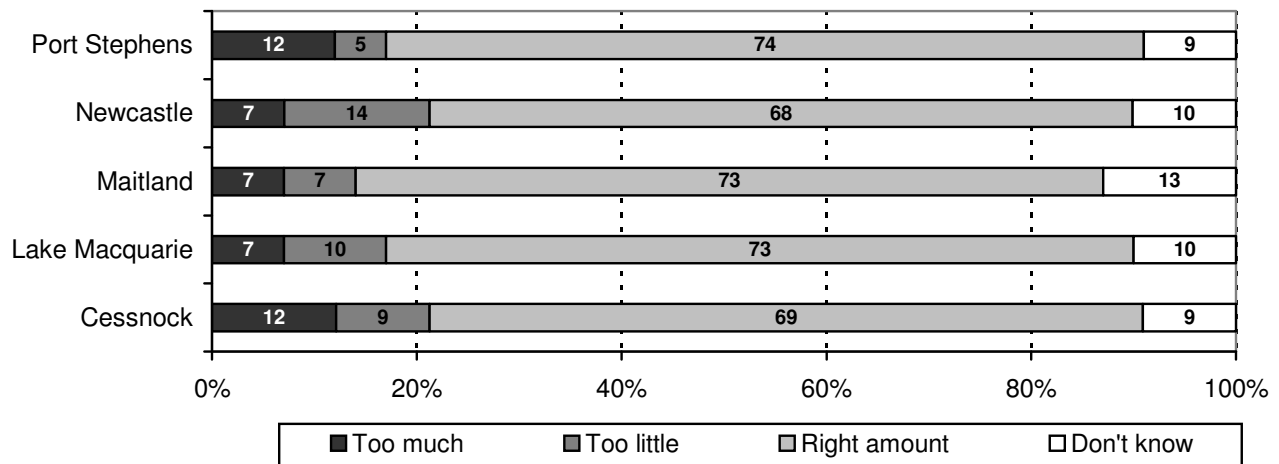


Figure 28: Reported satisfaction with amount of housing for people with high incomes

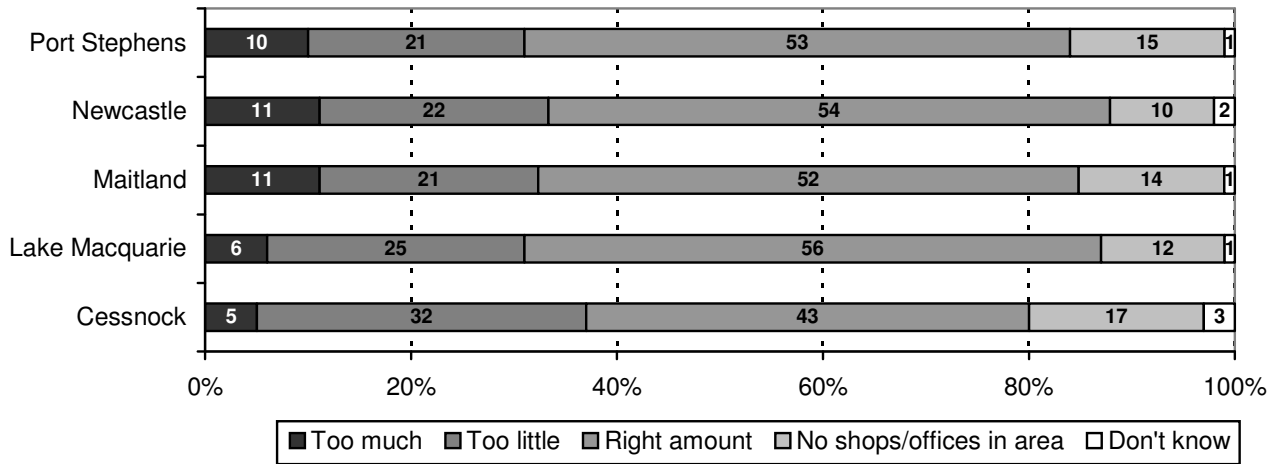


Figure 29: Reported satisfaction with amount of new shops and offices being built

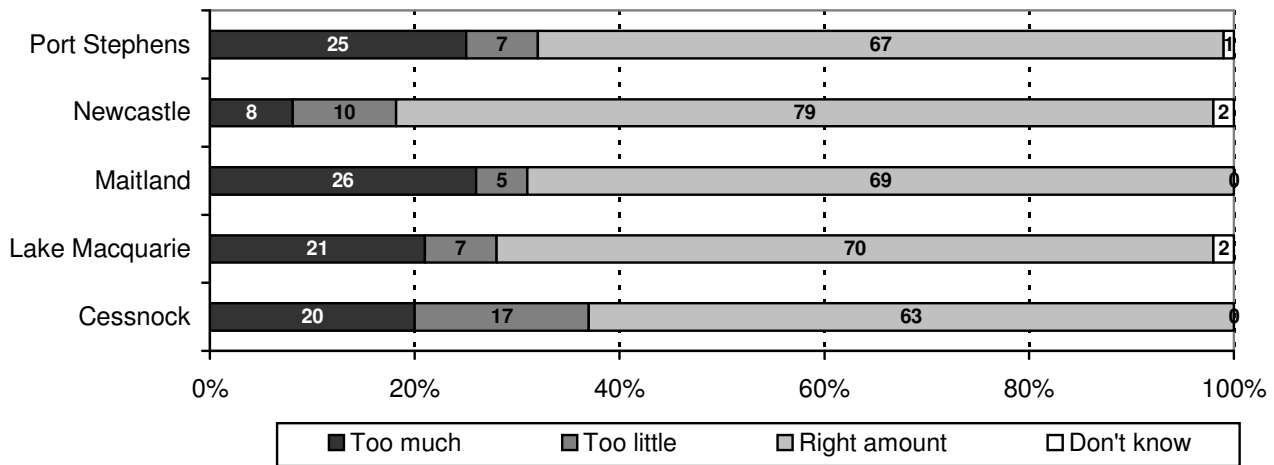


Figure 30: Reported satisfaction with amount of new houses being built

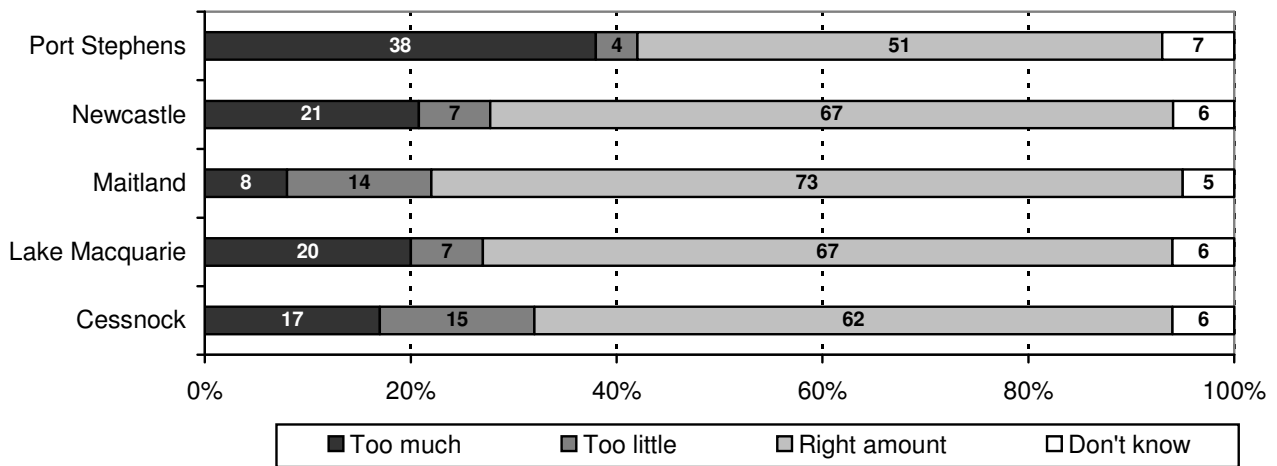


Figure 31: Reported satisfaction with amount of new apartments being built

10.1.3 Perceptions of Safety, by LGA

Reported perceptions of safety

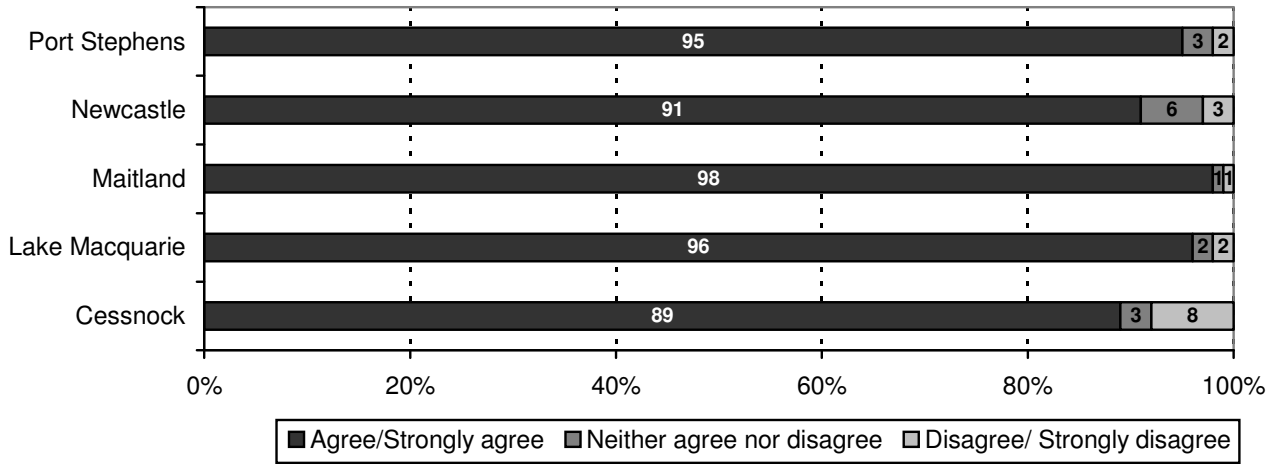


Figure 32: Reported levels of safety at home, during the day

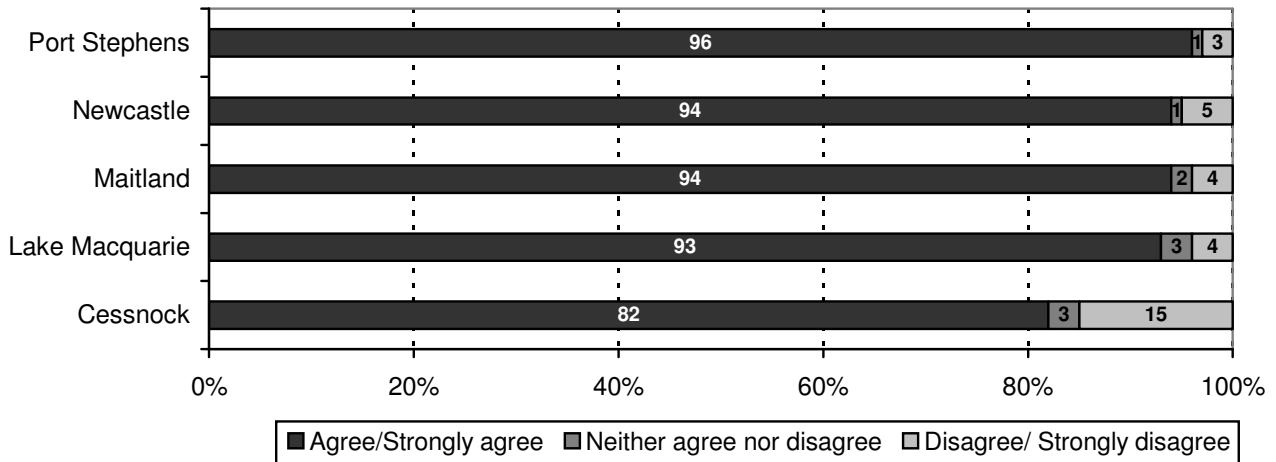


Figure 33: Reported levels of safety in neighbourhood, during the day

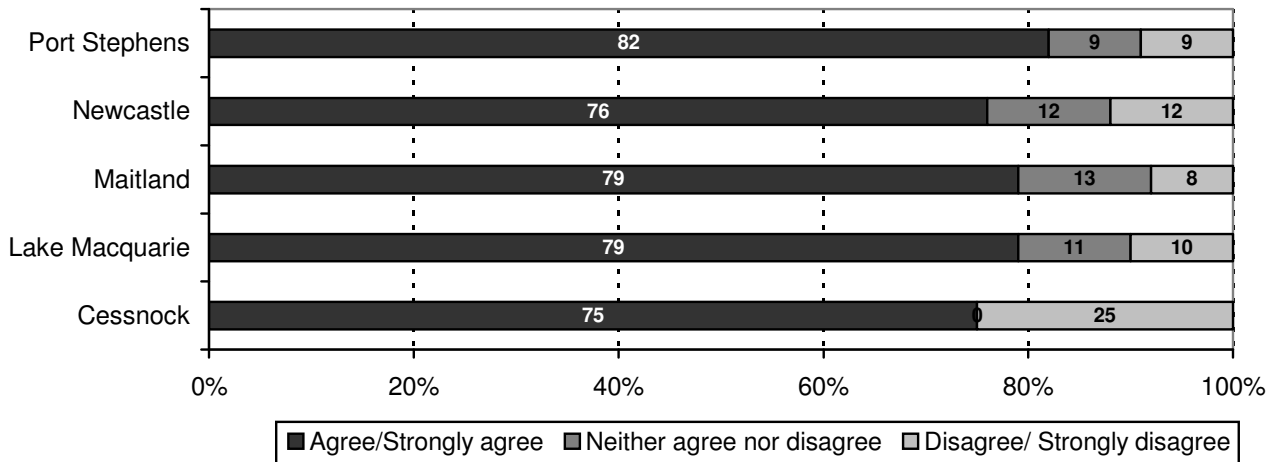


Figure 34: Reported levels of safety at home, during the night

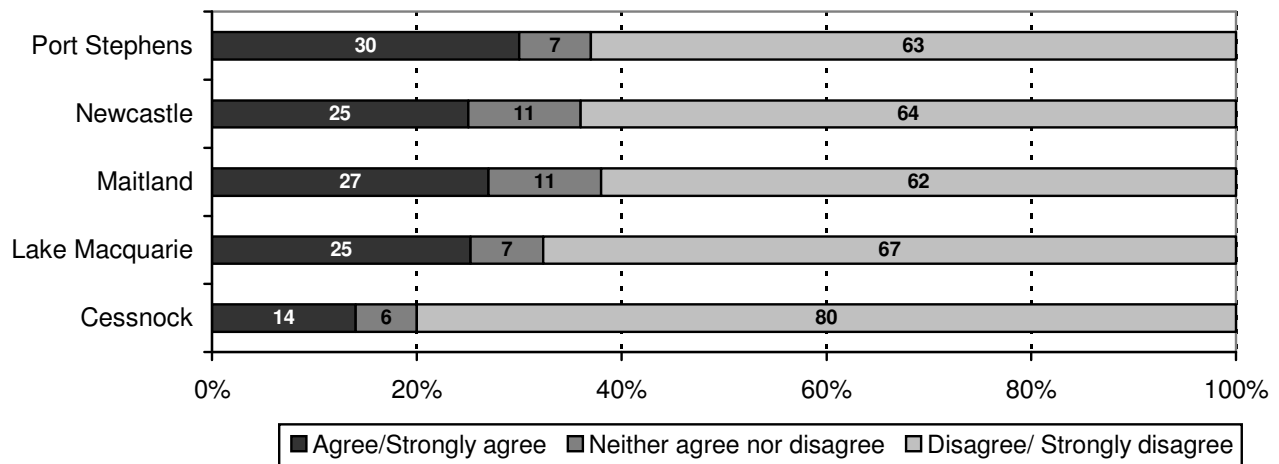


Figure 35: Reported levels of safety in neighbourhood, during the night

Table 26 Perceptions of existing crime problems, by LGA

	Cessnock N=65 n (%)	Lake Macquarie N=270 n (%)	Maitland N=84 n (%)	Newcastle N=193 n (%)	Port Stephens N=91 n (%)
Break-ins burglaries/theft from homes	43 (66%)	144 (53%)	50 (60%)	121 (63%)	53 (58%)
Car theft	43 (66%)	79 (29%)	40 (48%)	72 (37%)	39 (43%)
Other theft	47 (72%)	148 (55%)	54 (64%)	108 (56%)	54 (59%)
Louts or youth gangs	31 (48%)	113 (42%)	32 (38%)	75 (39%)	48 (53%)
Prowlers/loiterers	13 (20%)	38 (14%)	8 (10%)	44 (23%)	17 (19%)
Drunkenness	28 (43%)	129 (48%)	33 (39%)	77 (40%)	33 (36%)
Vandalism/graffiti/ damage to property	33 (51%)	162 (60%)	48 (57%)	104 (54%)	58 (64%)
Dangerous or noisy driving	50 (77%)	197 (73%)	59 (70%)	130 (67%)	66 (73%)
Illegal Drugs	39 (60%)	88 (33%)	31 (37%)	70 (36%)	37 (41%)
Sexual Assault	4 (6%)	17 (6%)	8 (10%)	19 (10%)	6 (7%)
Other Assault	17 (26%)	57 (21%)	23 (27%)	59 (31%)	25 (27%)
Problems with neighbours	8 (12%)	47 (17%)	17 (20%)	28 (15%)	10 (11%)
Domestic violence	10 (15%)	34 (13%)	15 (18%)	28 (15%)	17 (19%)

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