Hunter New England Local Health District Hunter New England Population Health

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21 March 2016

Ms Monica Gibson General Manager Hunter & Central Coast PO Box 1226 Newcastle NSW 2300

Dear Ms Gibson,

Draft Hunter Regional Plan and Draft Plan for Growing Hunter City

Hunter New England Health welcomes the opportunity to provide comment with regard to the Draft Hunter Regional Plan and the Draft Plan for Growing Hunter City. Hunter New England (HNE) Health understands that these documents will guide the planning and development of the Hunter Region and the Hunter City. The Draft Plans have been reviewed by HNE Health's Aboriginal Health and Population Health Units.

Documents such as these can affect the health and wellbeing of a community through impact on: the social determinants of health (including housing, education and employment); health risk behaviours (including participation in physical activity and consumption of healthy food); cultural and community connection; access to health services; and, exposure to environmental health risks. The response from HNE Health examines the Draft Plans in respect to these various influences on health and wellbeing.

In order to ensure that health and wellbeing outcomes are considered throughout the Plans a number of issues and recommended responses are outlined below.

DRAFT HUNTER REGIONAL PLAN

Front Cover (Page A)

There is currently nothing that depicts or is inclusive of the significance of Aboriginal culture on the front page. HNE Health recommends the inclusion of an appropriate image.

Page B

HNE Health recommends the inclusion of an acknowledgment of traditional owners that make up the Hunter region including acknowledgment of Elders past and present.

Vision (Page 9)

HNE Health commends the inclusion of the statement: *sustainable and healthy environments* as part of the NSW Government's vision. HNE Health strongly believes that health warrants specific listing as an explicit goal. HNE Health would welcome similar explicit recognition of the link with health and wellbeing throughout the Plans.

Hunter New England Local Health District ABN 63 598 010 203

Direction 1.1 Grow and sustainably manage Hunter City (Page 15)

With regard to the statement: access to high quality facilities and services, similar to that of capital cities, HNE Health queries how this will be achieved. With regard to this direction, Hunter New England Population Health (HNEPH) has developed a set of key principles to guide the development of liveable communities in the Lower Hunter Region. These key principles were identified through literature review, stakeholder consultations and community consultation and resulted in the development of the resource: Building Liveable Communities in the Lower Hunter Region (Attachment 1), which identifies accessibility, flexibility, sustainability and connectivity as four key principles of liveability which should be considered when planning for growth and sustainability.

Goal 3 – Protect and connect natural environments (Page 45)

With regard to the statement: The Hunter contains natural features that are important to Aboriginal communities as cultural heritage, HNE Health recommends the inclusion of the word significant so that the statement reads as: The Hunter contains significant natural features that are important to Aboriginal communities as cultural heritage.

Action 2.2.2 Investigate options to establish monitoring and strategic frameworks to better respond to the changing needs of communities with seasonal populations in regional towns and villages (Page 68)

With regard to this action, HNE Health recommends liveability data should inform plan making at the local and regional level. The inclusion of such data (including health and active living related data) would assist in prompting coverage of such matters as well as in evaluating performance against a health-based objective. HNE Health's work on Liveability Indicators, featured in HNEPH's *Liveability Assessment Tool* (Attachment 2), provides a list of measures and indicators whereby local governments and their partners can assess liveability within a particular geographical area on an ongoing basis.

Action 4.2.5 Support retail growth in centres to promote vibrant, liveable communities (page 70)

HNE Health commends the inclusion of the following: *Planning for local centres will consider how they can accommodate more retail growth. In areas where there are no opportunities for existing centres to grow, local planning will need to consider where new retail space can be developed. Planning of local centres, including new centres, should prioritise the creation of mix-used hubs, with high quality public areas, walking connections, and good transport connections.*

With regard to supporting retail growth in centres to promote vibrant, liveable communities, a number of guides are recommended when considering such support:

- Building Liveable Communities in the Lower Hunter Region (HNEPH)
- Liveability Assessment Tool (HNEPH)
- The Healthy Urban Design Checklist (NSW Health)
- Development and Active Living (NSW Premiers Council for Active Living (PCAL))
- Healthy by Design (National Heart Foundation)

ACTION 4.2.6 Plan for schools to meet growing and changing needs (Page 70)

With regard to planning for schools HNE Health suggests consideration be given to the planning and provision of cycle ways and walkways. HNE Health recommends linking with the Cycle Safe Network and supporting strategies to enable safe and direct cycle ways from existing and future residential areas to link to schools.

Action 4.2.7 Plan for the expansion of health facilities to service the region (Page 70)

With regard to service demands across the health network, HNE Health is focused on improving the health and wellbeing of Aboriginal people across the Hunter as this is a key focus for health

care providers. This focus aligns with both the Commonwealth's and State Government's Close the Gap strategy of working in partnership to reduce the gap in life expectancy and health outcomes between Aboriginal and non-Aboriginal people across the Hunter.

With regard to the Hunter region being supported by a network of health services, HNE Health recommends including the following services in the list on Page 70: Awabakal Aboriginal Medical Service, Ungaroo Aboriginal Corporation, Mindaribba Local Aboriginal Land Council, Tobwabba Aboriginal Medical Service and Biripi Aboriginal Corporation Medical Centre.

Page 74

With regard to the cultural art mural on Page 74 (*Cultural art mural, Muswellbrook*): The Hunter region incorporates a number of different Aboriginal nations and therefore it's important to incorporate the Hunter as a whole from an Aboriginal cultural perspective. HNE Health recommends using images that reflect the whole of the Hunter more broadly, e.g. cultural significant sites. Further information can be accessed through Aboriginal organisations, including Local Aboriginal Land Councils.

Action 4.4.1 Conduct a strategic assessment of land held by the region's Local Aboriginal Land Councils to identify priority sites for further investigation of their economic opportunities (Page 75)

With regard to working with other organisations, HNE Health advocates that there is a need to identify other Aboriginal organisations/groups that can be in a position to gain opportunity in economic development for the benefit of Aboriginal people/communities and not be further disadvantaged.

Action 4.4.2 Identify and protect Aboriginal cultural heritage values (Page 75)

With regard to the statement: Aboriginal communities will continue to be involved in investigations for specific projects, to protect and manage cultural heritage values as part of the planning and assessment process, HNE Health recommends this statement to be changed to: All Aboriginal communities within the Hunter will continue to be involved in investigations for specific projects, to protect and manage cultural heritage values as part of the planning and assessment process.

Support robust regional communities (Pages 79, 81, 83 and 84)

With regard to the Hunter's Landscape Subregions: Hunter City, Western Hunter, Northern Tops and North East Coast, the priority: *Support robust regional communities* is listed under each subregion. HNE Health suggests including a statement around healthy built environments for each subregion, for example, *work with councils and key agencies to plan for and develop healthy built environments*.

DRAFT PLAN FOR GROWING HUNTER CITY

Regional Goal 4: Support robust regional communities (Page 7)

In order to ensure that health and wellbeing outcomes are considered, HNE Health recommends that Goal 4 be amended to read: *Support regional communities to become strong, healthy and socially connected.* It is also recommended that a statement around healthy built environments be included as part of Regional Goal 4.

Direction 1.1 Grow and diversify centres across the City (Page 11)

With regard to the statement: *enhancing connections* between the nine strategic centres, HNE Health queries how this will be done and whether there will be consideration of improved public and active transport options between the nine centres.

Action 1.1.2 Improve data on the demand and supply of homes, office and retail space to better inform strategic planning (Page 12)

With regard to this Action, HNE Health recommends that this should be based on healthy built environment principles.

Direction 1.3 Enhance City-wide transport and Action 1.3.1 Integrate land use and transport planning to encourage more efficient travel patterns and sustainable models of transport (Page 15)

HNE Health commends the enhancement of the city-wide transport, with particular reference to prioritising improvements to public transport, walking and cycling connections. HNE Health recommends linking with the region's Cycle Safe Network to meet Direction 1.3.

Direction 1.4 The City's blue and green network (Pages 15 – 17)

HNE Health commends the establishment of a City blue and green network, particularly the inclusion of *open space, walking and cycling, public realm, green skills and local food production.* HNE Health queries how these inclusions will be achieved and recommends the consideration of healthy built environment principles when planning for all of these realms. Examples of resources to consider are:

- Building Liveable Communities in the Lower Hunter Region (HNEPH)
- Liveability Assessment Tool (HNEPH)
- Planning Guidelines for Walking and Cycling (NSW Government)
- The Healthy Urban Design Checklist (NSW Health)
- Development and Active Living (NSW Premiers Council for Active Living (PCAL))
- Healthy by Design (National Heart Foundation)
- Healthy Spaces, Healthy Places (Planning Institute Australia (PIA)/National Heart Foundation)

Action 1.4.3 Plan and deliver the Hunter City Green Grid (Page 17)

HNE Health commends the inclusion of a plan for the Hunter City Green grid, particularly the statement: Building on the established open space network with green corridors and tree-lined streets will provide green connections between homes, centres, public transport, jobs and recreation. With regard to active transport, HNE Health recommends linking with the region's Cycle Safe Network.

With regard to the statement: provide guidelines for design and delivery, HNE Health queries how this will be achieved and recommends the consideration of measures and indicators as listed in the *Liveability Assessment Tool*. This resource provides a local, evidence-based framework for design and delivery of health and wellbeing outcomes.

In addition, the Premiers Council for Active Living is currently coordinating the NSW Healthy Planning Expert Working Group and one of the Group's current functions is to develop best practice guidelines for planning, designing and developing healthy built environments in relation to the *Plan for Growing Sydney*. The guidelines are being designed to be applicable to other areas throughout New South Wales as well. HNE Health recommends that the Working Group be consulted in relation to the development of such guidelines and their use for the Hunter City.

Action 1.6.1 Monitor development activity to support infrastructure planning (Page 18)

HNE Health commends the inclusion of a monitoring framework. With regard to this action, HNE Health recommends liveability data should inform such a framework. The *Liveability Assessment Tool* provides a list of measures and indicators whereby local governments and their partners can monitor activity and inform infrastructure planning.

Action 2.2.3 Support increased local walking and cycling, and improved connectivity in inner Newcastle (Page 27)

HNE Health commends the increased walking and cycling opportunities and recommends linking in with the region's Cylce Safe Network.

(Northern Lake Macquarie District) Direction 3.1 grow and connect coastal and lakeside centres – enhancements to the public transport and cycling networks (Page 31)

HNE Health commends the increased walking and cycling opportunities and recommends linking in with the region's Cylce Safe Network.

Further to all of the above, please note that HNEPH has a particular interest in the relationship between health and the built environment and has developed significant expertise in exploring and addressing this relationship. Recently, HNEPH undertook the *Working with Local Government to Create Liveable Communities in the Lower Hunter* project (the Liveable Communities project). The Liveable Communities project involved the Hunter Regional Managers Network working with Lower Hunter Councils to promote the creation of more 'liveable' communities through strategic assessment and planning of future development. As part of the Liveable Communities project, a series of Liveability Assessments were undertaken to inform the development of selected sites that have been earmarked for future growth by the Lower Hunter Regional Strategy.

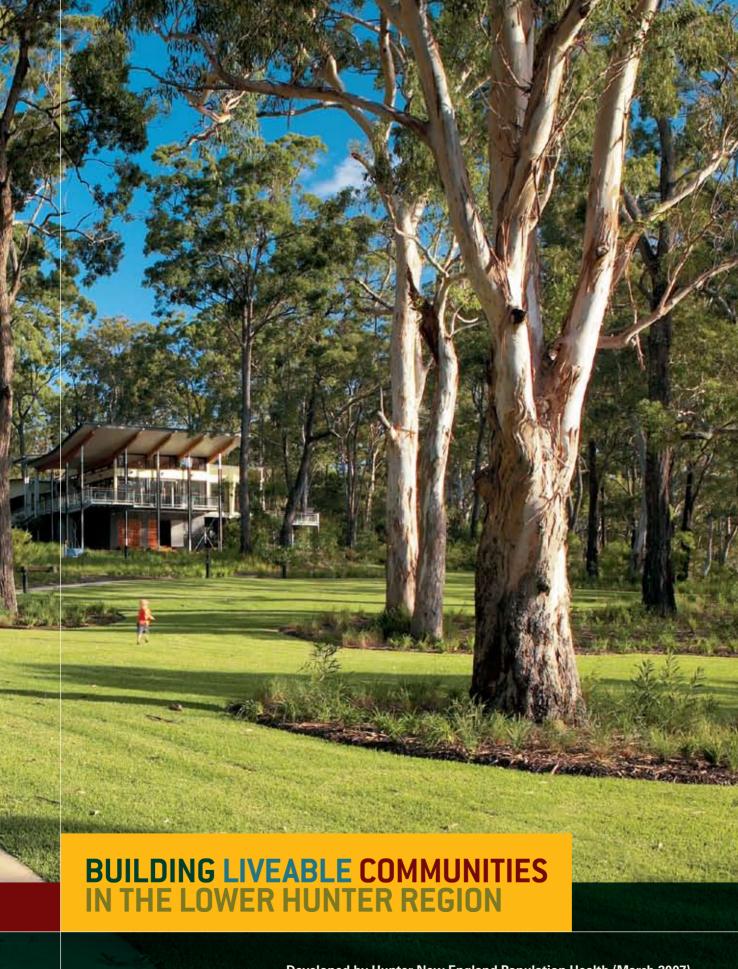
Each Liveability Assessment involved the collection of data via community telephone survey, publicly available data sources (Australian Bureau of Statistics (ABS) 2006 Household Census and information held by Local Councils) and targeted consultation with Aboriginal and Torres Strait Islander people. Indicators and measures used in the data collection process were based on the principles and elements of liveability defined in the resource: *Building Liveable Communities in the Lower Hunter Region*.

A Liveable Communities Assessment Report was developed for each of the Liveability Assessment sites. Each report included the main findings from the data collection and a set of locally specific 'considerations for development'. Copies of each report can be accessed at: http://www.hnehealth.nsw.gov.au/hneph/communities/Pages/Liveable%20communities.aspx. HNE Health strongly recommends that the information contained in these reports be used to inform the final versions of the Hunter Regional Plan and the Plan for Growing Hunter City and inform a future monitoring process for health and wellbeing outcomes.

Yours sincerely

f. Wiggers

John Wiggers Director





This project was funded by The University of Newcastle Research Association (TUNRA) via a research program that investigated the health impacts of the urban environment, and the processes that shape it.

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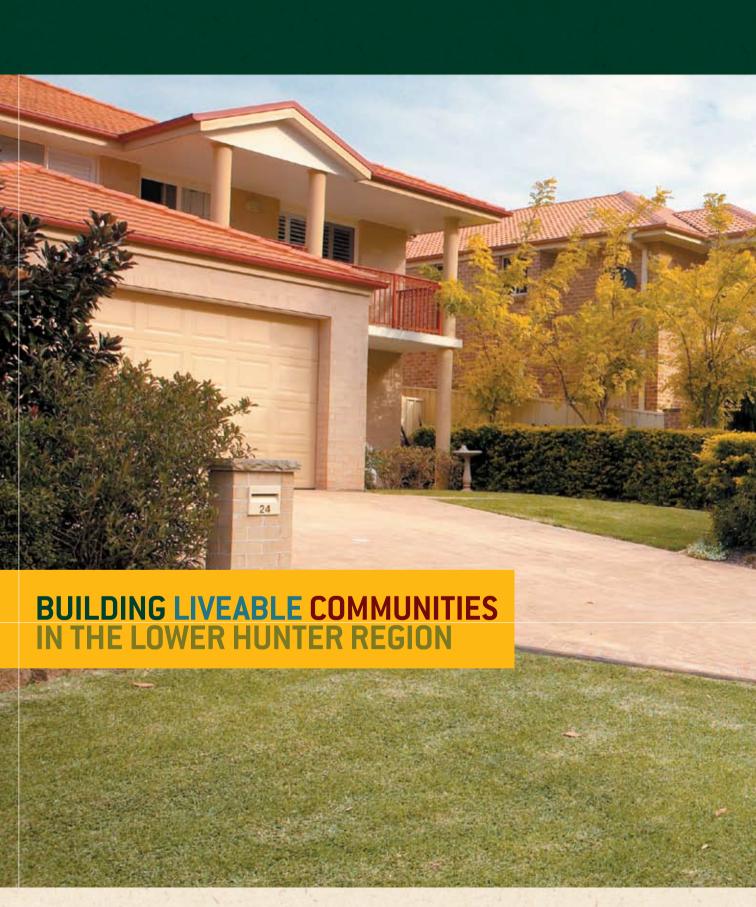
Wells, V., Licata, M., Mackenzie, A., Gillham, K., Hodder, R., & Butterworth, 1. (2007). Building Liveable Communities in the Lower Hunter Region. Hunter New England Population Health.

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With the release of the Lower Hunter Regional Strategy in late 2006, the possibility of further land development in the Lower Hunter Region has raised concerns about the region's 'liveability'. Agencies and community members in the Lower Hunter Region have questioned the potential impact of population growth and subsequent development on the environment and society, as well as whether the region's services and infrastructure have the capacity to accommodate such population growth. Developers and planners are the custodians of development and as such are challenged with creating new developments that will impact positively on the health and social wellbeing of Hunter residents.

The current research examined what constitutes a liveable community, and involved extensive consultation with developers, planners, health and social welfare agencies, and the community, in an attempt to identify the key elements of liveability in the Lower Hunter Region. The consultation resulted in the development of this guide.

Building Liveable Communities in the Lower Hunter Region is a resource that can assist the urban planning industry to incorporate health and social outcomes in proposed developments. This resource also acts as a guide for local government and health professionals interested in assessing the health and social outcomes of proposed development.

In the context of current climate change and proposed population growth, developers and planners are in a strong position to be catalysts for developing liveable communities. They have the tremendous opportunity of being able to deliver positive health and social wellbeing outcomes to the community.

This guide has been developed by a strong research partnership of interested professionals across the public and private development sectors, higher education, health and social services in the Lower Hunter Region. Funded by The University of Newcastle Research Association (TUNRA), the research investigated the health impacts of the urban environment, and the key components that shape it. The findings and discussions held with local stakeholders across sectors, have contributed to the contents of this guide.

It is envisaged that the findings from this investigation will be used to further discussions between the urban planning and health sectors.

HOW TO USE THIS RESOURCE

Building Liveable Communities in the Lower Hunter Region is a region-specific resource for those who are interested in building liveable communities. The guide reports on key findings from the current research and aims to highlight design and planning considerations that can be utilised in existing and future planning processes to help create liveable communities across the Lower Hunter Region.





Combined in one easy to use resource, this document not only collates design considerations from reputable sources of urban planning and health literature, but also documents community perspectives on what makes a liveable community. It does not list exhaustively the information on any given topic, but instead provides a summary of design and planning considerations with links to documents from which more detail can be obtained.

The layout of this document is divided into four sections which cover:

- 1. the relationship between the built environment and health;
- 2. the current context with regard to development;
- 3. the research process and outcomes; and
- recommended design considerations, as identified by the current research.

The fourth section includes:

- the definition of the principle on which the design considerations have been based;
- comments from the community about each principle;
- relevant references;
- planning and design considerations for each principle;
- photographic examples from the Lower Hunter Region, and elsewhere in Australia, that incorporate the recommended design considerations.





THE BUILT ENVIRONMENT AND HEALTH

"The built environment includes our homes, schools, workplaces, parks, recreation areas, business areas and roads. It extends overhead in the form of electric transmission lines, underground in the form of waste disposal sites and subway trains, and across the country in the form of highways. The built environment encompasses all buildings, spaces and products that are created or modified by people. It impacts indoor and outdoor physical environments (e.g., climatic conditions and indoor/outdoor air quality) as well as social environments (e.g., civic participation, community capacity and investment) and subsequently our health and quality of life." (Health Canada, cited in Srinivasan, O'Fallon, & Dearry, 2003, p. 1446)

There is a close relationship between our built environment, our health and our social wellbeing. The way we design cities, towns and subdivisions and organise our lives affects:

- our access to nutritious food, transportation, employment and social activities;
- our ability to feel safe and connected to others;
- our opportunities to exercise;
- our potential exposure to pollutants and toxins;
- all of our senses; and
- our emotions and memories.

Our physical environment also contributes to our individual and collective sense of place, of community, and a feeling of attachment or belonging, all of which are health promoting and each impacts on people's health, enjoyment and general wellbeing.

A body of evidence has looked at the positive and negative health impacts of the built environment (see References and Useful Document Section) which highlights the importance of creating neighbourhoods or communities that are both healthy and liveable for the people within them.

It is not surprising then that developers are increasingly interested in and being encouraged to build communities in a way that promotes the health and social wellbeing for residents. They are seen by many as the critical key players in building innovative liveable communities.



THE CURRENT CONTEXT

Countries, governments, corporations and communities around the world are presently facing the consequences of unprecedented changes to the physical and social worlds. These changes are described in Table 1. Australia is also experiencing major challenges to development. These are also described in Table 1. Research has shown that these crises are made even more complex in a decision-making environment in which the health, social and ecological impacts of a development may take many years to manifest, given the 10 to 20 year lead time on a development proposal (see also Butterworth & Breton, 2006).

TABLE 1 - CURRENT IMPACTS

GLOBAL PICTURE

- irrefutable evidence of global warming;
- extreme weather conditions;
- a global human population in excess of seven billion people;
- mass human migration across national boundaries because of environmental and other catastrophes;
- mass extinctions of species;
- peak oil;
- the search for sustainable energy supplies;
- unprecedented economic growth in India,
 China and other developing nations, in tandem with mass pollution;
- a globalizing economy, with land and property increasingly being bought, developed and traded by international conglomerates; and
- high levels of political withdrawal across Western societies; and
- an environmental 'crisis' which is regarding the relationship between human societies and the natural resources on which we depend for survival (Weintraub, 1995).

AUSTRALIAN CONTEXT

- the 'seachange' migration to coastal communities;
- increasing 'placelessness' through bland subdivision (Hiss, 1990; Relph, 1976);
- ensuring sustainable energy and water supplies;
- a loss of arable land;
- an increasingly complex regulatory environment;
- a population showing increasing signs of health issues such as obesity, diabetes, heart disease and depression.

While many of these examples represent very real crises, or 'calamities', they also represent opportunities for positive change.

The private development sector has an opportunity to play a positive, decisive role in this turning point. Opportunities for engagement by the development sector are many, and include new emerging forms of governance, such as corporate citizenship, citizen participation, public-private partnerships, and ways of measuring 'capital' to include not just economic capital, but social and environmental (Hancock, 2001). Development corporations increasingly are employing their own 'sustainability consultants', community development workers, and social planners who submit their development proposals to health and social impact assessment as a matter of course. They are partnering with local governments to find ways to design walkability and physical activity 'into' their developments. These corporations are engaging with governments to find new ways of building sustainability policy and achieving 'smart growth' from the ground up.

The aims of the American Smart Growth movement have been identified as: "encouraging mixed uses, preserving open space and environmentally sensitive areas, providing a choice of housing types and transportation modes, including affordable housing, and making the development review process more predictable" (American Planning Association, 2006). Other dimensions to Smart Growth include: taking advantage of compact building design; creating walkable neighbourhoods; fostering distinctive, attractive communities with a strong sense of place; strengthening and directing development towards existing communities; and encouraging community and stakeholder collaboration

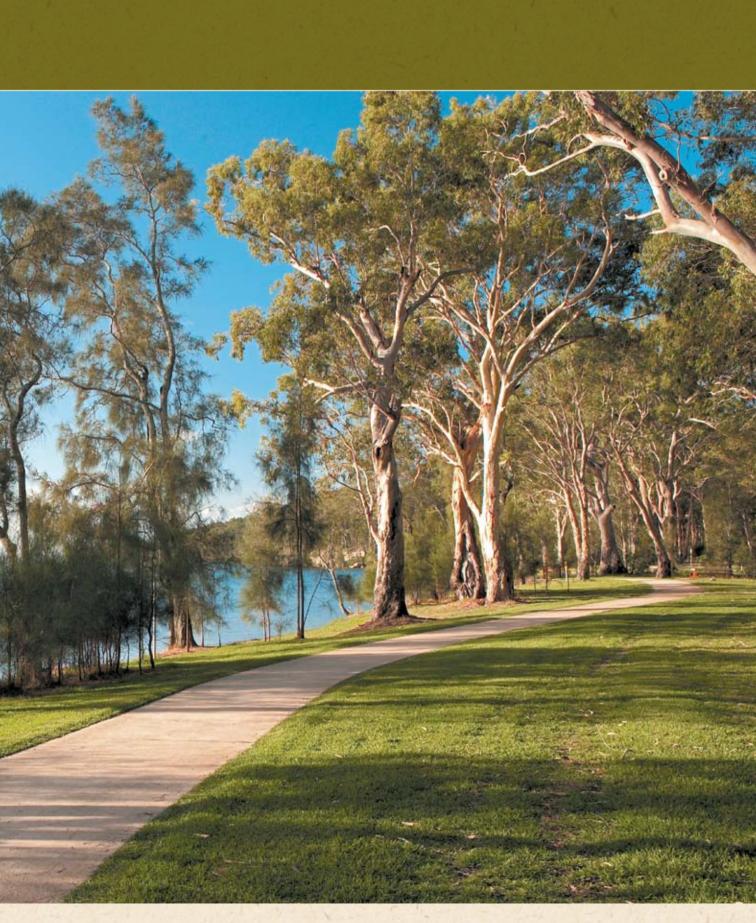
In addition to making development decisions predictable, decisions also need to be seen to be fair and cost effective (Smart Growth Network, 2006).

This guide represents a local effort to support 'smart growth'. As such, it is part of a world-wide trend for developers, researchers and policy makers in the health and planning arenas to work more closely together to build truly liveable communities.

THE CURRENT RESEARCH

This research was initiated as part of a research program, funded by the University of Newcastle Research Association (TUNRA) investigating the urban environment and the processes that shape it. The research specifically aimed to establish the importance of the relationship between the built environment, planning and health and to develop a resource for those interested in building liveable communities. In order to achieve this aim, a number of research processes were conducted. Firstly, a literature review was undertaken to identify elements that were integral in creating liveable communities. Secondly, the research team investigated what constitutes a liveable community in the context of the Lower Hunter region. This was achieved via individual consultations, workshops with key stakeholders, and community consultation.





THE RESEARCH PROCESS

Community consultation was undertaken over a two-month period in 2006 and involved a community telephone survey of 703 people. 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. These 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, to ensure the selection of survey participants was completely random.

Community consultation was undertaken using the Computer Assisted Telephone Interview method, where data is entered directly into a computerised database. 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, employment and transport. Demographic information and general comments were also addressed, as well as an allocation task to determine general community priorities.

The stakeholder consultation process was undertaken over a six-month period in 2006 and involved a series of face-to-face interviews, telephone interviews and working group meetings. The consultation process aimed to:

- Explore the question: 'What is a liveable community in the context of 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;
- Map the Lower Hunter residential development process, as shown in Figure 2; and
- Provide an opportunity for stakeholders to inform the development of this guide.

RESEARCH OUTCOMES

Consultation with the Lower Hunter community members and agency representatives identified four major components that make up a community: physical structures; natural features; service provision; and social principles, as shown in Table 2.

TABLE 2 - KEY ELEMENTS OF A LIVEABLE COMMUNITY

Physical Structures

- 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.

Natural Features

- 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.

Service Provision

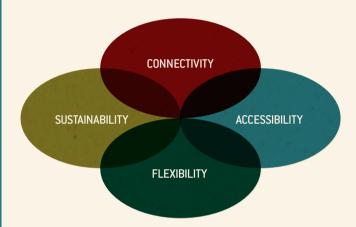
- Improved access to health services;
- Effective waste management;
- Local opportunities to access basic services such as post office, newsagent, library, GP, groceries, restaurants;
- Well maintained, easily accessible recreation sites;
- Accessible, well linked public transport services;
- Adequate street lighting; and
- Youth services.

Social Principles

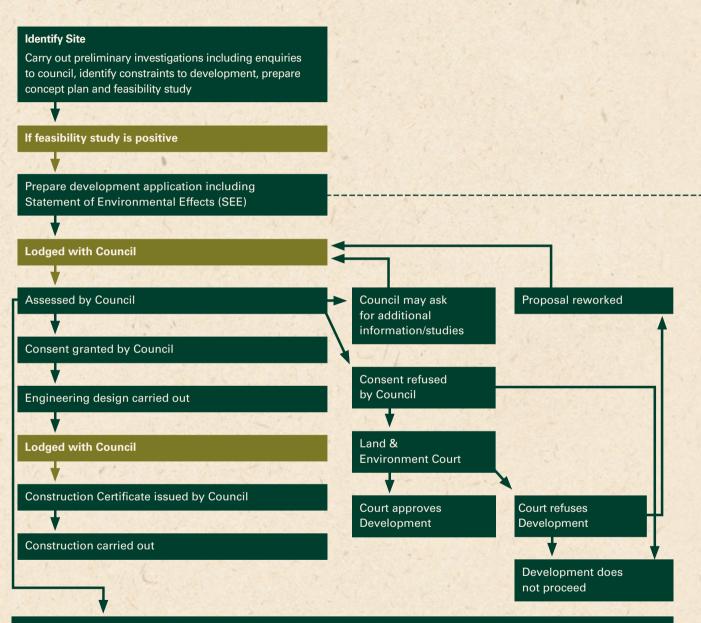
- A socially inclusive and supportive neighbourhood fostering a sense of belonging;
- A legible, efficient and amenable environment;
- Strong social cohesion;
- Respectful of neighbourhood diversity, culture and choice;
- Participation in decision making process;
- Well designed and aesthetically pleasing indoor and outdoor spaces; and
- Ecologically sustainable.

In order to progress the development of this guide, the key findings of the literature review, the stakeholder consultation information and community survey findings were examined and synthesised into categories. The synthesis of information revealed a number of overlapping principles that should be considered when planning or building a liveable community, as shown in Figure 1. The remainder of this guide includes design considerations for the Lower Hunter community, that have been based on these principles.

FIGURE 1: THE PRINCIPLES OF A LIVEABLE COMMUNITY



This research also revealed that the most opportunistic time to influence developer planning of new residential developments is during 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 in terms of assessing and addressing impacts at the planning stage. At the end of this guide, you will find some information on how to undertake an Impact Assessment.



DA sent to these departments / authorities for comment (depending on development)

- Roads and Traffic Authority
- Mines Subsidence Board
- Hunter Water Corporation
- NSW Police Service
- · Department of Planning
- Department of Natural Resources
- The Local Traffic Committee

- Rural Fire Service
- Department of Environment and Conservation
- Department of Land
- Fisheries
- Energy Australia
- NSW Heritage Office
- Relevant Member of Parliament

FIGURE 2: FLOW CHART OF LOWER HUNTER RESIDENTIAL DEVELOPMENT PROCESS, AS IDENTIFIED BY STAKEHOLDER CONSULTATION PROCESS

Must address:

- Regional Environment Plans (REPs)
- State Environment Planning Policies (SEPPs)
- Local Environmental Plans (LEPs)
- Development Control Plans (DCPs)

Relevant Acts (and Associated Regulations) may include:

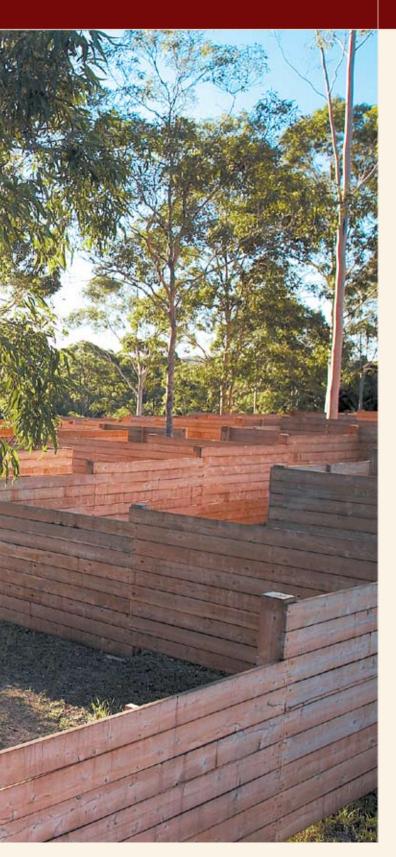
- Local Government Act 1993
- Environment Planning and Assessment Act 1979
- Native Vegetation Act 2003
- Threatened Species Conservation Act 1995
- Fisheries Management Act 1994
- Heritage Act 1977
- Mine Subsidence Compensation Act 1961
- National Parks and Wildlife Act 1974
- Protection of the Environment Act 1997
- Rivers and Foreshores Improvement Act 1948
- Roads Act 1994
- Rural Fires Act 1997
- Water Act 1912
- Commonwealth Environment Protection and Biodiversity Conservation Act 1999
- Contaminated Land Management Act 1997

Studies required may include:

- · Bushfire assessment
- Flora and fauna
- Aboriginal archaeology
- Flooding and drainage
- Geotechnical including acid sulphate soils, slope stability and mine subsidence
- Landscape plan
- Traffic study and traffic management plan
- · Air and noise studies
- Preliminary engineering design plans
- Servicing strategy
- Stormwater management
- Contamination study
- Social Impact Assessment

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





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.

Key elements of connectivity that residents identified as being important:

The places people wanted to be within walking distance from were:

- Public transport links
- Work
- Schools
- Parks with BBQ areas and green open space
- Shops
- Libraries
- Sporting fields and swimming pools
- Community facilities
- Restaurants

How they wanted to get there:

- A high degree of car dependence was reported. For those without a car, getting to shops, health services and entertainment were seen as problematic.
 - Residents were in favour of:
 - increased number of footpaths
 - places to cycle
 - easy access to bus stops
 - easy access to train station
- The features that encouraged people to travel by foot were:
 - street lighting
 - shade

Having reliable public transport services also remains a key issue in the Lower Hunter.

PLANNING & DESIGN CONSIDERATIONS

DESIGN FOR THOSE WHO WALK AND CYCLE VIA:

ENHANCING THE DESIGN OF THE FOOTPATHS AND SHARED PATHS

Provide footpaths and shared paths that:§*^#†

- are made from durable, non-slip, semiporous material
- require minimal maintenance
- have tactile ground surface indicators at bus stops and traffic signals
- have gentle gradients from streets to pathways
- have railings on gradients
- have kerb ramps to ensure those who are less mobile or those pushing prams are able to follow the path

Footpaths should be:^#

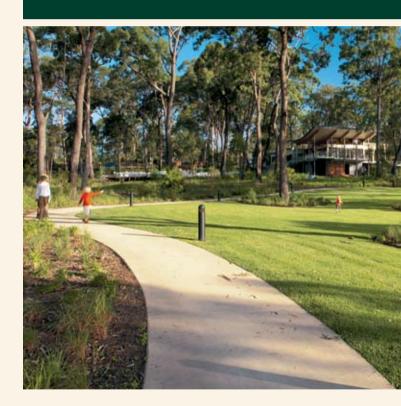
- a minimum of 1.5m wide and 2m wide near services such as schools
- continuous across driveways

Shared paths should:^#

- ensure a comfortable distance, at least 2m to 2.5m, so that wheelchairs, prams, learner cyclists and walkers can use the facility side by side
- have a centre line
- include a variety of paths, leisurely, on and off road, direct and indirect
- include a variety of options for experienced and less experienced cyclists

Ensure continuity of walking and cycling routes through local streets and other paths.^

COMMON BARRIERS TO PEOPLE NOT WALKING
INCLUDE A PERCEIVED LACK OF SAFETY AND
INADEQUATE FOOTPATHS AND PARKS. PEOPLE WALK
AND CYCLE MORE WHEN STREETS AND PEDESTRIAN
FACILITIES CONNECT WITH KEY DESTINATIONS. 1C, 2C





RESEARCH SHOWS THAT ACCESSIBILITY OF FACILITIES SUCH AS CYCLE WAYS, FOOTPATHS AND PERCEIVED AESTHETICALLY PLEASING ENVIRONMENTS ARE IMPORTANT ENVIRONMENTAL FACTORS RELATING TO PHYSICAL ACTIVITY. 3C, 4C

ENHANCING THE LOCATION OF THE FOOTPATHS AND SHARED PATHS

Paths should be established between the residential areas to enable people to cycle or walk between them, ensuring the shortest route. Pedestrian and cyclist only corridors should be provided particularly through road closures and cul de sacs ensuring the shortest route.^#

Footpaths and shared paths should be provided:#[†]^

- on at least one side of residential streets, particularly where pedestrian activity is high
- on both sides of major roads
- on both sides near services such as schools, train stations or shops, which link to local destinations

Footpaths should:#

- be separated from the street pavement and located close to the property boundary
- only be located abutting kerbs where site constraints preclude alternative siting and where vehicle volumes are low

PLANNING & DESIGN CONSIDERATIONS

DESIGN FOR THOSE WHO WALK AND CYCLE VIA:

ENHANCING THE USABILITY & AESTHETICS OF FOOTPATHS, SHARED PATHS AND STREETS

Provide high quality landscaping and enhance aesthetics along footpaths, shared paths and streets by:§^#†

- lining the streets with trees which have large canopy to provide shade
- using indigenous natural vegetation
- using low maintenance drought resistant plants
- including community artwork
- providing trees that will not cause damage to infrastructure via their roots system

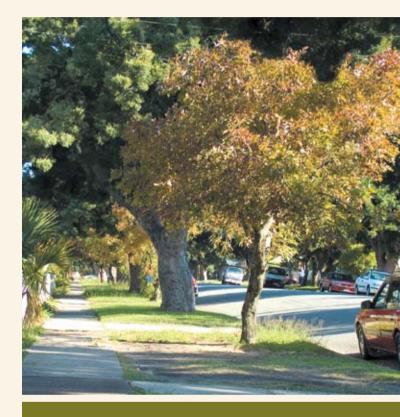
Provide street and business signs that both drivers and pedestrians can read easily.†

Design attractive, interesting, and welcoming street frontages by:^*#

- including porches, verandas, and windowed shop fronts
- not building high solid walls, security shutters, garages or dense hedges
- creating a relatively continuous street frontage
- providing lots which facilitate safe and efficient vehicle access without street frontages being dominated by garages and parked cars

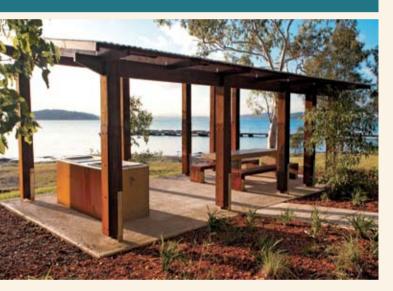
Provide seating that:^†

- is in an accessible position
- has space next to it for wheelchairs
- has back and arm rests
- is not too low
- is a minimum of 1m away from the pathway
- · is positioned to facilitate interaction
- is near points of interest in the park or along the path
- has shade



PEOPLE ARE MORE LIKELY TO EXERCISE IF FOOTPATHS ARE PRESENT, ATTRACTIVE, UNOBSTRUCTED, MAINTAINED AND IF THE SCENERY IS ENJOYABLE.^{5C}

TRAFFIC CALMING MEASURES HAVE BEEN SHOWN TO HAVE A SIGNIFICANT POSITIVE IMPACT ON WELLBEING, SAFETY, CRIME, THE ENVIRONMENT AND THE ECONOMY.6C



ENHANCING THE SAFETY OF FOOTPATHS, SHARED PATHS AND STREETS FOR ALL USERS

Provide pedestrian and cyclist road crossings that:^#†§

- are well marked
- can be used by those pushing prams, trolleys or wheelchairs
- have pedestrian-operated lights that are adequately timed in streets where traffic volumes during peak periods are a perceived threat to pedestrians' access and safety, particular to children and those less mobile
- are in a convenient position for pedestrian and cyclist movement, locating crossings as close to the direct line of travel to minimise diversion
- are designed to take into account the mobility, visual and hearing capacity of all community members[†]

Introduce street calming techniques and reduce speed zones:^†§

- around schools, childcare facilities and primary medical facilities
- to encourage cyclist movement along residential and collector streets
- at designated drop off zones around schools, childcare facilities and primary medical facilities, to create safe and efficient pedestrian and bike access to the school or on-site parking where practical

Include the crime prevention through environmental design (CPTED) principles when designing streets.^†§*

Provide narrow streets as this can slow cars down. For wider streets provide median strip.†

Shared zones for pedestrians, cyclists and vehicles should be designed:#^

- to enable pedestrians and vehicles to share the same pavement with a sense of equal priority
- to provide protection from cars for people on paths by providing kerbs that are a barrier

Footpaths, shared paths and streets need adequate lighting, particularly in areas that are well used at night. Lighting should be sufficiently high enough to provide maximum visibility.#^†

Provide lanes for cyclists in areas of over 50 km/hr.^

Ensure clear lines of sight along walking and cycle ways so that people can be seen by other residents, pedestrians, cyclist and motorists. This can be done with appropriate landscaping and design by: ^#*

- avoiding tunnels and underpasses that limit visibility
- using low permeable fencing
- installing effective lighting
- avoiding blank walls and solid fences
- avoiding full height dividing fences next to shared paths
- prohibiting obstructions in the path of cyclists such as parked cars in driveways
- ensuring that foliage at least 1m back from path

PLANNING & DESIGN CONSIDERATIONS

DESIGN FOR THOSE WHO WALK AND CYCLE VIA:

PROVIDING END USE INFRASTRUCTURE

Provide suitable and secure infrastructure in key destinations that can be used at the end of a walking or cycling journey. This can include:

- cycling lockers
- bike racks
- showers, change rooms and lockers
- toilets

ENHANCING STREET CONNECTIONS

Limit the use of cul de sacs and dead end streets. If these types of streets are used establish corridors and public laneways to connect cul de sacs to other residential areas.*§^#

Ensure that street networks:*#

- are an interconnected grid design; crossroads are favoured over T-junctions with more geometrically linear streets
- are designed to optimise the use of major roads by ensuring they can operate at high capacity ratios at peak times
- encourage the convenience of long distance traffic via major roads than the local street network
- are designed to not dissect residential areas
- enable relatively direct local vehicle trips in and between neighbourhoods and to local activity points



ENCOURAGING KEY DESTINATIONS SUCH AS SCHOOLS, PLACES OF EMPLOYMENT AND RECREATION AREAS TO PROVIDE END USE INFRASTRUCTURE SUCH AS BIKE RACKS, SHOWERS AND CHANGE ROOMS OFFERS PEOPLE CHOICE IF THEY WISH TO TRAVEL BY ACTIVE TRANSPORT METHODS SUCH AS WALKING OR CYCLING.

LIVING IN PROXIMITY TO GREEN SPACE IS ASSOCIATED WITH REDUCED SELF-REPORTED HEALTH SYMPTOMS, BETTER SELF-RATED HEALTH, AND PERCEIVED BETTER GENERAL HEALTH.^{7C}



ENHANCING CONNECTION TO SERVICES

Provide footpaths and shared paths that lead to:#^§†¤

- key destinations or popular focal points through residential areas
- link homes, workplaces, commercial centres, public transport and community facilities

Ensure that:^§†#

- essential services such as healthy food outlets, workplaces, shops, health services, schools, childcare, youth facilities, retirement villages, parks and open spaces and other destinations are within easy walking (400-800m) or cycling distance from residential areas
- major educational and employment institutions have reliable public transport options

On shared paths, provide clear signage that requires minimal maintenance. Include remarks about: †^

- distances to specific services and locations
- direction to specific services and locations
- locally relevant information

Signage should use:^

- large lettering
- contrasting colours
- plain fonts
- non reflective surfaces

Encourage local businesses to sponsor community shuttles to shops and other commercial centres.†

Encourage compact development, or development that is well connected with reliable public transport options.§

ENHANCING CONNECTIONS TO PARKS, OPEN SPACE AND PUBLIC SPACE

Provide: ^†§

- open space with a minimum of 500m walking distance from dwellings
- access via public transport, walking or cycling to an area's natural resources, whether they are reserves, freshwater lakes, rivers and beaches, or forests
- a variety of paths that allow recreational walking around the park or direct paths that connect to a broad network
- access to open space for those with limited mobility, for example via kerbed ramps
- pedestrian crossings that lead to the park entrance
- multiple entry and exit points that have adequate lighting

LOCALLY PRODUCED FOOD THAT IS EASILY ACCESSIBLE IN LOCAL HEALTH FOOD SHOPS REDUCES FOOD TRANSPORT DISTANCE, THUS REDUCING ENVIRONMENTAL IMPACTS FROM TRANSPORT POLLUTION, AS WELL AS COSTS TO THE CONSUMER.8C

PLANNING & DESIGN CONSIDERATIONS

DESIGN TO INCREASE USE OF PUBLIC TRANSPORT OPTIONS VIA:

PROMOTING & ENHANCING ACCESS TO PUBLIC TRANSPORT

Facilitate pedestrian access to reliable public transport stops via:^§#*

- direct paths to the transport stops
- providing public transport routes that are within a comfortable walking distance (300-500m) from homes
- focusing development around reliable public transport nodes
- · improving and ensuring reliable public transport options
- restrict car use and car parking in the city
- improving existing sidewalks, intersections and streetscapes around public transport locations
- ensuring public transport stops are located in active locations, that is, where there is a high level of activity
- locating bus stops adjacent to traffic lights and median islands on major roads to provide highly accessible and relatively direct routes wherever practical

Ensure that:#

- traffic management devices are bus friendly
- streets that have bus routes are designed to be bus friendly



WALKING, CYCLING OR CATCHING PUBLIC TRANSPORT TO WORK AND OTHER KEY DESTINATIONS ASSISTS PEOPLE TO MEET THE MINIMUM REQUIREMENTS FOR PHYSICAL ACTIVITY. HEALTH BENEFITS OF MODERATE LEVELS OF PHYSICAL ACTIVITY INCLUDE A REDUCED RISK OF PREMATURE MORTALITY AND REDUCED RISKS OF CORONARY HEART DISEASE, HYPERTENSION, COLON CANCER, AND DIABETES MELLITUS. 9C, 10C



ENHANCING USABILITY & SAFETY OF PUBLIC TRANSPORT STOPS

Provide:^§#

- shelter
- clear signage and service information
- adequate seating
- clear, convenient crossing points to public transport stops
- adequate lighting particularly at public transport stops that are likely to be well-used at night
- if necessary, gentle gradients in the approach to public transport stops and provide railings where possible

Address requirements for those with limited mobility.^

Ensure the public transport stop site is clearly visible from surrounding development, shops and homes, that is, ensure there is natural surveillance of the transport stop.*

AFFORDABLE PUBLIC TRANSPORT PROVIDES PEOPLE WITH THE OPPORTUNITY TO ACCESS A RANGE OF SERVICES, FACILITIES AND AMENITIES WHICH CAN POSITIVELY CONTRIBUTE TO ONE'S HEALTH. IT ALSO PROVIDES THE OPPORTUNITY FOR SOCIAL ENGAGEMENT.^{11C}

PLANNING & DESIGN CONSIDERATIONS

DESIGN FOR NEIGHBOURHOOD CONNECTIONS VIA:

ENHANCING CONNECTIONS BETWEEN SURROUNDING RESIDENTIAL AREAS

Residential developments should not be provided in 'gated' street formats. Avoid these types of developments where residents are not encouraged to connect with the public realm.^

Where lifestyle, retirement or other special interest developments are proposed, these must incorporate the majority of their development on public streets, with good linkages to surrounding urban areas.#

ALTHOUGH GATED COMMUNITIES OFFER RESIDENTS A
NEIGHBOURHOOD FOR "THEMSELVES", IT HAS BEEN
ARGUED THAT THEY CREATE PHYSICAL AND SOCIAL
BOUNDARIES WHICH INHIBIT CONNECTEDNESS WITH
SURROUNDING DISTRICTS AND SERVICES. 12C, 13C

Proposed communities and developments should:#§

- · connect well to existing or proposed services
- connect with proposed developments on adjacent sites
- take into account the existing urban structures of adjoining areas
- connect with the street network of existing residential areas to maximise interconnection between the new and existing communities
- link with area plans that achieve an appropriate urban density to support relatively self-contained mixed use centres and good levels of public transport

Major linear, district or regional open spaces and regional or arterial drainage, should be located to define boundaries of neighbourhoods rather than dissect them.#

ENHANCING THE CONNECTIONS TO THE NEIGHBOURHOOD CENTRES

The centre of the neighbourhood should:§#

- be located and distributed to provide a centre for most residents within a 400-500m walk or a five minute walk
- be located on or at the intersection of relatively busy local streets and served by public transport

- have strong links between it and the local larger town centre
- have interconnected street network
- have workplaces, shops, schools, health care facilities and other services integrated into it

Neighbourhood centre layout should enhance local identity by responding to the:#

- site context
- site characteristics
- setting
- landmarks
- views
- incorporate key elements of natural and cultural significance

ENHANCING THE CONNECTIONS TO THE TOWN CENTRE

A town centre:#

- should be central to the cluster of neighbourhoods, well linked and in reasonable walking distance of most residents
- should have one or more major public transport stops
- should not be in an area isolated from major streets

New development should support and enhance existing town centres.#

Large single supermarket-scale neighbourhood centres should not be provided unless it can be demonstrated that such centres will not detrimentally affect the growth of surrounding neighbourhoods and town centres.#





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SUSTAINABILITY

Sustainability is the ability to provide for the needs of the world's 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 impossibly high costs to anyone involved.

Increased environmental protection was a strong feature in the community survey.

Specifically, the survey identified the need to:

- spend more money on parks and open space;
- slow the rate at which open space is developed;
- conserve forests and farming land outside existing suburbs; and
- protect wildlife habitat.





DESIGN TO PROMOTE LESS ENERGY CONSUMPTION VIA:

ENHANCING DESIGN TO CONSERVE ENERGY USE

Consider:

- energy efficient heating and cooling options for buildings¥
- solar panels on roof tops for electricity generation and hot water heating systems*¥
- insulation in ceilings and walls[†]
- skylights¥
- natural ventilation via windows that can be opened[¥]
- direct sunlight in kitchen, bathrooms and toilets[¥]
- draught proof measures in the house[†]
- unshaded outdoor clothes lines which receive a minimum of two hours of sunlight during winter¥
- landscaping around the house with drought resistant indigenous plants and trees to provide shade[†]
- building materials that have a high thermal mass, that is, the ability to store heat[†]
- construction materials that require low levels of energy to produce, that do not give off toxins once installed and contain highly recyclable material*
- public lighting with regard to energy efficient practices and technologies#

PASSIVE SOLAR DESIGN AND SOLAR ORIENTATION

Orientate lots, dwellings, and private open space to take advantage of winter solar access and summer sun deflection, prevailing breezes, landform and environmental features by:*!#

- north facing glazing and outdoor areas
- living areas facing north with the long axis of the house running east-west
- installing large windows on the north side of the house to let the sunshine in during winter, but can be easily shaded from the summer sun
- solar pergolas
- natural indigenous vegetation for shading





DESIGN FOR BETTER WATER MANAGEMENT VIA:

SUSTAINABLE LOCAL WATER SUPPLY

Development must only occur in locations where there is an adequate water supply for domestic use and fire fighting purposes.#

SUSTAINABLE WATER USE IN BUILDING AND COMMUNITY DESIGN

Promote and investigate efficient water use such as:*\forall 1

- installing water saving fixtures
- landscaping with low water using plants
- promoting smaller gardens
- the use of grey water to maintain green playing fields to enhance the playing surface quality relevant to standard of participation

With regard to the installation of rainwater tanks , ensure residents are knowledgeable about how to maintain their tank. In large urban areas access to a reticulated potable (drinkable) water supply remains the most reliable source of drinking water for the community. In these areas NSW Health supports the use of rainwater tanks for all non-potable uses, such as garden watering, and car washing. The use of rainwater tanks for drinking purposes is not recommended where reticulated potable water supply is available.

BETTER WATER RE-USE SYSTEMS

Stormwater and wastewater re-use systems must:0e#

- be considered as a secondary water source and provision for their infrastructure should be included in street design
- comply with relevant legislation, standards and codes of practice to prevent public health risks and must be approved by relevant authorities

Consider using man made structures containing ecological function to convey, treat and infiltrate stormwater that do not create mosquito breeding sites.*

DESIGN FOR BETTER WATER MANAGEMENT VIA:

PROTECTING NATURAL WATERCOURSES

Retain and enhance natural watercourses, wetlands and their riparian vegetation.#

Land identified with significant flood risk is to be protected from urban development.#

CREATING ARTIFICIAL WATERCOURSES

Consider the use of artificial lakes, ponds or other permanent water bodies as features in urban areas in an appropriate site where they can contribute significantly and cost-effectively to enhance urban density, business establishment and have an urban water management function. However, ensure that they do not create mosquito breeding sites.#

EXAMINING WATER HABITATS

Consider:

- development proximity to all water sources and mosquito prone areas[®]
- mosquito risk assessment as part of a flora and fauna assessment or in the assessment of the terrain features to ensure any potential mosquito breeding sites are identified[®]
- development of a mosquito management plan, if constructed wetlands are proposed in the urban development[®]





WASTE MANAGEMENT CAN HAVE SIGNIFICANT CONSEQUENCES FOR HUMAN HEALTH AND THE ENVIRONMENT. RISKS TO HUMAN HEALTH MAY EVENTUATE FROM THE COLLECTION, STORAGE OR PROCESSING OF WASTE MATERIALS AND MAY RESULT IN HEALTH IMPACTS SUCH AS RESPIRATORY ILLNESSES. 15

DESIGN TO CONSIDER WASTE MANAGEMENT ISSUES VIA:

ASSESSMENT OF WASTE MANAGEMENT OPTIONS

Consider proximity and availability to waste management facilities. $^{\text{CP}}$

Assessment of the slope, soils and geotechnical characteristics should be used to inform subdivision block size and capability for on site disposal of waste water.[©]

DESIGN TO CONSIDER & INCORPORATE EXISTING LANDSCAPE VIA:

LOT AND STREET DESIGN

Streets near high bushfire hazard areas should be designed, located and connected to allow safe and efficient movement of emergency vehicles.#

Lots, house design and building materials should incorporate bushfire protection measures.#

LOCATION OF DEVELOPMENT

Consider the previous use of the proposed development site, particularly if the site was previously used for industry. Ensure the land is not contaminated from business industrial activity. ©

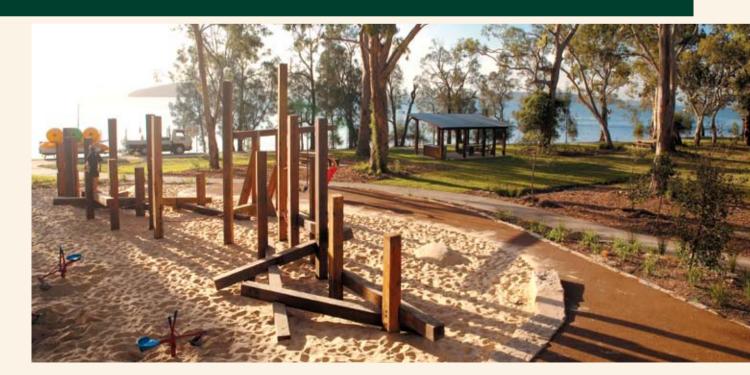
Consider the services, vegetation, natural features, animal habitats and industries that border a proposed development. ©

Engage with Aboriginal communities to protect Aboriginal cultural sites of significance.

Promote the maintenance of culture and the natural environment by designing: *#

- lots that allow dwellings to be sited to protect natural or cultural features
- open space with as little as possible obtrusive effects on the living environment
- green open space that is cost-effective to maintain
- open space that contribute to the legibility and character of the development.

THE PRESENCE OF FORESTS, TREES AND OTHER VEGETATION HAVE BEEN DEMONSTRATED TO ACT AS POSITIVE HEALTH DETERMINANTS. THERE IS EVIDENCE THAT NATURE VIEWS IMPROVE RECOVERY FOR VARIOUS TYPES OF PATIENTS, REDUCE STRESS AND ENHANCE PEOPLE'S WORK PERFORMANCE, IMPROVE DISCIPLINE AND ATTENTION OF YOUNG PEOPLE AND DECREASE MORTALITY AMONG SENIOR CITIZENS. 25, 35, 45



DESIGN TO CREATE A LESS CAR DEPENDENT NEIGHBOURHOOD VIA:

PROMOTING WALKING, CYCLING AND PUBLIC TRANSPORT OPTIONS

See the Connectivity Principle for details.

MORE EFFICIENT USE OF CAR PARKING SPACE

As far as practical, on-street parking should be encouraged.*
However, ensure there is safe transit for cyclists.§

If there is off-street car parking, it should be located, designed and managed to maximise efficient use of spaces and thus minimise the total area of land provided for parking by:#§

- ensuring car parks serve multiple businesses and different uses
- ensuring car parks have peak demand requirements at different times
- minimise single use car parks
- wrap shops, cafes and green space around parking structures
- relocate car parks underground



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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 in order 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.

Access to services was a strong element in the resident survey.

Services and facilities that people wanted access to were:

- shops;
- restaurants:
- office and local employment opportunities;
- parks and open space; and
- heath services.

Residents also wanted more places to cycle to, more footpaths to walk along and viewed landscaping and street light as important aspects of a liveable community.

DESIGN TO INCREASE ACCESS TO SERVICES VIA:

PROVIDING LOCAL DESTINATIONS

Encourage more local facilities in the neighbourhood to be within close walking distance (400-800 m) to dwellings and businesses.^*†§

In particular:

- healthy food stores
- shops
- employment opportunities
- · schools and other educational institutions
- health services
- childcare
- recreational facilities
- youth services/facilities
- places of worship
- post office
- small local businesses
- support services
- natural space such as lakes, forests, beaches, reserves

Increase access to these services by providing public transport. \S

Promote mixed land use development.*§

Create clusters through the use of corner stores and cafes to increase viability for business owners. Co-locate with, or within 200m of community centres, schools, parks and public transport.^

DESIGN TO INCREASE HOUSING OPTIONS VIA:



BARRIERS FOR CHILDREN WALKING OR CYCLING TO SCHOOL INCLUDE THE LONG DISTANCES THEY HAVE TO TRAVEL TO GET TO SCHOOL AND TRAFFIC RELATED DANGERS.^{1A}

PROVIDING AFFORDABLE HOUSING

Provide housing that those on low and moderate incomes can afford.*

PROVIDING HOUSING DIVERSITY AND APPROPRIATE DENSITY

Promote age-friendly built environments, and foster agefriendly community planning and design. Also see the Flexibility Principle for details.

PROVIDING HOUSING IN APPROPRIATE LOCATIONS

Provide lots in appropriate locations which are near to business development, services and public transport.^*†§

Ensure that urban development lots have a suitable level of amenity.#

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

Conserve and rejuvenate green space.§†

Local parks:#^

- should be up to 3000m sq
- should be within 150m to 300m of safe walking distance of all dwellings
- can include small parks, special purpose parks, children's playgrounds and squares

Neighbourhood parks:^#§

- should be a minimum of 1ha
- should provide for active (formal playing fields) and passive use
- should be within 400m to 500m of most dwellings
- should service approximately 600 dwellings



BEING ABLE TO ACCESS PLACES FOR PHYSICAL
ACTIVITY, THE PROXIMITY OF A NEIGHBOURHOOD PARK
TO ONE'S RESIDENCE AND THE TYPE OF AMENITIES
AT THE PARK IS ASSOCIATED WITH INCREASED
FREQUENCY OF PHYSICAL ACTIVITY.^{2A}

District parks:#

- should be of at least 3.0ha
- should provide a combination of passive and active (formal playing fields) use
- should be within 2km of most dwellings

Consider and minimise the cost of maintenance of public and green open space.#

PROVIDING CULTURAL AND NATURAL RETENTION IN PARKS. OPEN SPACE AND PUBLIC SPACE

Aim to retain natural vegetation, significant landscape or historical landmarks.

Include local public art.^

Work with Aboriginal communities to protect and revitalise Aboriginal cultural sites of significance.

REVITALISE OLD OR DISUSED AREAS

Retrofit run-down areas into green or open space.*§

ENHANCE SAFETY IN PARKS, OPEN SPACE AND PUBLIC SPACE

Include the Crime Prevention Through Environmental Design (CPTED) principles when designing open and public space. Consider whether the open space is overlooked by housing and actively used facilities, especially on routes to and from schools, public transport stops and other routes used at night.*

Cluster activities such as cafes within or on the edge or parks and open space.^

Adequately illuminate open space that is likely to be well-used at night. $^{\#}$

DESIGN TO INCREASE USE OF PARKS, OPEN SPACE AND PUBLIC SPACE VIA:

ENHANCE USABILITY AND AESTHETICS OF PARKS, OPEN SPACE AND PUBLIC SPACE

Maximise shade over paths, rest stops, play equipment, BBQ settings and seats ensuring that the shade is maintained to a high standard so that it is useable and clean.^

Provide natural shade.^ Consider including:

- drought resistant plants
- low maintenance plants, those that do not require frequent watering or pruning
- trees that have trunks, broad leaves and structured shade to compliment natural shade

Provide facilities and open space areas for a range and combination of uses and ages including:^§*¤

- play equipment or markings on the ground, such as hopscotch, for young people
- informal and passive recreation for older people
- formal sporting activities and associated activities
- · community activities and events
- pedestrian and cycle movement services and facilities
- linear recreation and sports areas along creeks and drainage reserves where possible
- · bush trails and walking areas
- community gardens

Provide seating that:^†

- is in an accessible position
- has space for wheelchairs next to it
- has back and arm rests
- is not too low
- is a minimum of 1m away from the pathway
- is positioned to facilitate interaction
- is near points of interest in the park or along the path
- has shade





THE QUALITY OF NEIGHBOURHOOD AESTHETICS, WHICH CAN INCLUDE THE PRESENCE OF GREEN AND OPEN SPACE, INTERESTING ARTWORK, NATURAL FEATURES AND PLEASANT SURROUNDINGS, AND THE PERCEPTIONS ABOUT CONVENIENCE OF FACILITIES HAVE A STRONG CORRELATION WITH PHYSICAL ACTIVITY LEVELS. PEOPLE REPORTING LESS AESTHETICALLY PLEASING SURROUNDINGS AND LESS CONVENIENT FACILITIES ARE LESS LIKELY TO PARTICIPATE IN PHYSICAL ACTIVITY. 3A, 4A, 5A







Consider the inclusion of:^

- drinking water fountains
- signage
- toilets including children's toilets
- change rooms
- lockers
- rubbish bins
- bike racks
- low maintenance play equipment
- play equipment for those who are less mobile
- on and off leash walking areas for dog owners
- artwork

Encourage low walls, transparent fencing, low vegetation (up to 200mm) or bollards along the open space.^

DESIGN TO INCREASE USE OF RECREATIONAL SPACE VIA:

POOL FENCING DESIGN

Ensure home pool fencing meets legislated standards.

CO-LOCATION AND INTEGRATION OF FACILITIES

Wherever possible, recreation, sport facilities and open spaces should be integrated with other community facilities such as town centre or shopping centres, not isolated.[©]

Preferences should also be given to multiple use of recreation and sport facilities for compatible activities.







THESE FACILITIES ARE ALL IN ONE AREA WHICH IS ACCESSIBLE VIA PUBLIC TRANSPORT AND CYCLE WAYS.

DESIGN TO INCREASE EDUCATIONAL OPTIONS VIA:

LOCATION OF MAJOR INSTITUTIONS

Major institutions such as universities, TAFE, hospitals and other institutions should be located and integrated into the neighbourhood, or adjoining town centres, not isolated. They should be highly accessible via public transport, and be easily accessible via walking and cycling.#

Primary schools should generally be located between neighbourhoods to enable sharing amongst two or three neighbourhoods.#

Secondary schools should generally be located on major routes near public transport.#



WHEN THERE ARE LIMITED PUBLIC TRANSPORT OPTIONS, PARTICULAR IN THE EVENINGS OR ON THE WEEKEND, EMPLOYMENT, EDUCATIONAL AND SOCIAL ACTIVITIES ARE OFTEN RESTRICTED, PARTICULARLY FOR THOSE WITHOUT ACCESS TO A CAR SUCH AS YOUNG PEOPLE, THE ELDERLY AND PEOPLE OF LOW SOCIO-ECONOMIC STATUS.^{3A}

DESIGN TO INCREASE EDUCATIONAL OPTIONS VIA:

PROVIDING ALLOCATION OF LAND FOR EMPLOYMENT

In any new urban development, provision of sufficient and appropriate sites for employment and business is needed in order to provide:#

- adequate jobs for the new residential population. It has been suggested that district structure plans should provide for jobs by allocating land for around 60% of the jobs needed by a new population
- business and employment generation

The layout and location of land for employment and business uses should ensure that, as much as practical, it is integrated into mixed use centres and is within walking distance of public transport stops.#

Sites for use by heavy industry or large-scale warehousing or distribution need good highway access, and should usually not be in walkable urban areas.#

Identify and exclude from residential use, any potential strategic business sites. These sites may include freeway interchanges, frontages to freeways, major roads intersections or sites with strategic suitability related to local resources.#

Identify appropriate sites along the coast or other high amenity areas that are suited to development for mixed use tourist or recreation nodes.#

DESIGN TO PRESERVE HISTORICAL HERITAGE VIA:

CONSULTATION AND PRESERVATION

Consult on Aboriginal and other cultural heritage issues.

Ensure neighbourhood character is respected when new communities are built.*

Preserve significant items and places keeping in mind the local context.*

DESIGN TO INCREASE OPPORTUNITIES FOR PARTICIPATION IN SOCIAL LIFE VIA:

ENGAGEMENT IN THE PLANNING AND DESIGN PROCESS

Engage community members, including young and old, in the planning process to accommodate their ideas of their local community; particularly on issues that will affect them, such as changing the density mix in their neighbourhood, or facility development/reduction within their neighbourhood. Planning and designing of a centre or area should be informed wherever practical by the community it is intended to serve. A § † D

In particular, pro-active methods for community participation should be incorporated into the design development phase.§

PROVIDING PUBLIC SPACES FOR COMMUNITY MEMBERS

Design spaces to accommodate community events and cultural programs.^

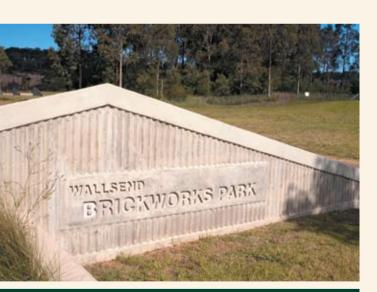
Consider the opportunities for establishing community gardens.^

Consider the inclusion of squares or plazas.

Provide a quality public realm with numerous and diverse spaces for groups and individual activity.^a

Ensure that there is welcoming public space in which young people can meet friends.^b

Incorporate some areas in the community that are calm and reflective places, with other zones for more active public activity. Provide a quality public realm with numerous and diverse spaces for groups and individual activity.*



COMMUNITY PARTICIPATION IN THE PLANNING PROCESS CAN PROVIDE AN OPPORTUNITY FOR PEOPLE TO FEEL EMPOWERED REGARDING DECISIONS THAT WILL AFFECT THEIR LIVES. 3A, 6A, 7A,8A



ACCESS TO COMMUNITY RECREATIONAL FACILITIES AND AESTHETICALLY PLEASING PUBLIC SPACES PROVIDE AN OPPORTUNITY FOR SOCIAL ENGAGEMENT AND ENCOURAGE SOCIAL NETWORKS TO DEVELOP. 9A, 10A

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FLEXIBILITY

Flexibility can be defined as the ability to change, to fit to particular circumstances or to accommodate and support a range of needs of various persons. Flexibility includes concepts like adaptability, diversity and adjustability.

A number of survey respondents reported that there needed to be:

- a mixture of housing types within suburbs
- affordable housing for low and middle income earners
- availability and use of land for multiple purposes





DESIGN TO MEET A VARIETY OF PEOPLE'S NEEDS VIA:

PROVIDING HOUSING THAT IS ADAPTABLE

Consider accessibility and design features of homes that make it adaptable to meet changing needs (universal design). For example access for people who are less mobile or use a wheelchair.†*

Consider building some houses that could be efficiently converted to include a home business.*#

Promote ageing-in-place as a preference for seniors with services such as home modification and maintenance programs.†

THE IMPACT OF A DISABILITY OR AGE CAN BE
ALLEVIATED OR ACCENTUATED BY THE DESIGN OF THE
BUILT ENVIRONMENT. PROVIDING SAFE, BARRIER-FREE,
AGE-FRIENDLY ENVIRONMENTS SUPPORTS OLDER
PEOPLE, PARTICULARLY THOSE WITH A DISABILITY,
TO REMAIN INDEPENDENT AND ACTIVE AND IMPROVE
ACCESSIBILITY FOR ALL. 15, 2F

PROVIDING HOUSING DIVERSITY WITHIN A NEIGHBOURHOOD

Include a variety of lot sizes, mixed housing types, housing for a variety of income levels and densities.*#†

Provide smaller residential lots and higher density housing in areas close to town and neighbourhood centres, near public transport stops, and in areas with high amenity such as next to parks.#

Provide housing types with residential densities that increase towards the centre so that the town can, over time, support sufficient population to foster good local self-containment.#

PROVIDING SERVICE DIVERSITY WITHIN A NEIGHBOURHOOD

Ensure there are sufficient and appropriate sites for businesses and services to provide adequate jobs.#

Consider whether residential areas could be capable of adaptation and/or business uses in the longer term.#

The street and lot layout should ensure that anticipated enhancements such as grey water distribution systems and enhanced communication networks can be incorporated either at the point of development, or in the future.#

PROVIDING MULTI-PURPOSE BUILDING USE WITHIN A NEIGHBOURHOOD

Design buildings to facilitate a variety of uses within a neighbourhood, providing opportunities for activities at different periods of the day or night e.g. schools as a community facilities after hours.*^#

Schools may be located in conjunction with district parks enabling joint use and maintenance of public open space, such as playing fields.#

Design buildings to address access issues for those less mobile, as well as providing convenient and visible stairwells.§



PROVIDING MULTI-PURPOSE PUBLIC SPACE WITHIN A NEIGHBOURHOOD

Design facilities and open space that accommodate as many different activities as possible with only minor adjustment and that can be adapted to suit the changing needs over time of the community they serve. **

Provide facilities and open space areas for a range of ages and combination of uses including:*§¤^

- play equipment or markings on the ground, such as hopscotch, for young people
- informal and passive recreation for aged
- on and off leash areas
- formal sporting activities and associated activities
- community activities and events
- pedestrian and cycle movements services and facilities
- bush trails and walking areas
- · community garden

Facilities can be a variety of low, medium or high level of maintenance. For example:

- Low maintenance: open level grassed areas, bush walking trails
- Medium maintenance: basketball rings, skateboard park
- High maintenance: children's play equipment

Identify and set aside land for recreation facilities and open spaces to meet the needs of existing and future populations.

Where land is designated for future business use, and demand does not exist in the short term, such sites may be used for suitable interim purposes.#

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ASSESSMENT OF HEALTH AND SOCIAL IMPACTS

ANY CURRENT OR PROPOSED DEVELOPMENT (OR ACTION) IS REQUIRED TO SUBMIT A DEVELOPMENTAL APPLICATION TO THE APPROPRIATE BODY, SUCH AS LOCAL GOVERNMENT. AS PART OF THIS PROCESS, IT IS RECOMMENDED THAT HEALTH AND SOCIAL IMPACT ASSESSMENTS BE UNDERTAKEN TO ASSESS THE HEALTH AND SOCIAL IMPACTS OF A CURRENT OR PROPOSED ACTION.

HEALTH AND SOCIAL IMPACT ASSESSMENTS

An impact assessment is a structured process involving the identification of potential consequences of a current or proposed action. Impact assessments seek to predict and understand what impacts may occur, attempting to reveal unintentional, avoidable consequences of a proposed action.

Ideally an impact assessment should be conducted on a proposal before it is implemented, preferably after the formal planning stage.

There are many types of impact assessments focusing on different issues: social, health, and the environment. Although each type of impact assessment varies slightly in the issues it assesses, the processes are similar and they ultimately examine which community groups will be affected by the proposed development.

Below is an outline of the steps involved in an Equity-Focused Health and Social Impact Assessment.

Stage 1: Screening of the proposal

The aim of this stage is to determine if an impact assessment is required.

Stage 2: Scoping of the proposal

The aim of this stage is to outline how to manage the impact assessment. It is a project planning stage, specifying the boundaries of the impact assessment. A task of this stage is to determine the level of impact assessment: rapid, intermediate or comprehensive. A rapid impact assessment would be completed when there is restricted time and resources, resulting in limited consultation, and using existing evidence with the impacts largely known. A comprehensive level impact assessment is resource and time intensive, involving extensive consultation time with the impacts potentially serious and/or complex.

Stage 3: Identification of potential impacts

This stage involves developing a profile of the population groups that may potentially be affected population groups. It also entails collecting information about the potential impacts on these population groups.

Stage 4: Assessment of potential impacts

This stage involves the assessment of identified potential impacts, taking into account the nature and size of the impacts, as well as the type and strength of the evidence available.

Stage 5: Development of recommendations

Decision makers need to be aware of what can be done to change a proposed action to ameliorate the potential negative impacts and emphasise the potential positive ones. The purpose of this stage is to create a series of recommendations aimed at influencing the decision process and subsequently the proposed action.

Stage 6: Monitoring and evaluation

This stage involves the evaluation of the impact assessment. Ideally it should involve process, impact and outcome evaluation of the impact assessment. It should also determine indicators or an agreed method for monitoring the implementation of the proposed action.

For more details on impact assessments please see the References and Useful Documents Section.

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LIVEABILITY ASSESSMENT TOOL



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The Liveability Assessment Tool was developed as part of the Working with Local Government to Create Liveable Communities in the Lower Hunter project. The project was undertaken by Hunter New England Population Health in collaboration with the Hunter Regional Managers Network, with funding provided by NSW Health.

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The Project Team would like to thank the members of the Liveable Communities Steering Group, the local government partners and residents of the Lower Hunter Region who contributed to this project.

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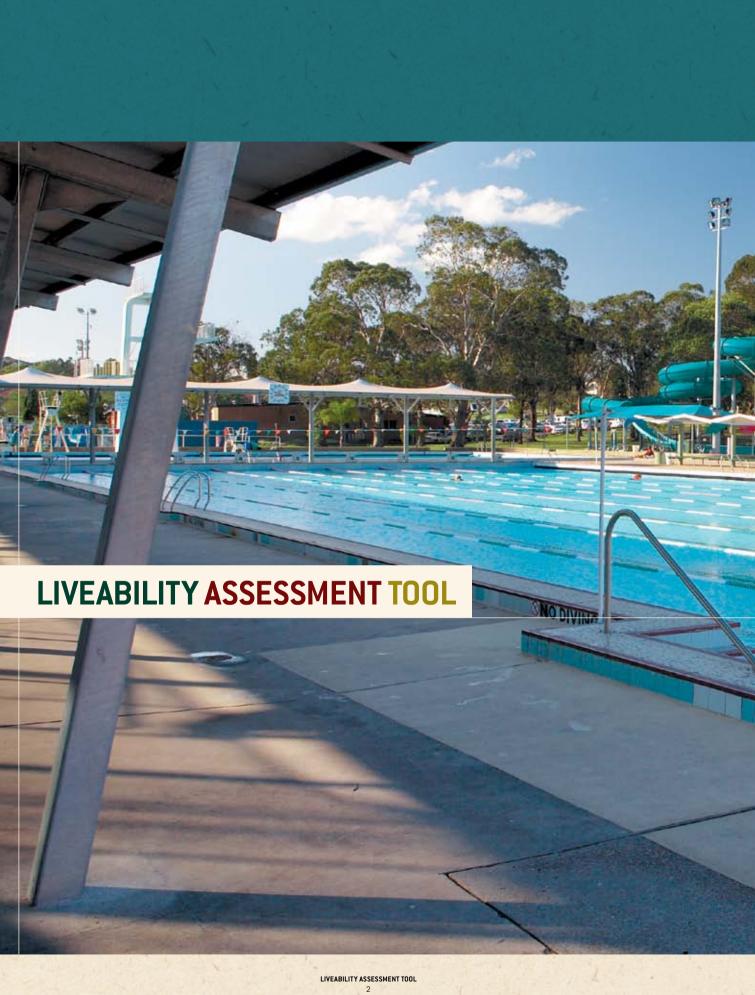
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INTRODUCTION

In 2009, NSW Health funded Hunter New England Population Health (HNEPH) to conduct the Working with Local Government to Create Liveable Communities in the Lower Hunter Project (Liveable Communities Project). The aim of the Liveable Communities Project was for the Hunter Regional Managers Network (RMN) to work in partnership with local governments in the Lower Hunter region to enable the development of more liveable communities by promoting health and wellbeing key considerations throughout the planning process.

As part of the Lower Hunter Regional Strategy, i various sites throughout the Lower Hunter Region have been earmarked for future development. The Liveable Communities Project conducted a number of Liveability Assessments to inform proposed development within selected sites. These Liveability Assessments were undertaken by HNEPH in partnership with the Hunter RMN and five local governments in the Lower Hunter Region.

Two main resources were developed as part of the Liveable Communities Project:

- 1. A model for working with local governments to address liveability at a regional level.
- 2. This Liveability Assessment Tool that includes:
- · a set of liveability indicators;
- quantitative measures for measuring the indicators; and
- data sources for each of the measures.

The Working with Local Government to Create Liveable Communities in the Lower Hunter – Final Report[®] and the Model for Working With Local Government to Create Liveable Communities[®] contain further information about how the Liveability Assessments were conducted.









LIVEABILITY ASSESSMENT TOOL

PURPOSE OF THE LIVEABILITY ASSESSMENT TOOL

The Liveability Assessment Tool (the Tool) provides an evidence based framework against which local governments and their partners can assess liveability within a particular geographical area.

Based on the information collected by a Liveability Assessment, local governments and their partners may formulate recommendations which will guide the development of more liveable communities through strategic planning of regional and local development.

Assessing liveability using a consistent set of indicators and measures may allow for:

- 1. Identification of communities that may be vulnerable to disadvantage caused by poor built environments.
- 2. Longitudinal or comparative studies of liveability over time or between geographical areas.

WHO SHOULD USE THE LIVEABILITY ASSESSMENT TOOL

Local governments and their partners are invited to use the Tool.

The Tool can be used together with the *Model for Working with Local Government to Create Liveable Communities*^{III} to guide a Regional Managers Network or Health Service to conduct a Liveability Assessment in partnership with local government.

COMPLEMENTARY RESOURCES

In 2010, NSW Health published the *Healthy Urban Development Checklist*, a resource which assists health professionals in developing a response to a proposed development policy, plan or proposal.

The Tool can be used to proactively assess liveability in a particular geographical area for the purpose of monitoring or benchmarking, and is therefore complementary to the *Healthy Urban Development Checklist*, which should be used to provide reactive advice on plans, policies and proposals which are exhibited for public or stakeholder comment.

DEVELOPMENT OF THE LIVEABILITY ASSESSMENT TOOL

BACKGROUND

A significant body of evidence suggests that built and social environments have an impact on health. At the macro level, these influences arise from the impact of spatial planning and land-mix use. At the 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.

The way we design cities, towns and subdivisions affects health risk behaviours and social determinants of health and wellbeing, including:

- · opportunities to engage in an active lifestyle;
- access to affordable, fresh and healthy food;
- the strength and connectedness of our communities;
- access to employment and education;
- availability of appropriate and affordable housing;
- · community safety; and
- environmental sustainability.

Our physical environment contributes to our individual and collective sense of place, of community, and a feeling of attachment or belonging, each of which impacts on people's health, enjoyment and general wellbeing. Providing built environments that encourage people to be 'out and about' on a daily basis has been found to contribute to a more active and vibrant society.

A significant amount of attention has already been directed towards identifying the elements which make a built environment healthy. Organisations from the planning and development sector as well as the health sector have recognised the importance of creating healthy built environments and have produced resources which articulate the characteristics of environments designed to promote health and wellbeing (for example, Planning Institute Australiaviii, Landcom ix, National Heart Foundationvii, x and Premiers Council for Active Livingxii).

NSW Health has facilitated several projects which build the capacity of NSW Health Services to support the creation of healthy built environments. In 2010, NSW Health published the *Healthy Urban Development Checklist*, iv a resource which assists health professionals to provide advice on urban development policies, plans and proposals.

Currently, NSW Health provides funds to the Faculty of the Built Environment at the University of New South Wales to support the 'Healthy Built Environments Program'. This program aims to increase the collaboration between the planning and health professions to advocate for and create built environments, which encourage people to make healthier choices in their daily activities.

WHAT MAKES A LIVEABLE COMMUNITY?

In 2006 – 2007, Hunter New England Population Health undertook a research project which sought to identify key principles for building liveable communities in the Lower Hunter region. The outcome of this research project was a resource which aimed to enable urban planners and property developers to ensure that the work they undertake is contributing to the building of liveable communities.**

The research included a literature review, and consultation with key stakeholders and the Lower Hunter community. The stakeholders included representatives from local government, the private development industry, health, social services, architecture, geography, transport and economics. The community consultation was undertaken as a series of telephone interviews with 703 community members from across the Lower Hunter.

FOUR PRINCIPLES OF A LIVEABLE COMMUNITY

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:

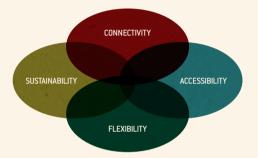
Sustainability is the ability to provide for the needs of the current population without damaging the ability of future generations to meet their own needs. It is about conducting business in a resource conservative and resource efficient manner. When a process is sustainable, it can be carried out over and over without negative environmental effects or impossibly high costs to anyone involved.

Accessibility:

A community which provides equal opportunities ensures people are not excluded from the activities of society and everyone has access to the necessary items in order 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.

Flexibility:

Flexibility can be defined as the ability to change, to fit to particular circumstances or to accommodate and support a range of needs of various populations. Flexibility includes concepts like adaptability, diversity and adjustability.



For each of these principles, design considerations were developed and incorporated into a practical resource for use by local governments, planners and developers titled: *Building Liveable Communities in the Lower Hunter Region.*^{xii}

DEVELOPMENT OF LIVEABILITY INDICATORS AND MEASURES

In order to measure liveability, HNEPH developed a set of liveability indicators, based on the principles and elements of liveability as defined above. This set of indicators formed the basis of the Liveability Assessments. The Project Team then identified specific measures and data sources relevant to each indicator. Where the measurement of the indicator required the use of a community consultation survey question, these were taken from existing validated surveys. Where validated survey questions were not available, new questions were developed by the Project Team based on existing research.

The liveability indicators and measures were further refined via consultation with project partners (Steering Group members and local government partners), and were adapted for each Liveability Assessment undertaken. Specific indicators relevant to the type of development on which the Liveability Assessment was being undertaken were added, at the request from local government partners, and additional descriptive information was also collected for some of the indicators to explore barriers to achieving liveability.



HOW TO USE THE LIVEABILITY ASSESSMENT TOOL

LIVEABILITY PRINCIPLE

eg. Connectivity

FOCUS AREA

Access to Physical
Activity

INDICATOR

eg.
Use of and
Satisfaction
with footpaths
and cycleways

MEASURE

eg.
% of people who
are satisfied with
footpaths in their
neighbourhood

COMMUNITY SURVEY OUESTION

eg. How satisfied are you with footpaths within your neighbourhood?

The Liveability Assessment Tool provides example survey questions and lists possible data sources for obtaining such data. For example, in 'Focus Area 4: Access to Physical Activity', an indicator of liveability is 'the use of and satisfaction with footpaths and cycle ways'. One of the corresponding measures for this indicator is 'the proportion of people who are satisfied with the footpaths in their neighbourhood'. The Liveability Assessment Tool provides example survey questions and lists possible data sources for obtaining such data.

The measures contained in this liveability tool are not designed to be used to conduct a physical audit of an area; rather, they are designed to support data collection using a community survey or using data from by the ABS or local and state government agencies. There are a number of excellent tools designed to support physical audits including, for example, the National Heart Foundation's *Neighbourhood Walkability Checklist*.*

Conducting a physical audit of an area would provide an opportunity for triangulation of community consultation results and also provide greater depth of information.

ESTABLISH STUDY AREAS

Specific geographic study areas should be identified in consultation with local government. The Project Team should discuss possible study areas with local government partners to identify areas which will provide useful evidence to support the inclusion of healthy planning principles in strategic plans and policies. Establishing study areas is a key decision for project partners and the decision making process should include the Steering Group and the Department of Planning and Infrastructure along with local government partners.

For example, it might be useful to conduct a Liveability Assessment in an area earmarked for residential development or urban renewal. The results of the Liveability Assessment can then inform the development of plans or strategies for this area. A number of study areas within one local government area may be selected to allow for comparison between developments of different ages. Study areas may also be chosen to allow comparisons between the liveability of different development types within a local government area. For example, a Liveability Assessment of an older residential development and a newer residential development may allow for comparisons of health and social outcomes in different development types.

Study areas should be defined according to ABS Census Collector Districts to allow for accurate comparison with ABS data. If a community telephone survey is used, comparison with ABS data allows for triangulation of demographic data collected via the community telephone survey for verification or validation purposes. Furthermore, this process may reveal bias in the sample. For example, checking the demographics of the community telephone survey sample against ABS data may reveal an over-representation of women in the sample which should be accounted for during analysis and reporting.

CONSIDER EQUITY

Measuring liveability may also allow state and local government agencies to target resources to promote equity.

Equity refers to the fair distribution of access to opportunities, resources and community benefits (health, safety, open space, transport, housing etc.) are among all residents regardless of their age, gender, cultural background, ability or socioeconomic status.^{iv}

The following questions are adapted from the *Equity-Focused Health Impact Assessment Framework*.xiii



- Who will most likely be affected by the proposed changes to the area?
- What is known or understood about the sections of the community most likely to be affected by the quality of the built environment?
- What will the nature of the effects of the proposed development be (positive or negative)?
- Are effects likely to be differentially distributed by socioeconomic status, ethnicity, gender, geography, or some other factor?
- How do you know this is likely to happen (what is the evidence)?
- How likely is it that this will occur?
- How severe is this impact likely to be?

IDENTIFY FOCUS AREAS FOR ASSESSMENT

This Liveability Assessment Tool is designed for flexibility and is able to accommodate Liveability Assessments that explore some or all of the Focus Areas outlined below. Identifying key Focus Areas is an important decision for the project partners. Users of the Liveability Assessment Tool should be cognisant of the strong links between Focus Areas. For example, access to public transport and access to childcare have a significant effect on access to employment.

The 15 Focus Areas are:

- Understanding the Community
- Access to Quality Employment
- Access to Fresh Food
- Access to Physical Activity

- Access to Flexible and Affordable Housing
- Access to Public Transport
- Access to Childcare Services
- Access to Education
- Access to Health Care Services
- Access to Community Facilities and Public Spaces
- Access to Communication
- Community Safety
- Social Cohesion and Participation
- Environmental Sustainability
- Expectation and Future Development Desires

IDENTIFY DATA SOURCES

Data sources can include a community consultation (conducted via pen and paper survey, via computer assisted telephone interview (CATI) or via other methods), information sought from local government plans and policies, ABS data, other government plans or policies.

As described on page 9, the Liveable Communities Project used previously validated community consultation survey questions where possible. In the tables that follow, the source of each community consultation question is listed.

Example Community Survey Questions in the tables that follow are numbered to indicate the following sources:

- 1. ABS Census data xiv
- 2. Other existing data/indices (NSW Population Health Survey*v, Neighborhood Cohesion Instrument *vi)
- 3. Liveable Communities Project

LIVEABILITY ASSESSMENT TOOL TABLES



Demographic Data	Measure	Data Source	Example Community Survey Question
	Population	Australian Bureau of Statistics	
	Age Distribution	Community Telephone Survey Australian Bureau of Statistics	What is your date of birth?1
	Sex Distribution	Community Telephone Survey Australian Bureau of Statistics	
Demographic	Aboriginal and Torres Strait Islander Status	Community Telephone Survey Australian Bureau of Statistics	Are you of Aboriginal or Torres Strait Islander origin? ¹
Data	Country of Birth	Community Telephone Survey Australian Bureau of Statistics	In which country were you born?1
10	Language Spoken at Home	Community Telephone Survey Australian Bureau of Statistics	Do you speak a language other than English at home? ¹
	Residential migration	Community Telephone Survey Australian Bureau of Statistics	How long have you lived at your current address?3
	Population Projections	Australian Bureau of Statistics	
	Household Composition	Community Telephone Survey Australian Bureau of Statistics	Who lives at your address?3
7	Households with children younger than school age	Community Telephone Survey	Do you have children younger than school age living in your household? ³
Household	Households with school aged children	Community Telephone Survey	Do you have children attending primary school? ³
Characteristics	Households with children that attend high school	Community Telephone Survey	Do you have children attending high school? ³
	Households with someone attending TAFE or University	Community Telephone Survey	Does anybody in your household attend TAFE or university? ³
	Highest level of education	Community Telephone Survey Australian Bureau of Statistics	What is the highest level of education you have completed? 1
	Someone in your household requires assistance with communication	Community Telephone Survey Australian Bureau of Statistics	Do you or anybody else in your household need assistance with communication activities? 1
Care Requirements	Someone in your household requires assistance with movement	Community Telephone Survey Australian Bureau of Statistics	Do you or anybody else in your household need assistance with body movement activities? 1
	Someone in your household requires assistance with self-care	Community Telephone Survey Australian Bureau of Statistics	Do you or anybody else in your household need assistance with self-care activities? 1
	Proportion of people drinking at unsafe levels – defined as more than 2 standard drinks on a typical drinking day	Community Telephone Survey NSW Population Health Survey	How often do you usually drink alcohol? ² On a day when you drink alcohol, how many standard drinks do you usually have? ²
III III BU	Proportion of people reporting a fall in the last 12 months	Community Telephone Survey NSW Population Health Survey	Did you or someone else in your household have a fall in the last 12 months? ²
Health Risk Behaviours	Proportion of people who currently smoke	Community Telephone Survey NSW Population Health Survey	Which of the following best describes your smoking status: 1. I smoke daily ² 2. I smoke occasionally ² 3. I do not smoke now but I used to ² 4. I have tried it a few times but never smoked regularly ² 5. I have never smoked ²
1. ABS Census data ^{xi}	2. Other existing data/indices (NSW Pop	oulation Health Survey ™, Neighborhood Co	



FOCUS AREA 2 - ACCESS TO QUALITY EMPLOYMENT

Access to quality employment is a crucial element of liveability, with employment well documented as an indicator of health and social wellbeing. For instance, the Final Report from the Commission on Social Determinants of Health recognises that there is "consistent evidence that high job demand, low control, and effort-reward imbalance are risk factors for mental and physical health problems."xviii

Access to safe, secure, fairly paid work, and a healthy work-life balance contribute to health and liveability, xviii just as unemployment and job loss can impact negatively on long-term

health.xix Income generated from employment affects other aspects of community liveability such as housing, transport and access to healthy food.xviii

The availability of local employment can facilitate use of active (walking, cycling) and public transport options, decrease car dependence and travel times, and increase time available for community, recreation or family pursuits.xii Long sedentary commuting times (more than 30 minutes) can negatively impact on opportunities for physical activity, social contact and community participation.Y

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question
Overall access to Employment	✓				Percentage of the population who are unemployed.	Community Telephone Survey Australian Bureau of Statistics	What is your current employment status?1
Access to local Employment	✓		✓	✓	Percentage of the population who travel more than 30 minutes to work.	Community Telephone Survey	How long does it usually take you to get to work?3
Employment					***Location of work	Community Telephone Survey	What is the location of your main work? ³
Access to a Range of Employment Options		✓	✓		Percentage of the population across occupation types	Community Telephone Survey Australian Bureau of Statistics	What is your occupation? ¹

1. ABS Census data 🐃 2. Other existing data/indices (NSW Population Health Survey N, Neighborhood Cohesion Instrument 🐃 3. Liveable Communities Project



FOCUS AREA 3 - ACCESS TO FRESH FOOD

Access to fresh, nutritious and affordable food is a basic requirement for human health and well-being and is recognised by the United Nations as a basic human right.** Those with the greatest barriers to healthy food access often experience other forms of disadvantage, for instance; people on low incomes, those living in poor quality housing, refugees, single parents, people living with chronic disease or disabilities and young unemployed people may be at risk of having difficultly accessing fresh healthy food.

Food choice is influenced by time, knowledge and cultural norms. Ability to access fresh healthy food is influenced by many factors including income, local availability of affordable foods and transport. XXI Access to fresh, high quality and affordable fruit and vegetables is influenced by local food production, food transport, retail mix and retail pricing. XXIII

Local food production can increase affordability and decrease traffic congestion, air and noise pollution. Local food production also has the potential to increase both the amount and the flexibility of local employment opportunities and provide a vehicle for social connection via community gardens and local retailers.

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question		
Healthy Food	✓				Percentage of people who consume the recommended two serves of fruit per day	Community Telephone Survey NSW Population Health Survey	How many serves of fruit do you eat each day? 2		
Consumption	•				Percentage of people who consume the recommended five serves of vegetables per day	Community Telephone Survey NSW Population Health Survey	How many serves of vegetables do you eat each day? ²		
					Percentage of people who travel less than 15 minutes to shops	Community Telephone Survey	How long does it take to get to the shops? ³		
7					Percentage of people who travel less than 15 minutes for fruit and vegetables	Community Telephone Survey	How long does it take to get to the fruit and vegetable shop? ³		
Access to	\				✓	·	Percentage of people who believe that fruit and vegetables are affordable	Community Telephone Survey	Do you believe it is affordable to eat two pieces of fruit and five serves of vegetables every day? ³
Local Food	•					ľ	Percentage of people who would buy their fruit and vegetables from a local farmers market	Community Telephone Survey	Would you buy your fruit and vegetables from a local farmers market? 3
								Percentage of people who would participate in a community garden	Community Telephone Survey
					Type of outlet where fruit and vegetables are purchased	Community Telephone Survey	Where do you buy your fruit and vegetables from? ³		

1. ABS Census data ** 2. Other existing data/indices (NSW Population Health Survey **, Neighborhood Cohesion Instrument **) 3. Liveable Communities Project



FOCUS AREA 4 - ACCESS TO PHYSICAL ACTIVITY

It is widely recognised that regular physical activity has numerous health benefits and is a key component of a healthy lifestyle. The Commission on Social Determinants of Health found that; "Physical activity is strongly influenced by the design of cities through the density of residences, the mix of land uses, the degree to which streets are connected and the ability to walk from place to place, and the provision of and access to local public facilities and spaces for recreation and play."xviii

In Australia, more than 8,000 deaths are associated with physical inactivity each year and the annual, direct healthcare costs attributed to physical inactivity are about \$400 million. The Federal Parliament Standing Committee on Health and Ageing into obesity in Australia recently found that "Urban planning plays a significant role in creating healthy urban environments which increase levels of physical activity and decrease sedentary behaviour. Healthy urban environments can encourage healthy living and urban planning has been identified as a key driver of obesity and an area where action must be taken in order to reduce the levels of obesity in Australia."

The National Physical Activity Guidelines for Australians recommend that people undertake at least 30 minutes of moderate intensity physical activity on most, preferably all, days of the week.xxiv Despite this advice, only about half of the adult population in NSW participate in an adequate level of physical activity.xxv

Increased participation in active transport leads to an increased number of people out on the streets, which can contribute to a "more active and lively communities where people meet and interact." This has benefits for not only physical health, but increased community connectedness, and improved environment health and sustainability, through decreased car usage. The National Heart Foundation's Healthy By Design program promotes a well-planned network of walking and cycling routes...to allow people to travel safely and with ease, whether on foot or by bicycle. Viii

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question
Overall Participation in Physical Activity	Ý				Proportion of people who undertake the recommended level of Physical Activity per week	Community Telephone Survey	 In the last week, how many times have you walked continuously for at least 10 minutes for recreation or exercise or to get to or from places?² What do you estimate was the total time you spent walking in this way in the last week?² In the last week, how many times did you do any vigorous physical activity that made you breathe harder or puff and pant?² What do you estimate was the total time you spent doing this vigorous physical activity in the last week?² In the last week, how many times did you do any other more moderate physical activity that you have not already mentioned?²

1. ABS Census data *** 2. Other existing data/indices (NSW Population Health Survey **, Neighborhood Cohesion Instrument ***) 3. Liveable Communities Project



Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question	
					Proportion of people who use active transport to travel to work	Community Telephone Survey	What is the main method of transport you usually use to get to work? ³	
Participation in Active Transport					Proportion of people who use active transport to get to the shops (where they do the bulk of their food shopping)	Community Telephone Survey	What is the main method of transport you usually use to get to the shops? ³	
('using active transport' is defined as walking or cycling at	✓		1	✓	✓	Proportion of people who use active transport to get to the shops to buy fruit and vegetables	Community Telephone Survey	What is the main method of transport you usually use to buy your fruit and vegetables? 3
least part of the journey)				Proportion of students who use of active transport to travel to school	Community Telephone Survey	What is the main method of transport your child usually uses to get to school? ³		
					Proportion of students who use of active transport to travel to TAFE or University	Community Telephone Survey	What is the main method of transport you usually use to get to TAFE or University? 3	



Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question
					Proportion of people who have used neighbourhood parks, picnic areas, playgrounds or reserves in the last month	Community Telephone Survey	In the last 12 months have you used parks, playgrounds, picnic areas or reserves in your neighbourhood? ³
					Proportion of people who have used neighbourhood swimming pools in the last 12 months	Community Telephone Survey	In the last 12 months have you used a local public swimming pool? ³
Use of and					Proportion of people who have used sporting fields, courts or other sporting facilities that are in their suburb in the last 12 months	Community Telephone Survey	In the last 12 months have you used sporting fields, courts, or other sporting facilities in your suburb as a participant or spectator? ³
Satisfaction with Sport and Recreation Facilities	✓				Proportion of people who have used or visited national parks and bushland areas in the area in the last 12 months	Community Telephone Survey	In the last 12 months have you used have used or visited national parks and bushland areas in your Local Government Area? ³
					Proportion of people who are either very or mostly satisfied with the level of lighting in neighbourhood parks and open spaces	Community Telephone Survey	How satisfied are you with the level of lighting in your neighbourhood including in parks and other open spaces? ³
					Proportion of people who are either very or mostly satisfied with the amount of open space, such as parks, sporting fields and reserves, within their neighbourhood	Community Telephone Survey	How satisfied are you with the amount of open space, such as parks, sporting fields and reserves, within your neighbourhood? ³

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question	
					***Barriers to using neighbourhood parks, picnic areas, playgrounds and reserves	Community Telephone Survey	What are the main barriers to you using parks, picnic areas, playgrounds and reserves at all or more often in your suburb? ³	
Use of and Satisfaction with Sport and Recreation	√	/				***Barrier to using neighbourhood swimming pools	Community Telephone Survey	What are the main barriers to you using a public swimming pool at all or more often in your suburb? 3
Facilities (continued)						***Barriers to using suburb sporting facilities	Community Telephone Survey	What are the main barriers to you using sporting fields, courts or other sporting facilities at all or more often in your suburb? ³
N.					***Barriers to national park and bushland use	Community Telephone Survey	What are the main barriers to you using national parks and bushlands at all or more often? 3	



LIVEABILITY ASSESSMENT TOOL TABLES CONTINUED

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question				
					Proportion of people who have used neighbourhood footpaths in the last month	Community Telephone Survey	Have you used footpaths to walk for exercise, or to get around your neighbourhood in the last month? By footpaths, we mean paths that are paved, made of cement or are sealed? ³				
					Proportion of people who are satisfied with the quality (e.g. paving/lack of cracks) of the footpaths in their neighbourhood	Community Telephone Survey	How satisfied are you with the quality of neighbourhood footpaths (e.g. paving/lack of cracks)? ³				
					Proportion of people who are satisfied with the width of the footpaths in their neighbourhood	Community Telephone Survey	How satisfied are you with the width of neighbourhood footpaths? ³				
Use of and Satisfaction						Proportion of people who are satisfied with the shading of the footpaths in their neighbourhood	Community Telephone Survey	How satisfied are you with the amount of shade that street trees provide to the footpaths and non-path walking routes in your neighbourhood? ³			
with Footpaths and Cycle ways	√		✓		Proportion of people who are satisfied with the level of street lighting in their neighbourhood	Community Telephone Survey	How satisfied are you with the level of street lighting in your neighbourhood? ³				
					Proportion of people who are satisfied with the maintenance of vegetation along footpaths	Community Telephone Survey	How satisfied with the maintenance of vegetation along footpaths? ³				
									Proportion of people who are satisfied with the level of lighting in public open space and parks	Community Telephone Survey	How satisfied are you with the level of lighting in your neighbourhood including in parks and other open spaces? ³
					Proportion of people who either agree or strongly agree with feeling safe walking alone in their neighbourhood during the day	Community Telephone Survey	"I feel safe walking alone around the neighbourhood during the DAY." ¹				

1. ABS Census data *** 2. Other existing data/indices (NSW Population Health Survey **, Neighborhood Cohesion Instrument ***) 3. Liveable Communities Project

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question				
					Proportion of people who either agree or strongly agree with feeling safe walking alone in their neighbourhood at night	Community Telephone Survey	"I feel safe walking alone around the neighbourhood during the NIGHT." ¹				
					Proportion of people who have used neighbourhood cycle ways in the last month	Community Telephone Survey	Have you used neighbourhood cycle ways in the last month? ³				
					Proportion of people who are satisfied with the quality (e.g. paving/lack of cracks) of the cycle ways in their neighbourhood	Community Telephone Survey	How satisfied are you with the quality (e.g. paving/lack of cracks) of the cycle ways in your neighbourhood? ³				
Use of and Satisfaction					✓					Proportion of people who are satisfied with neighbourhood pedestrian crossings and pedestrian signals	Community Telephone Survey
with Footpaths and Cycle ways (continued)	✓			v			V	Proportion of people who are satisfied with the amount and speed of traffic in their neighbourhood	Community Telephone Survey	How satisfied are you with the amount and speed of traffic in your neighbourhood? ³	
					Proportion of people who are satisfied with the amount and speed of traffic on main roads	Community Telephone Survey	How satisfied are you with the amount and speed of traffic on main roads? ³				
					Locations of footpaths within suburb	Community Telephone Survey	-				
21-					***Barriers to using neighbourhood footpaths and cycle ways	Community Telephone Survey	What are the main barriers to you using neighbourhood footpaths/cycle ways at all or more often? ³				
					***Factors that would encourage people to walk or cycle to key destinations in the neighbourhood	Community Telephone Survey	What would encourage you to walk/ cycle to key destinations such as parks, shops or schools at all or more often within this area? ³				

1. ABS Census data -- 2. Other existing data/indices (NSVV Population Health Survey --, Neighborhood Conesion Instrument ---) -3. Liveable Communities



FOCUS AREA 5 - ACCESS TO FLEXIBLE AND AFFORDABLE HOUSING

Access to Flexible and Affordable Housing is a crucial element of liveability. It is widely recognised that adequate and accessible housing has numerous health benefits and is a key component of a healthy life. The Commission on Social Determinants of Health found that: "The daily conditions in which people live have a strong influence on health equity. Access to quality housing and shelter are human rights and basic needs for healthy living".xviii

Diversity in housing form and cost is desirable to accommodate differing housing needs during a family's lifecycle. Family changes (such as children leaving home, students requiring inexpensive housing for the duration of their studies, couples separating or the death of a spouse) may entail a different need for housing in terms of size, cost, closeness or access to amenities. Without such housing diversity being available, changing housing needs can mean that people have to move out of the area or adopt unsatisfactory accommodation arrangements, which can have significant impact on the health and well being of individuals and families as their relationships and social support are affected.xxxii

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure	Data Source	Example Community Survey Question
Home Ownership	√				Percentage of households for which home is fully owned or being purchased	Australian Bureau of Statistics	-
Affordability of Rental Properties	√				Proportion of weekly household income spent on rent	Australian Bureau of Statistics	-
Variety of Housing Type	✓	~	~		Percentage of households living in different dwelling structures	Community Telephone Survey Australian Bureau of Statistics	Do you live in a (type of dwelling)?1

1. ABS Census data 🐃 2. Other existing data/indices (NSW Population Health Survey 🛰, Neighborhood Cohesion Instrument 🐃 3. Liveable Communities Project

FOCUS AREA 6 - ACCESS TO PUBLIC TRANSPORT

Access to public transport promotes equity, sustainability, connectivity and physical activity. Increased public transport networks have the potential to reduce private vehicle usage, reducing the cumulative impacts of numerous car-oriented developments and reduce social isolation.

A good public transport network encourages and complements active transport including walking and cycling, increasing the use of active transport and consequently the level of physical activity among community members. A public transport service needs to be accessible and useful to encourage a reduction in car use and reduce social isolation.

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question										
Provision of Public	√	/	·	_	Location of bus stops	Local Government and Transport NSW	_										
Transport	·	ľ	·	ľ	Bus and Train Timetables	Local Government and Transport NSW	_										
					Proportion of people who use public transport to get to work	Community Telephone Survey	What is the main method of transport you usually use to get to work? 1										
					Proportion of people who use public transport to get to the shops	Community Telephone Survey	What is the main method of transport you usually use to get to the shops? ³										
Use of Public Transport	✓	✓	✓	✓	Proportion of people who use public transport to get to primary school	Community Telephone Survey	What is the main method of transport your child usually uses to get to school? ³										
					Proportion of people who use public transport to get to high school	Community Telephone Survey	What is the main method of transport your child usually uses to get to high school? ³										
															Proportion of people who use public transport to get to tertiary institutions	Community Telephone Survey	What is the main method of transport you usually use to get to TAFE or University? 3
				~	· •		Proportion of people who are very or mostly satisfied with bus service access	Community Telephone Survey	How satisfied are you with access to bus services?3								
Perception of Public	√		·			✓	✓	✓		Proportion of people who are very or mostly satisfied with train service access	Community Telephone Survey	How satisfied are you with access to train services? ³					
Transport	•	√							✓		•	V	V	V	✓	Proportion of people who would increase their use of public transport if the service was improved	Community Telephone Survey
					***Barriers to using public transport either at all or more often	Community Telephone Survey	What are the main barriers to using public transport at all or more often? ³										

1. ABS Census data 🚾 2. Other existing data/indices (NSW Population Health Survey 🤻, Neighborhood Cohesion Instrument 🐃 3. Liveable Communities Project



FOCUS AREA 7 - ACCESS TO CHILDCARE SERVICES

The Commission on Social Determinants of Health Final Report states that "Investment in the early years provides one of the greatest potentials to reduce health inequities within a generation. Experiences in early childhood (defined as prenatal development to eight years of age), and in early and later education, lay critical foundations for the entire life course."xviii

The report goes on to note that "preschool educational programmes and schools, as part of the wider environment that contributes to the development of children, can have a vital role in building children's capabilities."^{xviii}

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question			
					Proportion of people who had difficulty accessing childcare when needed within the last 12 months	Community Telephone Survey	In the last 12 months have you had any difficulty accessing childcare? ³			
	V					Proportion of people who had difficulty accessing preschool when needed within the last 12 months	Community Telephone Survey	In the last 12 months have you had any difficulty accessing preschool? ³		
Access to								Proportion of people who had difficulty accessing out of school hours care when needed within the last 12 months	Community Telephone Survey	In the last 12 months have you had any difficulty accessing out of school hours care? ³
Childcare (Note: This measure is only used for those people						***Location of childcare centres, preschools and out of school hours care	Community Telephone Survey	-		
who reported that they have children younger than school age living in their household some or all of the time)	•				***Reason for difficulty accessing childcare when needed within the last 12 months	Community Telephone Survey	What are the main barriers to accessing childcare when needed within the last 12 months? ³			
							***Reason for difficulty accessing preschool when needed within the last 12 months	Community Telephone Survey	What are the main barriers to accessing preschool when needed within the last 12 months? ³	
					***Reason for difficulty accessing out of school hours care when needed within the last 12 months	Community Telephone Survey	What are the main barriers to accessing out of school hours care when needed within the last 12 months? 3			

1. ABS Census data xiv 2. Other existing data/indices (NSW Population Health Survey xi, Neighborhood Cohesion Instrument xii) 3. Liveable Communities Project

FOCUS AREA 8 - ACCESS TO EDUCATION

The first of the 'Overarching Recommendations' made by the Commission on the Social Determinants on Health demands a "major emphasis on early childhood development and education for girls and boys". XVIII The report goes on to note that "preschool educational programmes and schools, as part of the wider environment that contributes to the development of children, can have a vital role in building children's capabilities."XV

Education is an essential component of community well-being because it enables people to develop their intellectual potential, maximising capacity to deal with many aspects of life. Education and skill base influences capacity to gain employment and contributes to equity and the opportunity to make lifestyle choices. Schools, especially primary schools, are recognised as particularly important in fostering social connectedness in new areas, where friendship, neighbour and acquaintance networks are yet to be established. Access to local schools also increases opportunity for participation in active transport (walking and cycling) and has the potential to improve community cohesion.

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question		
					Proportion of students who travel less than 15 minutes to school	Community Telephone Survey	How long does it usually take your child to get to school each day? ³		
						Proportion of students who attend the local school	Community Telephone Survey	Does your child attend your nearest school? ³	
					Number/location of schools relative to study areas	Local Council			
Access to Local Schools	✓		✓	/	***Reasons for not attending local school	Community Telephone Survey	What is the main reason your child does not attend your nearest school? 3		
							***Barriers to using active or public transport as the main	Community	What are the main barriers to your child using public transport to travel to school at all or more often? ³
1/ 1/2					means to travel to school	Telephone Survey	What is the main reason your child does not walk or cycle to school? ³		

1. ABS Census data 🐃 2. Other existing data/indices (NSW Population Health Survey 🏲, Neighborhood Cohesion Instrument 🐃 3. Liveable Communities Project



FOCUS AREA 9 - ACCESS TO HEALTHCARE SERVICES

"The health-care system is itself a social determinant of health, influenced by and influencing the effect of other social determinants. Gender, education, occupation, income, ethnicity, and place of residence are all closely linked to people's access to, experiences of, and benefits from health care."xviii

Equitable access to primary health care services, including general practitioners, is essential to the operation of an effective health care system. Access to such services may be limited by financial constraints, transport and limited availability of services.

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question		
Access to GP Services	√				Proportion of people who had difficulty accessing a GP when needed within the last 12 months	Community Telephone Survey	In the last 12 months have you or someone else in your household had any difficulty accessing a GP if needed? ³		
					Number of GPs in the area		-		
					***Reasons for difficulty accessing a GP within the last 12 months	Community Telephone Survey	Why did you/they experience this difficulty?3		
Access to Emergency	✓				Proportion of people who had difficulty accessing an emergency department when needed within the last 12 months	Community Telephone Survey	In the last 12 months have you or someone else in your household had any difficulty accessing an emergency department if needed? ³		
Health Services	Health Services						Location of nearest emergency department		-
				***Reasons for difficulty accessing an emergency department within the last 12 months	Community Telephone Survey	Why did you/they experience this difficulty? 3			

1. ABS Census data *** 2. Other existing data/indices (NSW Population Health Survey **, Neighborhood Cohesion Instrument ***) 3. Liveable Communities Project

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question
Access to Dental Services	√				Proportion of people who had difficulty accessing a dentist when needed within the last 12 months	Community Telephone Survey	In the last 12 months have you or someone else in your household had any difficulty accessing a dentist if needed? ³
					***Reasons for difficulty accessing a dentist within the last 12 months	Community Telephone Survey	Why did you/they experience this difficulty? ³
Access to Community Health Services	√				Proportion of people who had difficulty accessing a community health service when needed within the last 12 months	Community Telephone Survey	In the last 12 months have you or someone else in your household had any difficulty accessing a community health service if needed? ³
Health Services					***Reasons for difficulty accessing a community health service within the last 12 months	Community Telephone Survey	Why did you/they experience this difficulty? 3
Access to Home Care Services	✓				Proportion of people who had difficulty accessing home care services when needed within the last 12 months	Community Telephone Survey	In the last 12 months have you or someone else in your household had any difficulty accessing a community health service if needed? ³
					***Reasons for difficulty accessing home care services within the last 12 months	Community Telephone Survey	Why did you/they experience this difficulty? ³
Access to	✓				Proportion of people who had difficulty accessing aged care accommodation when needed within the last 12 months	Community Telephone Survey	In the last 12 months have you or someone else in your household had any difficulty accessing aged care accommodation if needed? ³
Aged Care Accommodation	•				Proportion of people who had difficulty accessing aged care accommodation when needed within the last 12 months	Community Telephone Survey	In the last 12 months have you or someone else in your household had any difficulty accessing aged care accommodation if needed? ³
Access to Specialist Medical	√				Proportion of people who had difficulty accessing a specialist medical practitioner when needed within the last 12 months	Community Telephone Survey	In the last 12 months have you or someone else in your household had any difficulty accessing a specialist medical practitioner if needed? 3
Services					***Reasons for difficulty accessing a specialist medical practitioner within the last 12 months	Community Telephone Survey	Why did you/they experience this difficulty? ³



FOCUS AREA 10 - ACCESS TO COMMUNITY FACILITIES

"The quality of the public realm appears to be important for both mental and physical health. Access to large, attractive public open space increases the odds of higher levels of walking, but is said to be restorative, reducing mental fatigue and improving well being"xxxvii

An increase in medium density housing will mean that private open space in the form of the backyard is likely to be smaller, and may not accommodate the same kind of active uses as has historically been the case. This has implications for the planning and provision of public space, which will have to encourage physical activity, children's play, relaxation and well-being, social and community connections, and, perhaps, food production.xxviii

Sequential development patterns enable new residents to link with existing communities through using established facilities and services such as shops, cafes, neighbourhood centres, schools, libraries, sporting facilities and clubs. Leapfrog development on the other hand can create physical and social barriers with existing communities and be associated with a weakened sense of community.

Designing public space so that it can have multiple uses is important in ensuring that a range of user groups are able to use public spaces throughout different times of the day. Public spaces are most valued when they can be used and shared by different individuals and groups. For example, playing fields may be redesigning for multiple uses such as "organised sports participants, walkers and passive recreational users." xxvii

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question
Location of council owned community facilities and public space	✓			*	Council owned community facilities and public spaces (numbers and location): - Cultural Centres and Libraries - Community Centres and Halls	Local Government	_
					Proportion of people who are either very or mostly satisfied with the amount of open space in their neighbourhood	Community Telephone Survey	How satisfied are you with the amount of open space, such as parks, sporting fields and reserves, within your neighbourhood? 3
Quality and Flexibility of Public Space	✓	✓		✓	Proportion of people who are either very or mostly satisfied with the cleanliness of neighbourhood streets and open space	Community Telephone Survey	How satisfied are you with the cleanliness of your neighbourhood's streets and open spaces, including parks? 3
7/					Proportion of people who think that public spaces in their suburb either mostly or completely cater for a range of ages	Community Telephone Survey	To what extent do the public spaces in your area cater for a range of ages? ³

1. ABS Census data ** 2. Other existing data/indices (NSW Population Health Survey **, Neighborhood Cohesion Instrument **) 3. Liveable Communities Projec

Proportion of people who think that public spaces in their suburb either mostly or completely acter for specific access needs?	Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question									
think that public spaces in their suburb either mostly or completely are welcoming to a range of cultural groups Proportion of people who think that public spaces in their suburb are mostly/completely welcoming to young people aged 12-24 Proportion of people who can name a significant cultural heritage site within their area are protected Proportion of people who believe significant cultural and heritage sites within their area are protected Proportion of people who can name an attractive nature site within their area are protected Proportion of people who can name an attractive nature site within their area are protected Proportion of people who can name an attractive nature site within their suburb that should be conserved? Proportion of people who can name a place where people can come together ***Specific names of places where people can come together ***Incorporation of sites into future development of identity ***Specific names of ***Spec						that public spaces in their suburb either mostly or completely cater		spaces in your area cater for									
Quality and Flexibility of Elephone Survey Community Telephone Survey of young people? 3 Do you know of any significant cultural and/or heritage sites within their area Proportion of people who believe significant cultural and heritage sites within their area are protected (continued) Community Telephone Survey Do you know of any significant cultural and heritage sites within their area are protected Proportion of people who believe significant cultural and heritage sites within their area are protected (continued) Community Telephone Survey Have these been protected? 3 Proportion of people who can name an attractive nature site within their suburb that should be conserved Community Telephone Survey Do you know of any attractive natural sites within their suburb that should be conserved? 3 Proportion of people who can name a place where people can come together Community Telephone Survey Are there any places in your area where people can come together? 3 ****Specific names of places where people can come together Community Telephone Survey What are the places? 3 ****Incorporation of sites into future development of identity Community Telephone Survey Do you think that these culturally significant sites should be incorporated into the future development of your suburbs identity? 3						think that public spaces in their suburb either mostly or completely are welcoming to		spaces in your area welcoming									
Are there any places in your area where people can come together ***Specific names of places where people can come together ***Naming of significant cultural heritage sites in your suburb? 3 ***Specific names of ***S						public spaces in their suburb are mostly/completely welcoming to		in your area cater for the needs									
Quality and Flexibility of Public Space (continued) (continued) Proportion of people who can name an attractive nature site within their suburb that should be conserved Community Telephone Survey Do you know of any attractive natural sites within their suburb that should be conserved? 3 Proportion of people who can name a place where people can come together Community Telephone Survey Are there any places in your area where people can come together? 3 ***Specific names of places where people can come together Community Telephone Survey What are the places? 3 ***Naming of significant cultural heritage sites Community Telephone Survey Do you know of any significant cultural and/or heritage sites in your suburb? 3 ***Incorporation of sites into future development of identity Community Telephone Survey ***Incorporation of sites into future development of identity Community Telephone Survey ***Specific names of Community Telephone Survey						name a significant cultural heritage		cultural and/or heritage sites in									
Proportion of people who can name an attractive nature site within their suburb that should be conserved Proportion of people who can name a place where people can come together ***Specific names of places where people can come together ***Naming of significant cultural heritage sites ***Incorporation of sites into future development of identity ***Specific names of ***Specific names of ***Specific names of ***Incorporation of sites into future development of identity ***Specific names of Community Telephone Survey Do you know of any attractive natural sites within their suburb that should be conserved? 3 ***Incorporation of sites into future development of identity Telephone Survey Do you know of any significant cultural and/or heritage sites in your suburb? 3 Do you think that these culturally significant sites should be incorporated into the future development of your suburbs identity? 3 ***Specific names of Community Telephone Survey ***Incorporation of sites into future development of your suburbs identity? 3 ***Specific names of Community Telephone Survey Do you think that these culturally significant sites should be incorporated into the future development of your suburbs identity? 3						significant cultural and heritage		Have these been protected? ³									
name a place where people can come together ***Specific names of places where people can come together ***Naming of significant cultural heritage sites ***Incorporation of sites into future development of identity ***Specific names of Community Telephone Survey ***Incorporation of sites into future development of identity Community Telephone Survey Mybat are the places? 3	Public Space	√	✓		✓	name an attractive nature site within their suburb that should		natural sites within their suburb									
where people can come together ***Naming of significant cultural heritage sites Community Telephone Survey ***Incorporation of sites into future development of identity Community Telephone Survey ***Specific names of Community Telephone Survey What are the places? 3															name a place where people can		area where people can come
cultural heritage sites Telephone Survey cultural and/or heritage sites in your suburb? 3 ***Incorporation of sites into future development of identity Community Telephone Survey Community Telephone Survey Community Telephone Survey Do you think that these culturally significant sites should be incorporated into the future development of your suburbs identity? 3 ***Specific names of Community What are the places? 3	14													***Specific names of places where people can come together		What are the places? ³	
***Incorporation of sites into future development of identity Community Telephone Survey Culturally significant sites should be incorporated into the future development of your suburbs identity? 3 ***Specific names of Community What are the places? 3											, ,	,	cultural and/or heritage sites in				
	1 2 21							culturally significant sites should be incorporated into the future development of your									
						***Specific names of attractive nature sites		What are the places? ³									



Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question		
					Proportion of people who have used a suburb library within the last 12 months	Community Telephone Survey	Have you used the local public library in the last 12 months? ³		
					Proportion of people who have use a suburb community hall or centre within the last 12 months	Community Telephone Survey	Have you used a community hall or centre in your area within the last 12 months? 3		
					Proportion of people who have used a youth centre within the last 12 months	Community Telephone Survey	If you have children aged 12-24 years old living with you, have they participated in youth activities at a youth or community centre in your area in the last 12 months? ³		
					Proportion of people who have used or visited an art gallery in their area in the last 12 months	Community Telephone Survey	Have you used an art gallery in the last 12 months? 3		
Use of					Proportion of people who have used or visited a performing arts centre in the last 12 months	Community Telephone Survey	Have you used or visited the local performing arts centre in the last 12 months? ³		
Community Facilities	✓	✓	✓	✓	***Barriers to library use	Community Telephone Survey	What are the main barriers to you using the local public library at all, or more often? ³		
							***Barriers to community hall or centre use	Community Telephone Survey	Have you used a community hall or centre in your area within the last 12 months? 3
					***Barriers to youth centre use	Community Telephone Survey	What are the main barriers to your child participating in youth activities at a youth or community centre at all, or more often? 3		
					***Barriers to art gallery use	Community Telephone Survey	What are the main barriers to you using an art gallery at all or more often in your suburb? ³		
					***Barriers to performing arts centre use	Community Telephone Survey	What are the main barriers to you using/visiting the performing arts centre at all or more often? ³		

FOCUS AREA 11 – ACCESS TO COMMUNICATION

The internet, including internet-based email, has become integral to school and tertiary education and is a gateway to many services. Effective internet connections can enable the operation of home-based businesses, which can have positive effects such as reduced vehicle usage and reduced commuting time.

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question
6 3 3					Proportion of people with access to public internet facilities	Community Telephone Survey	Were you able to access a public internet facility if needed within the last 12 months? ³
	✓				Proportion of people with access to a public phone box	Community Telephone Survey	Is there a working public telephone box in your neighbourhood? 3
					Proportion of people with access to a post office box	Community Telephone Survey	Is there a post office box in your neighbourhood? 3
					*** Barriers to accessing public internet facilities	Community Telephone Survey	Why weren't you able to access a public internet facility? ³

^{1.} ABS Census data ** 2. Other existing data/indices (NSW Population Health Survey **, Neighborhood Cohesion Instrument **) 3. Liveable Communities Project



FOCUS AREA 12 – COMMUNITY SAFETY

Elements of design and planning can add to the sense of safety and security felt by specific communities. Research has described how poor urban design exacerbates crime risk for all, regardless of gender, race, age or class.xxix At a local level, the design and 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.vi

Implementation of Crime Prevention Through Environmental Design (CPTED) design and planning initiatives within particular communities have been found to not only reduce crime, but to reduce depression, support mental health by promoting community capacity, cohesion and connectivity. xxx, xxxi

Importantly, these initiatives also have the ability to contribute to reversing the cumulative negative impacts on particular community that result from the ongoing fragmentation from people relocating away from communities that are perceived to be unsafe.xxxii Acknowledging that crime and violence are also a result of social processes, second generation Crime Prevention Through Environmental Design (CPTED) seeks to engender positive social activities and diversity, encouraging communities to take ownership of space and to take advantage of natural surveillance. This concept promotes community capacity, cohesion and connectivity.xxxiii

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure	Data Source	Example Community Survey Question
					Proportion of people who agree/ strongly agree with feeling safe walking in the neighbourhood in day	Community Telephone Survey	"I feel safe walking alone around the neighbourhood during the day." ¹
Perceptions				√	Proportion of people who agree/ strongly agree with feeling safe walking in the neighbourhood in night	Community Telephone Survey	"I feel safe walking alone around the neighbourhood during the night." ¹
of Safety					Proportion of people who agree/ strongly agree with feeling safe home alone in the day	Community Telephone Survey	"When I am alone in my home during the day, I feel safe." ¹
					Proportion of people who agree/ strongly agree with feeling safe home alone in the night	Community Telephone Survey	"When I am alone in my home during the night, I feel safe." ¹





FOCUS AREA 13 - SOCIAL COHESION AND PARTICIPATION

Incorporation of community engagement and social participation in policy processes helps to ensure fair decision-making on health equity issues.*viii Being included in the society in which one lives is vital to the material, psychosocial, and political aspects of empowerment that underpin social well-being and equitable health.*viii Participation in community events and engagement in voluntary work strengthen community cohesion and create a sense of community. Feeling a connection to place can also be exhibited through intention to remain in the community and publicly expressing that it is a good place to live.

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure	Data Source	Example Community Survey Question						
					Proportion of people who either agree or strongly agree with feeling they belong to their neighbourhood	Community Telephone Survey	"I feel like I belong here" ²						
					Proportion of people who either agree or strongly agree with the belief that their neighbours would help them in an emergency	Community Telephone Survey	"I believe my neighbours would help me in an emergency" ²						
					Proportion of people who either agree or strongly agree with the notion that they plan to remain a resident of the neighbourhood	Community Telephone Survey	"I plan to remain a resident of this neighbourhood for a number of years" ²						
				\(\sigma\)	Proportion of people who either agree or strongly agree that their neighbourhood is a good place to live	Community Telephone Survey	"This area is a good place to live" ²						
Connection to Place and Social Cohesion					Proportion of people who either agree or strongly agree that their neighbourhood is a good place to retire	Community Telephone Survey	"This area is a good place to retire" ³						
						Proportion of people who either agree or strongly agree that their neighbourhood is a good place to raise children	Community Telephone Survey	"This area is a good place to raise children" ²					
											Proportion of people who do voluntary work	Community Telephone Survey Australian Bureau of Statistics	In the last twelve months did you spend any time doing voluntary work within your suburb? 1
					Proportion of people who attend community events in their suburb	Community Telephone Survey	In the last 12 months have you attended any events that bring people closer together such as fetes, shows, festivals or other community events within your suburb? 1						

1. ABS Census data 🐃 2. Other existing data/indices (NSW Population Health Survey 🖺, Neighborhood Cohesion Instrument 🐃 3. Liveable Communities Project



Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure	Data Source	Example Community Survey Question
Connection to Place and Social Cohesion (continued)					Proportion of people who believe that their neighbourhood completely/ mostly lives up to their expectations	Community Telephone Survey	To what extent does your neighbourhood live up to the expectations you had before you moved here? 3
Participation					Proportion of people who have participated in consultation on the future of their community	Community Telephone Survey	Have you previously been involved in any community consultation on the future of your area? ³
in consultation					Proportion of people who rate the level of consultation on the future of their community as adequate or very adequate	Community Telephone Survey	How would you rate the level of such community consultation that has been undertaken? 3



FOCUS AREA 14 - ENVIRONMENTAL SUSTAINABILITY

Conservation of the natural environment, including established trees and waterways, contributes to both environmental and human health.

Sustainability can be defined as the ability to provide for the needs of the world's current population without damaging the ability of the future generations to meet their needs. The efficient use of natural resources is therefore a critical component of community sustainability.xiii

Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question					
					Proportion of people who are either very or mostly satisfied with the number of tress in their neighbourhood	Community Telephone Survey	How satisfied are you with the number of trees in your neighbourhood? ³					
					Proportion of people who are either very or mostly satisfied with the water quality of rivers, lakes and creeks in their neighbourhood	Community Telephone Survey	How satisfied are you with the water quality of rivers and creeks in your neighbourhood? ³					
Perceived Quality of the Natural			~	~	✓		Proportion of people who are either very or mostly satisfied with air quality in their neighbourhood	Community Telephone Survey	How satisfied are you with the air quality in your neighbourhood? ³			
					Proportion of people who are either very or mostly satisfied with storm water drainage in their neighbourhood	Community Telephone Survey	How satisfied are you with storm water drainage in your neighbourhood? ³					
V						Proportion of people who a either satisfied or mostly satisfied with the cleanliness of neighbourhood streets and open spaces	Community Telephone Survey	How satisfied are you with the cleanliness of your neighbourhood's streets and open spaces, including parks? ³				
					Proportion of people who have a rainwater tank	Community Telephone Survey	Do you have a rainwater tank? ³					
Sustainable									✓		Proportion of people who have solar water heating	Community Telephone Survey
Practices			v		Proportion of people who use solar panels for electricity	Community Telephone Survey	Do you have solar energy used for electricity? 3					
					Proportion of people who have ceiling insulation in their homes	Community Telephone Survey	Do you have ceiling insulation? ³					



Liveability Indicator	Accessibility	Flexibility	Sustainability	Connectivity	Measure ***(or descriptive information)	Data Source	Example Community Survey Question
					Proportion of people who re-use water	Community Telephone Survey	Does your household re-use water (gray water for the garden)? ³
Sustainable Practices			√		Proportion of people who recycle all or most recyclable waste	Community Telephone Survey	How much of your household's recyclable waste do you recycle, that is, paper, cans, bottles, etc? ³
(continued)					Proportion of people who compost some or all of their household food waste	Community Telephone Survey	Does your household compost either all or most of your household food waste? 3
					Proportion of people who have green power	Community Telephone Survey	Does your household have connection to a green power company? 3



FOCUS AREA 15 – EXPECTATIONS AND FUTURE DESIRES

Examining current expectations and assessing future development desires provides insight into current and future community need. Community consultation to determine such needs is an important component of establishing a connected community.

Liveability Indicator	Measure ***(or descriptive information)	Data Source	Example Community Survey Question
Reported reasons for living in neighbourhood	***Reasons provided for living in neighbourhood	Community Telephone Survey	What is the main reason you live in your neighbourhood? ³
	***Reason provided not planning to remain a resident of the neighbourhood	Community Telephone Survey	Why don't you plan to remain a resident of this neighbourhood? ³
Future development desires	***Comments regarding the future of the community	Community Telephone Survey	Do you have any other comments that you would like to make regarding the future of your community? ³
1. ABS Census data *** 2. Other existing data/indices (NSW Population Health Survey **, Neighborhood Cohesion Instrument ***) 3. Liveable Communities Project			





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