Healthy Urban Development Checklist

ACKNOWLEDGEMENTS

CONTENTS

Background

New South Wales (NSW) is expected to experience continued population growth, with projections suggesting an increase from 6.8 million people in 2006 to 9.1 million in 2036[1]. Population increase will occur across the state, with significant growth in Sydney. The two primary growth areas in Sydney are the North West Growth Centre (which includes Riverstone, Marsden Park and North Kellyville) and the South West Growth Centre (which includes Edmondson Park, Leppington, Oran Park, Catherine Fields and Bringelly). As an example of the scale of this growth, the South West Growth Centre, which is covered by the Sydney South West Area Health Service (SSWAHS), has a target of 110,000 new dwellings.

There is a possibility that growth of such levels, unless carefully planned for and managed, may not contribute positively to the health of the community and may further perpetuate some of the health inequities that currently exist across the state. Population growth of this scale will involve significant development of, and investment in, houwg4s
aha hs28(o.r/Span)x/Span /Ac4. P-28(hWT()-1(7(i)5(l)5(l)-23(e)es (n)4(T2(r)-3(m)-4(e)-1(h)-3()-28((it))))-28(o.8n)10(tW1.474 8h)-3()-28

While this experience exists, SSWAHS and NSW Health have recognised the need to develop their capacity to influence healthy urban design and development and to more actively participate in, and influence, urban planning and development processes.

The development of this Healthy Urban Development Checklist is one of the measures that is intended to address these needs.

Purpose and objectives

The purpose of the checklist is to assist health professionals to provide advice on urban development policies, plans and proposals. It is intended to ensure that the advice provided is both comprehensive and consistent. The checklist is principally about helping to answer the questions:

What are the health effects of the urban development policy, plan or proposal?

How can it be improved to provide better health outcomes?

Although the checklist is a tool for reviewing and commenting on development plans, it is intended that it will also be helpful for providing input and advice from the earliest possible phases of the urban planning and development process.

Although not exclusively, the primary users of the checklist are (initially) intended to be Area Health Service workers who will use the checklist to:

Provide a standardised tool to guide and inform feedback and advice to, for instance, local government and developers on urban development policies and plans in NSW

Evaluate the health aspects of urban developments

Support engagement between urban planners and developers and health professionals

Inform others (planners, developers, policy makers) about the range of factors that need to be considered in healthy urban developments.

There is an opportunity for Area Health Service workers and others to influence how land use decisions affect community health. This means ensuring that the key principles which promote health and wellbeing are considered at all levels of planning including policy development, plan making and development assessment. There are opportunities for participation and contribution at the policy formulation level, at project conception stage and at development assessment. This combination of proactive and reactive measures is important in order to maximise the positive influence of urban planning on health.

– San Francisco Department of Public Health
(who have developed the Healthy Development
Measurement Tool[3])

– Hunter New England Population Health (who have
developed and are using the Building Liveable
Communities in the Lower Hunter Region[4])

– Victorian Growth Areas Authority (who have
developed and are using a Strategic Framework
for Creating Liveable New Communities[5]).

Reviewing academic literature to:

– Assist in identifying the characteristics of healthy
urban development

– 3_^àb] PXUPPJfYU^SUPY^[PRUcg UU^PebRQ^P
development and health

– Provide an evidence base to include in, and
support, the questions in the checklist.

3 San Francisco Department of Public Health. Development Measurement Tool. A Healthy
  comprehensive evaluation metric to consider health need in urban development. San
  Francisco: San Francisco Department of Public Health; 2006.

A note on evidence

A broad and comprehensive view of health, discussed in the next chapter, necessarily involves consideration of many different factors and a high level of complexity. This complexity means that the evidence required to assess plans and support recommendations is diverse in nature and emanates from a range of fields. We consider this multidisciplinary approach to be a strength of the checklist.

Clinical researchers and epidemiologists appropriately place considerable emphasis on creating standardised experimental conditions, randomised selection or allocation of participants, control groups and double blind procedures. These conditions and techniques are often impractical and sometimes unethical in studies involving people and the built environment. Consequently, the methods used to investigate, and the findings available about, the links between health and the built environment are often different to those encountered in more controllable situations. However, methodologically sound studies still produce robust and valid evidence.

This checklist draws on evidence from diverse types of studies and on the slowly increasing number of systematic reviews available in this field. It also recommends that it is desirable to indicate wherever possible the strength of the evidence available to support any recommendations arising from the use of the checklist.

Document structure

This document is organised in the following sections:

Chapters 2-5 are introductory and provide the background and context for the checklist. Topics covered include the relationship between health and urban development (chapter 2), guiding principles for development and use of the checklist (chapter 3), an
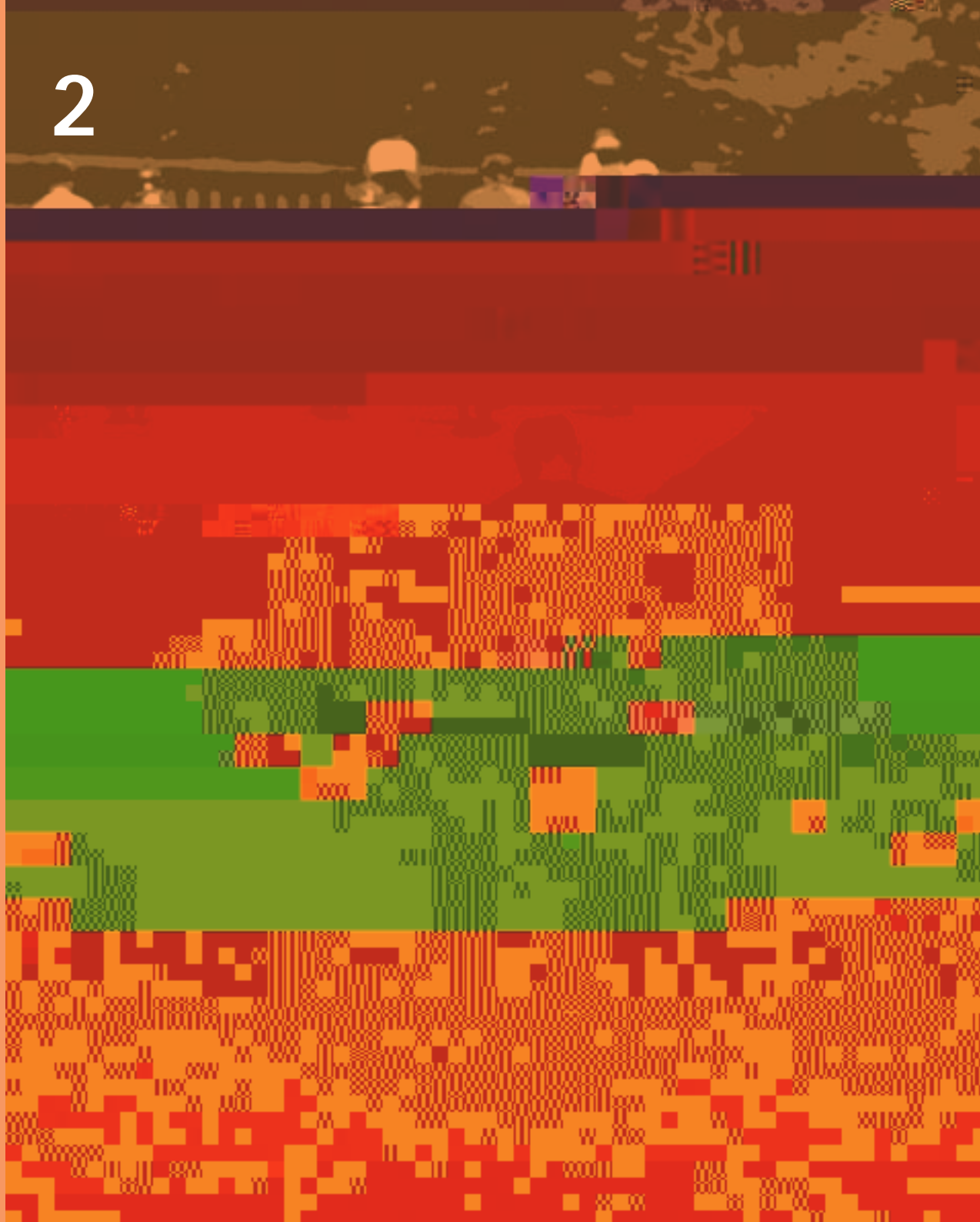
to exhort individuals to change their behaviour, especially when " the environment in which they live and work gives

It could have lifestyle effects including greater opportunities for healthy food outlets and provision of a safe and well connected destination and activity centre which could affect physical activity patterns and local employment opportunities (which, in turn, may alter commuting time and affect work/life balance).

DXUH Ui P^áeU^SUcþ_PdXUhXUOdXP C'z̸ʑ_^PdXUP development of this checklist are:

Recognition that people are at the centre of any form of assessment or advice. How a plan, policy or proposal affects the health, wellbeing and quality of life of people is the fundamental question

Understanding that a wide range of factors can Y^áeU^SUǷ_dXY^TʎȳeONⱤQ^TꞪS_]] e^YᴰᵈXUOdX,Þ not only the built environment but also activities, the local economy, community and lifestyle

Recognition that there is an interdependence between various factors and that action or activity in one sphere may affect (positively or negatively) others.

Urban Form

A range of research evidence suggests that urban form has a significant influence on health[15]. The Greater Western Sydney Health Impact Assessment of the Sydney Metropolitan Strategy[16] identifies two common meanings of 'urban form':

A more macro level that refers to the "general pattern

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15 Capon A. Promoting Nutrition, Physical Activity and Obesity through Urban Planning. Sydney: NSW Health Department and NSW Centre for Overweight and Obesity; 2005.

16 Western Sydney Regional Organisation of Councils Ltd (WSROC) and Anni Gethin (AGA Consulting P/L). Greater Western Sydney Urban Development Health Impact Assessment: Final Report. Western Sydney Regional Organisation of Councils Ltd; 2007. http://www.wsroc.com.au/page.aspx?pid=287&vid=5

a bus stop and that for metropolitan railway stations households should be within 800-1000 metres[18]

Street connectivity and continuity that promotes directness of routes

Neighbourhood environment including aesthetic appeal, presence of footpaths, cycleways, shade trees, separation of pedestrians from vehicle travel, interesting streetscapes

Walking and cycling infrastructure linking key destinations and providing safe and inviting alternatives to automobile travel.

While this checklist is intended to cover a range of different development contexts, including urban renewal, greenfield and semi rural/rural settings, these elements of urban form can generally be considered to be desirable from a health perspective.

Urban sprawl, although often poorly defined[19], has generally been identified as an anathema to the creation of healthy communities. Some of the consequences of urban sprawl have been identified as "increased reliance on automobile transportation and decreased ability to walk to destinations, decreased neighbourhood cohesion, and environmental degradation"[20]. There is growing evidence regarding links "between contemporary public health epidemics, such as obesity and depression, and aspects of our urban environment", which have emerged in parallel with the increasing suburbanisation of Australian cities[21].

While urban sprawl has been primarily derived from the American planning and development context, and it is recognised that the processes of urban planning, development and management in Australia and the United States are quite different, there are common concerns about the impacts of 'sprawling' patterns of urban development. Some of those concerns include that "sv3223ng as36(u)23(b)13(u)3(3 em-6(e)-3(pn)(t)-1((a))-20 h-5(p)-1(r)

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18 NSW Department of Urban Affairs and Planning. Improving Transport Choice – Guidelines for Planning and Development. NSW Department of Urban Affairs and Planning; 2001. http://www.planning.nsw.gov.au/programservices/pdf/prg_transport.pdf

19 Mead E, Dodson J, Ellway C. Urban Environments and Health: Identifying key relationships and policy imperatives. Brisbane: Urban Research Program, Griffth University; 2006. http://www.griffth.edu.au/__data/assets/pdf_fle/0011/48647/urp-rm10-mead-et-al-2006.pdf

playing outside and many other forms of incidental exercise by other population groups

Uniform, and often predominantly detached, housing residential areas which often function as 'bedroom communities' with those left behind experiencing social isolation (and also creating environments that lack housing choice)

Lack of local employment opportunities requiring some people to travel long distances from home to work, meaning that they "do not have the time or energy to form meaningful relationships with their neighbours"[23] as well as a lack of time for their own family relationships and activities

Consequently, the conventional post war and car dependent suburban form, with its uniform housing, separation of home and work and lack of quality pedestrian and cycling environments, is generally considered to be unsustainable and a more diverse and connected form of suburban development is now being promoted (for instance the type of greenfield development being promoted in Sydney's growth centres by the NSW Department of Planning).

Suburbs will continue to be important places for housing Australia's population. About 70% of Australians are estimated to currently live in what is considered to be 'the suburbs'[24], and the NSW State Plan and the Sydney Metropolitan Strategy include targets for 30% of new housing to be built in greenfield areas. A key objective is that these new suburbs include a variety of housing forms and densities and they will need to be carefully planned so that the issues attributed to urban sprawl are not repeated. Health considerations have an important role to play in ensuring that our growing suburbs, centres and towns reflect a more sustainable approach to urban planning and development[25].

While this checklist goes into considerably more detail, it is important to keep in mind these broader elements of urban form (both at the macro and local levels) that may affect health.

Reflecting this understanding of health and urban development and the determinants of health, the ten characteristics of healthy urban development focused on in this checklist are:

Healthy food

Physical activity

Housing

Transport and physical connectivity

Quality employment

Community safety and security

Public open space

Social infrastructure

Social cohesion and social connectivity

Environment and health.

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23 See footnote 22

24 Davidson A. Stuck in a cul-de-sac: Suburban history and urban sustainability in Australia. Urban Policy and Research 2006; 24(2): 201-16.

25 Thompson S. A planner's perspective on the health impacts of urban settings.

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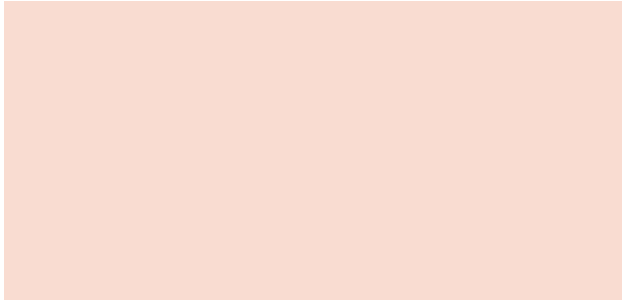
Equity

Equity is a fundamental consideration in public health and is recognised as a key principle of the WHO Healthy Cities Project. Equity is understood here to mean that access to all aspects of a community (including health, safety, open space, transport and economic development) is fair to all residents regardless of socioeconomic status, cultural background, gender, age or ability[26].

The state of NSW, and particularly the growth centres in Sydney, will undergo significant population growth and change over the next 20-30 years. The management of this growth will have a significant influence on the extent to which health inequities are increased or ameliorated. As identified in a Health Impact Assessment of the Sydney Metropolitan Strategy[27]:

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26 International City/County Management Association. Active Living and Social Equity: Creating healthy communities for all residents. A guide for local governments. Washington: International City/County Management Association; 2005. http://www.icma.org/upload/library/2005-02/%7B16565E96-721D-467D-9521-3694F918E5CE%7D.pdf

27 Western Sydney Regional Organisation of Councils Ltd (WSROC) and Anni Gethin (AGA Consulting P/L). Greater Western Sydney Urban Development Health Impact Assessment: Final Report. Western Sydney Regional Organisation of Councils Ltd; 2007. http://www.wsroc.com.au/page.aspx?pid=287&vid=5

Groups who have been identified as facing socio-economic and health inequities (in Greater Western Sydney)[28] include:

Low income households

Sole parent families

Unemployed people

Some culturally and linguistically diverse populations

Aboriginal and Torres Strait Islanders

Older people on government pensions

People with disabilities or chronic illness.

This checklist has an early section (in chapter 6) on 'understanding the community' which attempts to focus the user's attention on who the potentially affected community is and which groups in that community may be most vulnerable. The equity based health impact assessment literature has been used to inform this section. Equity issues continue to be considered throughout the checklist with a number of questions addressing equity in terms of access to opportunities, services and facilities and the equal distribution of potential impacts (both positive and negative).

Early engagement

Improved health outcomes can be achieved through providing feedback on draft versions of publicly exhibited policies, plans or proposals. However, it is also recognised that maximum influence can be exercised when there are opportunities to participate in the policy or plan making process and contribute at the earliest possible stages of a project's inception. This early or 'upstream' participation, and the ability to consider health from the start, is a much more effective approach than as8(l)16(u)7(e)91(f)-23(f)13(7TCu)91(thatiuuteh d08 (o)6(s)-4(a)12(l)13(s)5(.)-18(t)9(o)6(f)-6(f)-6(f)-6-1(i)-4(e)-

Interdependence

While this checklist is divided into chapters that each deal with a specific element of healthy urban development, it is important to maintain an understanding of the links between these elements and the interdependence of the relationships between them.

The 'health map' highlighted the interdependent nature of the various factors that contribute to health[29]. Studies examining transport disadvantage in Western Sydney found that poor transport access reduced access to work, education and training, health services, sport and recreation and opportunities for social interaction[30]. This finding reinforces the interdependence of the various elements that are considered to be a part of what we consider to be health and healthy urban development.

29 Barton H, Grant M. A health map for the local human habitat. Journal of the Royal
   Society for the /ocb8derp fb11()1(116(d)-; 1)404 1 716(d)-1((r)-618(h))14(t:-281(5)2(25(t-n)2030 0 7 57.1961 104.7475 Tm[2-14(9)]TJ/Span ‹Actua-/A691Text (3f)2)d0 0 0 7 57.1961 104.7475 Tm[2)-14(9

Capacity building is an important aspect of building partnerships that has both external and internal dimensions. As mentioned, there is an opportunity for planners and health professionals to work collaboratively to build each other's knowledge and expertise in both planning and health.

Importantly, internal capacity building within health systems also has implications for the ongoing sustainability and effectiveness of promoting healthy urban development. NSW Health's capacity building framework states that capacity building is about "building independence" and defines it as "an approach to the development of sustainable skills, structures, resources and commitment to health improvement in health and other sectors"[31].

Capacity building is important to the implementation of this checklist and is a strategy to maximise its effectiveness. It is recognised that the checklist is a tool that requires an ongoing process of engagement and mutual development between planners and health workers. This will ensure that planning and development

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Understanding the system

Planning in New South Wales is driven by an evolving set of rules and processes. It is important for those outside the planning profession, like Area Health Services, to understand how to make representations, how to influence policy and how to participate proactively in the planning system. This chapter provides a brief overview of the planning system in NSW including reference to the Growth Centres where a unique system operates.

Environmental Planning and Assessment Act 1979

Land use planning and development in NSW is governed by the Environmental Planning and Assessment Act 1979 (otherwise known as EP&A Act, or just 'the Act')[32]. The objectives of the Act include:

To encourage:

– The proper management, development and conservation of land in its various forms for the purpose of promoting the social and economic welfare of the community and a better environment

– The provision of land for public purposes

– The provision and coordination of community services and facilities

– The protection of the environment

– Ecologically sustainable development

– The provision and maintenance of affordable housing.

To promote the sharing of the responsibility for environmental planning between the different levels of government in the State

To provide increased opportunity for public involvement and participation in environmental planning and assessment.

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32 NSW Consolidated Acts. Environmental Planning and Assessment Act 1979.
http://www.austlii.edu.au/au/legis/nsw/consol_act/epaaa1979389/

As pointed out in a recent NSW Public Health Bulletin:
"The objectives of the Act have direct links to the
wider determinants of health. However, this important
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health professionals"[33].

Plan making is covered by Part 3 of the Act. The
plan making process covers both statutory and non-
statutory planning tools. An overview of NSW planning
instruments and legislation is available from the
NSW Department of Planning website[34]. For further
information on the planning system refer to the Local
Environmental Plans section of the NSW Department
of Planning website[35].

Environmental planning instruments

strategies such as the Sydney Metropolitan Strategy, into a long-term planning blueprint for the local level. As an example, the South West Draft Sub-Regional Strategy[40] covers much of the area of the SSWAHS. The sub-regional strategy includes:

Plans for major housing and employment growth with dwelling targets of 284,000 by 2031 and employment targets of 208,500 by 2031

Development of regional centres such as Liverpool

3 O\d⁻V_b⊅KUⱵY^dU^c\aSQdⱵ_^Þ_VᵽUfU_`] U^d⁻Qb_e^TÞ existing centres and public transport corridors

Protection for resource land including water catchment and agricultural lands.

While not statutory instruments, regional strategies are policy documents that provide "ministerial direction which Local Environmental Plans are required to follow. Therefore improved consideration of health impactdttnn, regional strategies 6(q)ld(o)6(f)7ons (n)5(sw(o)3(v)-7(ii)-1(b)-1528(a)2(r)5p)-

Residential Development Strategies

A Residential Development Strategy (RDS) is prepared by a local council to show its future plans for residential development and how it aims to meet its dwelling targets, or those included in urban development strategies and policies such as the Sydney Metropolitan Strategy. The RDS would investigate how council proposes to achieve this through the type and location of development. For example this could be with infill development of existing sites or new greenfield sites and release areas. The RDS would also outline strategies and specific areas for increasing or decreasing densification, or retaining existing levels.

> The RDS presents another important opportunity for Area Health Services to work with local government in the application of this checklist.

Other non-statutory planning tools that this checklist may be applied to include:

- Town centre plans or studies (often prepared by local government)

- Concept plans and master plans (often prepared by developers).

A diagrammatic overview of these plans is shown on the following page. Please note that the diagram deals only with plans and policies produced by State Government or Local Government and does not include the range of plans and proposals (such as concept plans and master plans) that may be produced by developers. The process in the diagram is also mostly applicable to the Greater Sydney region. (In the diagram, DoP refers to the NSW Department of Planning.)

Growth Centres

The North West and South West Growth Centres will fast track the release and development of land to accommodate additional growth for Sydney by streamlining the planning and development application process.

The NSW Government will manage the timing and sequencing of land release in the Growth Centres, the mix of housing, types of centres and employment lands, infrastructure timing, costs and contributions and communication with local communities and landowners[42]. The Government works with other agencies and local governments to speed up the process by dealing with statutory approvals at a precinct or Growth Centre level, saving time and money. In the Growth Centres, State Government undertakes many functions that in other areas are the responsibilities of the local council.

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42 Sydney's Growth Centres. A Guide to Growth Centres. NSW Department of Planning: 2008. http://www.gcc.nsw.gov.au/media/Pdf/Brochures/gccbroch2.pdf

ENVIRONMENTAL PLANNING &
ASSESSMENT ACT 1979
(EP&A Ac)

NSW STATE PLAN
(NSW Government)

METROPOLITAN
STRATEGY (DoP)

SUB-REGIONAL
STRATEGIES (DoP)

RESIDENTIAL
DEVELOPMENT

ENVIRONMENTAL
PLANNING
INSTRUMENTS (EPI)
(statutory)

STATE ENVIRONMENTAL
PLANNING POLICIES
(SEPPs)

LOCAL ENVIRONMENTAL
PLANS
(LEPs)

SECTION 94
CONTRIBUTIONS PLANS
(s. 94)

The Sydney Region Growth Centres SEPP 2006
(the Growth Centres SEPP) is the planning instrument
which covers development objectives for the
Growth Centres. The Government works with other
agencies to streamline the planning process and
infrastructure provision.

These studies help to form an **Indicative Layout Plan** which shows where roads, housing, infrastructure, public areas and services may be located. It is used as a basis for public consultation and for discussions with state agencies regarding infrastructure requirements.

As a result of precinct planning the following plans and reports are produced:

A Precinct Planning report

The draft Indicative Layout Plan

A draft Amendment to the Growth Centres SEPP to facilitate rezoning

A draft Development Control Plan (a plan which sets standards or requirements for particular types of development)

A draft Section 94 Plan (local infrastructure plans)

Supporting background studies.

Growth Centres Precinct Planning Process

The adjacent figure outlines the main elements of the Growth Centres precinct planning process[45].

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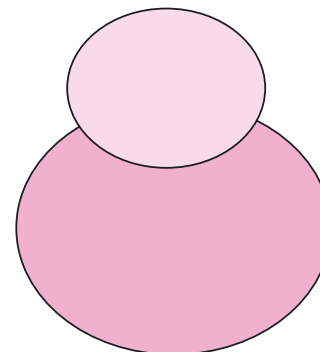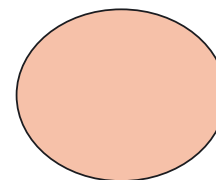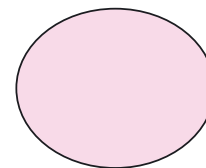
45 Sydney's Growth Centres. Growth Centres Development Code. An Overview of the Precinct Planning Process. NSW Department of Planning; 2006. http://www.gcc.nsw.gov.au/media/Pdf/Corporate/DEVCODE/devcode1.pdf

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RUﾷﾷe_eﾷﾷdﾷRiﾷPTUfU_`] U^dﾷﾷcｷUcc] U^dﾷP_ﾷaﾷSUﾷﾷc

Determination – by the assessment authority,
or the Land and Environment Court if required.

It is essential for health workers to understand the
planning system ands(n)1(d)m plap(sJ0 -14(s3(d)m)01n8(a)2(s1mrba(o)d)19(84)41()p(s1)do)-3(sah)312(db(4(28(Urb01oJ)1((s)41)91(m 9dcn

Square Town Centre included an objective about leaving
a positive social legacy). Inclusion of these types of
objectives sees potential (privaa)HudivT[(pm-28(l)-6(e)-1(no)6(f)]TJpv)2 (u)5(a-3(ct)-6(e)-1(h)-0(t)-19(e)-6(s)-28(TM8 s2(k-9(pr)-7(i)4(n)6

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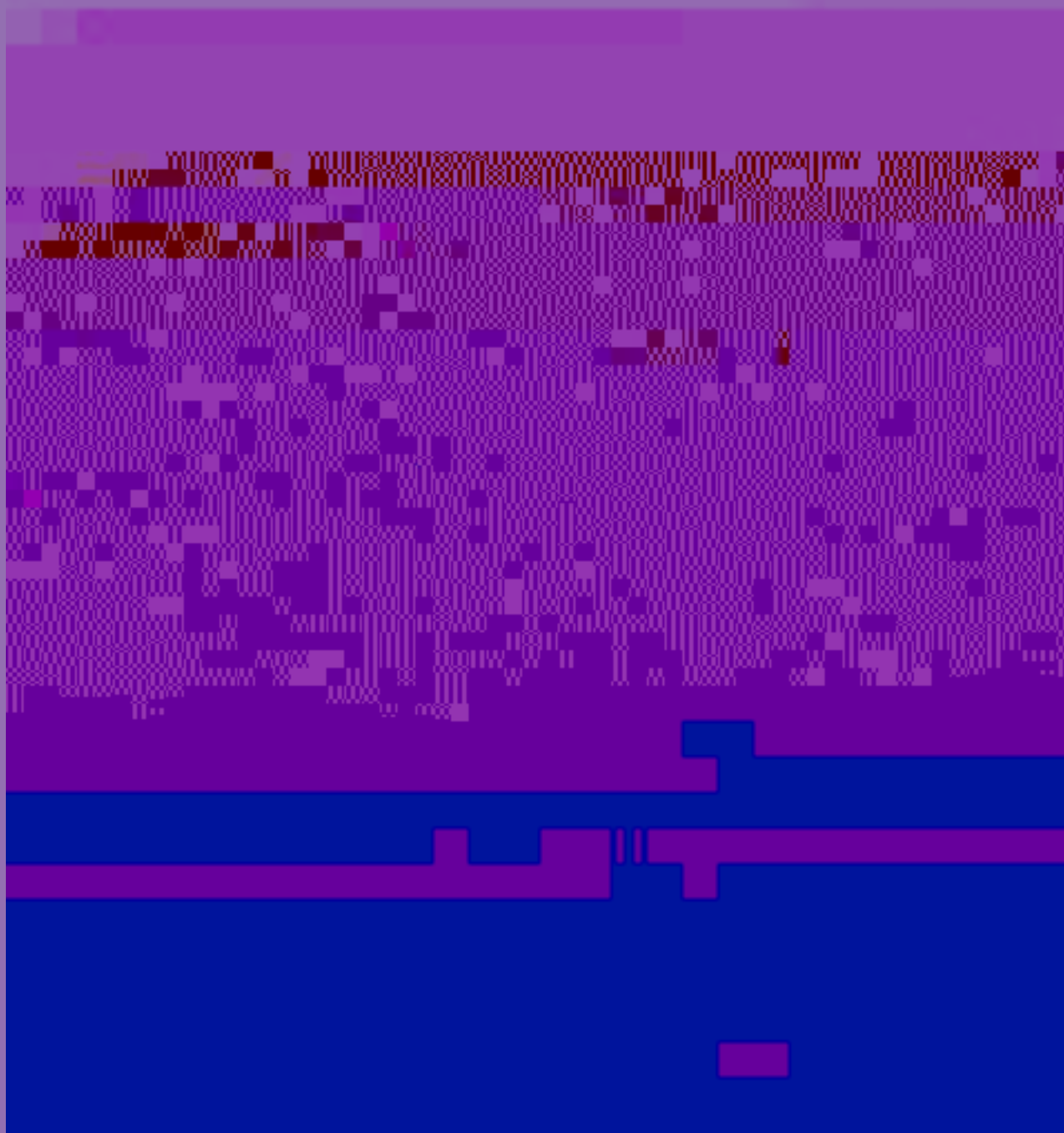
The types of **plans and proposals** that this checklist is intended for include:

Master Plans (may also be called concept plans)

Town Centre Plans

Development applications for projects like large housing developments, shopping centres, and community and health care facilities.

Generally speaking policies and strategies are broader in focus and often relate to larger areas such as regions, local government areas or large precincts. Their focus is also more on principles and objectives. Plans and proposals are more specific and often relate to a particular site or area. Their focus is more on the physical characteristics of development. They often include a site plan or map.

As mentioned, this checklist cannot address every conceivable opportunity for participation in the planning and development system and remain a practical and useable tool. It is also intended primarily for Area Health Service worker use. Following from this, there are necessarily some planning and development policies, plans and proposals that this checklist has not been designed for. These include:

Plans like the NSW State Plan which NSW Health will take the lead on providing advice and comment on, with Area Health Services likely to play a role in the formulation of that advice

Strategies like the Sydney Metropolitan Strategy which are also at a very broad level with advice and comment led by NSW Health

Plans that are not land use or development focused such as council management plans, strategic plans or social plans (however, it is recognised that some health input into some of these plans may be useful)

Infrastructure projects like major roads which, although they may have significant health impacts and aspects of them fall within the planning and development system, are subject to other processes like environmental impact assessment and potentially health impact assessment

Minor development applications, whose sheer number mean that comment on such applications is not practical for Area Health Services, nor appropriate in most cases

Plans and proposals related to buildings, which are governed by a range of other tools, such as the Building Code of Australia, which are beyond this checklist's focus on the broader issues of planning and development.

It is important to note that while this checklist has not been written specifically for the above examples, it may still serve as a useful guide for comment and advice related to these kinds of policies, plans and proposals.

When to use it

This tool is intended to be used in two ways:

1. As an early or 'upstream' participation tool to provide advice or input during the developmental phase of policies, plans or proposals

2. As a feedback mechanism to assist with providing comment on draft or publicly exhibited policies, plans or proposals.

It is considered that the earlier the checklist can be applied, the more likely it is to be able to effect change.

How to use it

This section outlines the steps that should be followed to use the checklist (see also the flow chart later in this chapter).

Pre-checklist activities

Complete the pre-checklist chapter (chapter 6) which includes:

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In the checklist, specific questions are grouped
according to the key questions identified for each
chapter. For example, in the Healthy food chapter
(chapter 7), there are a number of specific questions
listed under each of the three key questions: how does
the policy, plan or proposal: promote access to fresh,
nutritious and affordable food? preserve agricultural
lands? provide support for local food production?
For each specific question the checklist provides
an indication, with a dot in the relevant column,
of whether it is relevant to planning policies and

STEP 1

STEP 2

STEP 3A

Preparing a response

Two forms have been developed to help the user collate their thoughts and formulate a response that identifies the most important issues from a health perspective and is useful to the planner. While there is an emphasis on written responses here, there may also be circumstances where the checklist is used to inform participation in meetings, discussions and workshops where the focus is on verbal advice and dialogue.

Synthesising the information from the checklist is a two stago ocu7ag31ta nF(k)mpn2(i)5h

to ensure that the advice will be useful and relevant, especially if it is not entirely supportive of the policy, plan or proposal in question.

Including evidence to support claims or recommendations is important. This evidence may include information from the academic or policy literature (including that cited in this checklist) or data from a community profile or health statistics that you have obtained.

Some health related effects of development are cumulative in nature and cannot reasonably be identified as the responsibility of a single development proposal. As an example, while the effect on air quality of a single suburban development may, in isolation, be seen
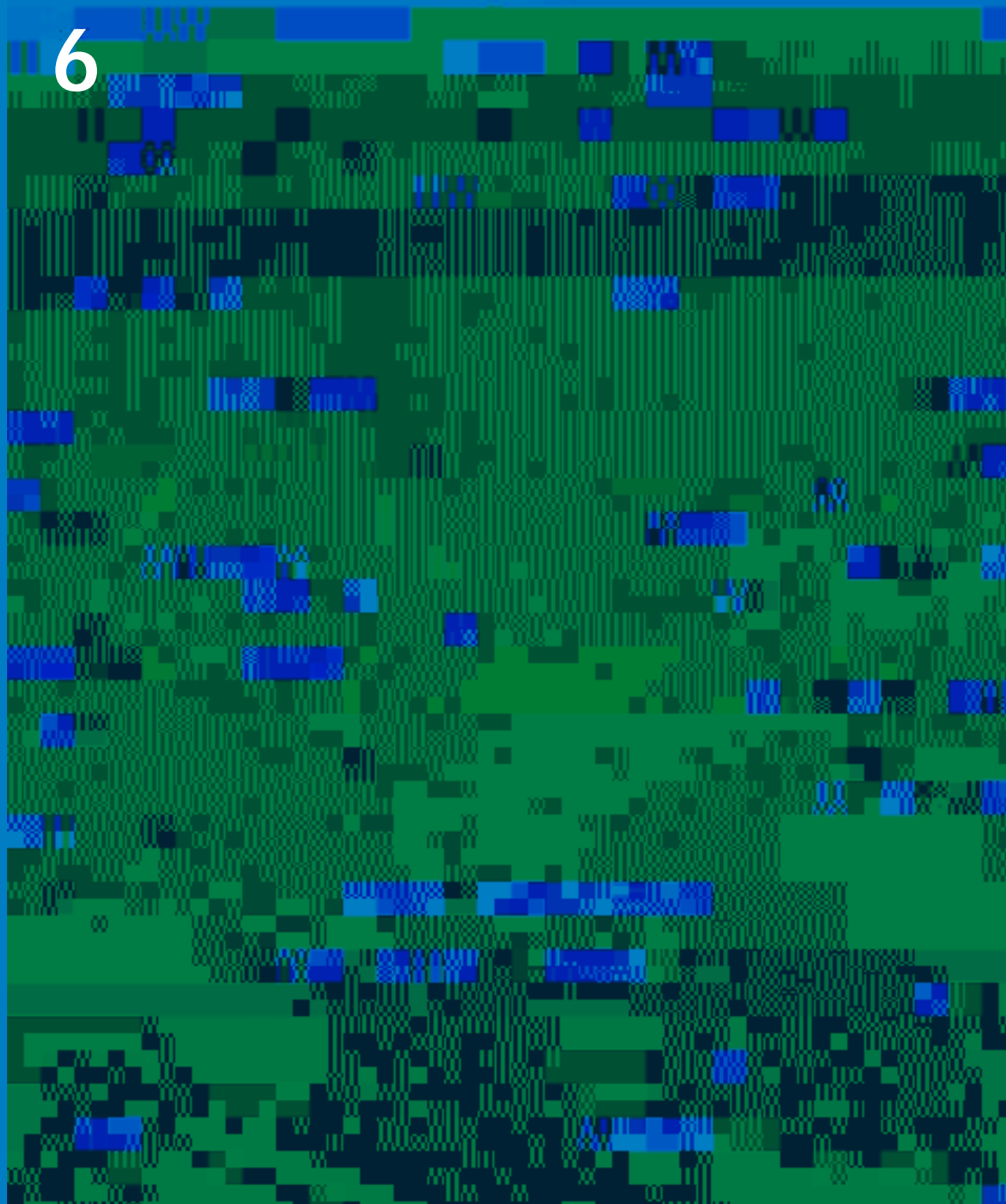
This chapter aims to assist users appreciate the context for the policy, plan or proposal they are assessing, its place in the planning system, and where it is in the planning process, and develop an understanding of the community where it is situated. Please also refer to the flow chart in Chapter 5.

Understanding the policy, plan or proposal

What is the policy, plan or proposal; what stage of

Can data and information provided in the policy,
`'O^Þ_Þ_b_`_cONRUfUbJaUT/ÞPdPOSSebOdU/ÞPdPVb_] Þ
a recognised source? Can it be reviewed?

Have you done something similar before?

Have you, or someone in your Area Health Service,
commented on a similar policy, plan or proposal before?

What do you know about the area?

What local government area is it in?

Where exactly is it located? What is there at present?

Are you familiar with the area?

What is in the areas around it?

Is there anyone in your health service who has experience
working in the area and with that community? (If so,
try to involve those people in the process.)

Do you, or your Area Health Service, have an existing
relationship with the local council?

Understanding the community

An understanding of the community where a policy,
plan or proposal is located is a fundamental first step
in considering how the wider determinants of health
may be influenced by, or influence, proposed urban
development.

For greenfield sites, it can sometimes be difficult

Initial considerations

Initial considerations for users of this checklist include:

Key characteristics of the existing (including surrounding) population and the future (projected) population including size, age, household composition, socio-economic status and ethnicity

¶U^dàSⓒdY_^Þ_Wfe\^UbⓒR\U,ÞŸⓒTfⒸ^dⒸWUTÞ_bⒸd·bⓒ[Þ groups in the local population

Key health issues of concern to the local community and/or the Area Health Service

Health determinants including housing conditions, types of housing, environmental and social issues, employment status, socio-economic status, levels of employment or unemployment, transport infrastructure, social support and access to services (including health care services and sport and recreation facilities)

Whether the community has already been consulted during the development of the policy, plan or proposal.

Equity considerations

Equity is a fundamental consideration in public health and a guiding principle of this checklist. Equity in this context means that access to opportunities, resources and community benefits (health, safety, open space, transport, housing etc.) are fairly distributed among all residents regardless of their age, gender, cultural background, ability or socioeconomic status.

The following questions are based on Mahoney et al (2004)[49] and are considered essential to understanding a community and using the health characteristic chapters that follow:

Who will most likely be affected by the policy, plan or proposal?

What is known or understood about the sections of the community most likely to be affected?

What will the nature of the effects be (good or bad, 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?

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49 Mahoney M, Simpson S, Harris E, Aldrich R, Stewart Williams J. Equity Focused Health Impact Assessment Framework. The Australasian Collaboration for Health Equity Impact Assessment (ACHEIA); 2004. http://notes.med.unsw.edu.au/cphceweb.nsf/

Sources of information

Sources of information useful for answering some of these questions include[50]:

Australian Bureau of Statistics
http://www.abs.gov.au (Census data and other useful packages such as the SEIFA index of disadvantage)

BU`_bdᴅ_Vꝓ∂XˌꞀUꞀ∂ᴄCꞬᴨᴣXᴛ∪M∂ᴨᴜꝲᴅⅩᴇꝲ∿ꞀᴀSᴜⅼꝓ
http://www.health.nsw.gov.au/public-health/chorep/

Local Government
http://www.dlg.nsw.gov.au/dlg/dlghome/dlg_home.asp

Australian Institute of Health and Welfare
http://www.aihw.gov.au/

State Library of NSW
http://www.sl.nsw.gov.au/links/stats.cfm

Bureau of Crime Statistics and Research (BOCSAR)
http://www.lawlink.nsw.gov.au/bocsar

@ᴃ_àꝲⅬᴘꝯꞀᴅꝸ
http://www.id.com.au/home/default.asp?pg=7

Other sources include:

<_SᴄꞀꞀᴅS_e^SⅩꝸS_ꝸꝸ e^Ⅹ� ᴘꞎ∿Ⅎᴅ^Tᴃdᴄᴅꝲᴄ∂ꝸSᴄꝸꝓ ᴃ_àꝲUᴄꝸꝓ
= Ꝺ^ꜞꝸᴣ_e^SⅩᴄꝓ eRꝲᴄⅩꝸS_ꝸꝸ e^Ⅎⅆ ꝸ ᴃ_àꝲUᴄꝸᴣ_^ꝓ
their websites that contain an extensive array of community information

The Social Plan of the local council where the policy, plan or proposal is located

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50 Harris P, Harris-Roxas B, Harris E, Kemp L. Health Impact Assessment: A Practical Guide. Sydney: Centre for Health Equity Training Research and Evaluation (CHETRE), Part of the UNSW Research Centre for Primary Health Care and Equity, UNSW: 2007. http://www.hiaconnect.edu.au/files/Health_Impact_Assessment_A_Practical_Guide.pdf

If you are not familiar with the area, a visit to the site, if possible, is also recommended to help get an understanding of the context and local community. If a site visit is not possible, examining an aerial photograph of the area through sources such as Google Maps may also help to gain an appreciation of the site and its context.

The Checklist Summary Form (see Appendix One) includes a section on understanding your community. The form includes space for five key points about the community. Users of the checklist are not necessarily restricted to this but some form of analysis and summary of population data or community profile information is recommended.

Quick Guide

The checklist is structured into ten chapters, each one focused on a characteristic that is important for healthy urban development. Each characteristic has up to five key considerations, formulated as questions. The ten characteristics, and their key considerations, are listed on the following pages, in the form of a Quick Guide, numbered according to their respective chapter numbers.

After developing an understanding of the policy, plan or proposal and thinking about the community it will affect, consider each section in the Quick Guide. Begin by asking how the policy, plan or proposal may affect healthy food, physical activity, housing, etc. to help you gain a first impression of which of the ten

characteristics are likely to be most significant for this policy, plan or proposal. Then, if, for example, you think that physical activity may be an issue, use the key consideration questions (e.g. How does the plan, policy or proposal encourage or discourage incidental physical activity?) to confirm whether this is an area that you would like to pursue in more detail with the full checklist chapter. Use the relevance column to tick those issues you would like to explore in more detail with the full checklist. Many policies, plans or proposals may get ticks for every characteristic, others may not.

If time is limited, this Quick Guide could be used alone to frame an interim response (using Appendices One and Two if desired) to the referring planner or agency. The response should note that the feedback is based on a preliminary analysis and that it identifies issues that have potential health implications and warrant further consideration.

Quick Guide questions

7. Healthy Food

Are there likely to be significant issues related to …   **Relevance (tick if relevant)**

Access to fresh, nutritious and affordable food?..☐

Preservation of agricultural lands?..☐

Support for local food production? ....☐

8. Physical Activity

Are there likely to be significant issues related to …   **Relevance**

Encouragement of incidental physical activity?...☐

Opportunities for walking, cycling and other forms of active transport?..☐

Access to usable and quality outdoor spaces and recreational facilities? ....☐

9. Housing

Are there likely to be significant issues related to …   **Relevance**

Provision of housing that supports human and environmental health? ....☐

Dwelling diversity? ....☐

Affordable housing? ....☐

Adaptability and accessibility of housing?...☐

10. Transport and Physical Connectivity

Are there likely to be significant issues related to …   **Relevance**

Availability of public transport services? ....☐

Reduction of car dependency and encouragement of active transport?...☐

Encouragement of infill development and/or integration of new development with existing development? ....☐

Telephone and internet connectivity?..☐

11. Quality Employment

Are there likely to be significant issues related to …   **Relevance**

Location of jobs to housing and commuting options? ....☐

Access to a range of quality employment opportunities?...☐

Access to appropriate job training? ....☐

12. Community Safety and Security

Are there likely to be significant issues related to …   **Relevance**

Crime prevention and sense of security? ....☐

13. Public Open Space

Are there likely to be significant issues related to …   **Relevance**

Access to green space and natural areas?..☐

Public spaces that are safe, healthy, accessible, attractive and easy to maintain?..................................☐

Quality streetscapes that encourage activity? ....☐

Sense of cultural identity, sense of place and public art? ....☐

Preservation and enhancement of places of natural, historic and cultural significance? ....☐

14. Social Infrastructure

Are there likely to be significant issues related to …   **Relevance**

Access to a range of facilities to attract and support a diverse population?..☐

Responding to existing (as well as projected) community needs and current gaps in facilities and/or services? ....☐

Early delivery of social infrastructure?...☐

An integrated approach to social infrastructure planning?...☐

Efficiencies in social infrastructure planning and provision? ....☐

15. Social Cohesion and Social Connectivity

Are there likely to be significant issues related to …   **Relevance**

Environments that will encourage social interaction and connection among people?...☐

Promotion of a sense of community and attachment to place?..☐

Local involvement in planning and community life?...☐

Social disadvantage and equitable access to resources?..☐

Community severance, division or dislocation? ....☐

16. Environment and Health

Are there likely to be significant issues related to …   **Relevance**

Air quality? ....☐

7

Introduction

Access to fresh, nutritious and affordable food is a basic requirement for human health and well-being; it is also a recognised human right[51]. Key factors impacting on healthy food access include:

Economic factors – having adequate income, living conditions or resources to buy healthy and fresh food or having affordable food outlets in local neighbourhoods

Physical ability – having the ability to walk, drive or carry purchases home

Physical infrastructure – the availability of public transport or safe walkable routes or footpaths to shops and other healthy food outlets

Geographic location – the availability of shops or

Food advertising exposure in public places

Facilities (e.g. water fountains, community gardens
and allotments, breastfeeding locations etc.)

Affordable housing and housing-commercial-
industry mix[60].

In addition, research has indicated a range of benefits
assoœ 5sed12(it)028(48(w)1s 5)20(e)19(as)028(48(l)1608(a)21212(r)92(l))028(48(f)3408(a)2o)1s it48(pt)02ru(a)5(e)19(i)1608(a73(e2)-2

_`dY_^cꝑX Odꝑ OꝺSXꝑXUꝐSOcXꝑá_g Þ_VꝐ_g ꝐY^S_] Uꝉ customers. Growers' markets should not take the place of outlets with more regular access to healthy foods.

Home and community gardening is recognised to have numerous positive health and wellbeing outcomes, including for those who engage in these OSꝺfYOUcꝐ O^TꝑꝐX_cUꝐg X_ꝐU^Z_i ꝑOXUꝑUhꝺUb^ONꝑRU^Uà ꝺꝑ of fresh food and an improved local environment[66]. Growers' markets are one strategy for supporting local food production.

Within the Greater Sydney region, productive farmland has been lost to urban development, and this land cannot be replaced[67]. Locally produced foods can be cheaper and can provide low income populations with greater access to fresh nutritious food.

1 ꝺꝑg UꝑꝐOcꝐ b_fꝒTY^WꝐcꝑW^Ꝑa SO^ꝺꝑc_ebSUꝐ_Vꝑ employment (especially for migrant communities), Sydney market gardeners currently produce:

- 90% of Sydney's perishable vegetables

- 100% of the supply of Asian greens

- 80% of its mushrooms

- 70% of fresh tomatoes

- 91% of spring onions and shallots[68]

It should be noted that challenges to accessing healthy food vary between populations. General initiatives aimed at improving healthy food access should be mixed with activities and strategies targeting the needs of particular groups.

Key references including relevant standards and guidelines are included in the *Further information* section at the end of this chapter.

Key questions

How does the policy, plan or development proposal

(HF1) Promote access to fresh, nutritious and affordable food?

(HF2) Preserve agricultural lands?

(HF3) Provide support for local food production?

66 Thompson S, Corkery L, Judd B. The Role of Community Gardens in Sustaining Healthy Communities. Sydney: Faculty of the Built Environment, UNSW; 2007. http://www.fbe.unsw.edu.au/cf/publications/presentations/attachments/SOAC07Thompson&Corkery&Judd.pdf

67 Western Sydney Regional Organisation of Councils Ltd (WSROC) and Anni Gethin (AGA Consulting P/L). Greater Western Sydney Urban Development Health Impact Assessment: Final Report: 62-3. Western Sydney Regional Organisation of Councils Ltd; 2007. http://www.wsroc.com.au/page.aspx?pid=287&vid=5

68 Sydney Food Fairness Alliance and Food Fairness Illawarra. Local Food, Local Economy. Sydney: Sydney Food Fairness Alliance; 2006. http://sydneyfoodfairness.org.au/wp-content/uploads/2009/07/SFFA_syd_basin_v1_dec06www.pdf

HF2: Preserve agriculture lands
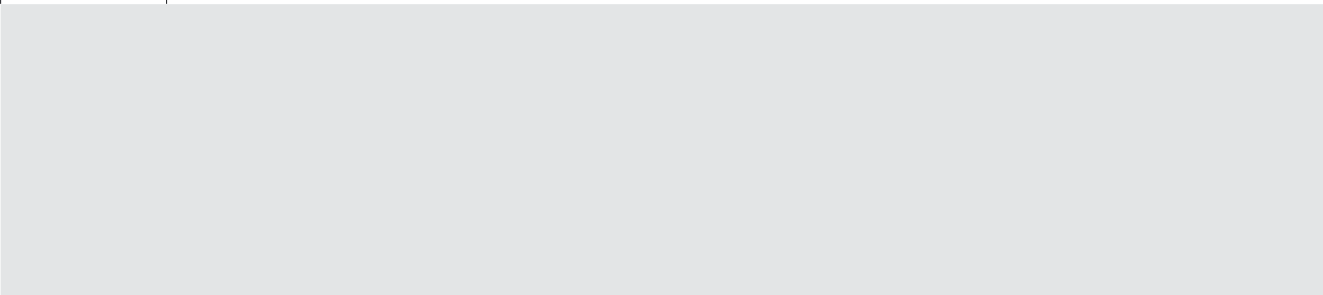
Further information

NSW Health –ation
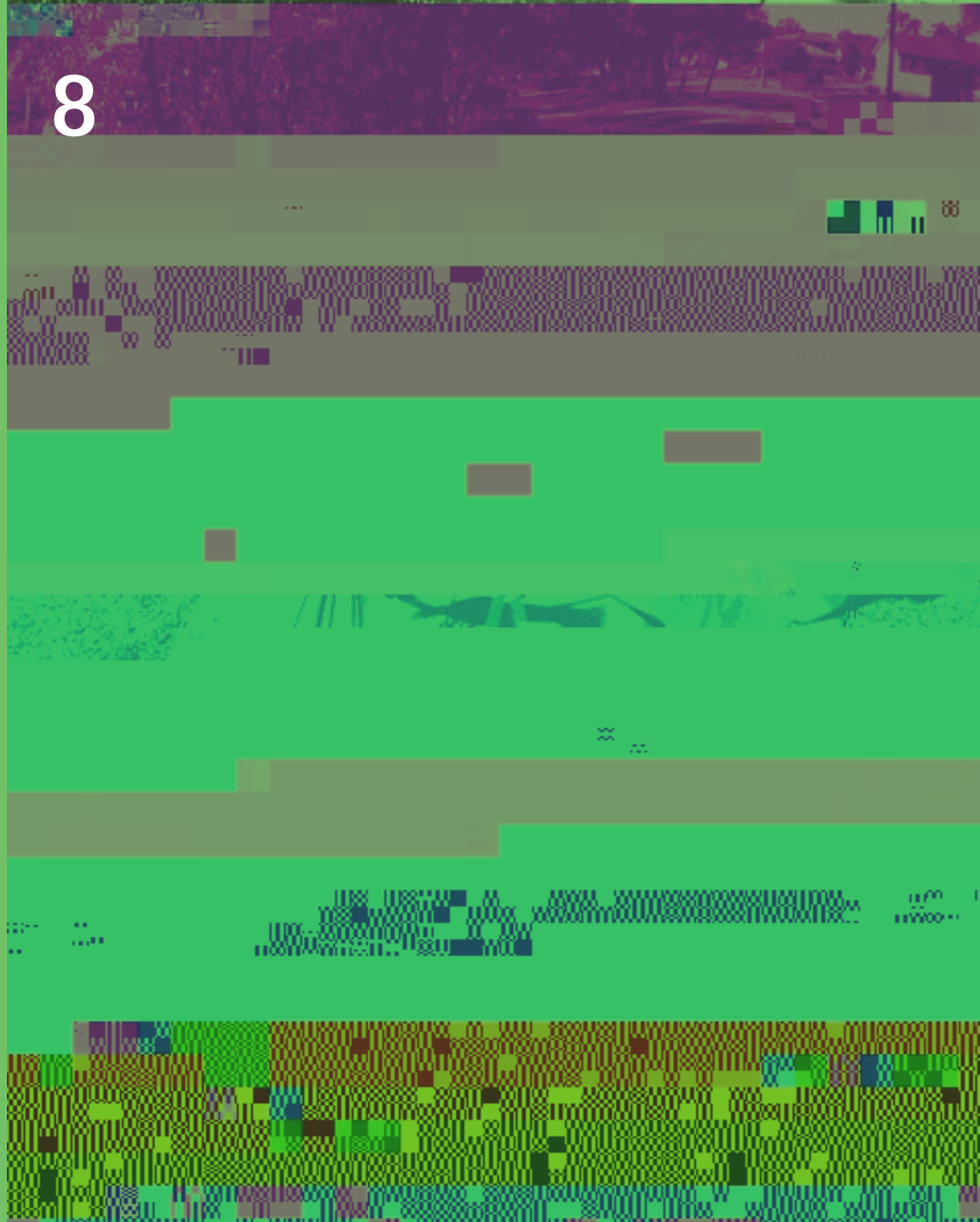
Relevance to NSW

It is widely acknowledged that regular physical activity
has numerous health benefits and is a key component

In addition, the Australian National Children's Nutrition and Physical Activity Survey has shown that, nationally, approximately 72% of 2-16 year old children are of a healthy weight, but 17% are overweight, 6% obese and 5% are underweight[76].

In NSW, people aged 45-54 and 75 and older are most at risk for being overweight and obese and not achieving adequate levels of physical activity. In NSW, men are more likely to be overweight and obese and women are more likely not to achieve recommended physical activity levels[77].

Active transport choices, such as walking, cycling, and/ or using public transportation for daily travel, can help people attain their minimum physical activity requirements. However, within areas of the Greater Sydney region, the predominant urban forms and public transport provision are not conducive to physical activity[78].

Urban and suburban sprawl, poor public transport infrastructure and separation of jobs, schools and other services from housing are some of the factors encouraging high levels of private car use for travel (approximately 80% of all trips) within the region[79].

These factors, along with lack of access to quality open space and recreational facilities, can negatively impact on individuals' physical activity choices.

Key evidence and leading practice

Australian research indicates that women, middle-aged and older adults, non-English speaking groups, parents of young children and those with lower educational attainment are less likely to achieve physical activity recommendations[80].

Living in a neighbourhood that is 'walkable' and/or 'cycleable' (e.g. where housing is close to shops and services, streets and pathways are highly connected, public transport is available, urban design is conducive to walking and cycling, etc.) is associated with higher levels of physical activity. Density, land use mix, street layout, access to public transport and micro-design factors including streetscape and pathway design are important factors impacting on levels of walking and cycling[81].

A distance of 400-500m (or approximately 5 minutes of walking) between destinations is a generally accepted measure for a comfortable walking distance

76 Australian Food and Grocery Council. 2007 Australian National Children's Nutrition and Physical Activity Survey. Canberra: Commonwealth of Australia; 2008. http://www.health.gov.au/internet/main/publishing.nsf/Content/66596E8FC68FD1A3 CA2574D50027DB86/$File/childrens-nut-phys-survey.pdf

77 See footnote 74

78 See footnote 75

79 Transport and Population Data Centre. Transfigures: Statistics for the Subregional Planning Process. Sydney: NSW Department of Planning; 2006. http://www. transport.nsw.gov.au/tdc/documents/transfigures-jun2006.pdf

80 Bauman A, Bellew W, Booth M, Hahn A, Stoker L, Thomas M. NSW Health Promotion Survey 1994. Towards best practice for physical activity in the areas of NSW. Sydney: NSW Department of Health; 1996.

81 Radbone I, Hamnett S. Land Use, Walking and Cycling: A review of recent research, Australian policies and suggestions for further work. 26th Australasian Transport Research Forum. Wellington, New Zealand; 2003.

Physical activity checklist questions

PA1: Encourage incidental physical activity
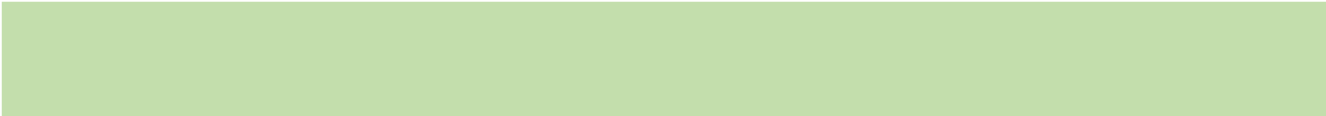
Code	Question	Planning Policies and Strategies	Development Proposal
PA1.1	Does the policy, plan or proposal include aims or objectives related to increasing or encouraging physical activity?		
PA1.2	Does the policy, plan or proposal have an impact on those in the target area who are identified as most at risk of not achieving national physical activity guidelines?		
PA1.3	**URBAN FORM** Are most homes and places of employment within a comfortable walking distance (400-500 metres) of frequent destinations to meet every day basic needs such as shops, schools, parks, transport stops? (Whilst current NSW guidance recommends that 400 metres is considered to be a reasonable walking distance to a bus stop, it says that for metropolitan railway stations households should be within 800-1000 metres.)[88]		
PA1.4	Are land uses arranged to encourage walking, cycling and other forms of active transport between activities?		
PA1.5	Are streets (including bicycle and pedestrian networks) highly connected, offering direct routes to destinations of choice?		

88 NSW Department of Urban Affairs and Planning. Improving Transport Choice – Guidelines
for Planning and Development. NSW Department of Urban Affairs and Planning; 2001.
http://www.planning.nsw.gov.au/programservices/pdf/prg_transport.pdf

Code	Question	Planning Policies and Strategies	Development Proposal
PA1.6	Are streetscapes designed to be attractive, interesting and welcoming to pedestrians and cyclists, including by providing enjoyable scenery, appropriate amenities and shelter from the weather? (refer to chapter 13 on public space) (NOTE: A continuous row of buildings with windows and entrances facing the street can help create an interesting and secure walking and cycling environment. Garage doors, blank walls, open parking areas and too many driveways facing the street can discourage walking and cycling.)		
PA1.7	Are retail and commercial areas designed to encourage physical activity and active transport? Are they linked to public transport, pedestrian and cycle networks? Is there a network of connecting footpaths within the area? (see chapter 13 on public space for more information about streetscapes)		
PA1.8	Are pedestrian areas (such as public plazas, squares, pathways, trails, shopping areas, etc.) universally accessible (designed to accommodate the widest range of potential users)?		
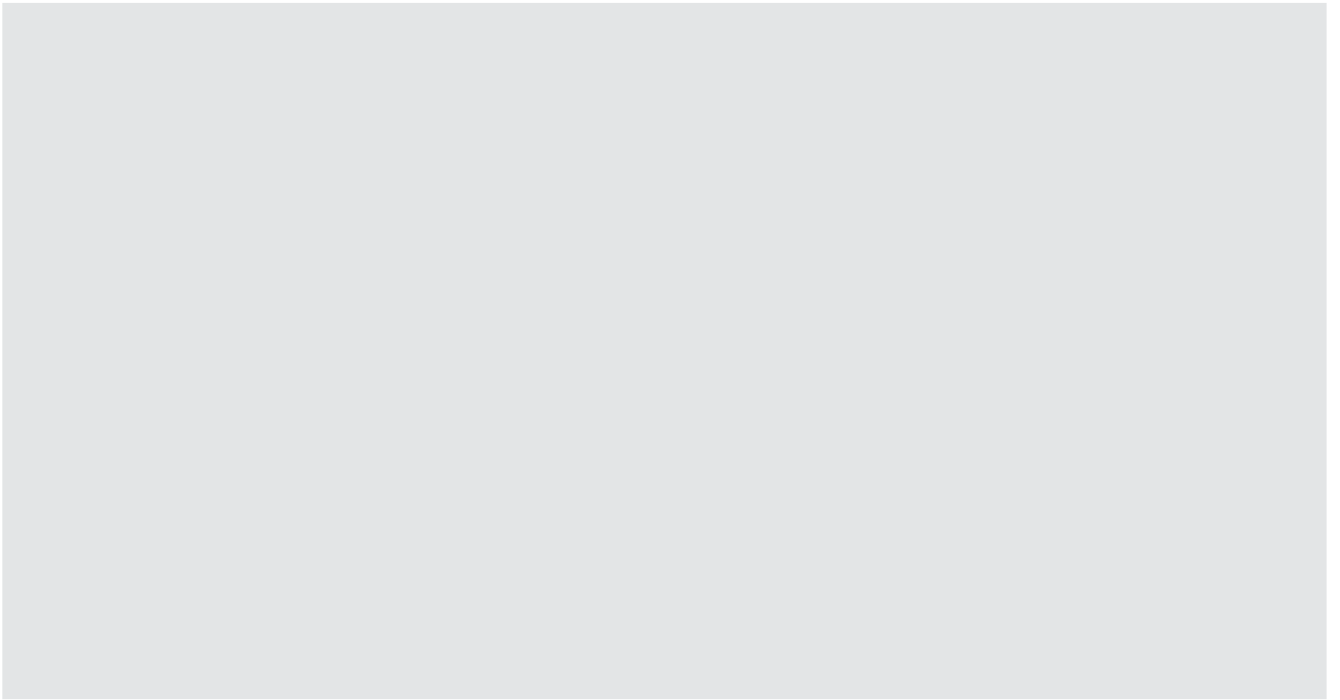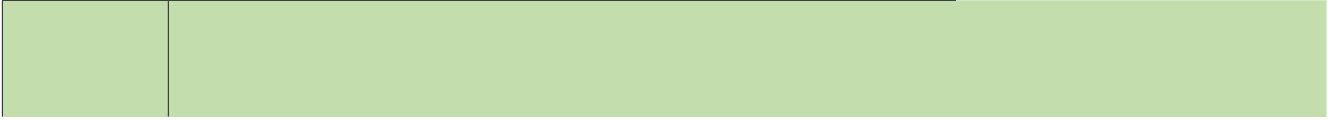
Code	Question	Planning Policies and Strategies	Development Proposal
PA3.1	Does the policy, plan or development proposal provide for an allocation of public open space to meet the needs of the future community? On what basis has the amount of open space been determined – has there been a needs analysis, what benchmarks have been used?		
PA3.2	Will the future population have access to a range of public open spaces and recreational facilities within the local area?		
PA3.3	Do proposed new areas of open space and recreation facilities complement existing recreational opportunities in the area?		
PA3.4	Are proposed resources adequate and appropriate for all sections of the expected population, especially vulnerable groups and those most at risk for not achieving national physical activity recommendations?		
PA3.5	Will the design and management of open space and recreation facilities encourage a broad range of activity choices?		
PA3.6	Does the policy, plan or development proposal provide a suitable funding source for the proposed open spaces and recreation facilities (e.g. via Voluntary Planning Agreements or Section 94 Contributions Plans)?		
PA3.7	Does the policy, plan or development proposal propose that open space and recreation facilities will be available from the earliest possible stages of planned use and/or settlement?		
PA3.8	Is there local open space within a reasonable walking distance (400-500 metres) of most homes?		

Hunter New England Population Health – *Building Liveable Communities in the Lower Hunter Region* g g g ł ` SOʌ^ɔg łW_fłQe ƷOOT QdDƷɔ:UdɔƶVa ᴝƶž ž ! (Ƶ 75#ž Ƶ building_liveable_communities.pdf

9
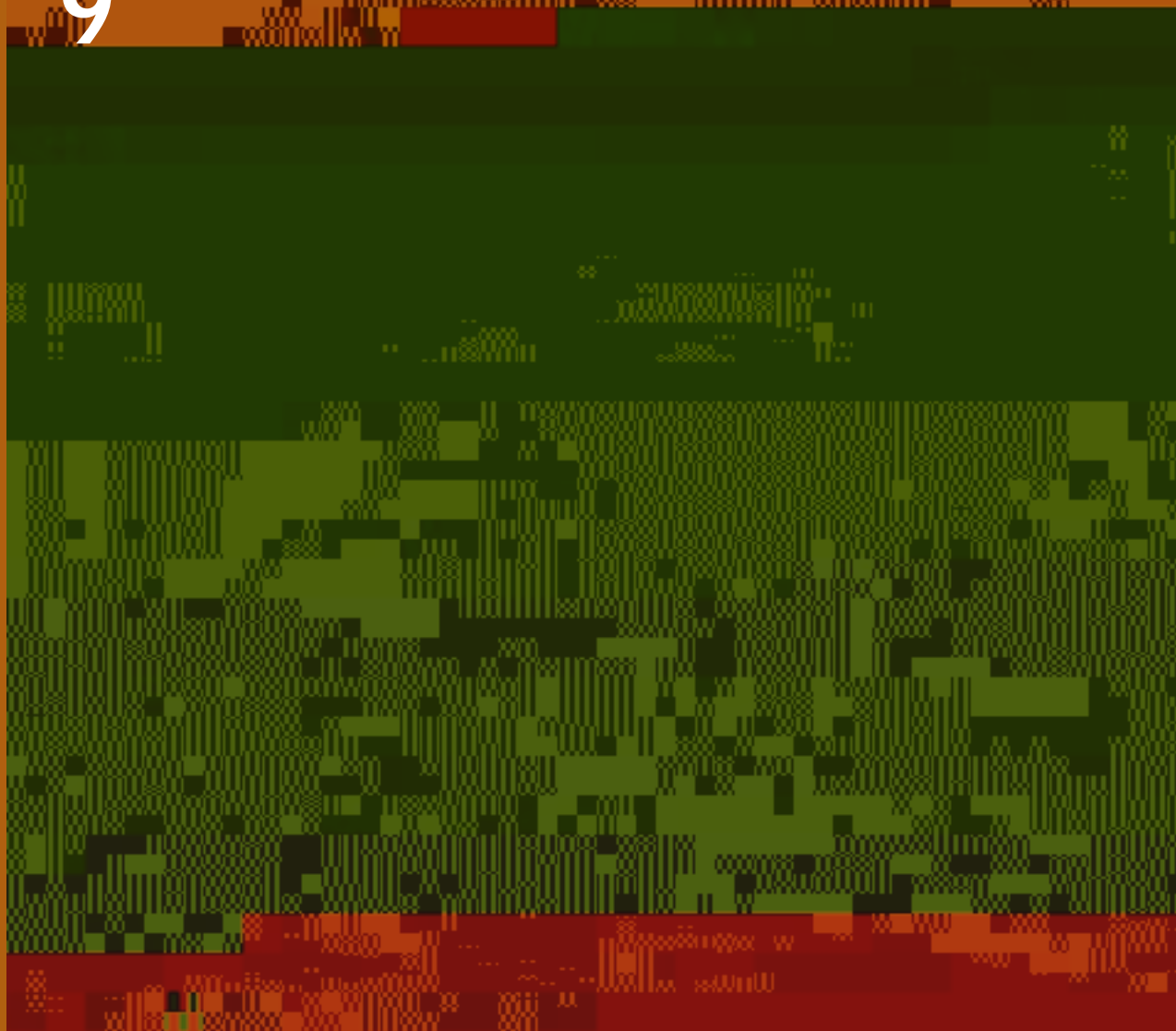
Ideally, the quality and diversity of housing options within an area can allow individuals the opportunity to live in that location or place, choosing from a range of different housing types and arrangements throughout their lives based on their needs and resources. Housing choice should aim to respond to different household sizes and compositions, as well as the needs of vulnerable groups such as older people, people with disabilities and the economically disadvantaged. A varied housing stock promotes a more diverse population. This diversity of population helps to inhibit the distinct 'peaks and troughs' of a less balanced population which makes utilisation of community infrastructure and the provision of human services difficult to manage.

Housing affordability is a key component of housing choice. A lack of affordable housing can lead to overcrowding as households on low incomes seek smaller dwellings for lower rent. An inability to access affordable housing can result in households having little choice about the location of their housing, and it may result in households living in areas that have poor access to community services, employment opportunities and support networks.

Social trends in Australia that impact housing choice and affordability include an ageing population, decreasing household size, changes in family composition, increasing economic uncertainty, and young people remaining at home with parents longer[91]. Housing security means having housing which is stable, safe, private and comfortable[92]. This chapter of the checklist focuses on urban development factors that can influence access to healthy housing.

Relevance to NSW

Many Australian households, especially private renters and home purchasers, have experienced a dramatic decline in the affordability of housing in recent decades. There are historically high levels of homelessness which are in part due to declining housing affordability, and an increasing proportion of lower income private renters are experiencing housing stress[93].

The link between inequities in health outcomes and socio-economic disadvantage (particularly, in terms of higher average mortality and morbidity rates) is well established and documented for Sydney and NSW[94]. Limited housing choice can negatively impact on social and economic participation, as well as access to healthcare and healthy environments.

Land use planning in the Greater Sydney region over the past 50 years has been shaped by an assumption of universal car ownership and the need to separate residential areas from

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91 Gold Coast City Council. GCCC: Our Living City Report: 2004-2005. City of Gold Coast: Gold Coast City Council. www.goldcoast.qld.gov.au/attachment/publications/our_living_city0405_chp3_6.pdf

92 Hulse K, Saugeres L. Housing insecurity and precarious living: an Australian exploration. Report for the Australian Housing and Urban Research Institute. Melbourne, Swinburne-Monash Research Centre; 2008. http://www.ahuri.edu.au/publications/download/50361_fr

93 Atkinson R, Dalton T, Norman B, Wood G. New Ideas for Australia's Cities.

Code	Question	Planning Policies and Strategies	Development Proposal
H1.1	Does the policy, plan or proposal provide housing in locations that allow residents to walk, cycle or travel by public transport to work and services?		

107 NSW Department of Urban Affairs and Planning. Integrating Land Use and Transport. Improving Transport Choice – Guidelines for Planning and Development: 34. Sydney: NSW Department of Urban Affairs and Planning: 2001. http://www.planning.nsw.gov.au/programservices/pdf/prg_transport.pdf

108 NSW Department of Planning. Building Sustainability Index (BASIX). http://www.basix.nsw.gov.au/information/index.jsp

H4: Ensure that housing is adaptable and accessible

Code	Question	Planning Policies and Strategies	Development Proposal
H4.1	Does the policy, plan or development proposal encourage housing that is capable of being adapted to meet the needs of people as they age or become disabled? (NOTE: See Australian Standard 4299 – 1995 Adaptable Housing. Also see Landcom Guidelines on Universal Housing.)		

Further information

WHO/Europe – *Housing and Health*
www.euro.who.int/Housing

NSW Health – *Housing for Health*
www.health.nsw.gov.au/PublicHealth/environment/
aboriginal/housing_health.asp

Housing NSW – *Changes to Public Housing*
www.housing.nsw.gov.au/Changes+to+Public+Housing/

Housing NSW – *Centre for Affordable Housing*
www.housing.nsw.gov.au
Centre+For+Affordable+Housing/About+Us/

Disability Council of NSW
– *Position Statement on Housing*.
www.disabilitycouncil.nsw.gov.au/portfolios/
accomodation/housing.html

Non-English Speaking Background (NESB)
Housing Taskforce NSW
www.shelternsw.infoxchange.net.au/nht/nht.html

> CG Pl R_bWY^CN8_ecY^Wl? \aSUÞ
www.aho.nsw.gov.au/

Australian Housing and Urban Research Institute
– *Do Housing Conditions Impact on Health
Inequalities between Australia's Rich and Poor?*
www.ahuri.edu.au/publications/projects/p30002

Australian Government
– *White Paper on Homelessness*
www.facsia.gov.au/internet/facsinternet.nsf/housing/
white_paper_on_homelessness.htm

NSW Government BASIX web site
http://www.basix.nsw.gov.au/information/index.jsp

Landcom (2008), *Universal Housing Design Guidelines*,
http://www.landcom.nsw.gov.au/whats-new/
publications-reports/the-landcom-guidelines.aspx

Australian Standard 4299,
Adaptable Housing, available for purchase at
http://infostore.saiglobal.com/store/Details.
aspx?docn=stds000013512

Master Builders Association, *Adaptable Living*,
http://www.mba.org.au/public/page.php?id=79

are greater[113]. Although inner city suburbs of Sydney have reasonable access to public transport, much of the Greater Sydney region is currently poorly serviced by public transport.

Key evidence and leading practice

Areas characterised by low density, poorly connected street networks and limited access to local destinations discourage more active forms of transport[114]. In contrast, areas with greater population, land use] Yh,PҬ U^d℔ CR\UℙSU^dℏUd℗Q^T℗WℏUQⅆUℏS_^^USdↀfYd ℔QⅆUℙ more likely to promote active transport[115].

Grid street patterns are considered to help create WℏUQⅆUℏS_^^USdↀfYd ,℗c_g ℗dbⅅOↄa S℗c`UUTd℗Q^T℗TⅅUSⅆUQↄUℙ distances between destinations – factors that can encourage more walking and cycling. However, a range of design features must be considered in creating built environments that are conducive to walking and cycling[116]. These include (but are not limited to) street surfaces, street widths, the existence of separate pedestrian and bicycle paths, and the quality of streetscapes (see chapter 8 on physical activity for additional information).

113 See footnote 112

114 See footnote 111

115 Garden F, Jalaludin B. Impact of Urban Sprawl on Overweight, Obesity, and Physical Activity in Sydney, Australia. Journal of Urban Health 2009: 81(1): 19-30.

116 Radbone I, Hamnett S. Land Use, Walking and Cycling: A review of recent research, Australian policies and suggestions for further work. 26th Australasian Transport

Public transport extends the distances that people travel by foot and bicycle because it is associated with higher levels of incidental physical activity than private vehicle use[121]. In order to be viable, public transport must be supported by higher population densities. Lack of public transport in areas can contribute to inadequate access to vital goods and services, including jobs, healthcare, and healthy food (see chapter 7 on access to healthy food).

D♭OⓋa S♯TⓄ^WUⓓ♯R_⊘XⒽⓊOⒽⓆ^T♭ U♭SⓊ♯fUT)♭SⓄ^♭TⓎS_e♭OⓋUⓊ♭ people from walking and cycling. Fear of falling and inadequate time to cross intersections is also a key concern for children and the elderly[122] (see chapter 8 on physical activity for additional information).

Telecommuting can reduce the number of vehicle trips, vehicle kilometres travelled and travel time, supporting U^fⓎ♭_^] U^ⒹOⓃⓆ^T♭ U♭ⓒ_^OⓃXUⒸⓍⒽRU^Ûa ⓓⓉ[123]. Currently, the Federal Government is exploring policy options for increasing "e-commerce" in Australia.

The adverse health effects of motorised travel Y^S♭eTU♭S♯] OⓄU♭SXⓄ^WU,♭ⓑ_ⒸT -d♭OⓋa S♭Y^Ẑ♭bUⒸ,♭ physical inactivity, air pollution and environmental degradation. More sustainable forms of transport development include investing in improving walking and cycling infrastructure, increasing access to cycles and investing in improving public transport options[124]. Studies have shown that increasing the number of people walking and cycling in an area improves road safety, as motorists take more care when driving in these areas[125].

In some localities, private car use is being dissuaded Ri ♭WⓊUⒸⓄⓃ ⒾY^SⒹUⒸⓎ^W♭ⓄXUⒽⓊ♭aSⓎ^Si ,♭S_^fU^ⓎU^SU♭ and comfort of public transport use. Improvements to public transport include more express routes, greater security, improved frequency of service, internet access for passengers, more comfortable seating and smoother, quieter rides[126].

Key references including relevant standards and guidelines are included in the *Further information* section at the end of this chapter.

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121 Lee V, Mikkelsen L, Srikantharajah J, Cohen L. Strategies for Enhancing the Built Environment to Support Healthy Eating and Active Living. Oakland, California: Prevention Institute; 2008.
www.convergencepartnership.org/atf/cf/%7B245A9B44-6DED-4ABD-A392-AE583809E350%7D/CP_Built%20Environment_printed.pdf

122 See footnote 121

123 The Vu S. Analysis of Impacts of Telecommuting for Reduction of Environmental Pollution. Sydney: School of Civil and Environmental Engineering, University of New South Wales; 2007. http://civil.eng.monash.edu.au/its/caitrhome/prevcaitrproceedings/caitr2007/vu_caitr2007.pdf

124 TDM Encyclopedia. Health and Fitness: Strategies that Improve Health Through Physical Activity. Victoria, Canada: Victoria Transport Policy Institute; 2008. www.vtpi.org/tdm/tdm102.htm

125 Jacobson P. Safety in Numbers: More Walkers and Bicyclists, Safer Walking and Bicycling. Injury Prevention 2003; 9: 205-9. http://www.tsc.berkeley.edu/newsletter/Spring04/JacobsenPaper.pdf

126 TDM Encyclopedia. Public Transit Encouragement. Victoria, Canada: Victoria Transport Policy Institute; 2008. www.vtpi.org/tdm/tdm102.htm

Code	Question	Planning Policies and Strategies	Development Proposal
TC1.5	**URBAN FORM** Are public transport stops located in comfortable walking distance (approximately 400-500m for bus stops and 800m for train stations) of housing, employment and other local destinations? (NOTE: The quality of urban design can influence and extend the distances that people are willing to walk between destinations. Similarly, poor design can discourage people from walking even relatively short distances.)		
TC1.6	Are public transport systems and nodes designed to be universally accessible?		
TC1.7	Are public transport nodes safe and easy to approach on foot and bicycle (are they clearly signed and well-lit with direct routes and safe and convenient crossing points)?		
TC1.8			

Code	Question	Planning Policies and Strategies	Development Proposal
TC2.1	Is a stated goal of the policy, plan or proposal to reduce car dependency and car use and encourage more active forms of transport?		
TC2.2	Does the policy, plan or proposal propose measures to encourage walking and cycling such as vehicle speed limits, restrictions on vehicle access, parking requirements etc.?		
TC2.3	Does the policy, plan or proposal encourage car pooling or car sharing, including through designated parking spaces for car share programs?		
TC2.4	Does the policy, plan or proposal include incentives to encourage bicycle use such as 'park and bike' measures, shared bicycle schemes etc.?		
TC2.5	Does the policy, plan or proposal encourage the reduction of car parking spaces in urban areas (particularly where there is good public transport available) including the re-allocation of car parking spaces for bicycle parking and cycling routes?		
TC2.6	**URBAN FORM** Does the plan, policy or proposal provide a well connected street pattern? (NOTE: This includes blocks that are relatively short, a road and pedestrian network that provides numerous alternative routes, mid-block pedestrian access links, and the avoidance of cul-de-sacs especially those without any pedestrian and bicycle through access.)		t

TC2 continued

Code	Question	Planning Policies and Strategies	Proposal Development
TC2.10	Are walking and cycling entrances to buildings prioritised and safe (avoiding conflict with cars)?		
TC2.11	Are walking and cycling routes through parking areas clearly marked and safe (avoiding conflict with cars)? Is bicycle parking prioritised?		
TC2.12	Where traffic 'squeeze points' are introduced (to slow traffic speeds and provide safer pedestrian crossings) are there provisions for cyclists to pass through unobstructed?		
TC2.13	Are pedestrian areas (such as public plazas, squares, pathways, trails, shopping areas, etc.) designed to be universally accessible?		

Code	Question	Planning Policies and Strategies	

11

Introduction

Employment can have a powerful effect on health and well being. The quality of our work and working environments impacts on our health, in terms of job strain and other work-related hazards. In addition, the income derived from employment and the general location of jobs can shape other factors important to our health, including housing and transport choice and healthy food options. Beyond the financial benefits of work, the very state of being employed or not can have implications for our health, as unemployment and job loss has been shown to have negative psychological effects that can impact on immediate and long-term health[127].

Numerous factors impact on our employment status. This chapter of the checklist focuses on the physical dimensions of access to quality employment that can be addressed by planning, development and the built environment.

Relevance to NSW

A main concern for the Greater Sydney region as it expands westwards is improving access to employment opportunities within the region. Currently, jobs are quite dispersed rather than being focused in particular centres. At present, approximately 30% of all workers living within the Greater Western Sydney region have to travel outside the region for work, and many people experience long journeys to work. Time spent commuting adds to stress levels and reduces time

available to spend with family and friends or to engage in social activities and community events[128].

This distribution of jobs encourages higher levels of car-based commuting and the associated adverse health impacts of this mode of travel (see chapter 10 on transport and connectivity)[129]. A key strategic direction of the Sydney Metropolitan Strategy is to create more jobs in western Sydney and to focus employment growth in centres, particularly regional cities such as Penrith and Liverpool and the existing and proposed major centres including Leppington and Rouse Hill. A basic objective is to provide a range of quality jobs in a variety of locations that are well served by public transport and that meet the needs of the local population.

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127 Huliq News. Link between solid employment and health. Huliq Media; 2008. www.huliq.com/11/68449/link-between-solid-employment-and-health

128 Capon A. Health Impacts of Urban Development: Key Considerations. NSW Public Health Bulletin 2007; 18(9-10): 155-6. www.publish.csiro.au/nid/226/issue/4093.htm

129 Weis E. Your Car + Your Health = A Trip to the Doctor. The Washington Post 2007 April 9: B01. www.washingtonpost.com/wp-dyn/content/article/2007/04/08/AR2007040801177.html

In addition, within the Greater Sydney region, high unemployment rates tend to be concentrated in particular suburbs[130]. A key issue in combating area unemployment is providing the appropriate training opportunities and facilities, such as TAFE, needed to upgrade skills and qualifications.

Other issues include providing for the employment needs of the predicted and desired population growth for the region, attracting a greater diversity of quality jobs to the region and establishing the public transport and training infrastructure needed to best serve the current and future workforce[131].

Key evidence and leading practice

Work has been found to be "generally good for the physical and mental health and well-being of healthy people, many disabled people and most people with common health problems. Work can be therapeutic for people with common health problems. Work can reverse the adverse health effects of unemployment"[132].

In order to increase access to quality employment, people must be supported to gain the appropriate

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130 Western Sydney Regional Organisation of Councils Ltd (WSROC) and Anni Gethin (AGA Consulting P/L). Greater Western Sydney Urban Development Health Impact Assessment: Final Report: 30. Western Sydney Regional Organisation of Councils Ltd: 2007. http://www.wsroc.com.au/page.aspx?pid=287&vid=5

131 See footnote 130

132 Waddell G, Burton A. Is work good for your health and well-being: 31. London: The Stationary Office: 2006. http://www.workingforhealth.gov.uk/documents/is-work-good-for- Ð

Key questions

How does the policy, plan or development proposal:

Further information

NSW Occupational Health and Safety (OHS)
www.nswohs.com.au

Australian Government
– *Workplace Layout and Design Factsheet*
www.ascc.gov.au/ascc/HealthSafety/SafeDesign/
Understanding/Workplacelayoutanddesignfactsheet.
htm

National Public Health Partnership – *Promoting
Physical Activity in Worksites*
http://fulltext.ausport.gov.au/fulltext/2002/nphp/
chapter2.4.asp

London Health Commission
– *London Works for Better Health*
www.londonshealth.gov.uk/regen2.htm

World Health Organization
– *Commission on Social Determinants of Health*
www.who.int/social_determinants/en/

Business Alliance for Local Living Economies (BALLE)
www.livingeconomies.org/aboutus
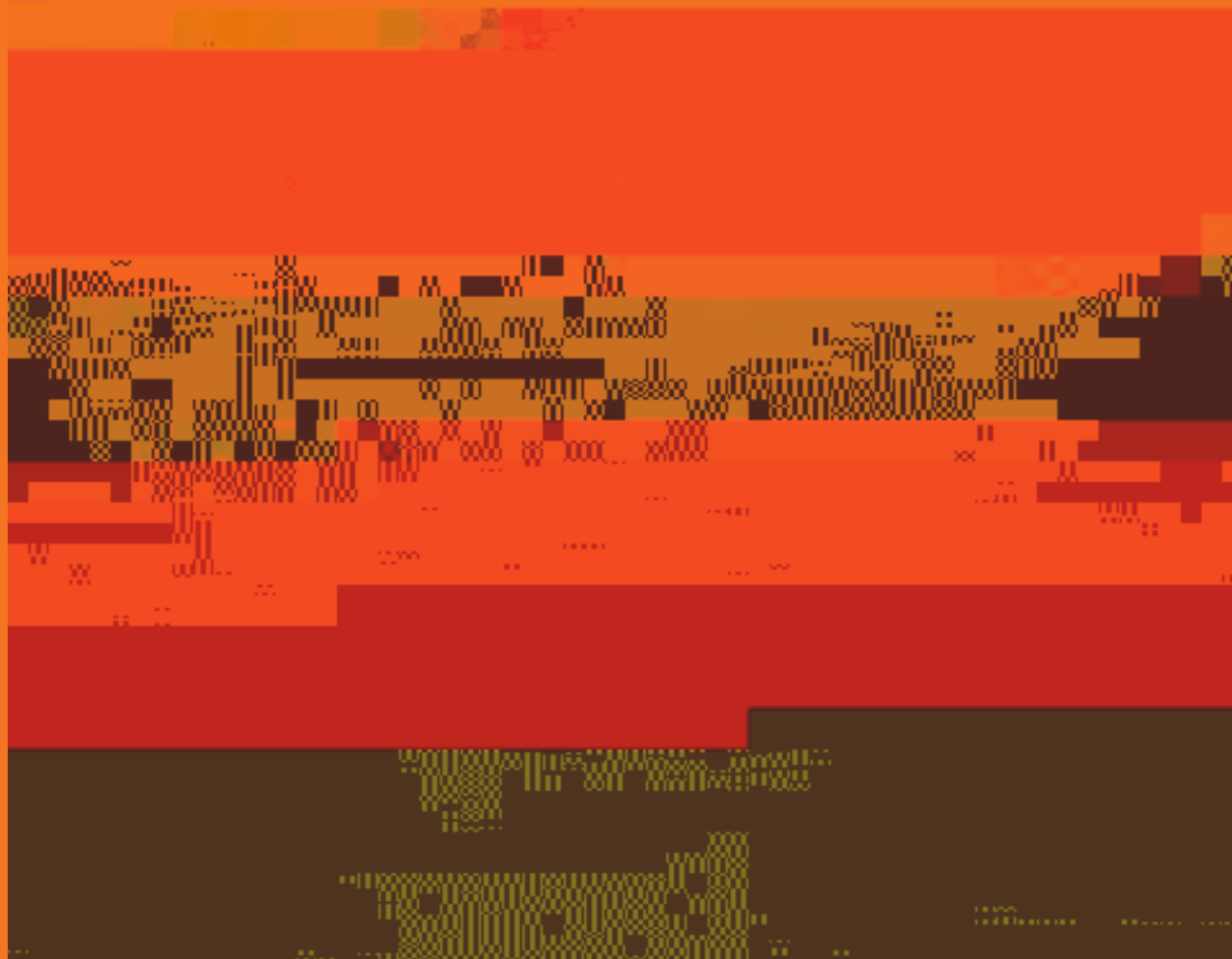
Introduction

Human settlements have always sought to provide their inhabitants with safety and security. The provision of safety and security within communities encompasses a wide range of concerns and issues ranging from the right to access basic needs (such as food and shelter) through to protection from crime and violence and the impacts of natural disasters.

Elements of design and planning can add to the sense of safety and security felt by specific communities. Research has convincingly described how poor urban design exacerbates crime risk for all, regardless of gender, race, age or class[137].

Fear, vulnerability and impact of crime and violence vary considerably across different communities. Whilst some communities may experience sporadic episodes of crime and violence, other communities are subject to more systemic issues that generate cumulative and interacting impacts.

There are also community structures and behaviour patterns which, in turn, make some communities more vulnerable to safety and security risks. These include

Trai7-1(r)8pn-23(t)6(o)-3(n(s r(t)5(u)8(o)7(t)-1()8(a)5(i)-2()-1(h)-9(e)-kn)5(i-5i)-38(Re)-6(s)-9(efe)[(l)-4(o)3(i)48(Re9[(h)7(as t)2;4()-4(o)-3(n

which is premised on the understanding that 'the proper design and effective use of the built environment can lead to a reduction in the fear of crime and the incidence of crime, and to an improvement in the quality of life'[138].

CPTED provides a set of strategies to increase territoriality (sense of ownership), surveillance and access control and promotes activities within urban developments including higher densities and mixed-use development in order to optimise the number of potential 'eyes on the street'.

CPTED promotes the maintenance and management

As well as the design-led approach advocated by CPTED, community safety can also be promoted through a range of social and community development initiatives. Crime Prevention Through Social Development (CPSD) is an approach that sits well with a social determinants approach to health as it concentrates on preventative measures and the risk factors that may lead to crime. These include inadequate living conditions, family factors, poverty, employment and educational opportunities, personality and behavioural factors, relationships, sense of community, identity and belonging[143]. CPSD seeks to foster 'protective factors', such as positive family support that may mitigate situations of risk or disadvantage that contribute to crime and victimisation. The social approach to crime prevention does intersect with urban design and planning as it also relates to designing places that encourage high levels of use and promote a sense of belonging and ownership. Chapter 15 on 'Social cohesion and social connectivity' addresses many of these issues.

Key evidence and leading practice

The impacts and fear of crime and violence cause more than physical harm, as they can increase levels _Veodd Ucc, HUb_TUPcUVBS_^àTU^SUPQ^TPcU^cUP_VPg _baXÞ and leave people feeling psychologically vulnerable.

Beyond the obvious reduction in physical harm, enhanced perceptions of safety and reduced crime

resulting froLnership. C ship. C sm23ŦfT@l-17(y G)- s sfrok(f)30(rpC

143 NSW Attorney General's Department. Crime Prevention through Social Development Fact Sheet. NSW Attorney General's Department; 2008. http://www.crimeprevention.nsw.gov.au/Lawlink/cpd/ll_cpdiv.nsf/vwFiles/SocialDevelopmentFactsheet_2008.pdf/$file/SocialDevelopmentFactsheet_2008.pdf

Increased levels of crime have been associated with c˙USỳaSꞮU^fΝb_^] U^dbϨeeSXꞮꝊoϨbϨbϨϨ^cYϨϨϨoϨoϨΥ_^dϨꝊbϨϨNϨϨQ^TꞮϷ bus), drinking establishments and alcohol outlets, car parks and shopping malls[149].

Places with clear and logical layouts including well TUà^UTꞮϷb_edUc,ꞮϨˋϨSUdϨϨQ^TꞮϷU^dϨQ^SUdϨTYϨS_ebϨOꝊΝUꝊϷ crime, enhance perceptions of safety and help _ꝊΝU^dϨOϨdΥ_^ꝊϨQ^TꞮꝊϧ OꞮ -à^TY^Ꝍϖ[150].

Public spaces with a compatible mix of uses and increased human activity reduce risk of crime, promote safety and sense of place[151].

A sense of ownership of spaces increases the level of care, respect and territorial responsibility that communities have towards such public spaces[152].

Places that provide a quality environment and are subject to ongoing management and maintenance discourage crime and promote community safety in the present and future[153].

CPTED and wider safety initiatives are likely to be more effective if appropriate partnerships are developed between local communities, service providers and government. The nature and scale of partnerships will vary in accordance with the aim of the planning policies and strategies[154].

Key references including relevant standards and guidelines are included in the *Further information* section at the end of this chapter.

Key Questions

How does the policy, plan or development proposal:

(CS1) Consider crime prevention and sense of security?

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149 See footnote 148

150 Ministry of Justice. National Guidelines for Crime Prevention through Environmental Design in New Zealand – Part 1: Seven Qualities of Safer Places. Wellington: Ministry of Justice; 2005.
www.securitytransformation.org/images/documentos/322_Guidelines_for_crime_prevention_through_environmental_design_in_NZ.pdf

151 See footnote 150

152 Western Australian Planning Commission. Ownership over spaces increases the level of care, respect and territorial responsibility that communities have towards such public spaces. Perth: Western Australian Planning Commission; 2006. www.wapc.wa.gov.au/Publications/Downloads_GetFile.aspx?id=896

153 The Royal Borough of Kensington and Chelsea. Designing Out Crime Supplementary Planning Document.
www.rbkc.gov.uk/Planning/unitarydevelopmentplan/designingoutcrime_spd.pdf

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154 Crime Prevention Division. Plan It Safe: Partners in Community Safety. Lawlink NSW; 1999.
www.lawlink.nsw.gov.au/swp/swp.nsf/pages/swp_3

Safety and security checklist questions

CS1: Consider crime prevention and sense of security

Code	Question	Planning Policies and Strategies	Development Proposal
CS1.1	Does the policy, plan or proposal include community safety and crime prevention in its objectives?		
CS1.2	Has the policy, plan or proposal been referred to the Local Area Command of the Police Service, or other appropriate body, to conduct a community safety and crime prevention review/audit? (NOTE: If the answer is yes, there may be no additional value in the health service providing comments on crime prevention and community safety. If the answer is no, an appropriate action may be to recommend that review by the Police Service, or other accredited body, occurs.)		
CS1.3	**URBAN FORM** Does the policy, plan or proposal promote natural surveillance and clear sightlines? (NOTE: Factors to consider include: Opportunities for surveillance from adjoining buildings or from nearby streets, shops etc. Design that prevents opportunities for concealment in public spaces Improving visibility through the type of fence, landscape and streetscape used Use of appropriate lighting.)		

Code	Question	Planning Policies and Strategies	Development Proposal
CS1.4	Does the policy, plan or proposal promote safe and easy movement? (NOTE: Factors to consider include: The inclusion of a simple and logical layout with appropriate signage Q^Tเ̯g Cเ̯ Pa̯^TY^W Whether the proposal improves environmental conditions and enhances personal safety Whether the entrances and exit points of public spaces are clearly signed and easily accessible Whether the landscape helps to make the places easier to navigate (such as clear and direct routes, the ability to view the surrounding area when walking in public.))		
CS1.5	Does the policy, plan or proposal promote an active mix of land uses? (NOTE: Factors to consider include: The inclusion of mixed use and activity generators into public spaces, community facilities and other buildings The compatibility of uses within an area Consideration of appropriate night time uses.)		
CS1.6			

13

13

Introduction

Public open space can include parks, gardens, shopping areas, sporting fields, streets, public squares and plazas,

Public space can proviT3.918 01(b)-1(l)5Tf(b)-.912t.wlist

social development[161]. Beyond natural areas, children also need opportunities for unstructured, imaginative and adventurous outdoor play in their local neighbourhoods, and not just via fixed equipment playgrounds.
These spaces allow for the type of creative play and participation in "communal games, which in turn create a sense of belonging and attachment to local places"[162].

Finally, while children are an important group to consider in the development of public spaces, research suggests that planning for public space should consider multiple users. Design for multiple uses is important in ensuring that a range of user groups are able to use the parks throughout different times of the day. It has been found that the public spaces that were most "valued" were those that were "actively used and shared by different individuals and groups"[163]. It has been suggested that playing fields should be redesigned for multiple use including "organised sports participants, walkers and passive recreational users – thereby making better use of this important community resource"[164].

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161 Louv R. Last Child in the Woods: Saving our children from nature deficit disorder. Chapel

Improve the quality of existing open space (including that in established areas as a part of urban renewal)

Improve access to waterways and links between bushland, parks and centres[166].

Key evidence and leading practice

Landcom has developed a range of policy documents and guidelines that provide guidance on aspects of quality public space design – including recommendations related to open space and park design and public art (see the *Further information* section at the end of this chapter).

In the UK, the Manual for Streets is based on a new hierarchy of street design that moves from pedestrians, cyclists, public transport, specialist vehicles and then to _dXUdj _d_bebOaS[167]. It has been reported that some of the characteristics of "safe and inviting streets" include good quality footpaths, kerb cuts, slowed dOaS,Þ UTUcdbOQ^ÞeUˆ OꞵOꞵdYˆ^Þbˀ] ÞebOaSÞQ^TÞQ] UˆYꞵUcÞ including trees, benches and public art[168].

166 NSW Department of Planning. City of Cities: A Plan for Sydney's Future. Metropolitan Strategy Supporting Information. Sydney: NSW Department of Planning; 2005. http://www.metrostrategy.nsw.gov.au/dev/uploads/paper/introduction/index.html

167 Department for Transport. Manual for Streets. London: Department of Transport; 2007. www.dft.gov.uk/pgr/sustainable/manforstreets

168 Lee V, Mikkelsen L, Srikantharajah J, Cohen L. Strategies for Enhancing the Built Environment to Support Healthy Eating and Active Living. Oakland, California: Prevention Institute; 2008. www.convergencepartnership.org/atf/cf/%7B245A9B44-6DED-4ABD-A392-AE583809E350%7D/CP_Built%20

It is suggested that "access to convivial neighbourhoods not only encourages more walking, but also encourages interactions between neighbours, thereby increasing sense of community, which in deb^b̵ Cl ̵RU^UaSYON̵P̵Y^áeU^SU̵ _cȲlfU̵ U^dONⱫ^Tᵽ physical health in local residents"[185].

3. Quality of public space

While much urban planning concentrates on the size of public space, relative to the size of the population, recent Australian research has shown that it is not only the size but also the quality of public space that Y^áeU^SUd̵ U_`̵ ̵UzⱦcUl

It has been found that "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"[186].

It is held that walking is the most popular form of recreational physical activity for Australian adults, and that walkers are attracted to parks and public spaces with more attributes, rather than traditional _fOⱦⱫ^Tᵽc̵ _bd̵Y^W̵aUTd̵P{ G Y̵X̵ɭⱫX_eW̵Xd̵eⱵTUcⱲW^,ᵽ it is possible to design and redesign public open space for multiple users: sports people, walkers and passive recreational users. Public open space landscaped with trees and shrubs selected to create interest and maximise visibility is likely to increase their use"[187].

A review of research on street design and public ̵̀OSUdᵽTU^dⱥaUTⱲOP^e] RUd̵_V̵S̵_]]_^̵ᵽSX̵QⱦOSd̵UbⱵodⱲScᵽ of urban environments that have been found to increase the likelihood of walking and cycling. Those factors included 'a friendly, attractive or pleasant neighbourhood', 'presence of pavements and enjoyable scenery' and 'pedestrian friendly design' characterised by 'pavements, street lighting and planted strips'[188].

Key references including relevant standards and guidelines are included in the *Further information* section at the end of this chapter.

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185 Giles-Corti B. The impact of urban form on public health. Paper prepared for the 2006 Australian State of the Environment Committee. Canberra: Department of the Environment and Heritage; 2006. http://www.environment.gov.au/soe/2006/publications/emerging/public-health/pubs/public-health.pdf

186 See footnote 185

187 See footnote 185

188 Cave B, Molyneux P, Coutts A. Health Sustainable Communities: What works? Wellingborough: Milton Keynes and South Midlands Health and Social Care Group; 2004. http://www.mksm.nhs.uk/FileAccess.aspx?id=148

Code	Question	Planning Policies and Strategies	Development Proposal
PS1.1	Does the policy, plan or proposal include access to green space and natural areas in its objectives?		
PS1.2	Will the future population have access to green space and natural areas within their local neighbourhood?		
PS1.3	Has the amount of public open space provided considered the projected population growth and nature of demand, the potential for wider regional use, existing deficits in the area, and the context of the development (i.e. greenfield, urban renewal etc.)? (NOTE: Planning for open space has moved away from a standards based approach. (see Department of Planning's gj-28(o)4(f)-2831945ʃ0.106 5d553 0.72(i)2(n)-1(c)8(o)-5(n) (s 5(.)-28(()3(s)-1-28(h)5(a)-3(s)-28		

PS2: Ensure that public open spaces are safe, healthy, accessible, attractive and easy to maintain

Code	Question	Planning Policies and Strategies	Development Proposal
PS2.1	Does public open space planning support a range of experiences and potential users? Are there opportunities for active and passive recreation, reflection, learning, play, adventure, gathering, and celebration?		
PS2.2	Is there good access to formal and informal and structured and unstructured public space?		
PS2.3	Are amenities (such as seating, public toilets, access to drinking water, shade and baby changing facilities) proposed, to encourage use of public space by a wide range of user groups?		
PS2.4	Has safety been considered in such a way that it does not 'design out' people and/or fun, adventure, excitement?		
PS2.5	Is public open space integrated with other uses such as commercial, retail, and community facilities such as libraries, community centres, schools and child care?		
PS2.6	Is the space universally accessible and designed to be inclusive?		
PS2.7	Does the policy, plan or development proposal encourage a wide variety of uses in public open space, both day and night?		
PS2.8	Are dog walking or leash free areas included in the proposal and, if so, are the appropriate amenities and services provided?		
PS2.9	Does the policy, plan or proposal encourage a public domain that provides protection against traffic and accidents, crime and violence, and climatic extremes (such as sun exposure)?		
PS2.10	Does the policy, plan or proposal address restrictions on smoking and drinking in public open space?		
PS2.11	**URBAN FORM** Are play areas designed to be easily observable by parents? Is seating available for parents/guardians to observe children when playing?		

PS2 continued

Code	Question	Planning Policies and Strategies	Development Proposal
PS2.12	Can you see the public open space from a distance? Is its interior visible from the outside?		
PS2.13	Can people using wheelchairs and prams/strollers get to, and move freely about, the space?		
PS2.14	Are public open spaces sufficiently buffered from traffic in terms of noise, fumes and pedestrian safety?		
PS2.15	Do public open spaces offer clear lines of sight, with few "hiding" or unobservable spaces?		
PS2.16	Are some public open spaces 'intimate', allowing space for quiet reflection and moderate privacy?		

PS3: Promote quality streetscapes that encourage activity

Code	Question	Planning Policies and Strategies	Development Proposal
PS3.1	Does the policy, plan or development proposal design streets and other public spaces that encourage people to use and linger in them (for instance through attractive landscaped streetscapes, benches for chatting or people watching)?		
PS3.2	Does the policy, plan or development proposal encourage high quality building facades and ground floor street frontages on important streets?		
PS3.3	Does the policy, plan or development proposal discourage through traffic in areas where enhanced public life is desired?		
PS3.4	**URBAN FORM** Are design features included to encourage activity on streets such as street trees, landscaped nature strips and street furniture?		
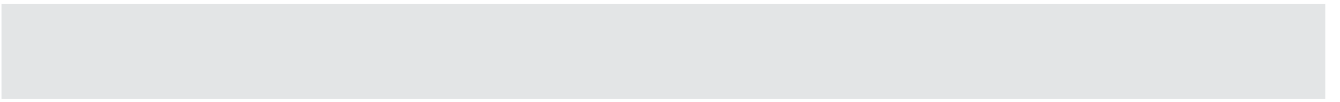
Further information

Landcom – *Street Design Guidelines, Open Space Guidelines, Public Art Guidelines and Street Tree Design Guidelines*
www.landcom.com.au/whats-new/publications
-reports/the-landcom-guidelines.aspx

City of Adelaide – *Public Spaces and Public Life*
www.adelaidecitycouncil.com/adccwr/publications/
reports_plans/public_spaces_public_life.pdf

Young people, Alcohol and Safer Public Spaces
www.aphru.ac.nz/projects/publicSpaces.pdf

The State of Practice – *Examples of New Street Design Guidance from around the world*
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UK – *Manual for Streets*
www.communities.gov.uk/publications/
planningandbuilding/manualforstreets\

CABE – Designing and Planning for Play
www.cabe.org.uk/default.aspx?contentitemid=2792

CABE – *Public Space Resources*
www.cabe.org.uk/default.aspx?contentitemid=41

The Project for Public Spaces
www.pps.org

CABE/Mayor of London – *Open space strategies. Best practice guidance*
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Australian Clearinghouse on Youth Studies
– *Youth and Public Space*
www.acys.info/topics/public_space

UNISA – *Negotiating Public Space: Discourses on Public Art*
http://arrow.unisa.edu.au:8080/vital/access/manager/
Repository/unisa:28847

Design Council – *Inclusive Design*
www.designcouncil.org.uk/en/About-Design/Design
-Techniques/Inclusive-design

Under Cover: Guidelines for Shade Planning and Design
www.cancersa.org.au/cms_resources/documents/
Resources/sunsmart/Undercover03update.pdf

NSW Department of Environment and Climate Change, Aboriginal People and Cultural Life,
http://www.environment.nsw.gov.au/nswcultureheritage/
AboriginalPeopleAndCulturalLife.htm

Australian Museum, Aboriginal Heritage Unit,
http://www.amonline.net.au/ahu/
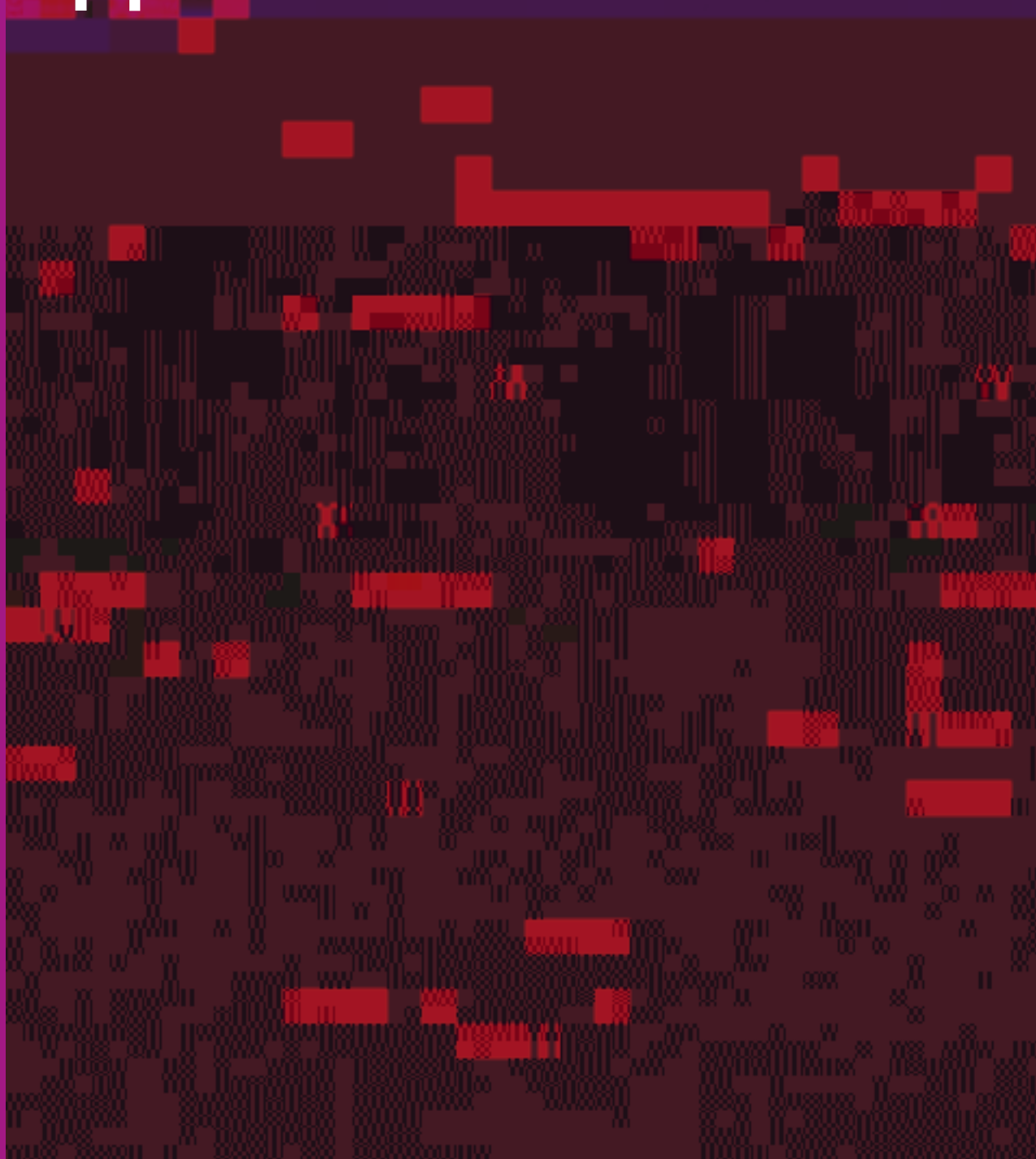
communities and community assets that need to be planned in the same coordinated and strategic way as other forms of infrastructure. In regard to Greater Western Sydney, it has been reported that "past experience of urban development in Greater Western Sydney has been that where social infrastructure is considered after residential development occurs, significant inequities in access to services result"[192].

Social infrastructure can provide focal points for community activity and places for people to meet and connect. These focal points are particularly important in new communities where links between neighbours have not yet been forged. It is held that "Social infrastructure has a key role to play in promoting social cohesion, bringing different socio-economic and ethnic groups together, and creating a true sense of community belongingness"[193]. While research suggests that it is very difficult to manu

Cluster facilities with shops, schools and other
activity centres to create community focal points
and promote safety

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through shared or co-located facilities and multiple
use agreements

Social infrastructure should be as multipurpose as
possible and provide for a range of services, activities
and programs

Locate facilities in convenient, central locations which
are accessible by public transport

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SI4: Promote an integrated approach to social infrastructure planning

Code	Question	Planning Policies and Strategies	Development Proposal
SI4.1	For larger developments or regional plans or strategies, have the full range of social infrastructure providers and human service agencies been involved in a joint planning process to consider an integrated approach to social infrastructure and human service delivery?		
SI4.2	For larger developments or regional plans or strategies, is there a coordinating mechanism and/or agency that is responsible for a coordinated approach to planning for social infrastructure?		
SI4.3	Are mechanisms in place to ensure that local community members, service providers, delivery agencies and other stakeholders will have an opportunity to participate in planning and designing social infrastructure?		
SI4.4	Have schools, child care and other key social infrastructure been planned to encourage active transport and reduce private car use?		
SI4.5	Has social infrastructure been planned to consider needs of, and encourage use by, both new and existing communities?		
SI4.6	Is key social infrastructure planned to be part of community hubs and to create focal points for community activity?		
SI4.7	**URBAN FORM** Has the planning and design of social infrastructure been integrated with the physical/master plan?		
SI4.8	Are the sites centrally located, co-located with other activity generators like shops and linked with public space?		
SI4.9	Are social infrastructure sites well linked with proposed public transport routes?		

SI5: Maximise efficiencies in social infrastructure planning and provision

Code	Question	Planning Policies and Strategies	Development Proposal
SI5.1	Where appropriate, are facilities planned to be multipurpose – to enable a range of different user groups to use the facility for different purposes?		
SI5.2	Is social infrastructure planned to be shared, jointly used and available for maximum community access? For example, is there a process in place for discussions with local government and educational agencies regarding shared use of school facilities?		
SI5.3	**URBAN FORM** Are key facilities co-located/clustered?		

Further information

Landcom – *Community Centre Guidelines*
www.landcom.com.au/whats-new/publications-reports/the-landcom-guidelines.aspx

Queensland Government – *SEQ Regional Plan 2005 -2026 Implementation Guideline No 5: Social Infrastructure Planning*
www.sgsep.com.au/social-infrastructure-guideline-wins-national-award-may-2008

University of Queensland
– *Establishing Standards for Social Infrastructure*
www.uq.edu.au/boilerhouse/docs/establishing%20standards%20web.pdf

NHS London Healthy Urban Development Unit (HUDU)
– *Social Infrastructure*
www.healthyurbandevelopment.nhs.uk/pages/int_social_infra/integrating_social_infrastructure.html

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Introduction

Urban planning alone cannot create cohesive local communities with strong social networks and high levels of community involvement. However, social cohesion can be facilitated and encouraged by some aspects of the built environment, such as attractive places where people can meet and gather. At the same time, social cohesion can be undermined by some forms of development, such as housing projects that segregate disadvantaged groups, or transport corridors that sever community links or create barriers to connectivity.

Elements of social cohesion that are related to the planning of the built environment include[197]:

Social contact and interaction among neighbours

Supportive social networks within the neighbourhood

A strong sense of community, and feelings of belonging and attachment to place

Participation in decision-making and involvement in neighbourhood activities and community organisations

Fair and equitable access to resources
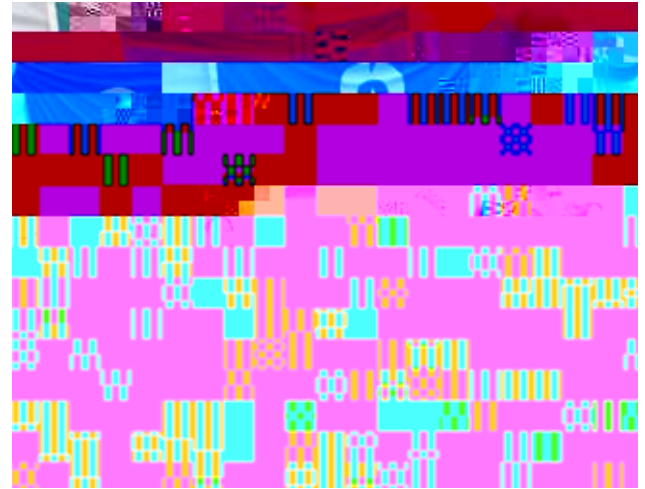
1 RcU^SUⱣ_Vꝑc_SꝊ0Ꝋ1S_^á ꝊdⱣ0^TⱣ UⱨSU˙ dꝊ_^cⱣ of safety and security

Avoidance of social exclusion, segregation or division.

Social interaction can occur in formal and informal, structured and unstructured ways. Unstructured and informal ways include casual encounters with neighbours, people in parks or cafes, while out shopping or walking the dog. More structured forms of social interaction include participation in community activities, voluntary groups and civic organisations, such as playgroups or sports clubs.

While direct relationships between the urban environment and social connectedness can be difficult to establish, a number of key associations have been found in the literature.

197 Dempsey N. Does quality of the built environment affect social cohesion? Urban Design and Planning 2008; 161(3): 105-14. Dekker KK, Bolt G. Social Cohesion in heterogeneous neighbourhoods in the Netherlands: the cases of Bouwlust and Hoograven. Paper from the City Futures Conference. Chicago; 2004. http://www.eukn.org/binaries/eukn/eukn/research/2006/3/1_eukove004-pdf-uic6-uz-060320.pdf

that concentrate low income or other disadvantaged groups are undesirable in that they entrench existing disadvantage, limiting people's opportunities and access to resources, resulting in stigma and segregation, and placing an unfair burden on particular schools, health and social services. New development presents opportunities to create communities where people have a range of incomes, backgrounds and demographic characteristics, and where concentration of social disadvantage or isolation of vulnerable groups is minimised. Providing fair and equitable access to the community's resources is a further way of promoting inclusive and harmonious development.

Related chapters of the checklist look more specifically at social infrastructure, public space, physical activity, employment and housing.

Relevance to NSW

Research shows that the social connectedness of individuals is related to lower mortality rates, lower rates of disease, better mental health and better self-rated health. More specific associations between social connectedness and health and well-being reported in the literature include[200]:

Faster recovery from illness

Better recovery from serious illness

Lower rates of chronic illness

Lower suicide rates

Lower rates of depression and anxiety

Lower levels of stress related problems

Less binge drinking

Less violent crime.

While it is not clear how urban environments influence mental health, it seems that contact with other people avoids the damaging impacts of isolation and loneliness on human mental and physical health. Social connections also benefit health by ensuring help in a crisis, general social support and practical assistance. Socially cohesive communities also tend to support healthy behaviours and provide a sense of belonging and sense of community. Attachment to place has a significant association with mental health, for feelings of disconnection have been associated with mental illness, and the experience of dispossession or loss of place can have significant psychological impacts[201].

200 Western Sydney Regional Organisation of Councils Ltd (WSROC) and Anni Gethin (AGA Consulting P/L). Greater Western Sydney Urban Development Health Impact Assessment: Final Report: 30. Western Sydney Regional Organisation of Councils Ltd; 2007.
http://www.wsroc.com.au/page.aspx?pid=287&vid=5

201 Land Use Consultants in association with the Centre for Research into Environment and Health (2007). Delivering Healthier Communities In London. London; London Healthy Urban Development Unit; 2007.
http://www.healthyurbandevelopment.nhs.uk/documents/integrating_health/HUDU_Delivering_Healthier_Communities.pdf

Research has also established clear links between social disadvantage and health outcomes[202]. People of lower

Living in areas of concentrated social disadvantage results in physical and psychological deprivation, poor access to facilities and opportunities, higher disease rates and premature death. Mixed income ^UॴᴦᴦR_ebX__TdᴨᴑᴌᴦᴪY^[UTᴨᴦᴌᴦᴪUᴑᴍᴦᴦᴪU^Uᴌᴍᴒᴪᴒbᴨ disadvantaged groups[213]. A Canadian study found in neighbourhoods of mixed income, the less ᴑᴌᴌᴦU^ᴍᴍUcYTU^ᴍᴍᴒᴪXᴑᴛᴦUᴑᴌᴒbᴤUᴑᴍᴍᴒᴪᴒ^Tᴨᴌᴪᴒᴑᴍᴦᴪᴒᴨ_Vᴨ life compared to those of similar income living in neighbourhoods with a concentration of less ᴑᴌᴌᴦU^ᴍᴒ U_ᴪᴦᴥᴦ[214].

Several studies have found an association between characteristics of neighbourhoods and the built environment and mental health and depression[215]. In a London study people living in disadvantaged neighbourhoods were more likely to report depression than peers living in less disadvantaged areas (YTU^ᴍᴦᴤUTᴨYᴪᴨᴌUbᴣ ᴑᴨᴪᴦᴒeRᴑᴌᴑ^TᴑbTᴦX_ecY^ᴩᴍᴨᴤᴤ U᜴ᴨ noise, poor amenity, and poor access to services and opportunities)[216]. Neighbourhood features such as lack of resources, disorder and violence, inadequate housing and lack of green space may

213 Dekker K, Bolt G. Social cohesion in heterogeneous neighbourhoods in the Netherlands: the cases of Bouwlust and Hoograven. Paper from the City Futures Conference. Chicago; 2004.
http://www.eukn.org/binaries/eukn/eukn/research/2006/3/1_eukove004-pdf-uic6-uz-060320.pdf

214 See footnote 210

215 Mair C, Diez Roux AV, Galea S. Are Neighbourhood Characteristics Associated with Depressive Symptoms? A review of evidence. Journal of Epidemiology and Community Health 2008; 62 (11): 940-6.

216 Berry H. 'Crowded suburbs-12dlCbᴦᴌᴍᴤ

Code	Question	Planning Policies and Strategies	Development Proposal
SC1.1	Does the policy, plan or proposal promote the creation of active mixed use centres or hubs that will provide a focal point for community interaction and identity (e.g. co-location of retail, commercial, civic and community uses)?		
SC1.2	Does the policy, plan or proposal promote the creation of small scale neighbourhoods that facilitate social interaction and local identity?		
SC1.3	Are arrangements in place for the timely provision of key community facilities that build social networks and support services, such as a community centre		

Code	Question	Planning Policies and Strategies	Development Proposal
SC1.5	Are attractive public spaces provided where people can meet, gather and socialise informally, such as parks with playgrounds or barbecue areas, plazas, cafes? (see chapter 13 on public space)		
SC1.6	Are shopping centres designed and placed to provide opportunities for social interaction and maximize neighbourhood activity?		
SC1.7			

Code	Question	Planning Policies and Strategies	Development Proposal
SC4.1	Does the policy, plan or proposal provide opportunities for improving levels of health equity within the area? Are existing health inequalities likely to be reduced? (refer to the 'understanding the community' section in chapter 6)		
SC4.2	Does the policy, plan or proposal exacerbate socio-economic divisions and is it likely to result in concentrations of socio-economically disadvantaged people?		
SC4.3	Is social mix encouraged through housing diversity? (Refer to chapter 9 on housing) Does the plan or policy encourage inclusion and integration		
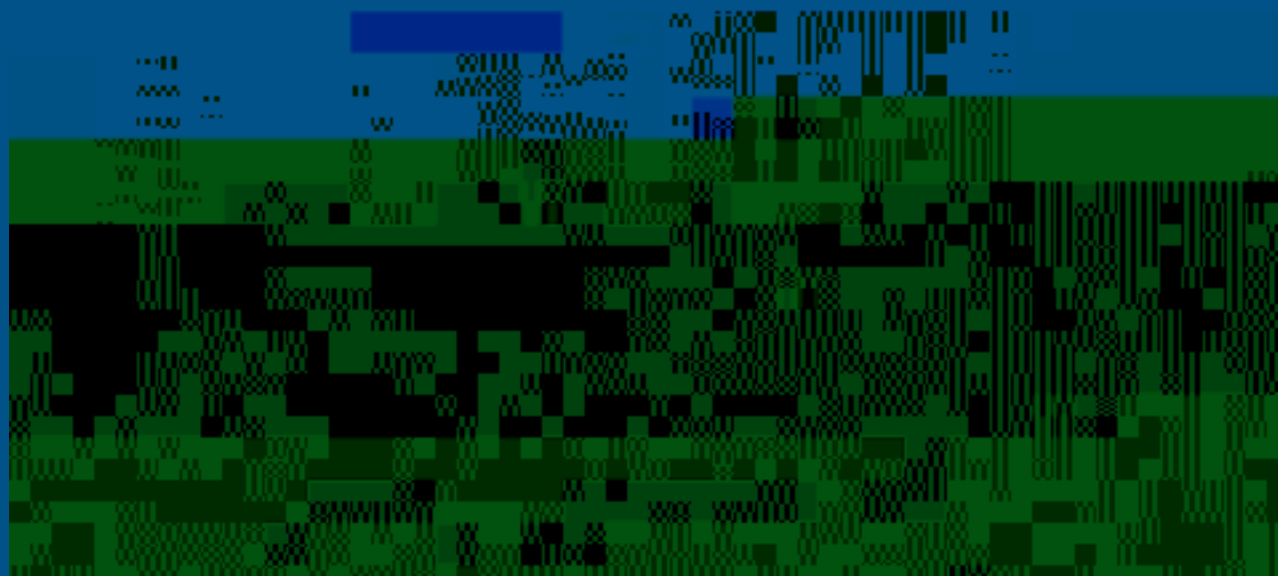
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Introduction

Health is inextricably linked to the quality and form of
the environment where we live. Our health depends on
the quality of our environment (natural, built, social and
cultural)[219]. For people to be healthy, the environment
should be health enhancing and provide opportunities
to live a healthy life. Urban planning and development
affects environmental health and has the -28(t)-1(htb(pr)6(o)3alTex(as)-28(t)-20)-4(e)-1(n)10(t)-11(a)2(l)-28(h30 9.5 99.7835 434.91

The Protection of the Environment Operations Act
1997[221] (POEO) is the key environmental protection
legislation in NSW and allows for "explicit protection
of the environment" and the adoption of innovative
approaches to the reduction of pollution. POEO regulates
water, air and noise pollution in NSW with responsibility
for implementation shared between local government
and the Environment Protection Authority (EPA).

The NSW Government's Building Sustainability Index
(BASIX)[222] is a measure which looks at improving the

The air pollutants of most concern to health are particulate matter (PM), carbon monoxide, oxides of nitrogen, ozone, and sulphur dioxide, which exacerbate existing respiratory and cardiovascular conditions and can cause infection and general irritation[224].

In Sydney, ozone is the key pollutant of concern during summer months. Ozone standards are exceeded most commonly in southwest and western Sydney, with emissions from throughout the Sydney region contributing. In the winter, particle pollution is of greatest concern[225].

Drinking water and water that comes into contact with people should be safe to use. Access to good quality drinking water is fundamental to good health. The most common health risk associated with drinking water is contamination by disease causing microorganisms from human or animal excreta. Unsewered villages have been identified by Sydney Water as major risks for faecal contamination from septic tanks[226].

Two of the biggest concerns with water borne disease in NSW, and many other places are, Cryptosporidium and Giardia. Cryptosporidium is a parasite that causes

224 Air Pollution Economics: Health Costs of Air Pollution In The Greater Sydney Metropolitan Region. Sydney: NSW Department of Environment and Conservation; 2005.

225 Department of Infrastructure, Planning and Natural Resources (DIPNR). Regional Air Quality and Greenhouse Issues Affecting Development of North West And South West Sectors. www.metrostrategy.nsw.gov.au/uploads/Air_Quality_Summary_Report_NW&SW. pdf

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the reverse, that allow odour generating uses to be established near existing residential areas. The NSW State of the Environment Report 2006 identifies the following as potentially odour-generating uses: abattoirs, piggeries, cattle feedlots, poultry farms, sewage treatment plants, landfills, charcoal chicken shops and smash repairers[230]. The Report adds: "Noise and/or odour problems can often be prevented or minimised by avoiding the location of sensitive land uses, such as residential areas, schools, hospitals, nursing homes or places of worship, near noisy or odour-generating premises. Land use planning processes and careful site selection play critical roles in avoiding conflict between neighbouring land uses. In cases where inappropriate land use decisions have caused noise or odour in residential and other sensitive areas, it is often difficult to find an agreeable compromise between the residents' rights to amenity and industries' pre-existing rights to operate under planning laws"[231].

As the pressure for greater land supply to meet projected population growth and to address concerns about housing affordability in NSW increases, both greenfield and urban renewal sites are being investigated for their potential as development sites. Most of the best situated and unconstrained land has already been developed. Much of what remains is land that is either formerly rural (in the case of many greenfield development sites), formerly used for industrial purposes (in the case of many

renewal sites in more urban areas) or is currently lower density residential that has the potential to be redeveloped. The Sydney Metropolitan Strategy promotes infill development in existing lower density suburbs especially in locations with good access to public transport. All scenarios, and particularly the first two, create a need to carefully consider environmental health. Greenfield sites may require considerable buffering and physical separation from existing uses that may generate noise and odour, for example. They may also be considerable distances from employment and services and lack public transport which means air quality may be worsened by creating a new car dependent population in the area. Brownfield sites need to consider the health consequences of introducing a residential population into an area where industrial type uses not only once existed

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230 See footnote 227

231 NSW Department of Environment, Climate Change and Water. State of the Environment Report 2006. Sydney: NSW Department of Environment and Conservation; 2006. www.environment.nsw.gov.au/soe/index.htm

Research suggests that air pollution is responsible for 2.3% of all deaths in Australia. In the Greater Sydney Metropolitan area it is estimated that between 640 and 1400 people die prematurely and almost 2000 people a year are hospitalised as a result of air pollution[233].

Ozone is one of the major constituents of photochemical smog. It is formed by the photochemical reaction of sunlight with pollutants such as nitrogen oxides (NOx) from vehicle and industry emissions and volatile organic compounds (VOCs) emitted by vehicles, solvents and industry. The highest levels of ozone pollution occur during periods of sunny weather. Excessive ozone in the air can have a marked effect on human health. It can cause breathing problems, trigger asthma, reduce lung function and cause lung diseases[234].

The contamination of recreational waters can result in disease outbreaks and illness in the community. The greatest potential risk is posed by microbial contamination of the waters by bacteria, viruses and algae[235]. In addition, water borne parasites such as Cryptosporidium and Giardia Lamblia, viruses such as Hepatitis A and bacteria such as Shigella can all be transmitted via

poorly placed, lighting can disturb sleep patterns and cast obtrusive light onto residents' properties, spill light to the night sky and cause excessive glare[240].

There are a number of pests, particularly insect pests, active in NSW that can transmit diseases to humans. These include pest diseases caused by parasites that are passed from human to human (such as head lice and scabies) and diseases caught by the bite of an insect, such as Ross River virus and Dengue Fever[241]. Certain species of mosquitoes carry diseases such as Ross River virus, and] ΥΤΨΙ d꜠Q^TϷ ꞈ_caeYd_Ud꜠SQ^RꝏSQedUYꞈeꝏ^YꞈaSQ^dꝏeYꞈQ^SUϷ The location, design and management of water bodies SQ^Ϸ̌áeU꜠SUϸ̌ǓUUfU^Ϸ̌V̌S_^dSdꝏUꝏg UUꝏXe] Q^d꜠Q^TϷ midges and mosquitoes. Terrestrial vegetation planted around a water body can reduce wind-assisted dispersion of insects, particularly towards lighting[242].

6꜠ΧΥ^ΨΨ꜠̌SꞈUQ^꜠e` ꝏꝏRꝏ_g ^àUꝏ꜠eYUdꜢS_^dϸ Y꜠QdUϷ properties – typically former industrial sites) can greatly increase public health risks for surrounding communities. 2Uꜞ_dUꝏꞈRꝏ_g ^àUꝏ꜠eUꝏSQ^ꝏUꝏUꝏUfUꜞ̌_` UTꝏd ` YSQꞈ꜠ꝏ̌V_Ϸ residential, recreational and/or commercial purposes), it is necessary to establish what the contaminants are on the site and how best to proceed with remediation.

(S)-26(W D)-2t N2Ѳ36(NSSѴ)dneѦAerturaeTtextof(ΒΒꞈCꞈg)TꞈUꞈMꞈCeꞈt.ꞇ696ꞇ9u88(Νꞈeꞈliꞈ1̌3)USꝏ(ΟΝtꞈD)-25(ꞈ2)5(ꞈe)ꞈp)-9ꝏ9(ꞈʇ12(ꞈd-ꝏ93(ꞈD)25ꝏ(ꞈ5)aꞈ7(ꞈe-19(ꞈ2̌1-3(ꞈTꞈD)-1̌3(S)-2̌6(ΛꞈꞈD)-2̌26(ꞈeꞈ)-17(ꞈꞈp)5P9(ꞈa)-9(ꞈ3(ꞈa)-4̌3-(2-3̌2̌(0)83ꞈ1̌7(ꞈe)T(ꞈt5(ꞈreꞈw1̌)3(ꞈꝏvꝏi)4̌9(ꞈvꞈi)1̌2(ꞈ(ꞈt)ꝏ)7(ꞈe)-1

EH4: Consider the potential for hazards (both natural and man made) and address their mitigation

Code	Question	Planning Policies and Strategies	Development Proposal
EH4.1	Has the policy, plan or proposal addressed potential hazards such as flooding and bushfire? Have the relevant legislative requirements and regulations regarding flooding and bushfire prevention been addressed?		
EH4.2	Does the plan or policy identify and respond to all the natural and non-natural hazards that may impact on the local community?		
EH4.3	Have evacuation routes and safe marshalling/gathering areas been identified in case of natural disaster or other hazard?		
EH4.4	Has site contamination been considered? What studies have been conducted to examine the potential for site contamination? Has the Environmental Health Unit of NSW Health been involved?		
EH4.5	Does the plan, policy or development proposal encourage efforts to minimise the health impacts of possible electromagnetic field sources on local residents? Sources include high voltage power lines, some energy sources in light industry and commercial radio towers but not mobile telephone towers.		
EH4.6	Are there any features of the policy, plan or proposal that pose a potential threat to environmental sustainability? If so, is there an appropriate management or mitigation plan in place?		

EH5: Avoid locating urban development in vector catchments

Code	Question	Planning Policies and Strategies	Development Proposal
EH5.1	Has the proposed development site been investigated for pest infestation and application of effective control measures when necessary?		
EH5.2	**URBAN FORM** Is residential development appropriately separated from water bodies and other areas that may be potential pest habitats?		
EH5.3	If there is a water body, has there been consideration of health and safety issues including water circulation and native species use as a deterrent for predators? Has run off been controlled?		

Further Information

NSW Government – Department of Environment

Energy Australia – *Renewable Resources*
www.renewableenergy.energyaustralia.com.au/
reducingemissions.html

NSW Arbovirus Surveillance & Vector
Monitoring Program
http://medent.usyd.edu.au/arbovirus

Rodent-Proof Construction
www.extension.org/pages/Rodent-Proof_Construction

NSW Public Lighting Code
www.deus.nsw.gov.au/publications/NSW%20
Public%20Lighting%20Code%20-%20140KB.pdf

Sydney Water, *Five Year Water Quality Management
Plan 2005-2010*,
www.sydneywater.com.au/publications

NSW Health – *Wastewater and Sewage*
www.health.nsw.gov.au/PublicHealth/environment/
water/wastewater.asp

Australian Government – *Drinking Water Guidelines*
www.nhmrc.gov.au/publications/synopses/eh19syn.htm

NSW Health – *Recreational Waters*
www.health.nsw.gov.au/PublicHealth/environment/
water/water_spa.asp

WHO – *Electromagnetic Fields*
www.who.int/peh-emf/publications/en/

U. S. Environmental Protection Agency (EPA)
– *Climate Change – Health and Environmental Effects*
www.epa.gov/climatechange/effects/health.html

Shaw, R., Colley, M., and Connell, R. (2007), *Climate
change adaptation by design: A guide for sustainable
communities*, TCPA, London,
http://www.tcpa.org.uk/downloads/20070523
_CCA_lowres.pdf

17

This chapter deals with some of the specific considerations related to each of the three primary development contexts that this checklist is intended to cover. Those development contexts are urban renewal and infill, greenfield

and no children) households to the smaller dwellings in the more urban areas is not socially sustainable.

Urban renewal sites often provide the potential for greater linkages with the **existing transport network.** Capacity of the existing network requires input from NSW Roads & [illegible] there are opportunities for reduced car parking in some locations to encourage greater use of public transport.

Urban renewal sites can also provide the opportunity for greater **access to employment.** [illegible] locations, the diversity of those employment options requires consideration.

The higher density housing forms that are [illegible] provide both opportunities and challenges from a **community safety** perspective. Higher density housing, when appropriately designed, provides the opportunity for more 'eyes on the street'. Like other areas one of the best ways to promote safety is to encourage use and activity at various times of the day.

Social infrastructure, such as a community centre, cultural centre or library, can act as an important anchor and attractor for urban renewal sites. As integration with existing communities is one of the challenges of urban renewal, ensuring that social infrastructure is planned to address the needs of, and is accessible to, the wider community is important.

Social cohesion and connectivity issues for urban [illegible] integration between new and existing communities. Urban renewal sites can often include a degree of [illegible] the provision of affordable housing and how existing residents can access and utilise the spaces, facilities and services of the new development.

Key environmental considerations for urban [illegible] **contamination and remediation.**

Greenfield

grow their own food and to have their own private open space for exercise and outdoor play. This trend reinforces the importance of incorporating quality public spaces into new communities.

Physical activity can be discouraged in environments where land uses are separated (such as locating housing away from employment areas), where there are poor public transport services and where the environment has not been designed, nor the infrastructure provided, to encourage active transport (walking and cycling). 7ҍUU^àUTꝲTUfU_`] U^dҍ_Ucꝺ^_dXꝺfUꝲꝲRUꝲT Uà^UTꝺ by these characteristics, but these attributes are still ҍUꝺUdfUꝲi ҍS_]] _^ꝲP^ꝺeReꝲbRO^,ҍWꝲUU^àUTꝲ_SꝺY^d

Although the approach to housing provision has evolved, providing for a range of housing types O^TꝲUfU^dꝺ_VꝲOW_bꝺORYd ꝲg YdXY^ҍWꝲUU^àUTꝲꝲOꝺUꝺ remains a challenge. As mentioned, to ensure the social sustainability of a city or region as a whole, it is important to ensure that there is a **mix of housing types** to cater for a diversity of households distributed throughout all areas of our cities and regions.

1ҍꝲUꝲ ҍSXO^UW^WꝲP_ҍWꝲUU^àUTꝲꝺ_Uꝺꝲꝺ YO^^Y^WꝲꝲUg Þ communities not to be car dependent. Access to public transport in lower density areas where population numbers may not support a service for some time is a real obstacle to encouraging active transport behaviour Y^ÞꝲUg \iꝲ_ccOꝲY_XUTҍWꝲUU^àUTꝲꝺOꝺUꝺꝲ5CꝺYꝲ Þ ꝺ_fꝲYꝲY_^ Þ of **public transport** infrastructure is important to behaviour change but may have to be heavily subsidised initially. The inclusion of local destinations such as shops,

schools, employment, recreation and entertainment Y^ÞꝲWꝲUU^àUTꝲ_ꝺUꝺꝲYꝲY` ` _bꝺO^dꝺꝺꝺꝲ_^ꝺUꝺꝲWꝲUbOꝺF U^Þ demand and supporting active transport.

BUSU^ꝺꝺꝲobU^TꝺꝲY^ҍWꝲUU^àUTꝲꝲTꝲUfU_`] U^dꝲXꝲOfUꝺꝺUUU^ꝲꝲ꜀^Þ emphasis on **master planned communities.** Some concerns have been raised regarding the extent to which some of these master planned communities are integrated with, and connected to, the surrounding, existing communities[245]. One aspect of this is physical connectivity with roads, trails and pathways. Connectivity can also relate to the availability and accessibility of facilities and services. Concerns also relate to social differentiation with new development being of a very different socio-economic, and perhaps cultural, character than the existing communities. This differentiation is exacerbated if the new development is, or is seen to be, created as an enclave that is physically and socially separated from its neighbours. Providing access to facilities and services and planning for inclusive community and cultural events are some ways to overcome some of the negative impacts of this differentiation.

Semi rural and rural

While this tool is recognised as having general applicability to a number of different development contexts, it is recognised that semi-rural and rural areas require some

245 Gwyther G. Paradise planned: Socio-economic differentiation and the master planned community on Sydney's urban fringe. Paper presented at State of Australian Cities Conference. Parramatta; 2003.
www.uws.edu.au/download.php?f le_id=5140&f lename=10.2_FINAL_G.Gwyther. pdf&mimetype=application/pdf

special consideration and evaluation of their unique circumstances. Semi-rural and rural communities generally have less access to: public transport; diverse employment opportunities; social infrastructure; and a wide range of human services such as health care.

Specific issues that may require additional consideration for semi-rural and rural sites include:

The importance of identifying **land for agricultural uses** and to prevent the inappropriate fragmentation _\ekQdPQ^T\P\c_P\ `_boQ^dPY\PkXU\PTU^d\aSQdY_^P_\P unproductive lands and their preferred alternative use.

The need to ensure appropriate **buffering** between rural land and other uses, particularly residential.

5^œbY^W\ekQdPQ^T\PdU\P_\SY\dQ^TP\Q^\d\b_f\T\Uee\\aSY\^d land around existing townships and other settlements to accommodate any future **projected growth.**

Given the importance of issues related to small town viability, there may need to be a greater emphasis on the **economic development** outcomes of land development policies, plans and proposals in semi-rural and rural communities.

Depending on the type of development being proposed, it may not always be practical to recommend the provision of an extensive **footpath network** in semi-rural and rural locations. While footpaths are critical infrastructure for the promotion of active transport and physical activity, they are of limited value if not connected to a broader network and linked to local destinations.

Rural development may be small scale and dispersed in nature. This creates issues related to **isolation and distance from services**. Unless necessary population thresholds are reached, the limited availability of **public transport** is also a common issue.

Remote and isolated semi-rural and rural development is unlikely to be able to address many of the key considerations of this checklist such as public transport, employment and access to community facilities. Some **f exibility** is required in applying this checklist to the more remote and isolated forms of development in semi-rural and rural areas.

The Quick Guide in chapter 6 can be used as an initial
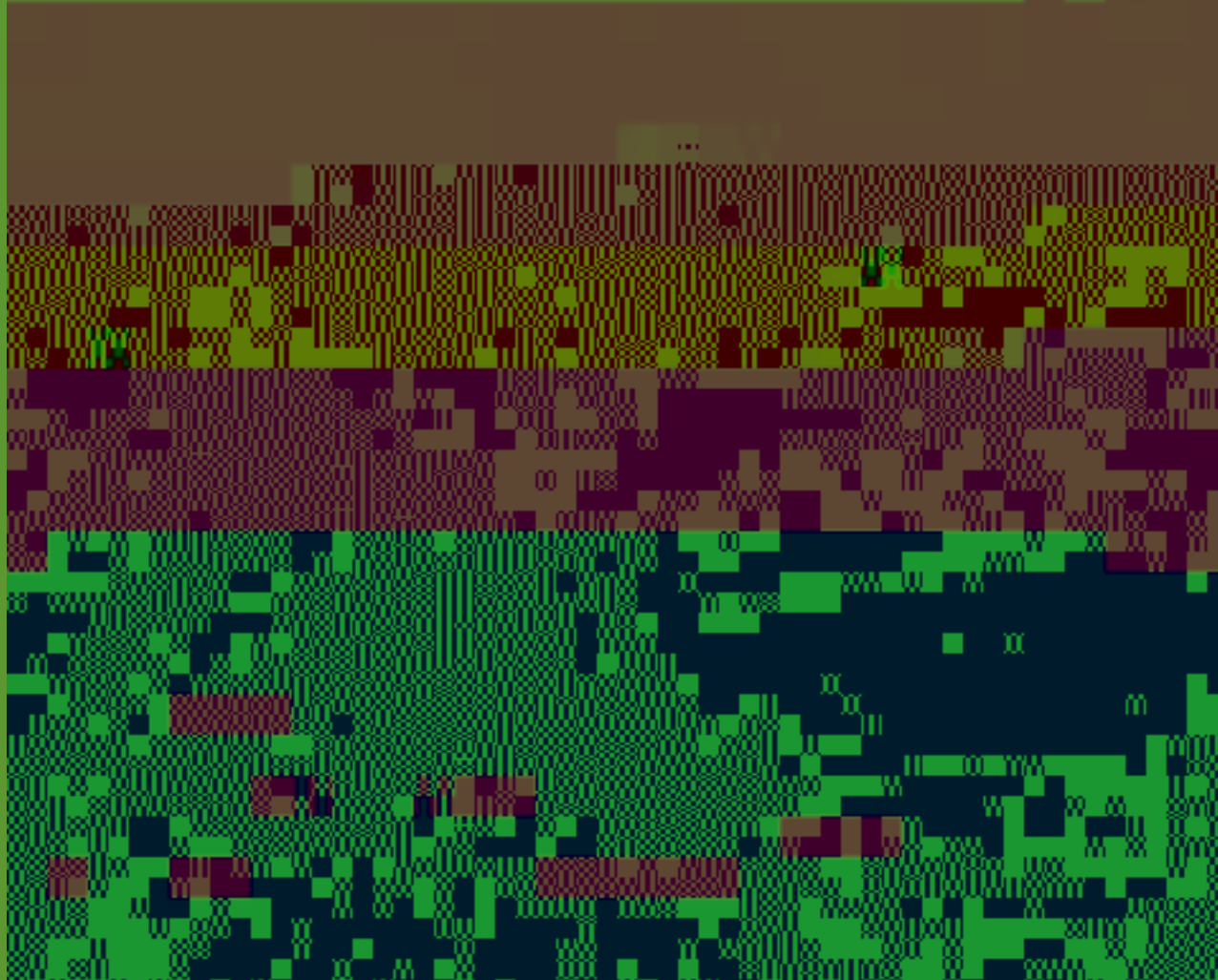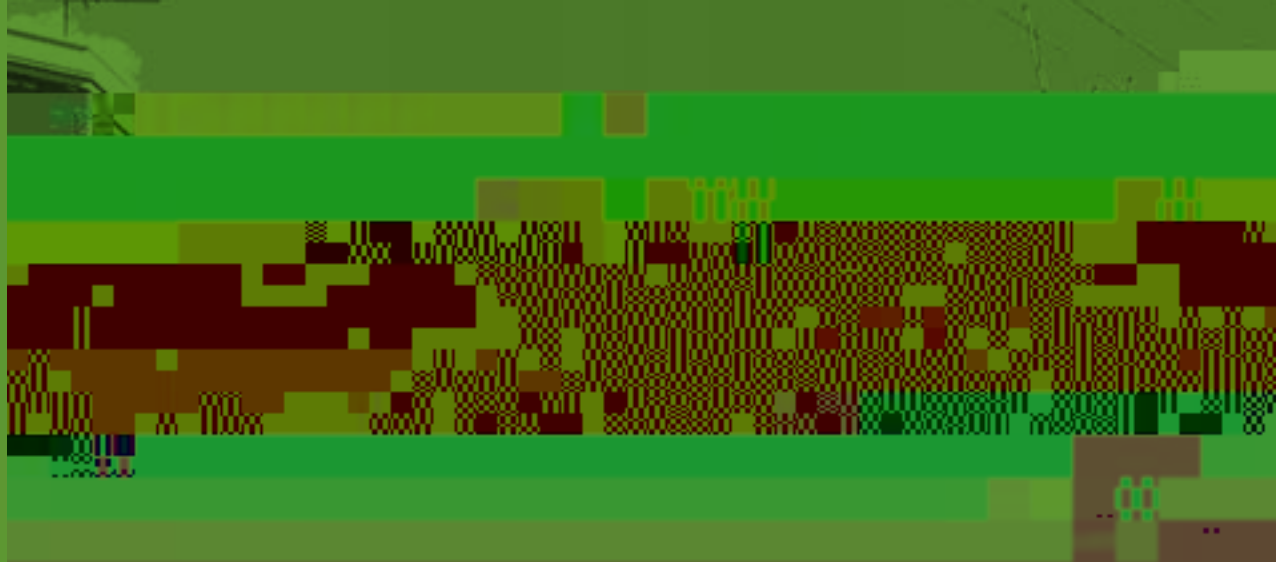
18

Health and sustainability

There are a number of common elements between health and sustainability. These include consideration of economic, environmental, social and cultural issues, a focus on people, quality of life, concerns about equity and a commitment to public participation.

Sustainability is the dominant paradigm that is influencing contemporary urban planning and development. Health is increasingly being seen as a core component of sustainability and also as a key consideration in urban planning and development.

As part of understanding how this checklist can best be implemented, some consideration may need to be given to the 'positioning' of health. Some questions to consider include:

Implementation strategy

While a helpful resource to assist health workers provide comment on development policies, plans and proposals, it is recognised that the development of a comprehensive checklist is only part of the solution. Consideration of an implementation strategy to accompany and support the use of checklist type tools is also required. There is a need to develop a process of implementation, a need to develop the relationships and partnerships that will ensure the checklist is well used, and a need to develop skills (within both the health and planning fields) to reaffirm the many links and synergies that exist.

Education and ongoing cross sectoral collaboration are two aspects of an implementation strategy that appear to be of importance. The building of relationships between health professionals and planners and developers (both public and private sector) will be critical to the effectiveness of this checklist or any other form of health contribution to the development process.

While the focus of this project has been on the development of a tool, SSWAHS and NSW Health recognise the need for a range of initiatives to support the implementation of this checklist. These include capacity building, education and relationship building.

Chapter 5 on how to use this checklist included the advice to talk with the person you are providing advice or comments to. Several chapters have stressed the importance of establishing relationships between health and planning professionals. Generally, the communication and relationship building components of implementing this checklist are vitally important in encouraging healthier urban development.

This is not to diminish the importance of the specific content of the checklist, because it is likely that the essence of building stronger relationships between health and planning professionals will be a mutual recognition and respect for what each can contribute to the objective of creating healthier, more sustainable and more liveable urban environments. It is hoped that this checklist provides a tool that can contribute to ensuring that the advice and feedback provided by health workers to planning professionals is comprehensive, relevant and high quality, and recognised as valuable by planners.

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Accessibility – refers to the requirement that places that members of the public use should be able to be entered and used by all people including those with a disability. The Disability Discrimination Act includes in its definition of public places: public footpaths and walkways, parks, hospitals, libraries, government services, educational institutions, shops including cafes, restaurants and banks, and places of entertainment.

Accessory dwelling units (ADUs) – appear under many aliases, including granny flats, garage apartments, carriage houses and ancillary units. The basic amenities in most ADUs include a bedroom, a bathroom, and a small kitchen. ADUs provide the potential for extra income from renting out the unit, extra space that can be used as lodging for teenage children or elderly family members and an additional housing option, providing affordable units that can attract people from diverse age and income groups. Another benefit of ADUs is safer laneways and neighbourhoods, providing more "eyes on the street" through increased densities and based on how ADUs are orientated[246]

BASIX (The Building Sustainability Index)
– introduced by the NSW Government, BASIX ensures homes are designed to use less potable water and be responsible for fewer greenhouse gas emissions by setting energy and water reduction targets for houses and units. BASIX is one of the most robust sustainable planning measures in Australia, delivering equitable and effective water and greenhouse gas reductions across NSW[247].

Brownfield development – development that occurs

Dual occupancy development – the use of a block originally subdivided for a single dwelling development for the purpose of two dwellings. They provide housing opportunities in familiar locations, in locations with good accessibility to entertainment, shopping and other opportunities and the choice of less maintenance while still providing direct access to a private open space.

Edible landscaping – recognises that an aesthetically pleasing landscape and the production of healthy food can go hand-in-hand. Edible landscaping follows many of the same principles of conventional landscape design such as creating balance, unity, rhythm, interconnection, and pattern in the landscape while integrating a host of food producing plants into the design. The range of edible plants available for use in the landscape is vast and goes far beyond common vegetables[249].

Exercise – a subset of physical activity defined as planned, structured and repetitive bodily movement done to improve or maintain one or more components of physical fitness. Exercise has specific objectives of improving fitness, performance and health and providing a means of social interaction.

Food security – refers to the availability of healthy food and one's access to it. A household is considered food
 – rlty -6(b1(w8(r)5(lt)-1)-6(8(t)10(o)-28(it)1e)-6(d (a)21(e)1(f)13a)5(e)-1(r1)-28(s)-1e)-6(d)-ges
anility laaes 24(e3-28(o)6(f)-28(s)-8me)-6(bj)-(i)5(l)5(it)-28(y)-28(o)6(t)-1(i1-25(6-28(A)-ld (a(c)7(e 3(it1(b)4(i)-2(c)4(e)-28(b)-8(e)-1(r)6

Local government area (LGA) – refer to areas controlled by individual local governments or Councils.

Physical activity – is all movements in everyday life, including work, recreation, exercise and sporting activities. It can be structured or unstructured, planned or incidental.

Social capital – refers to the value created by the social networks that form between members of a community and the inclination of those people to collaborate and do things for each other. It has been referred to as the informal bonds that make up a sense of community.

Target area – the area covered by the policy, plan or proposal. Equivalent to site area when referring to development proposals.

Transitional zone – a type of buffer zone where an intermediate land use is used between two incompatible land uses. An example is locating commercial uses between residential and industrial uses.

Universally accessible – barrier-free urban design aimed at ensuring access and safe travel for everyone including people with disabilities. Examples include kerb ramps (for people with disabilities, cyclists and people with prams) and ramped entrances to buildings that compliment stair entrances rather than being separate and hence stigmatising "barrier free" solutions to accessibility concerns.

Universal design – the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. The intent of universal design is to simplify life for everyone by making products, communications, and the built environment more usable by as many people as possible at little or no extra cost. Universal design benefits people of all ages and abilities.

Urban planning, design and development – these expressions are used fairly interchangeably in this document to describe interventions to the built environment, and the term "urban" should be understood to refer to any built environment, regardless of locality (urban or rural).

Urban renewal – involves the redevelopment of land that was formerly used for another purpose. The

Walking/cycling "bus" – a group of people who walk or cycle together following a set route and timetable. It is called a "bus" because there is a set route and timetable so it can pick up more "passengers" along the way. Such buses can teach people new routes as well as help people feel safer walking and cycling.

Walking distance – a distance of 400-500m (or approximately 5 minutes of walking) between destinations is a generally accepted measure for a "comfortable walking distance" for most people[251]. However, the quality of urban design can influence and extend the distances that people are willing to walk between destinations[252]. (Whilst current NSW guidance recommends that 400 metres is considered to be a reasonable walking distance to a bus stop, it says that for metropolitan railway stations households should be

Appendix 1:

Development context: Is the plan, policy or proposal:

1. Urban renewal/infill

2. Greenfield/suburban

3. Semi rural/rural

Health characteristic	Health promoting attributes	Attributes that do not promote health	Significant issues	Recommendations/ suggestions

P
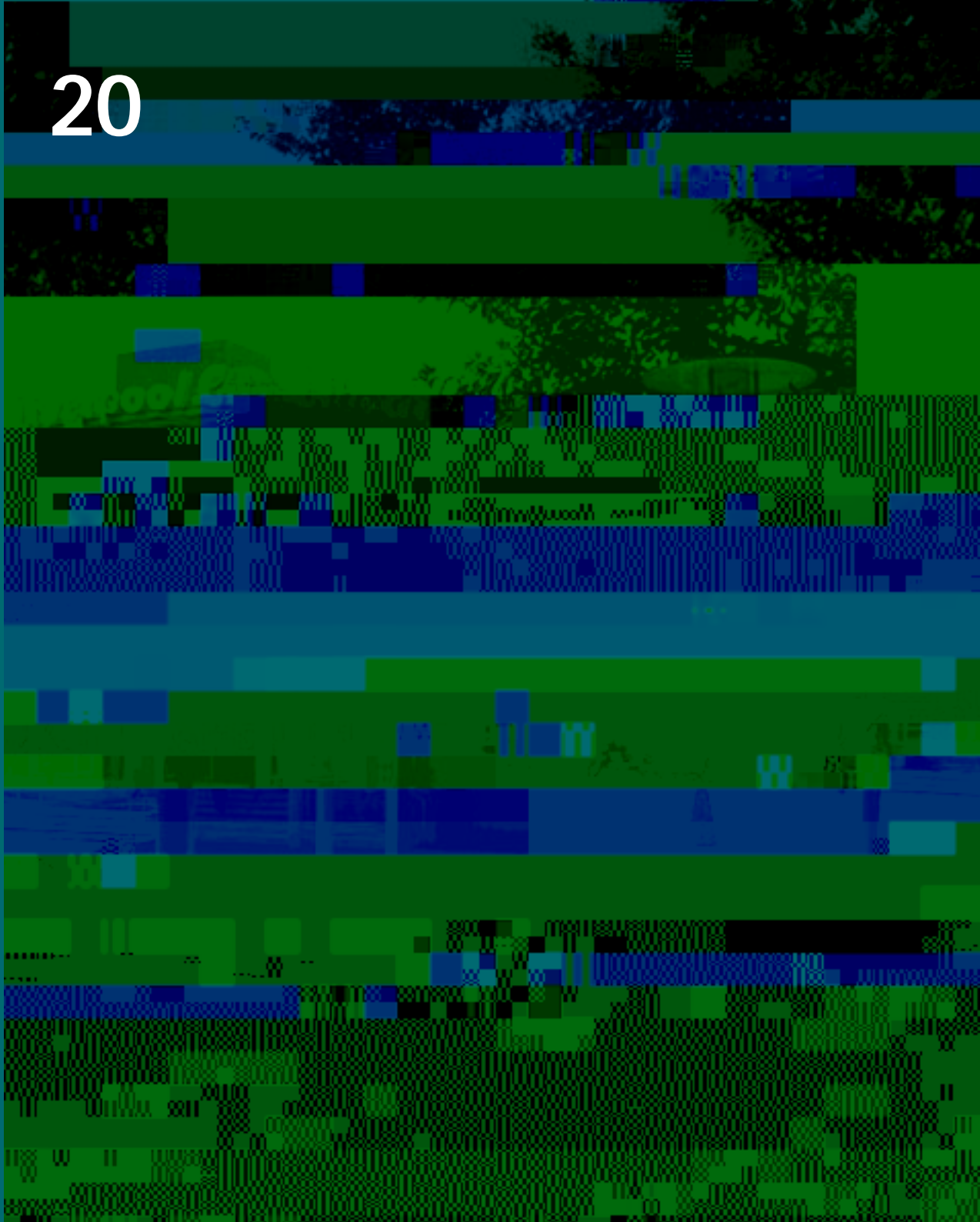
Appendix 2:

Use the information you have recorded on the Checklist Summary Form to assist you to complete this written advice.

This HUD Advice form is intended to help with both organising your thoughts and providing some structure to written comments.

Key health issues	Recommendations	Supporting evidence	Level of evidence[254]

Appendix 3:

Sydney South West Area Health Service and NSW Health – Healthy Urban Development Checklist

Although this Checklist has been developed with a NSW focus, we hope that it will prove useful to people working anywhere in Australia or even overseas. Nothing will make us happier than that people use it. You don't need to ask our permission first but to help us improve the Checklist we are very interested to receive your feedback after you have used it. Please answer the following questions each time you use the Checklist and return this form to us at the address below.

1. Your details

    Name: . . . .

    Position: . . . .

    Organisation: . . . .

    Email: . . . .

2. Your purpose for using the checklist:

    To provide comments on a draft local government plan
    (e.g. master plan, environmental plan or development plan)

    To provide comments on a draft state or regional development plan

    To provide comments on a draft plan for a community or urban regeneration or renewal project

    To provide comments on a draft private sector plan (e.g. master plan or development plan)

    To provide comments on a draft state or regional planning-related policy

    To provide input into a planning policy or process

    To inform others about the range of factors that need to be considered in healthy urban developments

    Other (please specify)

    If the draft plan or policy is available on the web, please provide the web address.

    ....

3. Who used the checklist?

    You used it on your own

    You used it with other people in your organisation

    You used it with people from other organisations (Council, developer, etc)

4. Approximately what length of time (total person hours of all people involved) did you spend on using the checklist on this occasion?

a) going through the checklist:

    less than 2 hours

    2-4 hours

    4-10 hours

    more than 10 hours

b) writing a report or response:

    less than 2 hours

    2-4 hours

    4-10 hours

    more than 10 hours

5. We'd like to know how useful you found various aspects of the checklist. Please rate each of the following features in terms of their helpfulness to you during your assessment of the policy, plan or proposal.

	Very helpful	OK	Not helpful
The introductory chapters (1-3)			
The planning system (ch. 4)			
How to use this checklist (ch. 5)			
Pre-checklist activities (ch. 6)			
'Relevance to NSW'			
'Key evidence and leading practice'			
Dividing the questions into principle based (unshaded) and urban form (shaded) groups			
The specific questions			
'Further information'			
Specific contexts (ch. 17)			
Beyond a checklist (ch. 18)			
Glossary (ch 19)			
Checklist Summary Form (App. 1)			
Healthy Urban Development Advice (App. 2)			

6. What did you particularly like about the checklist? (e.g. what influenced your answers to question 5?)

_____

7. What did you particularly dislike about the checklist? (again, please consider your answers to question 5)

8. In comparison to other methods you have used in the past to assess policies, plans or proposals, how does the checklist compare?

Improves the process   Improves the outcomes

No change to process   No change to outcomes

Worsens the process   Worsens the outcomes

9. Would you use the checklist again?

Yes

No

If no, why not?

_____
_____
_____
_____
_____
_____

10. Please list any suggestions you have for improving the usefulness of the checklist

_____
_____
_____
_____
_____
_____
_____
_____

11. Do you have any further comments about the Healthy Urban Development Checklist?

_____
_____
_____
_____
_____
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_____
_____
_____

Many thanks. Please return form to: SSWAHS Population Health, Locked Mail Bag 7008,
Liverpool BC 1871, NSW, Australia. Or email Mark.Thornell@sswahs.nsw.gov.au

Appendix 4:

Venessa Wells, Centre for Health Advancement,
NSW Health Department

Glenis Lloyd, Centre for Health Protection,
NSW Health Department

Peter Hamilton, Strategies and Land Supply,
Department of Planning

Lou-Anne Blunden, Health Service Planning,
Sydney South West Area Health Service

Stephen Corbet, Population Health,
Sydney West Area Health Service

Susan Thompson, Faculty of the Built Environment,
UNSW

Maggie Jamieson, Population Health, Planning,
Research and Performance,
Greater Southern Area Health Service

Kim Browne, Population Health, Planning and
Performance, Hunter New England Area Health Service

Milly Licata, Population Health,
Hunter New England Area Health Service

Karen Gillham, Population Health,
Hunter New England Area Health Service

Melanie Kingsland, Population Health,
Hunter New England Area Health Service

Erica Gray, Health Promotion Service,
South Eastern Sydney and Illawarra Area Health Service

Olga Vilshanskayg, Health Promotion Service,
South Eastern Sydney and Illawarra Area Health Service

Mark Hitchenson, Strategic Planning, Camden Council

Amanda Bray, Policy and Community Development,
Fairfield City Council

Peter McCue, Premier's Council for Active Living

Lauren Templeman, Premier's Council for Active Living

PLANNING INSTITUTE OF AUSTRALIA AWARD

The Checklist has been acknowledged by the Planning Institute of Australia (PIA) by taking their Planning Excellence 2009 New South Wales award in the category for planning for healthy urban environments.

The PIA said that the Checklist:

"…represents a timely collaboration between health authorities and social planners… [which will]…raise planners' awareness of the potential impacts of planning decisions on the health of communities….[and] assist in building the desired relationships, partnerships and communication between health and planning professionals that are critically important.

The Checklist is an exceptionally practical tool which represents an important step in an ongoing process of health and planning professionals working closely together to encourage the creation of healthier communities across NSW."