

# Building Better Health

## Health considerations for urban development and renewal in the Sydney Local Health District



JUNE 2016

There is growing recognition that the built urban environment has a significant influence on health; a clear relationship has been drawn between the built environment and chronic diseases such as overweight and obesity, type 2 diabetes, and heart disease.<sup>1</sup> The mental health of populations is also impacted by the environment. The negative health impacts of air, water, and land pollution and contamination have long been understood. There is also increasing recognition of the importance of ecological sustainability to population health.<sup>1</sup>

In coming years, the area covered by the Sydney Local Health District (SLHD) is planned to undergo significant urban development. The purpose of this brief guide is to provide a reference for the range of health issues that should be routinely considered in relation to developments in SLHD.

This guide is intended for both SLHD staff and other stakeholders (including planners, councils, and developers) in the planning and development process. For more comprehensive information about healthy urban developments, and when undertaking or reviewing significant development proposals, we recommend that the NSW Health *Healthy Urban Development Checklist*<sup>2</sup> should also be consulted.

### Distinguishing features of Sydney Local Health District suburbs and population

- SLHD has a **high population density**
- The SLHD population is **diverse** in terms of socio-economic status, and is also culturally and linguistically diverse
- SLHD has areas with an industrial past, and both known and unknown **contaminated sites** exist
- SLHD has a number of academic, health, and other **institutions of state/national/international significance**
- The areas within SLHD tend to **adopt new technologies** and approaches early, such as those aimed at increasing the sustainability of power, water usage and waste.

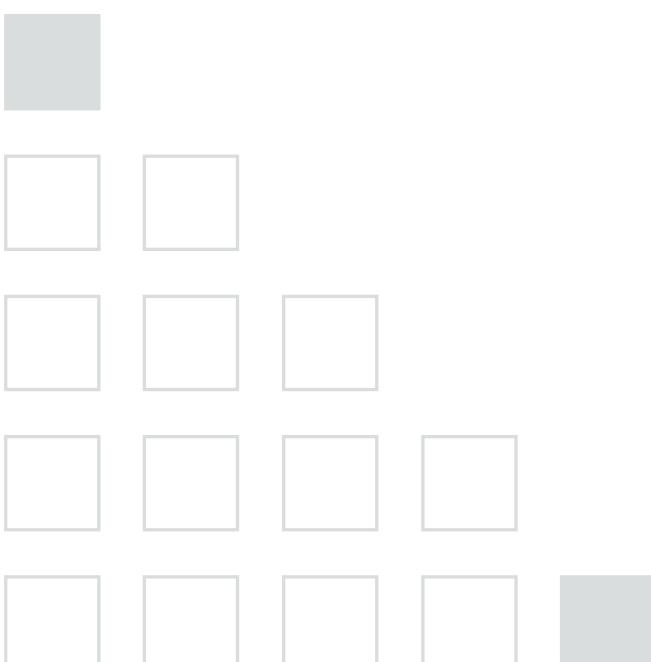
### The role of health promotion in healthy built environments

The NSW Healthy Eating and Active Living Strategy aims to ensure that everyone has opportunities to be healthy by, among other things, ... creating an environment that supports healthier living through better planning, built environments and transport solutions.<sup>3</sup> As the WHO notes, people are more active when they can easily access key destinations such as parks, green spaces, workplaces and shops.<sup>4</sup>

Much of what we recommend for health enhancing urban design – active travel (such as walking or cycling), efficient public transport systems, energy-efficient housing, availability of green space, location of recreation facilities, parks and public buildings, availability of healthy food, and reduced carbon-based pollution – not only encourages physical activity but also has an effect on reducing health inequalities, and will also benefit the sustainability agenda.

The evidence is clear that the built environment can connect and strengthen communities by providing streets and public spaces that are safe, clean and attractive, by encouraging residential development that is integrated yet private, and empowering communities by encouraging meaningful participation in land use decisions.<sup>5</sup>

SLHD uses and promotes NSW Health's *Healthy Urban Development Checklist*<sup>2</sup> to ensure that the advice provided is both comprehensive and consistent. Nine key areas focus on health promotion: food, physical activity, housing, transport, employment, safety, open space, and social infrastructure and cohesion. The following table provides a series of questions that can be applied to urban development plans.



**Table 1: Health promotion and urban developments**

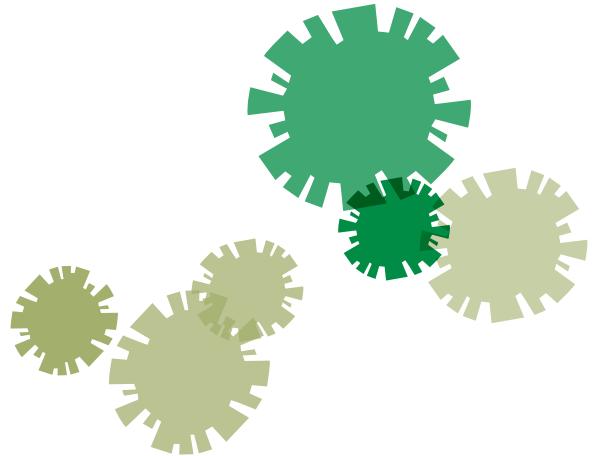
Issue	Have the following been considered?
<b>Healthy food</b>	<p>Is there access to fresh, nutritious and affordable food?</p> <p>Does the proposal provide for support for local food production?</p>
<b>Physical activity</b>	<p>Does the proposal design facilitate incidental physical activity?</p> <p>Does the plan provide enough opportunities for walking, cycling and other forms of active transport?</p> <p>Is there reasonable access to usable and quality outdoor spaces and recreational facilities?</p>
<b>Housing</b>	<p>Does proposed housing support human and environmental health?</p> <p>Is there a diversity of proposed dwellings, including affordable housing?</p> <p>What is the level of adaptability and accessibility of the housing?</p>
<b>Transport and physical connectivity</b>	<p>What will be the availability of public transport services to the development? Will the proposal encourage a reduction of car dependency and increase active travel?</p> <p>Does the proposal encourage infill development and/or integration of new development with existing development?</p> <p>Has telephone and internet connectivity been appropriately considered, including potential adaptability to future needs?</p>
<b>Quality employment</b>	<p>Does the development ensure that housing and commuting options are provided for employment areas?</p> <p>Will there be access to a range of quality employment opportunities?</p> <p>Will there be access to appropriate job training?</p>
<b>Community safety</b>	<p>Is there consideration of design aspects that will create a sense of safety and facilitate crime prevention?</p>
<b>Public open space</b>	<p>Is there reasonable access to green space and natural areas that are safe, healthy, accessible, attractive and easy to maintain?</p> <p>Does the proposal ensure quality streetscapes that encourage activity?</p> <p>Has there been consideration of elements to engender a sense of cultural identity, sense of place and public art?</p> <p>Have places of natural, historic or cultural significance been appropriately preserved or enhanced?</p>
<b>Social infrastructure</b>	<p>Does the proposal include access to a range of facilities to attract and support a diverse population? This should include responding to existing (as well as projected) community needs and current gaps in facilities and/or services.</p> <p>Will there be an early delivery of social infrastructure to support a sense of community?</p> <p>Is there an integrated approach to social infrastructure planning?</p>
<b>Social cohesion and social connectivity</b>	<p>Will the development include places that will encourage social interaction and connection among people?</p> <p>Is there a promotion of a sense of community and attachment to place?</p> <p>Has there been any local involvement in planning and community life? Will the development result in any community severance, division or dislocation?</p>

## Protecting the health of local populations from environmental risks

Potential environmental health risks related to development include unsafe drinking or recreational water supplies, inadequate sewage management, poor air quality, environmental toxins and hazards, poor waste management, inadequate microbial control, poorly regulated skin penetration industries and funeral industries, pests, and poor basic hygiene.

The major environmental health risk areas that may relate to a development proposal are (links provided for further information):<sup>6</sup>

- **Water quality** (including drinking water quality, wastewater and recycling, recreational water quality, swimming pool and spa pool water quality, and fluoridation).  
<http://www.health.nsw.gov.au/environment/water/Pages/default.aspx>
- **Air quality**  
<http://www.health.nsw.gov.au/environment/air/Pages/default.aspx>
- **Building and industry hazards**  
<http://www.health.nsw.gov.au/environment/hazard/Pages/default.aspx>
- **Noise**  
<http://www.health.nsw.gov.au/environment/noise/Pages/default.aspx>
- **Public health pests**  
<http://www.health.nsw.gov.au/environment/pests/Pages/default.aspx>
- **Climate**  
<http://www.health.nsw.gov.au/environment/climate/Pages/default.aspx>
- **Regulatory general environmental health** (including items not covered in detail in Table 2, such as disposal of bodies, approval of a method to treat clinical waste, and single domestic wastewater management).  
<http://www.health.nsw.gov.au/environment/Pages/rgeh.aspx>
- **Environmental health and Aboriginal People**  
<http://www.health.nsw.gov.au/environment/aboriginal/Pages/default.aspx>  
Research has highlighted environmental conditions as being an important contributor to the higher rates of infection, injuries and chronic disease in Aboriginal people.



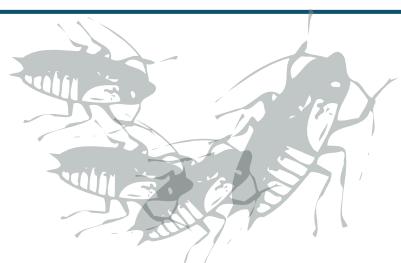
## What are the potential environmental health issues related to a proposed development?

The table below can be used as a rapid checklist when considering the potential environmental health issues related to a development proposal or plan. Not all issues will be relevant to every development.

**Table 2: Environmental health risks and urban development**

Issue	Have the following been considered?
<b>Characteristics of the local population (demographic characteristics)</b>	<p>What are the characteristics of the local population in and around the proposed development (demographics), including socio-economic mix?</p> <p>Are there any populations that are particularly susceptible to environmental health hazards?</p> <p>Will this proposal have disproportionate negative health impacts on those of lower socioeconomic status, on Aboriginal populations, or on other potentially marginalised populations (i.e. are there health equity implications)?</p> <p>What specific considerations might be required for culturally and linguistically diverse populations?</p>
<b>Past and existing land use</b>	<p>Is there any known contamination of the land and associated water related to past or existing land use? If so, does this pose a health risk? How will remediation address that risk? Does remediation pose any potential risks?</p>
<b>Impacts on surrounding communities during construction</b>	<p>Are there any impacts from the construction and transport movements that may cause adverse health effects on the surrounding community (consider dust, noise, wastewater, chemicals, air pollution from combustion or other activities, injury risk from increased traffic or altered traffic conditions)? How will these be mitigated?</p> <p>Does the construction management plan address health issues specifically?</p>
<b>Waste and sewage</b>	<p>What waste that could impact on health will be generated by the proposed future use of the land and local water?</p> <p>Does the potential waste include potentially hazardous waste, such as industrial chemicals, large scale combustion, clinical waste, or radioactive waste?</p> <p>How will waste be treated or disposed of to prevent any risk to human health?</p> <p>Are there adequate sewerage systems to prevent health risks from sewage? Will sewage infrastructure be adequately separated and protected, including withstanding likely local natural disasters (fires, flood, and drought)?</p>
<b>Water</b>	<p>Does the proposal include adequate drinking water supply?</p> <p>Will water infrastructure or water sources be adequately separated and protected, and has such protection been built to withstand likely local natural disasters (fires, floods, drought)?</p> <p>Where rainwater tanks are installed it is not encouraged that this water is used for drinking and it is important that tanks be properly maintained.</p>
<b>Recycled water</b>	<p>Are private water recycling schemes proposed, such as sewage or stormwater reuse? If so a range of requirements apply and specialised advice should be sought: see <a href="http://www.health.nsw.gov.au/environment/wastewater/Pages/default.aspx">http://www.health.nsw.gov.au/environment/wastewater/Pages/default.aspx</a></p>

<b>Air pollution (outdoor)</b>	<p>Will any of the future uses of the area generate significant air pollution that may cause a risk to human health?</p> <p>What are the implications of predicted air pollution for human health (what is the population density and demographics in the area)? Is there a significant highly susceptible population in the area?</p> <p>Have questions about air quality been adequately considered and planned for as per relevant regulatory requirements? Are mitigation strategies planned and costed?</p>
<b>Indoor air quality</b>	<p>Has consideration been given to promoting a healthy indoor building environment by maximising daylight, external views, adequate fresh air rates and use of low toxicity materials, furniture and fit out materials (e.g. low volatile organic compound materials and low formaldehyde products)? Useful resources on indoor air quality are located at the Safe Work Australia website <a href="http://www.safeworkaustralia.gov.au/sites/SWA">http://www.safeworkaustralia.gov.au/sites/SWA</a></p>
<b>Noise and vibration</b>	<p>What will be the future noise and vibration implications of the proposal? Are these likely to impact significantly on the local population?</p> <p>Have these issues been adequately considered and planned for? Are mitigation strategies planned and costed?</p>
<b>Recreational water</b>	<p>Are there any recreational water areas proposed e.g. swimming pools? Have such facilities been planned to meet applicable standards and guidelines, which includes features relating to health?</p>
<b>Cooling towers or large fountains (legionella control)</b>	<p>Are there aspects of the proposal that might normally represent a potential source of legionella infection such as cooling towers or large fountains? If so, has specialist advice on this been sought?</p>
<b>Tattoo parlours, skin piercing and other premises where skin penetration might occur?</b>	<p>Are there any skin penetration premises or facilities proposed such as tattoo parlours or skin piercing premises? These are regulated activities: have such facilities been planned to meet applicable standards and guidelines?</p>
<b>Pests (including insects)</b>	<p>Does the proposed development have the potential to increase local pests which may pose a health risk? Which pests?</p> <p>Have these issues been adequately considered and planned for? Are mitigation strategies planned and costed?</p>
<b>Impact on other areas</b>	<p>Could the development have environmental effects in areas distant to the area it is in? For example, new roads in the area may increase traffic (and associated air pollution, noise, and injury risk) to other areas.</p>
<b>Climate change and sustainability</b>	<p>Climate change and a degraded environment are predicted to have potentially significant impacts on population health in the future.</p> <p>Does the proposal include plans that might minimise the carbon or broader environmental footprint of the development? Should such plans be added?</p>



# Building health equity into development planning

In the context of urban development, consideration of equity should be systematically assessed at all stages of the planning and implementation process. This is to ensure there are not systematic differences in access to, and quality of, services and resources for daily living within and between new areas and population groups.

This does not need to be onerous. Equity filters/lenses are used extensively overseas and generally involve answering a series of questions before a decision is made on whether more detailed work is required. These questions include:

- What is the development trying to do?
- Is there evidence it is likely to work?
- Are there health equity issues?

- Are there any groups who may be advantaged by the proposal?
- Are there any groups who may be disadvantaged by the proposal?
- How could the proposal be developed to strengthen positive impacts or mitigate negative impacts?

If there are likely to be significant impacts a decision then needs to be made on whether more detailed work should be undertaken, such as a health impact assessment (HIA), equity focussed health impact assessment (EFHIA), or health in all policies (HIAP) approach.

## What are the potential health equity issues related to the project?

Table 3: Equity and urban developments

Issue	Have the following been considered?
<b>Consider the needs of vulnerable and disadvantaged populations</b>	Are the considerations balancing economic arguments for development with local community needs for vulnerable and disadvantaged populations discussed and transparent? Areas where this may be a particular problem may be open space and affordable housing.
<b>Consider children</b>	Does the proposal include the needs of children? Specific considerations include ensuring open space that can be observed/supervised, safety in existing buildings, falls from windows, thin walls, lack of sound proofing.
<b>Community representation</b>	Is there a plan for managing different community expectations so that all groups are consulted in a proactive way and views dealt with respect?
<b>Partnership development</b>	Have partnerships with those representing marginalised or disadvantaged groups been considered in the plan? This will include non-government organisations and community groups that may require support to participate.
<b>Environment and social impacts on health should be explored through HIA or HIAP approaches</b>	Is the development likely to affect a large number of people and/or have high impact? If so a HIA or HIAP approach should be considered.
<b>Affordable housing</b>	Are there plans for affordable housing? Is this stable and long term? Is it planned across the life cycle? Is it concentrated or spread across the area? Are there planned differences in amenity?
<b>Broad-based employment opportunities</b>	Are employment opportunities being developed across skill bases?

## Housing For Health Program

Housing for Health is a methodology for improving living conditions in Aboriginal communities. The approach is utilised extensively by NSW Health. It was initially developed in the late 1980s in the far north west of South Australia. The group that came to be known as Healthabitat set about developing a methodology that focused on environmental changes that would lead to maximum health gains, particularly for children aged 0–5 years.<sup>7</sup>

Housing for Health research has shown that improving essential health hardware (fixing a leaking toilet, electrical repairs, having sufficient hot water, having somewhere to wash a baby or child, etc.) can lead to improvements in health status and reduce the risk of disease and injury.<sup>7</sup>

The Housing for Health Guide provides information on the health hardware required to ensure the nine Healthy Living Practices are taken into account when designing, upgrading or maintaining a house.<sup>8</sup>

All works carried out in the Housing for Health program are prioritised in terms of health benefit. The priorities are:

**Safety** – Immediate life threatening dangers, particularly electrical, gas, fire, sewage and structural safety issues are addressed as the highest priority.

**Healthy Living Practices** – After safety issues have been addressed, the prioritised list of Healthy Living Practices from 1 (most important) to 9 provides a focus for prioritising repair and maintenance:<sup>7</sup>

- 1 Washing people – ensuring there is adequate hot and cold water and that the shower and bath work.
- 2 Washing clothes and bedding – ensuring the laundry is functional with separate taps for waste for the washing machine and tub.
- 3 Removing waste safely – ensuring drains aren't blocked and that the toilets are working.
- 4 Improving nutrition – assessing the ability to prepare and store food, making sure the stove works and improving the functionality of the kitchen.
- 5 Reducing overcrowding – ensuring health hardware (particularly hot water systems and septic systems) can cope with the actual number of people living in a house at any time.
- 6 Reducing the impact of animals, vermin or insects on the health of people – e.g. ensuring adequate insect screening.
- 7 Reducing dust – to reduce the risk of respiratory illness.
- 8 Controlling temperature – looking at the use of insulation and passive design to reduce the health risks, particularly to small children, the sick and the elderly.
- 9 Reducing trauma – being non-life threatening issues.<sup>7</sup>

These principles are also adopted by the National Framework for Design, Construction and Maintenance of Indigenous Housing and the National Indigenous Housing Guide.<sup>7</sup>

Safety and the first four points are considered critical healthy living practices, as they are essential for people to be able to practice healthy living.<sup>7</sup>

The full Housing for Health Guide can be found online at <http://www.housingforhealth.com/>

## Sydney Local Health District, Population Health Division

SLHD is located in the centre and inner west of Sydney. It comprises the Local Government Areas of the City of Sydney (part), Leichhardt, Marrickville, Canterbury, Canada Bay, Ashfield, Burwood and Strathfield. SLHD is responsible for providing care to more than 600,000 local residents. The district delivers quaternary, tertiary, acute, and primary care and health improvement services, many of which are recognised internationally and nationally. It includes the Royal Prince Alfred, Concord, Canterbury, and Balmain Hospitals.<sup>9</sup>

Within SLHD, Population Health is a small division which works to protect and promote the health of the local population. We recognise that many personal, local and global factors affect health and illness. Our services work with partners to deliver a comprehensive range of high quality, evidence-based health programs to the population living in the District. Ultimately, Population Health strives to achieve equity of health status and health service utilisation across the population.

SLHD Population Health comprises: Public Health Unit; Health Promotion Unit; Health Equity Research & Development Unit; Public Health Observatory; HIV & Related Programs Unit; Multicultural HIV & Hepatitis Service.

### Contact us

#### For further information please contact SLHD Population Health as follows:

For the section "*Protecting the health of local populations from environmental risks*" and "*Housing for Health Program*", please contact the Public Health Unit on:

Phone: 1300 066 055  
Email: [Publichealth@sswahs.nsw.gov.au](mailto:Publichealth@sswahs.nsw.gov.au)

For the section "*The role of health promotion in healthy built environments*", please contact the Health Promotion Unit on:

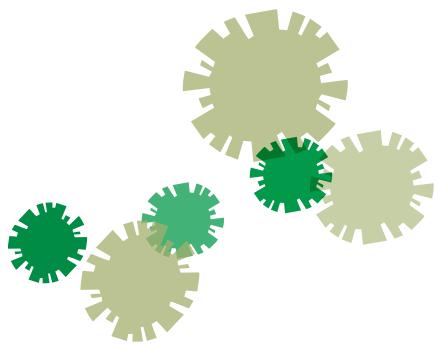
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For the section "*Building health equity into development planning*", please contact the Health Equity Research and Development Unit on:

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## Related resources

- *Sydney Local Health District Strategic Plan 2012–2017.* <http://www.slhd.nsw.gov.au/pdfs/sp12-17.pdf>
- *A Picture of Health: SLHD Health Profile 2013.* [https://www.slhd.nsw.gov.au/pdfs/SLHD\\_Health\\_Profile\\_2013.pdf](https://www.slhd.nsw.gov.au/pdfs/SLHD_Health_Profile_2013.pdf)
- *Healthy Urban Development Checklist: A guide for health services when commenting on development policies, plans and proposals.* <http://www.health.nsw.gov.au/urbanhealth/Pages/healthy-urban-dev-check.aspx>
- *NSW Department of Planning and Resources:* <http://www.planning.nsw.gov.au/>
- *Sydney Local Health District Planning Unit:* <https://www.slhd.nsw.gov.au/planning/>
- *Sydney Local Health District Health Promotion Unit:* <http://www.slhd.nsw.gov.au/PopulationHealth/HealthPromotionUnit.html>
- *Sydney Local Health District Public Health Unit:* <http://www.slhd.nsw.gov.au/PopulationHealth/PHU.html>
- *Sydney Local Health District Health Equity Research and Development Unit:* <http://www.slhd.nsw.gov.au/PopulationHealth/HERDU.html>
- *Housing for Health: The Guide.* <http://www.housingforhealth.com/>



## References

- 1 *Health and the environment: a compilation of evidence.* Australian Institute of Health and Welfare 2011. Cat. no. PHE 136. Canberra: AIHW.
- 2 *Healthy Urban Development Checklist: A guide for health services when commenting on development policies, plans and proposals.* NSW Health. <http://www.health.nsw.gov.au/urbanhealth/Pages/healthy-urban-dev-check.aspx>
- 3 *NSW Healthy Eating and Active Living Strategy: Preventing overweight and obesity in New South Wales 2013–2018.* NSW Ministry of Health 2013. Page 7. <http://www.health.nsw.gov.au/heal/Publications/nsw-healthy-eating-strategy.pdf>
- 4 Peggy Edwards and Agis Tsouros (2006) *The Solid Facts: Promoting Physical Activity and Active Living in Urban Environments: The role of local governments.* WHO. [http://www.euro.who.int/\\_data/assets/pdf\\_file/0009/98424/E89498.pdf](http://www.euro.who.int/_data/assets/pdf_file/0009/98424/E89498.pdf)
- 5 *Fact Sheet 1: A guide to "Healthy Built Environments: A Review of the Literature".* ( 2012). One of five Fact Sheets prepared by the Healthy Built Environments Program (HBEP), City Futures Research Centre, UNSW, that summarise key points from the *Healthy Built Environments: A review of the literature.* <http://www.be.unsw.edu.au/city-futures/city-wellbeing/fact-sheets>
- 6 *NSW Health: Environmental Health.* NSW Health. <http://www.health.nsw.gov.au/environment/Pages/default.aspx> Accessed 18 June 2015.
- 7 *NSW Health: Housing for Health.* NSW Health. <http://www.health.nsw.gov.au/environment/aboriginal/Pages/housing-for-health.aspx>
- 8 *Housing for Health the Guide.* Healthhabitat. <http://www.housingforhealth.com/the-guide/health-housing/> Accessed 18 March 2016.
- 9 *Sydney Local Health District Strategic Plan: 2012–2017 (revised 2014).* [www.slhd.nsw.gov.au/pdfs/sp12-17.pdf](http://www.slhd.nsw.gov.au/pdfs/sp12-17.pdf)

## Acknowledgement

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