



**Submission in response to:
*The Draft Hunter Regional Plan***

**Heart Foundation NSW
March 2016**

*(Please note, a separate submission has been made for
the Draft Plan for Growing Hunter City)*

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The Heart Foundation

The Heart Foundation is a not-for-profit organisation committed to improving cardiovascular health in Australia. The Heart Foundation's vision is for Australians to have the best cardiovascular health in the world. Through its research, health promotion programs and policy development, the Heart Foundation promotes healthy public policy to support better heart health for all Australians.

Cardiovascular disease

Cardiovascular disease (CVD) is the term used for a group of diseases including heart disease, stroke and blood vessel disease. It affects more than 3.3 million Australians and is one of Australia's leading causes of death – more than 47,000 Australians die each year because of cardiovascular disease. In the Hunter region, heart disease is the leading single cause of death and the people who live here have among the highest rates of CVD in Australia. Hunter region (excluding Newcastle and Lake Macquarie) ranks 5th (out of 92 regions across Australia) with 30.4% of the population living with CVD (compared to 21.5% of the Australian population). Newcastle and Lake Macquarie rank 16th (out of 92) with 27.2% of the population living with CVD.

Heart Foundation commitment to the Hunter region

The Heart Foundation has a long standing commitment to improving the health of the people in the Hunter region. It has maintained an office in Newcastle since 1985 to provide local services and contribute to local health policy. Recent initiatives in collaboration with other local organisations include:

- * the **Heartmoves** Program
- * **BikeFest** 2012, 2014 and 2015
- * **See Change Forum** series (bringing international speakers on healthy urban environments to Newcastle)
- * engaging with local Council on place-making activities as part of the **Newcastle Urban Renewal Strategy**.

Heart Foundation commitment to healthy planning

The Heart Foundation has a long standing commitment to improving the environment in which people live in NSW in order to improve the cardiovascular health of the population. We do this through participation in key planning forums, submissions to public enquiries, research and disseminating information on best practice urban planning to support healthy living. Recent activity in NSW includes:

- * **submissions to NSW Draft Plans and Planning Strategies**, including Draft Parramatta Road Urban Renewal Strategy 2015, NSW Transport Master Plan 2012, NSW Planning Review 2012-14, A Plan for Growing Sydney 2013
- * hosting and membership of the **Premier's Council for Active Living**, including support for the NSW Healthy Planning Expert Working Group
- * **research collaboration** with Urban Growth NSW, University of NSW and NSW Health to assess health outcomes of new residential development in Renwick
- * **sponsoring international speakers** such as Shellie Pfohl, Executive Director of the US President's Council on Fitness, Sports and Nutrition.

Heart Foundation's work in healthy planning with downloadable resources can be accessed on the Heart Foundation's web page <http://heartfoundation.org.au/for-professionals/built-environment>

1. Executive Summary and overview of health in planning

The 5 areas where we believe the *Draft Hunter Regional Plan* could be strengthened are:

1. **Explicit reference to health and well-being in Goals 1 and 4 with appropriate Directions to ensure that the impact of planning decisions on the health and well-being of the people of the Hunter is integral to all future planning processes.**
2. **Specific reference to active transport infrastructure as a necessary part of transport planning across the Hunter region and not just in Hunter City. While we commend the commitment to active transport, especially in Hunter City, all transport planning across the region needs to consider how other active transport, such as walking and cycling, integrates with road transport plans.**
3. **Explicit reference to healthy natural environments in built and urban areas, not just healthy natural environments in pristine or designated wilderness areas. While we commend the focus given to ensure the health of the wilderness and natural areas in the Hunter, there is also a need to ensure that natural environments in which humans live are also ecologically healthy.**
4. **Reference to protecting small local food production. The current Plan acknowledges the importance of agriculture in general as an economic consideration but we urge consideration be given to how local residents – especially in the newly expanded Hunter City area – will access healthy food, especially locally produced, seasonal, fresh produce.**
5. **Inclusion of health related monitoring and evaluation objectives to track the implementation and achievement of *Hunter Regional Plan* goals and actions. We recommend NSW Health be included as a member of the Coordination and Monitoring Committee as has been done in the *Illawarra/Shoalhaven Regional Plan***

The Heart Foundation welcomes the opportunity to comment on the *Draft Hunter Regional Plan* and the *Draft Plan for Growing Hunter City*. We are keen to contribute to the development of Plans which will help the Hunter Region grow economically while maintaining and building on the features which already make the Hunter region an attractive and healthy place to live and work.

We commend the State Government's commitment to building the economic resources of the region and its forward thinking in developing an overarching Plan which will make the region "a powerhouse economy, a centrepiece of environmental protection and one of the greatest places to live in the State". A cohesive, collaboratively planned approach will help avoid the problems of unplanned, uncontrolled urban growth which has created problems for the residents of other major cities. In particular, we commend the acknowledgement of the role walking, cycling and public transport will play in delivering efficient transport networks into the future.

The Heart Foundation, as a health NGO with a commitment to improving the cardiovascular health of all Australians, has a long standing interest in the relationship between health and urban planning. **A person's capacity to live a healthy life is significantly influenced by their physical environments, which impact both directly on their individual lifestyle choices and indirectly through their social environments.**

There is considerable benefit both to individuals and the economy in having a healthy lifestyle. The World Health Organization has estimated that **if the major risk factors for chronic disease were eliminated at least 80% of all heart disease, stroke and type 2 diabetes would be prevented and more than 40% of cancer cases would be prevented.**¹ Eliminating one particular risk factor alone – insufficient physical activity – could reduce cardiovascular disease related deaths by up to 35%.² The cost of physical inactivity alone to the Australian economy is substantial. In 2008 it was estimated that physical inactivity cost the Australian economy \$13.8 billion of which \$719 million was direct health costs. Other costs include the financial impact of the estimated 16,000 premature deaths a year (including income/taxes forgone) and the productivity loss due to illness caused by inactivity which has been estimated at 1.8 working days per worker per year.³

We particularly commend the State Government's aspiration in the *Hunter Regional Plan* to offer "quality lifestyles within sustainable and healthy environments". However, **we urge the Government to clarify that a "healthy environment" is also an environment which maintains and improves the health of the people who live there, not just the wildlife.** It is not just the health of natural environmental systems and wilderness areas which is at stake as the Hunter region grows. **Built environments can contribute to the health of the people who live there if properly designed according to world's best practice healthy built environment principles or – if poorly designed – significantly contribute to the poor health of residents.**

The *Draft Hunter Regional Plan* is somewhat confused in what it appears to mean by a 'healthy environment'. For example, we were pleased to see the statement: "*Delivering healthier built environments will help to deliver better health outcomes*" in the Plan (p70). However, we were surprised that this appears in the Draft Plan only in Action 4.2.7 under planning for the expansion of health facilities.

A healthier built environment is not simply about access to hospitals or other health facilities. The built environment which impacts on a person's health includes housing, shops, schools, universities, workplaces. The physical environment influences a person's ability to adopt health lifestyle behaviours – is it possible to walk or cycle to the shops or do they need to drive a car; can residents access fresh fruit and vegetables locally at reasonable prices or is the closest and cheapest food takeaway fast food; does the neighbourhood have attractive and inviting places to walk or sit so residents can meet and chat with neighbours, or is it poorly lit and threatening so they only feel safe at home, risking the poor health associated with social isolation.

We note that the NSW Premier has included a target for the reduction of childhood overweight and obesity (5% over 10 years) in his 12 priorities for the future of NSW. Healthy urban planning can contribute to the achievement of that goal and embed sustainable changes for the benefit of future generations.

Significant lessons have been learned from urban growth experiences, both in Australia and overseas⁴, and the Hunter has the opportunity to build an environment which meets both the economic and the health needs of its residents. In fact, the importance of health in planning was included in the NSW Planning Bill 2013 which explicitly connects the Objects of the

proposed Planning Act to solid policy action. Objective 7 states the proposed Planning Act will promote:

'Health, safety and amenity in the planning, design, construction and performance of individual buildings and the built environment'.

Goals which incorporate health as an objective for planning have been incorporated into the two NSW Government State Regional Plans which have been finalised to date - the *Illawarra/Shoalhaven Regional Plan* and the *Plan for Growing Sydney*.

Illawarra/Shoalhaven Regional Plan - **GOAL 3: A region with communities that are strong, healthy and well-connected**

Plan for Growing Sydney - **GOAL 3: A great place to live with communities that are strong, healthy and well connected**

We strongly recommend that health should also be an explicit objective in both the *Hunter Regional Plan* and the *Plan for Growing Hunter City*. We recommend health be added to both Goal 1 and Goal 4 in the *Hunter Regional Plan*:

Goal 1: Grow Australia's next major city to create communities that are strong, healthy and well connected.

Goal 4: Support robust regional communities which are strong, healthy and well-connected

Health outcome focused Directions and Actions should be included in both Plans and we have made some suggestions for this in this submission.

There is considerable expertise in Australia in healthy planning, especially in the area of healthy built environments and active transport, and we urge you to consult those experts as you finalise the Hunter Plans. In particular, the Premier's Council for Active Living (PCAL) whose membership includes Department of Premier and Cabinet, the Ministerial Office for Planning and Infrastructure and the Ministerial Office for Transport, has both expertise and written resources to assist such strategic planning.

PCAL is currently co-ordinating the NSW Healthy Planning Expert Working Group which has been convened to deliver Action 3.3.1 of the *Plan for Growing Sydney* to develop best practice guidelines for planning, designing and developing healthy built environments. We note that the work of this Group is also specifically referenced in Action 1.1.4 of the *Draft Central Coast Regional Plan*.

We strongly urge the Government to include consultation with this Group as an Action in the *Hunter Regional Plan*.

The *Draft Hunter Regional Plan* and the *Draft Plan for Growing Hunter City* cover many areas of regional development. However, we will limit our comments to those areas of the Draft Plans in which the Heart Foundation has expertise. In particular, we will concentrate on issues relating to the design of built environments and planning for active transport, with a closer focus on planning for the growth of Hunter City.

We understand that the *Hunter Regional Plan* needs to be read alongside the *Plan for Growing Hunter City*. However, we believe that some of the strengths of the Hunter City Plan – with its more explicit reference to health and well-being – would strengthen the Regional Plan. We have made detailed comments about the Hunter City Plan in our submission on

the *Draft Plan for Growing Hunter City*. The comments which follow relate specifically to the *Draft Hunter Regional Plan*.

Table of Recommendations for *Draft Hunter Regional Plan*:

	Section reference	Recommendation
1.	Vision – p9	Amend the Vision for <i>the Hunter Regional Plan</i> to include: “It will offer an array of lifestyles within sustainable and healthy environments <u>to create strong, healthy and well connected communities.</u> ”
2.	Vision – p9	Amend Goal 1 to read: “Grow Australia’s next major city <u>to create strong, healthy and well connected communities</u> ”.
3.	Vision – p9	Amend the aim of Goal 1 as outlined in the Box on p11 to include: “Hunter City will offer a high standard of living with infrastructure and services <u>which support residents to be strong, healthy and well connected.</u> ”
4.	Vision – p9	Amend Goal 4 to read: “Support regional <u>communities that are strong, healthy and well connected</u> ”.
5.	Vision – p9	Amend the aim of Goal 4 as outlined in Box on p11 to include: “Access to jobs, services, shops, recreation, entertainment and the arts will deliver quality living <u>which supports a healthy active lifestyle.</u> ”
6.	Delivering the Plan – p11	Add measures of population health and well-being to the proposed framework for reporting progress to be established by the Hunter Regional Plan Coordination and Monitoring Committee
7.	Delivering the Plan – p12	Include NSW Health as a member of the Hunter Regional Plan Coordinating and Monitoring Committee
8.	Action 1.1.1. – p15	Add Principle 4: Development will comply with world’s best practice for creating healthy built environments.
9.	Action 1.1.1. – p15	Identify Transport for NSW and Urban Growth NSW as the agencies to lead investigation and development of the Cyclesafe Network proposal to integrate walking and cycling infrastructure into planned transport networks.
10.	Action 1.1.1. – p15	Amend Principle 3 of Action 1.1.1. to read: “The City will provide the essentials – clean air and water, <u>access to healthy food choices and housing options which meets the needs and lifestyles of residents.</u> ”
11.	Action 1.1.1. – p15	Amend dot point 4 in the outline for the content of the proposed metropolitan plan for Hunter City to 2036 (p15) to read: “Sets out actions to improve amenity and promote healthy lifestyles

		<u>by the adoption of healthy built environment design principles, and protection of small food producers through land use zoning and encouragement of urban food production.”</u>
12.	Goal 2 – p17	Include health objectives in the list of “factors that will allow the Hunter region to become more innovative, competitive and resilient” p17: “access to a diverse skilled <u>and healthy</u> workforce” and “a liveable city with high standards of living <u>which support a healthy, active lifestyle and healthy food choices</u> ”.
13.	Direction 2.2 – p33	Amend Direction 2.2 “ (p33) to include infrastructure which enhances the attractiveness of working environments and includes public transport and active transport networks such as walking and cycling paths which will provide a feasible alternative to car transport for commuters.
14.	Direction 3.3 – p59	Add an additional Direction 3.3 to read: “Protect urban natural environments to maintain healthy local green spaces and healthy waterways suitable for human use.”
15.	Goal 4 – p63	Amend Goal 4 to read: “Create regional communities that are strong, healthy and well connected”.
16.	Action 4.2.3 – p69	Amend Action 4.2.3 (p69) to explicitly refer to the use of healthy built environment principles in planning and design to support the health needs of the population through their lives, to encourage healthy habits in the young and accommodate healthy ageing in place.

2. Heart Foundation comments on *Draft Hunter Regional Plan*:

Overall comment:

While we note that the concept of “health” is mentioned several times through the *Draft Hunter Regional Plan* in relation to specific health risks, our concern is that there is no explicit reference to maintaining and improving the health of the people of the Hunter region as an explicit objective of the Draft Plan. Both the approved *Illawarra/Shoalhaven Regional Plan* and the *Plan for Growing Sydney* have specific Goals which aim to achieve communities which are strong healthy and well-connected.

Illawarra/Shoalhaven Regional Plan - GOAL 3: A region with communities that are strong, healthy and well-connected

Plan for Growing Sydney - GOAL 3: A great place to live with communities that are strong, healthy and well-connected

In the *Draft Hunter Regional Plan*, for example, managing biosecurity risks is noted as relevant to “supporting healthy communities” (p41) under *Goal 2: Grow the largest regional economy in Australia*

While a healthy environment free from chemical contamination and pathogens is clearly important, the greatest threat to human health in the Hunter continues to be chronic diseases such as cardiovascular disease (CVD), cancer and diabetes. In the Hunter region heart disease is the leading single cause of death and the people who live here have among the highest rates of CVD in Australia. The Hunter region (excluding Newcastle and Lake Macquarie) ranks 5th (out of 92 regions across Australia) with 30.4% of the population living with CVD (compared to 21.5% of the Australian population). Newcastle and Lake Macquarie rank 16th (out of 92) with 27.2% of the population living with CVD.

The lifestyle related risk factors of obesity, insufficient physical activity and poor food consumption are significant contributors to the initial development of CVD and the on-going health problems of people living with CVD. Future development in the Hunter region needs to incorporate healthy built environment and planning principles to ensure that the people of the Hunter are able to live healthy lives which enhance health, well-being and social connectedness.

In the same way that the growth of cities in an uncontrolled and unplanned way in the 19th and 20th centuries created the epidemics of infectious diseases which compromised the lives of people in those centuries, the growth of modern cities is causing the modern epidemics of obesity and chronic disease. In the same way that health-focused urban planning and building design contributed to the eradication of infectious diseases in past populations, using healthy planning principles in new developments will contribute to the reduction of chronic diseases in future populations.

One important consideration for planning to increase the population in the Hunter region is housing density and its influence on health. This is an issue for both areas of high population density - such as Newcastle inner city - and lower population densities, especially greenfield developments on urban fringes. While it may seem counter-intuitive that the traditional Australian ‘dream home’ of a detached dwelling on a quarter acre block may contribute to poor health, the consequences of too much low density housing on urban fringes, with low employment opportunities and without a diversity of land uses is well documented ⁵. These include: poorer access to public transport and supporting infrastructure such as shops and

sporting facilities, longer commute times and an over reliance on private motor vehicles, even for short trips. These factors are collectively linked to physical inactivity, higher rates of overweight and obesity and higher rates of chronic disease, including CVD ⁶.

The Heart Foundation supports minimum housing density requirements being set for key areas, to ensure population levels are sufficient to support local public transport and viable shops and services within a walkable catchment (approx. 400-800m) of most residents. Mixed density developments also accommodate a range of housing needs for different ages and stages of life which encourages communities with greater social connection and community well-being. Employment density is also an important factor in underpinning the creation of walkable neighbourhoods.

However, it must be emphasised that increasing density needs to be accompanied by other healthy design and planning principles in order to protect the health of residents. Evidence based planning principles are outlined in the Heart Foundation's Healthy Active by Design on-line tool kit ⁷ which was developed in collaboration with Australian health and planning experts. Other NSW specific planning tools which are available on-line include:

- Hunter New England Population Health 2012. Liveability Assessment Tool. ⁸
- Premier's Council for Active Living: Development and Active Living: Designing Projects for Active Living⁹
- NSW Health: Healthy Urban Development Checklist¹⁰

In addition to impacts on physical activity, we are also concerned about the potential loss of productive agricultural land and the adverse impact on the supply of locally grown fruit and vegetables, should greenfield land be continually made available for development without clear boundaries and exclusion criteria. High visibility of local food production and ready access to locally produced food provides both ecological and health benefits. Farmers markets, farm door sales, pick-your-own events, school excursions, community and school kitchen gardens all help to increase food knowledge and have been shown to improve nutrition, especially in children. **Increasing children's interest in fresh food is a counter to the current intensive processed food advertising and will help achieve the NSW Premier's target of a 5% reduction in overweight and obesity in NSW children over 10 years.**

The following section will elaborate on these areas and indicate where the Heart Foundation believes the relevant sections of the *Draft Hunter Regional Plan* could be strengthened.

3. Heart Foundation response to specific sections of Draft Hunter Regional Plan

1. Vision and Goals – page 9

While we commend the Government's vision to "offer an array of quality lifestyles within sustainable and healthy environments" it is unclear what defines 'quality' and whether a 'healthy environment' refers to just healthy natural systems (such as the natural environments referenced in Goal 3) or whether it also includes built and urban environments. As explained in the overview section above, the Heart Foundation believes the vision needs to explicitly include an objective to create built environments which support strong, healthy and socially-connected human communities.

Recommendation:

1. That the stated Vision for the *Hunter Regional Plan* be amended to include: "It will offer an array of lifestyles within sustainable and healthy environments to create strong, healthy and well connected communities."
2. Amend Goal 1 to read: "Grow Australia's next major city to create strong, healthy and well connected communities".
3. That the aim of Goal 1 as outlined in the Box on p11 be amended to include: "Hunter City will offer a high standard of living with infrastructure and services which support residents to be strong, healthy and well connected."
4. That Goal 4 be amended to read: "Support regional communities that are strong, healthy and well connected".
5. Amend the aim of Goal 4 as outlined in Box on p11 to include: "Access to jobs, services, shops, recreation, entertainment and the arts will deliver quality living which supports a healthy active lifestyle."

2. Delivering the Plan – page 11

The Heart Foundation commends the commitment to require regular reporting on the delivery of the *Hunter Regional Plan* and the proposed establishment of the Hunter Regional Plan Coordination and Monitoring Committee to take carriage of reporting. However, details are unclear on how the proposed reporting will achieve comprehensive monitoring and evaluation of the Plan. We would urge you to add health and well-being measures to the framework suggested on page 11 to track the progress of population, housing, economy and employment, and natural environment and resources. Further suggestions for health-related indicators are given in Section 4 of this submission.

We would also urge you to include NSW Health on the Coordination and Monitoring Committee, as has been outlined in the *Illawarra/Shoalhaven Regional Plan*. The Hunter New England Local Health District Population Health team has particular expertise in healthy urban planning as well as evaluation and can provide valuable input to the development of an appropriate Monitoring and Evaluation Framework.

Recommendation:

6. Add measures of population health and well-being to the proposed framework for reporting progress to be established by the Hunter Regional Plan Coordination and Monitoring Committee (See Section 4 for further details)
7. Include NSW Health as a member of the Hunter Regional Plan Coordinating and Monitoring Committee

3. Goal 1 – Grow Australia’s next major city – p13

The Heart Foundation understands that the *Draft Plan for Growing Hunter City* provides greater detail on the implementation of this Goal and we have provided more in depth comment in the Heart Foundation’s submission on the *Draft Plan for Growing Hunter City*. We will restrict our comments here to the outline provided in the *Draft Hunter Regional Plan*.

As has already been stated, the Heart Foundation is concerned that the proposed Goals for the *Draft Hunter Regional Plan* have not placed health and well-being for the people of the Hunter as definitively as achieving economic and environmental objectives for the Region. The goal to “grow Australia’s next major city” needs to explicitly incorporate the achievement of health and well-being objectives to ensure that the push to increase size does not overshadow the need to create a liveable built environment which allows people to be healthy and socially connected. As stated in our comments on the Vision above, we recommend that “creating communities which are strong, healthy and well connected” be explicitly included in Goal 1.

Action 1.1.1 on page 15 includes three Principles to guide the development of a *Plan for Growing Hunter City*. These Principles currently cover land use and transport (1); economic development (2); and protection of natural environments (3). We recommend that the creation of health promoting built environments be included as an additional Principle.

Recommendation:

8. Add Principle 4: Development will comply with world’s best practice for creating healthy built environments.

We commend the Government’s clear commitment to building more efficient and effective transport networks across the Hunter, and in particular its commitment to deliver a metropolitan plan for Hunter City to 2036 which:

- *Identifies a city-wide transport network that improves options for public transport, walking and cycling options in addition to addressing pinch points in the road network*

We are particularly encouraged by the emphasis given to cycling and walking in the *Plan for Growing Hunter City*. The linking of key population areas around Newcastle is an ideal (and unique) opportunity to approach cycling and walking from a transport network infrastructure perspective, rather than delivering cycling and walking tracks as small, piecemeal, section-by-section projects, largely designed for recreation, as is most commonly done now.

Building an “efficient transportation network” as the Hunter Regional Plan aims to do requires that viable alternatives to car use are built into transport design, to encourage the population to replace some car trips with other transport forms. **Cycling and walking, along with public transport, need a co-ordinated infrastructure network which integrates with other parts of the transport network, to ensure that residents have feasible**

alternatives to car travel for their everyday transport to work, university, schools, shops and recreation facilities.

The Heart Foundation supports the Cyclesafe Network proposal which is mentioned in the *Draft Plan for Growing Hunter City* (page 17) and recommends that Transport for NSW and Urban Growth NSW be identified in the *Hunter Regional Plan* as the lead agencies to further investigate and implement this proposal.

Recommendation:

9. Identify Transport for NSW and Urban Growth NSW as the agencies to lead investigation and development of the Cyclesafe Network proposal to integrate walking and cycling infrastructure into planned transport networks.

An issue which has not been addressed under Goal 1 in the *Draft Hunter Regional Plan* is food security and access to healthy food choices by residents of Hunter City. In particular, zoning changes of rural areas on the urban fringe usually comes at the cost of losing market gardens and other small food producers who supply urban residents with fresh, seasonal produce. This type of food production has 3 benefits to the health of residents of urban areas:

1. It keeps urban residents – especially children – better informed about and engaged with fresh food which improves healthy eating. Children in particular show more interest in food preparation and eating fresh food when they can see and be involved in food production. Projects such as school gardens, community gardens, farmers' markets, farm gate open days, school excursions to local farms etc have been shown to be successful in motivating children to adopt healthy eating habits.
2. Foods produced locally have lower 'food miles' and therefore are more environmentally friendly – ie their production consumes less energy compared to foods which are transported greater distances.
3. Small scale local production increases the number of varieties of food produced and sold, protecting agricultural biodiversity.

We note that Action 2.1.3 in Goal 2 (p32) acknowledges the importance of small producers from the perspective of agricultural business. However, we believe its contribution to the health of residents of Hunter City also requires mention under Goal 1.

Recommendation:

10. Principle 3 of Action 1.1.1. be amended to read: "The City will provide the essentials – clean air and water, access to healthy food choices and housing options which meets the needs and lifestyles of residents."
11. Under the dot points outlining content for the proposed metropolitan plan for Hunter City to 2036 (p15) amend dot point 4 to read: "Sets out actions to improve amenity and promote healthy lifestyles by the adoption of healthy built environment design principles, and protection of small food producers through land use zoning and encouragement of urban food production."

4. Goal 2 – Grow the largest regional economy in Australia – p17

The Heart Foundation commends the objective to grow the regional economy of the Hunter region. However, this section is missing a critical element to achieving the aim to grow the

largest regional economy in Australia. A healthy workforce with high levels of well-being and social connectedness is one of the key social drivers of economic growth.

Action 2.4.3 is the only section within this Goal which specifically mentions health and this is limited to biosecurity issues. Pathogens and toxins are not the only threat to the health of the people of Hunter region. In fact the greatest health threat to the people of the Hunter is chronic diseases. The industries which this draft Plan hopes to grow – mining, energy and agriculture – have amongst the highest rates of chronic disease and risk factors for the development of future chronic disease of any employment sector.

This is already reflected in the poor health indicators for the current Hunter population. The Hunter Region (excluding Newcastle and Lake Macquarie) currently rates 5th in Australia (out of 92 regions) for the highest proportion of the population with CVD and 23rd for obesity. Both CVD and obesity have major implications for work capacity, with their associated increased risks of heart attacks, stroke, diabetes, kidney disease and musculoskeletal problems. In addition to the impact on individuals and communities, chronic disease diminishes economic returns through increased absenteeism, increased workplace accidents, early retirement, and increased health care and insurance costs.

We urge the Government to explicitly note the importance of health in growing the economy and commit to the use of best practice healthy planning and design principles for the development of both residential and industrial/commercial precincts which enhance the health of the people living and working there. **Well-planned “zoned employment land” for example can make it more attractive for businesses and for employees if it is designed to support healthy workplace activity and healthy food choices.** Commercial and industrial estates which have no healthy meal options – especially for shift workers – and provide no environment in which employees can be physically active before and after work or during breaks contribute to poor employee health. Access to these amenities at work contributes to the attractiveness of workplaces to potential staff and can help make new areas in the Hunter more competitive, especially to industries considering relocation from Sydney metro.

Recommendation:

12. Include health objectives in the list of “factors that will allow the Hunter region to become more innovative, competitive and resilient” (p17): “access to a diverse skilled and healthy workforce” and “a liveable city with high standards of living which support a healthy, active lifestyle and healthy food choices”.

We commend the commitment to forward planning, considering what infrastructure may be needed for the future to achieve the goals and putting into place strategies which will protect areas needed for future infrastructure. We urge the Government to include active transport infrastructure as a critical part of this process for planning across the Hunter region and not just for Hunter City.

Active transport, combining public transport and walking/cycling can be a viable and feasible alternative to car use for people commuting to work, universities, schools and shopping. Thinking strategically to ensure that this is built in to planning decisions alongside other transport planning will not only improve population health but will also help to avoid car congestion as population and industrial areas grow. Experience in other cities around the world has shown this is a less costly and less inefficient way to provide active transport infrastructure than trying to reverse engineer roads and footpaths in response to public demand for walking and cycling tracks after transport infrastructure has been built.

Recommendation:

13. Amend Direction 2.2 “Grow and connect service-based industries to support regional communities and provide a competitive edge for business” (p33) to include infrastructure which enhances the attractiveness of working environments to attract workers and includes public transport and active transport networks such as walking and cycling paths which will provide a feasible alternative to car transport for commuters.

5. Goal 3 – Protect and connect natural environments – p45

Our comments on this section are restricted to the areas in which the Heart Foundation has expertise, ie impacts on human health, rather than broader issues of environmental protection.

The Heart Foundation is concerned that this section seems to address only areas of “high environmental value” and identified conservation areas such as wildlife corridors, pristine and wilderness areas, and predominantly looks at possible impacts of large scale human industrial activity such as mining and agriculture. We agree these are critical areas for consideration in the *Hunter Regional Plan* but point out it is also important to actively manage and protect natural environments within urban areas, especially small waterways such as local creeks.

Protection of the natural environment in urban areas is not solely an issue of maintaining wildlife corridors and protecting biodiversity of flora and fauna. Sustainably healthy environmental systems in urban areas support human health in many ways. They ensure residents are protected from pathogens and industrial toxins which may come from material dumped (legally or illegally) on vacant land and provide access to green space in residential areas. Access to green space in areas of high density, for example, is critical for creating a local environment which allows people to be physically active and connect with their community.

Small urban water ways, in particular, need to be considered in the planning of healthy built environments. The focus of the urban water-related actions of Goal 3 (Direction 3.2) seems to be on coastal lakes and estuaries, and rural water catchment. While we agree these are important there also needs to be active consideration as Hunter City grows of the impact of land use decisions on the ecological health of small creeks which run through urban areas and ultimately feed into coastal lakes and estuaries. As well as impacting on the quality of water in coastal lakes and estuaries such as Newcastle Harbour and Lake Macquarie, these feeder waterways also provide local green space and recreational amenity for local residents. Too often local creeks are regarded simply as drains rather than as natural systems which need protection and management to ensure they remain sustainably healthy.

Construction in the catchment area of these creeks, for example, increases run off from gardens, concrete paths and roadways, and increases legal and illegal waste drainage from commercial activity. This water contains a variety of nutrients and pollutants, which can reduce the water quality of the creek, changing the natural balance of water life to favour introduced pests and promote weed growth. However if appropriate water management design is used in new development areas, small urban waterways not only protect the health of the large coastal lakes and estuaries they feed into, they can also be valuable health

assets to local communities, being used for children's play and community activity, such as local bush care groups.

Recommendation:

14. Add an additional Direction 3.3 to read: "Protect urban natural environments to maintain healthy local green spaces and healthy waterways suitable for human use."

6. Goal 4: Support robust regional communities – p63

As outlined in our comments for Goal 1, the Heart Foundation is concerned that Goal 4 is undefined and does not make clear the objective the Plan is trying to achieve. As suggested previously we recommend that like the Goals of the *Illawarra/Shoalhaven Regional Plan* and the *Plan for Growing Sydney*, there needs to be a clear objective to create communities that are strong, healthy and well connected".

Recommendation:

15. Amend Goal 4 to read: "Create regional communities that are strong, healthy and well connected".

Health data shows that regional and rural areas, overall, have poor health compared to metropolitan areas. As the *Draft Hunter Regional Plan* outlines, the rural population is also ageing with an increase in young people moving away from rural areas and an increase in older people making a sea or tree change. It is important therefore that planning decisions consider how to create healthy environments which help people across their lives to reduce their risk factors for chronic disease including CVD as well as effectively manage an already diagnosed chronic disease.

We commend the Government's objective under Goal 4 to deliver new and more diverse forms of housing and infrastructure in regional communities. In particular we commend the intention to maintain communities of sufficient size to be able to provide viable services, including public transport, shops and health facilities. **Housing density is not just an issue for metropolitan areas where vacant land is limited. A variety of housing types which meet the needs of residents through their life cycle will help to retain populations in rural towns and build social cohesion.**

In general, the Heart Foundation supports increasing housing density in rural towns as long as planning and design ensure other health and social needs are met. For example, medium density housing designed for retirement living is not appropriate if built in an isolated area where the only access to amenities and social activity depends on car usage. Similarly apartment complexes designed for mining communities with large numbers of fly-in/fly-out shift workers, need to consider recreational amenities to encourage healthy levels of physical activity and access to healthy food options which accommodate shift work.

We urge the Government to use healthy built environment principles in the design of new housing construction in rural areas as well as in Hunter City to create environments which allow residents to be healthy, physically active and socially connected. We note that Action 4.2.7 acknowledges that "delivering healthier built environments will help to deliver better health outcomes" but we do wonder why it is only mentioned in a section relating to health facilities. Access to health services is one component of a healthy built environment but equally important is creating neighbourhoods which allow people to easily undertake

physical activity in their everyday life, such as by walking to the shops or taking public transport to work, and where healthy food is reasonably priced and easily accessible.

Recommendations:

16. Amend Action 4.2.3 (p69) to explicitly refer to the use of healthy built environment principles in planning and design to support the health needs of the population through their lives, to encourage the adoption of healthy habits in the young and accommodate healthy ageing in place.

While car congestion may not be a problem for rural areas, lack of access to public transport and safe walking/cycling paths leaves rural communities reliant on cars as their only means of transport. This leads to obesity, lack of fitness and even social isolation if age or disability reduces a person's ability to drive. We commend the objectives of Action 4.2.5 for retail planning to "prioritise the creation of mixed-use hubs, with high quality public areas, walking connections, and good transport connections". We urge that high quality public areas, walking connections and good transport be prioritised in other growth areas, such as new industrial estates and residential developments, as well as retail centres.

The Heart Foundation commends the inclusion of specific direction (Direction 4.4) supporting the strengthening of cultural self-determination for Aboriginal people.

4. Monitoring and evaluation

The Heart Foundation commends the Government's intention to appoint a Coordinating and Monitoring Committee to oversee the delivery of the final *Hunter Regional Plan*. We note that the *Illawarra/Shoalhaven Regional Plan* also includes such a committee with a similar Governance structure to that provided on page 12 of the *Draft Hunter Regional Plan*. However, we note that the Illawarra Plan includes representation from NSW Health in the Committee and we would urge the Government to include NSW Health in the Hunter Committee as well.

NSW Health – and in particular the Hunter New England Local Health District – has valuable expertise in evaluation and assessment of planning related health performance indicators. We note that the proposed framework for the Committee to report progress includes indicators for population, housing, economy and employment, and natural environment and resources, but no measures of health or well-being of the people who live in the Hunter. **We urge the Government to include indicators for health and well-being into the reporting framework.**

The Heart Foundation recommends that liveability data (including health and active living related data) be included in the monitoring and evaluation measures used to report on the Plan. Hunter New England Local Health District (HNE LHD) has done substantial work on Liveability Indicators that could be drawn on for this purpose. The Hunter New England Population Health's *Liveability Assessment Tool*¹¹ provides a community participation framework whereby local governments and their partners can assess liveability within a particular geographical area on an ongoing basis. The tool was developed by HNE LHD in partnership with five local governments in the Lower Hunter Region to assist decision making in relation to new development in the region.

The Healthy Built Environment Program (HBEP) at the University of NSW has also developed indicators to assist the health related assessment of built environments¹². HBEP was established in 2010 with funding from the NSW Ministry of Health to provide evidence based support for the development of healthy communities through better planning.

The series of State of Australian Cities reports 2010 -2105¹³ also includes some useful indicators relevant to health, travel behaviours and social inclusion that could be included or adapted for the regional level. For example:

- Mode share of commuting, by area of employment and residence
- Mode share of trips under 5km and 10km
- Share of active transport by commuting
- Percent of people walking or cycling for transport; recreation
- Vehicle Kilometres Travelled
- Public transport passenger Km
- Affordable housing
- Employment
- Quality design and amenity
- Various indices of health and social outcomes

5. Appendix – Links to Health in Planning Resources

Premier's Council for Active Living (PCAL) resources

- Premier's Council for Active Living: Planning and Design Guidelines web page:
http://www.pcal.nsw.gov.au/planning_and_design_guidelines
- Premier's Council for Active Living: Development and Active Living: Designing Projects for Active Living
http://www.pcal.nsw.gov.au/data/assets/pdf_file/0007/99943/PCAL_Final_web-v1_6.pdf

NSW Health resources:

- NSW Health: Healthy Urban Development Checklist
<http://www.health.nsw.gov.au/urbanhealth/Pages/healthy-urban-dev-check.aspx>
- Hunter New England Population Health 2012. Liveability Assessment Tool.
[http://www.hnehealth.nsw.gov.au/hneph/communities/Documents/Liveability%20Assessment%20Tool_Final_Low%20Res%20Version%20%20\(2\).pdf](http://www.hnehealth.nsw.gov.au/hneph/communities/Documents/Liveability%20Assessment%20Tool_Final_Low%20Res%20Version%20%20(2).pdf)

Healthy Built Environment Program, City Futures Research University of NSW:

- Healthy Built Environments: A review of the Literature
Kent J; Thompson SM and Jalaludin B (2011) *Healthy Built Environments: A review of the literature*, Sydney: Healthy Built Environments Program, City Futures Research Centre, UNSW. ISBN: 978-0-7334-3046-6. Accessed from
<https://cityfutures.be.unsw.edu.au/research/programs/city-wellbeing/city-wellbeing-resources/literature-review/>
- Healthy Built Environment Indicators 2016
<https://cityfutures.be.unsw.edu.au/research/programs/city-wellbeing/>

Heart Foundation resources:

- Information for built environment professionals. Includes guidelines and toolkits to provide evidence based information on the impact of planning and design decisions on health.
<http://heartfoundation.org.au/for-professionals/built-environment>

Healthy Active by Design resources:

- An on-line tool developed by WA Heart Foundation in collaboration with a wide range of partners including the WA Departments of Health, Planning, Sport and Recreation, transport; the Western Australian Local Government Association, University of Western Australia and the Planning Institute of Australia.
www.healthyactivebydesign.com.au

6. References

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- ¹ World Health Organization 2005. Preventing chronic disease: a vital investment. WHO Global Report. Geneva: WHO
- ² National Heart Foundation of Australia 2014. Blueprint for an active Australia. 2nd edition. Melbourne: National heart Foundation of Australia
- ³ National Heart Foundation of Australia 2014. Blueprint for an active Australia. 2nd edition. Melbourne: National Heart Foundation of Australia
- ⁴ Kent J, Thompson SM and Jalaludin B 2011. *Healthy Built Environments: A review of the literature*, Sydney: Healthy Built Environments Program, City Futures Research Centre, UNSW. ISBN: 978-0-7334-3046-6. Accessed from <https://cityfutures.be.unsw.edu.au/research/programs/city-wellbeing/city-wellbeing-resources/literature-review/> on 23 March 2016
- ⁵ Giles-Corti B 2006. 'The impact of urban form on public health', paper prepared for the 2006 Australian State of the Environment Committee, Department of the Environment and Heritage, Canberra. <http://www.environment.gov.au/node/22559>
- ⁶ Griffin BA, Eibner C, Bird CE, et al 2013. The relationship between urban sprawl and coronary heart disease in women. *Health Place*. 20:51-61
- ⁷ Heart Foundation. Healthy Active by Design. www.healthyactivebydesign.com.au
- ⁸ Hunter New England Population Health 2012. Liveability Assessment Tool. [http://www.hnehealth.nsw.gov.au/hneph/communities/Documents/Liveability%20Assessment%20Tool_Final_Low%20Res%20Version%20%20\(2\).pdf](http://www.hnehealth.nsw.gov.au/hneph/communities/Documents/Liveability%20Assessment%20Tool_Final_Low%20Res%20Version%20%20(2).pdf)
- ⁹ NSW Premiers Council for Active Living 2010. Development and Active Living- Designing Projects for Active Living. Accessed from http://www.pcal.nsw.gov.au/_data/assets/pdf_file/0007/99943/PCAL_Final_web-v1_6.pdf on 17 Feb 2016
- ¹⁰ NSW Health 2009. Healthy Urban Development Checklist, NSW Department of Health. Accessed from <http://www.health.nsw.gov.au/urbanhealth/Pages/healthy-urban-dev-check.aspx> on 17 Feb 2016.
- ¹¹ Hunter New England Population Health 2012. Liveability Assessment Tool. [http://www.hnehealth.nsw.gov.au/hneph/communities/Documents/Liveability%20Assessment%20Tool_Final_Low%20Res%20Version%20%20\(2\).pdf](http://www.hnehealth.nsw.gov.au/hneph/communities/Documents/Liveability%20Assessment%20Tool_Final_Low%20Res%20Version%20%20(2).pdf)
- ¹² Paine, Gregory and Thompson, Susan 2016. Healthy Built Environment Indicators, City Wellbeing Program, CFRC, UNSW, Australia. <https://cityfutures.be.unsw.edu.au/research/programs/city-wellbeing/>
- ¹³ Australian Government. Department of Infrastructure and Regional Transport. State of Australian Cities reports <https://infrastructure.gov.au/infrastructure/pab/soac/>



**Submission in response to:
*Draft Plan for Growing Hunter City***

Heart Foundation NSW

March 2016

(Please note a separate submission has been made for the *Draft Hunter Regional Plan*)

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The Heart Foundation

The Heart Foundation is a not-for-profit organisation committed to improving cardiovascular health in Australia. The Heart Foundation's vision is for Australians to have the best cardiovascular health in the world. Through its research, health promotion programs and policy development, the Heart Foundation promotes healthy public policy to support better heart health for all Australians.

Cardiovascular disease

Cardiovascular disease (CVD) is the term used for a group of diseases including heart disease, stroke and blood vessel disease. It affects more than 3.3 million Australians and is one of Australia's leading causes of death – more than 47,000 Australians die each year because of cardiovascular disease.

In the Hunter region, heart disease is the leading single cause of death and the people who live here have among the highest rates of CVD in Australia. Hunter region (excluding Newcastle and Lake Macquarie) ranks 5th (out of 92 regions across Australia) with 30.4% of the population living with CVD (compared to 21.5% of the Australian population). Newcastle and Lake Macquarie rank 16th (out of 92 regions) with 27.2% of the population living with CVD.

Heart Foundation commitment to Hunter region

The Heart Foundation has a long standing commitment to improving the health of the people in the Hunter region. It has maintained an office in Newcastle since 1985 to provide local services to the people of the Hunter region and contribute to local health policy. Recent Hunter initiatives in collaboration with other local organisations include:

- * **BikeFest** 2012, 2014 and 2015
- * **See Change Forum** series (bringing international speakers on healthy urban environments to Newcastle)
- * engaging with local Council on place-making activities as part of the **Newcastle Urban Renewal Strategy**.

Heart Foundation commitment to healthy planning in NSW

The Heart Foundation has a long standing commitment to improving the environment in which people live in NSW in order to improve the cardiovascular health of the population. We do this through participation in key planning forums, submissions to public consultations, research and disseminating information on best practice urban planning to support healthy living. Recent activity in NSW includes:

- * **submissions to NSW Draft Plans and Planning Strategies**, including Draft Parramatta Road Urban Renewal Strategy 2015, NSW Transport Master Plan 2012, NSW Planning Review 2012-14, A Plan for Growing Sydney 2013
- * hosting and membership of the **Premier's Council for Active Living**, including the NSW Healthy Planning Expert Working Group
- * **research collaboration** with Urban Growth NSW, University of NSW and NSW Health to assess health outcomes of new residential development in Renwick
- * **sponsoring international speakers** such as Shellie Pfohl, Executive Director of the US President's Council on Fitness, Sports and Nutrition.

Heart Foundation's work in healthy planning with downloadable resources can be accessed on the Heart Foundation's web page <http://heartfoundation.org.au/for-professionals/built-environment>

1. Executive Summary and overview of health in planning

The Heart Foundation welcomes the opportunity to comment on the *Draft Hunter Regional Plan* and the *Draft Plan for Growing Hunter City*. We are keen to contribute to the development of Plans which will help the Hunter Region grow economically while maintaining and building on the features which already make the Hunter region an attractive and healthy place to live and work.

We commend the NSW State Government's commitment to building the economic resources of the region and its forward thinking in developing an overarching Plan which will make the region "a powerhouse economy, a centrepiece of environmental protection and one of the greatest places to live in the State". A cohesive, collaboratively planned approach will help avoid the problems of unplanned, uncontrolled urban growth which has created problems for the residents of other major cities. In particular, we commend the acknowledgement of the role walking, cycling and public transport can play in delivering efficient transport networks.

We commend the Government's intention to offer "quality lifestyles within sustainable and healthy environments" in the Hunter. **However, we urge the Government to clarify that a "healthy environment" is healthy for the people who live here, not just the wildlife.** It is not just the health of natural environmental systems and wilderness areas which is at stake as the Hunter region grows. **Built environments can significantly contribute to the poor health of residents if poorly designed or, alternatively, maintain and improve the good health of residents if designed according to world's best practice healthy built environment principles¹.**

There seems to be some confusion in both the *Draft Plan for Growing Hunter City* and the *Draft Hunter Regional Plan* on the meaning of "healthy built environments". For example, we were pleased to see the statement: "Delivering healthier built environments will help to deliver better health outcomes" in the *Draft Hunter Regional Plan* (p70). However, we were surprised that this appears only in Action 4.2.7 under planning for the expansion of health facilities. Similarly in the *Draft Plan for Growing Hunter City* (p17) blue and green grids (ie water features and green spaces) are said to provide "a foundation for building a healthy built environment".

A healthy built environment is not simply about access to hospitals or other health facilities or access to natural environments in urban areas. It is a world-recognised term used by planners, urban designers and architects to describe how the built environment impacts on a person's health through the design of housing, shops, schools, universities, workplaces, transport systems etc. For example, is it possible to walk or cycle to the shops or do residents need to drive a car; can they access fresh fruit and vegetables at reasonable prices locally or is the closest and cheapest food a fast food outlet; does the neighbourhood have attractive and inviting places to walk or sit so residents can meet and chat with neighbours, or is it hostile, poorly lit, and threatening so residents spend as little time there as possible, risking social isolation?

Significant lessons have been learned from urban growth experiences, both in Australia and overseas ². By adopting these healthy built environment principles in urban design and planning the Hunter has the opportunity to build an urban environment which meets both the economic and the health needs of its residents.

There is considerable expertise in Australia in healthy planning, especially in the area of healthy built environments and active transport, and we would urge the Government to consult those experts as the Hunter Plans are finalised. In particular, the Premier's Council

for Active Living (PCAL) whose membership includes Department of Premier and Cabinet, the Ministerial Office for Planning and Infrastructure, and the Ministerial Office for Transport, has both expertise and written resources to assist such urban planning ³.

PCAL is currently co-ordinating the NSW Healthy Planning Expert Working Group which has been convened to deliver Action 3.3.1 of the *Plan for Growing Sydney* to develop best practice guidelines for planning, designing and developing healthy built environments. We note that this Group is also specifically referenced in Action 1.1.4 of the *Draft Central Coast Regional Plan*.

We strongly urge the Government to include consultation with this Group as an Action in the *Plan for Growing Hunter City and the Hunter Regional Plan*.

While maintaining a healthy natural environment free from chemical contamination and pathogens is clearly important, the greatest threat to human health as the Hunter region grows will be chronic diseases such as cardiovascular disease (CVD), cancer and diabetes. In the Hunter region heart disease is the leading single cause of death and the people who live here have among the highest rates of CVD in Australia. Hunter region (excluding Newcastle and Lake Macquarie) ranks 5th (out of 92 regions across Australia) with 30.4% of the population living with CVD (compared to 21.5% of the Australian population). Newcastle and Lake Macquarie rank 16th (out of 92 regions) with 27.2% of the population living with CVD.

In the same way that the growth of cities in an uncontrolled and unplanned way in the 19th and 20th centuries created the epidemics of infectious diseases which compromised the lives of past generations, the growth of modern cities is contributing to the modern epidemics of obesity and chronic disease. In the same way that health-focused urban planning and building design contributed to the eradication of infectious diseases in past populations, using healthy planning principles can contribute to the reduction of chronic diseases in future populations.

We note that the NSW Premier has included a target for the reduction of childhood overweight and obesity (5% over 10 years) in his 12 priorities for the future of NSW. Healthy urban planning can contribute to the achievement of that goal and embed sustainable changes for the benefit of future generations.

In fact, the importance of health in planning was included in the NSW Planning Bill 2013 which explicitly connects the Objects of the proposed Planning Act to solid policy action. Objective 7 states the proposed Planning Act will promote:

‘Health, safety and amenity in the planning, design, construction and performance of individual buildings and the built environment’.

Goals which incorporate health as an objective for planning have been incorporated into the two NSW Regional Plans which have been finalised to date - the *Illawarra/Shoalhaven Regional Plan* and the *Plan for Growing Sydney*.

- Illawarra/Shoalhaven Regional Plan - **GOAL 3: A region with communities that are strong, healthy and well-connected**
- Plan for Growing Sydney - **GOAL 3: A great place to live with communities that are strong, healthy and well connected**

We strongly argue that health should also be an explicit objective in both the *Hunter Regional Plan* and the *Growing Hunter City Plan*. We urge the Government to include health in the aims of Goals 1 and 2 of the *Hunter Regional Plan* and include a specific health-oriented Direction in the *Plan for Growing Hunter City*.

The *Draft Plan for Growing Hunter City* covers many areas of regional development. However, the Heart Foundation will limit its comments to those areas of the Draft Plan in which the Heart Foundation has expertise. In particular, we will concentrate on issues relating to the design of built environments and planning for active transport.

We understand that the *Draft Hunter Regional Plan* needs to be read alongside the *Draft Plan for Growing Hunter City*. We have made a separate submission on the *Draft Hunter Regional Plan* and will limit our comments in this submission to the contents of the *Draft Plan for Growing Hunter City*.

Table of Recommendations:

	Plan reference	Recommendation
1.	Vision – p6	Amend the stated Vision for the <i>Hunter Regional Plan</i> to include: “It will offer an array of lifestyles within sustainable and healthy environments to create strong, healthy and well connected communities.”
2.	Goal 1 – p6	Amend Goal 1 to read: “Grow Australia’s next major city to create a strong, healthy and well connected community”.
3.	Goal 1 – p6	Amend the aim of Goal 1 to read: “Hunter City will offer a high standard of living with infrastructure and services which support residents to be strong, healthy and well connected.”
4.	Goal – p6	Amend Goal 4 to read: “Support regional communities that are strong, healthy and well connected”.
5.	Goal – p6	Amend the aim of Goal 4 to read: “Access to jobs, services, shops, recreation, entertainment and the arts will deliver quality living which supports a healthy active lifestyle.”
6.	Managing Growth and Change in Hunter City – p11	Add an additional Direction (1.7) to read: “Create healthy built environments by requiring development which is consistent with healthy built environment principles.”
7.	Direction 1.1 – p12	Make explicit that “transport networks” and “transport gateways” includes planning for and integration with all forms of active transport, including public transport, walking and cycling.
8.	Managing Growth and Change in Hunter City – p11	Add an Action to Direction 1.7 to read: “Prepare guidelines to direct the development of healthy built environments in the Hunter.”
9.	Direction 1.3 – p15	Include reference to the Cyclesafe Network in Direction 1.3 and Action 1.3.1 related to transport network planning

10.	Direction 1.4 – p15	Include reference to active as well as passive green space, to ensure consideration is given to sporting facilities in the green grids.
11.	Direction 1.4 – p15	Include mention of small urban waterways in the description of the ‘blue grid’
12.	Direction 1.6 – p18	Identify priority walking and cycling infrastructure, such as the Cyclesafe Network, in the Hunter City Urban Development Program and task an appropriate planning and development agency with its delivery.
13.	Direction 4.2 – p35	Add “uses healthy built environment principles” to the framework for proposed land use and infrastructure strategy to be developed with Newcastle and Lake Macquarie City Councils
14.	Direction 4.1	Include ‘positive provision’ for cycling/walking/express bus infrastructure, interconnection with public transport, beginning/end of trip facilities etc in tenders for new roads and rail networks.
15.	Monitoring and Evaluation	Appoint a specific planning and development authority to oversee the implementation of <i>the Plan for Growing Hunter City</i> and monitor and evaluate the delivery of outcomes.
16.	Monitoring and Evaluation	Include representation from NSW Health on the Coordinating and Monitoring Committee for the <i>Hunter Regional Plan</i>
17.	Monitoring and Evaluation	Include health indicators in the framework to report on the progress of the <i>Hunter Regional Plan</i> and the <i>Plan for Growing Hunter City</i>

2. Heart Foundation response to *Draft Plan for Growing Hunter City*

Overall comments:

The Heart Foundation commends the commitment in the *Draft Plan to Grow Hunter City* to providing a quality lifestyle for Hunter City residents alongside economic growth and environmental protection, balancing the demands for increasing urbanisation and industry while preserving the rural and regional attractiveness of the area. Regional towns and cities in NSW have a lot to offer as an alternative to metropolitan living and the location of Hunter City puts it in a prime position to attract new business, new employment opportunities and new residents.

In particular we commend the priority given to building active transport through Hunter City – public transport, cycling and walking – as a viable and attractive alternative to car use. As noted in the draft Plan (p15), Hunter City already has a greater reliance on car travel than other major cities in Australia, with over 90% of the workforce traveling to work by car each day. If the aim is to double the current population of the Hunter City area, doubling the number of cars on roads at peak hour will inevitably increase congestion and commute times, and not deliver the quality lifestyle the region hopes to attract and retain new residents.

Making alternative forms of transport attractive across a person's life cycle will help increase transport mode share of public transport, walking and cycling transport. By encouraging existing and new commuters to use transport modes other than cars to work, building active transport habits with children, 'normalising' active transport for adolescents, and providing safe and feasible options for the elderly, the whole population will benefit in health, well-being and social connection as well as cost and convenience.

In order to achieve this change in transport preference, **planning for cycling and walking infrastructure needs to be undertaken with a comparable level of co-ordinated and managed infrastructure planning as that given to roads and rail services.** While it is commendable for the government to be offering funding of between \$10,000 and \$500,000 from the Lease of Port Infrastructure Investment Fund for projects including cycleways within the port area of Newcastle (p23), this level of funding won't deliver a viable cycling/walking transport network which will get people out of their cars.

We note that the *Draft Plan for Growing Hunter City* itself identifies the importance of infrastructure planning to deliver growth under *Direction 1.6: Co-ordinate infrastructure to support and deliver growth*:

"The timely delivery of infrastructure is essential to support growth and involves a process of augmenting or expanding existing systems and networks. This means that for infrastructure to be delivered in a cost-effective manner it needs to be undertaken in a co-ordinated, often sequential manner." (P18)

This applies as much to cycling/walking transport infrastructure as it does to other forms of transport. **The Heart Foundation strongly supports the Cyclesafe Network proposal mentioned on page 17 and urges the Government to commit to developing the proposal as a co-ordinated active transport infrastructure project, integrated into other proposed transport projects for Hunter City.** The timeframe taken to deliver the popular and well used Fernleigh Track is an example of what should be avoided if cycling and walking are to be feasible alternative transport modes for Hunter City. While it is now an

excellent transport and recreational asset, the Fernleigh Track took over 12 years (in 5 stages) to deliver 15kms of cycling and shared pathway.

In contrast, a commitment to developing the Cyclesafe Network as a transport infrastructure project would deliver a network of 250kms of cycling and shared paths (including 160kms of new track) in as little as 7 years.

As is already known from other forms of transport infrastructure, designating significant funds to make it a serious business proposition for public tender and designating a State planning authority to be responsible for the leadership and co-ordination of the multiple agencies needed to deliver the infrastructure is a more efficient and less costly approach to building significant transport assets.

While we acknowledge the commitment the Government has shown to building a quality lifestyle for the people of Hunter City, **the Heart Foundation remains concerned that the health, well-being and social connectedness of the population is not a specific goal.** We note that the Goal 3 objective on page 6 for example is to “sustain the health and well-being of (Hunter City’s) natural habitat and economy” but none of the goals talk about sustaining the health and well-being of the people who live here.

As we have outlined above and in our submission to the *Draft Hunter Regional Plan*, the importance of health in planning was demonstrated by its inclusion in the NSW Planning Bill 2013 which explicitly connects the Objects of the proposed Planning Act to solid policy action. Objective 7 states the proposed Planning Act will promote:

‘Health, safety and amenity in the planning, design, construction and performance of individual buildings and the built environment’.

Goals which incorporate health as an objective for planning have been incorporated into the two NSW Regional Plans which have been finalised to date - the *Illawarra/Shoalhaven Regional Plan* and the *Plan for Growing Sydney*.

- Illawarra/Shoalhaven Regional Plan - **GOAL 3: A region with communities that are strong, healthy and well-connected**
- Plan for Growing Sydney - **GOAL 3: A great place to live with communities that are strong, healthy and well connected**

We strongly argue that health should also be an explicit objective in the *Plan for Growing the Hunter City* and in the *Hunter Regional Plan*. In addition to rewording the Goals of the Hunter Regional Plan to include health objectives, we recommend that an additional Direction with appropriate actions be included in the *Draft Plan for Growing Hunter City*, along the lines of Direction 3.3: *Create healthy built environments* of the *Plan for Growing Sydney*.

3. Heart Foundation response to specific sections of *Draft Plan for Growing Hunter City*

1. Vision – p6

The Heart Foundation commends the NSW Government on its vision “to offer an array of *quality lifestyles within sustainable and healthy environments*”.

However, as we commented in the Executive Summary of this submission, it is unclear whether ‘healthy environments’ refers solely to ecologically healthy natural systems or whether it includes urban and built environments and their impact on human health. We note that Hunter City’s contribution to *Goal 3: protect and connect natural environments* will be to “sustain the health and well-being of its natural habitat and economy” but nowhere do the Goals talk about sustaining the health and well-being of the people who live in the Hunter.

We would argue that built and urban environments can be healthy or unhealthy according to whether they sustainably and consistently enhance the health of the people living there. The Heart Foundation believes the Vision statement needs to explicitly include an objective to create built environments which support strong, healthy and socially-connected communities. We also recommend that health objectives be included in the Goals as have been done in the *Illawarra/Shoalhaven Regional Plan* and the *Plan for Growing Sydney*

Achieving healthy built environments, with the use of healthy built environment planning principles, includes the protection and management of natural areas within urban areas to provide green space. We commend Goal 3 to “protect Hunter City’s unique natural environments” but point out that there is also a need to protect the common and everyday natural environments which people use every day to be healthy – parks, small local reserves, open green space, creeks and local waterways in urban areas. These amenities encourage physical activity and social connection, and contribute to health and well-being of local residents.

Recommendation:

1. That the stated Vision for the *Hunter Regional Plan* be amended to include: “It will offer an array of lifestyles within sustainable and healthy environments to create strong, healthy and well connected communities.”
2. Amend Goal 1 to read: “Grow Australia’s next major city to create a strong, healthy and well connected community”.
3. That the aim of Goal 1: Grow Australia’s next major city as outlined in the Box on p11 be amended to include: “Hunter City will offer a high standard of living with infrastructure and services which support residents to be strong, healthy and well connected.”
4. That Goal 4 be amended to read: “Support regional communities that are strong, healthy and well connected”.

5. Amend the aim of Goal 4 as outlined in Box on p11 to include: “Access to jobs, services, shops, recreation, entertainment and the arts will deliver quality living which supports a healthy active lifestyle.”

2. Managing growth and change in Hunter City – p11

The Heart Foundation commends the NSW Government’s objective to use integrated planning and management in the growth of Hunter City. We urge the Government to use that integrated planning and management to develop Hunter City in a way which supports residents to live healthy, active and socially connected lifestyles which enhance their health and reduce the development of future health problems. We ask the Government to place a high priority on using healthy built environment planning and design principles to ensure that the new built environment of Hunter City delivers the quality lifestyle promised by the Plan. This commitment needs to be explicitly stated as a Direction, such as has been done in the *Plan for Growing Sydney* which has as Direction 3.3: *Create healthy built environments*

Recommendation:

6. Add an additional Direction (1.7): Create healthy built environments by requiring development which is consistent with healthy built environment principles.

We commend the Government on the prominence given to active transport – public transport, cycling and walking – across the *Draft Plan for Growing Hunter City*. However, there are places where “transport” and “transport networks” clearly means roads. For consistency the term transport should incorporate all forms of transport, unless otherwise specified.

Below are comments on specific Directions.

Direction 1.1 Grow and diversify centres across the City –

We commend the aim to deliver a “transport network in Hunter City that links people to jobs and services” (p11). However the Plan then goes on to talk about roads. We acknowledge “safe cycling and pedestrian connections” are mentioned in Action 1.1.1 but we believe the Plan need to make clear and explicitly define “transport networks” and “transport gateways” as including active transport, ie public transport, walking and cycling components.

Recommendation:

7. Make explicit that “transport networks” and “transport gateways” includes planning for and integration with all forms of active transport, including public transport, walking and cycling.

Direction 1.2 Provide a greater mix of housing types to meet changing demand –

The Heart Foundation commends the aim to provide more diversity in housing types to accommodate the increased population as Hunter City grows. However we are concerned that this direction focuses on numbers rather than design and quality of housing, and supporting amenity. To meet changing demands and ensure that Hunter City provides a healthy built environment for its residents new housing development needs to be designed and developed using healthy built environment principles.

We note that the term “healthy built environment” is used in the Plan under Direction 1.4: *The City’s blue and green network*, which relates to the city’s natural environments, including

waterways and green spaces. However, the term as used by planning and urban design professionals encompasses much more than that. A healthy built environment incorporates urban planning components which allow residents to live healthy, active and socially connected lives. It includes such things as planning for housing and employment density which will support local businesses and services such as shops, public transport and recreation facilities; a visually attractive environment which encourages people to use public spaces for exercise and socialising; a mix of housing which enables people to remain in their communities as they progress through their life – ie a neighbourhood which is friendly to children, families, adolescents and the elderly.

Healthy urban planning principles are well established and readily available to guide decision making. The NSW Healthy Planning Expert Working Group has been brought together by the Premiers Council for Active Living (PCAL) to develop guidelines for planning, designing and developing a health built environment. Reference to those guidelines are in both the *Plan for Growing Sydney* (Action 3.3.1) and the *Draft Central Coast Regional Plan*.

Recommendation

8. Add an Action to Direction 1.7 to read: Prepare guidelines to direct the development of healthy built environments in the Hunter.

Direction 1.3 Enhance City-wide transport –

The Heart Foundation commends the priority given to integrated transport planning with more attention directed to public transport, cycling and walking. As outlined, Hunter City already has a greater reliance on car travel than other major cities, with over 90% of the workforce traveling to work by car. As the City grows there is an urgent need to reduce this high percentage, to prevent a repeat of Sydney's road congestion problems. In particular, there is a need to make alternative forms of transport attractive for new workers, build active transport habits with children, make active travel attractive for adolescents, and safe and feasible for the elderly. If the population projection is a doubling of population, doubling the number of cars on roadways at peak hour will not deliver the quality lifestyle the region hopes to attract new residents.

The Heart Foundation strongly supports the Cyclesafe proposal mentioned on page 17 under the plan to deliver a green grid. We urge the Government to include this proposal in Action 1.3.1 in the plan to encourage more efficient travel patterns and sustainable modes of transport.

Direction 1.4 The City's blue and green network –

As stated above, the Heart Foundation strongly supports the Cyclesafe proposal mentioned on page 17. However we urge the Government to consider this – and other proposed improvements for cycling and walking infrastructure - as part of the transport planning process as well as part of planning for recreation. While we encourage recreational physical activity such as walking and cycling, it is critical to grow Hunter City in a way which enables populations to be able to both reduce their sedentary behaviours and increase their physical activity during every day activities, such as going to work, school, university, shopping. In order to achieve this, an active transport plan needs to be developed which integrates with other transport plans and provides a mechanism for co-ordinating the building of the Cyclesafe Network as an infrastructure project.

The Heart Foundation commends the Government's commitment to maintaining water features and green spaces across Hunter City and agrees that blue and green grids can

provide a foundation for a healthy built environment when included alongside other healthy built environment principles. However, one item which is missing from this Direction is mention of active green space such as sporting fields. It would strengthen this section if mention was made of the need for both active and passive green space, to ensure that areas of higher density have sufficient areas for organised sport.

We commend the 9 objectives for the Hunter City green grid given on p16. We would like to see a specific priority given to maintaining and/or restoring the ecological health of small waterways, such as creeks running through urban areas in addition to areas designated as reserves or conservation areas. Urbanisation puts pressure on small creeks which feed into the large coastal estuaries and lakes, and it is important that the health of these small waterways be monitored and maintained as Hunter City grows. These natural waterways are often used as waste drains but should be seen as important components of the green grid, providing filtering for water going to the coast, wildlife habitat and recreational amenity for human residents.

Recommendation:

9. Include reference to the Cyclesafe Network in Direction 1.3 and Action 1.3.1 related to transport network planning
10. Include reference to active as well as passive green space, to ensure consideration is given to sporting facilities in the blue and green grids.
11. Include mention of small urban waterways in the description of the 'blue grid'

Direction 1.6 Coordinate infrastructure to support and deliver growth –

The Heart Foundation commends the Government's recognition of the importance of co-ordination to deliver infrastructure projects. In particular:

"The timely delivery of infrastructure is essential to support growth and involves a process of augmenting or expanding existing systems and networks. This means that for infrastructure to be delivered in a cost-effective manner it needs to be undertaken in a co-ordinated, often sequential manner." P18

We urge the Government to include infrastructure for cycling and walking in that big picture co-ordination objective. To enable walking and cycling to offer a feasible and attractive alternative to car use, infrastructure needs to be readily accessible, convenient, safe and integrated into other transport modes. This will allow people to combine multiple modes of transport in one journey if necessary and extend the destinations they consider feasible to reach by active transport.

We urge the Government to approach cycling and walking network infrastructure as a single infrastructure project under the Hunter City Urban Development Program and task its delivery to a regional development authority which can co-ordinate the relevant agencies. As mentioned previously, the popular and well used Fernleigh Track took over 12 years in 5 stages to deliver 15kms. The Cyclesafe Network in contrast could deliver a 260km network in 7 years if co-ordinated as a single project through a central development agency.

Recommendation:

12. Identify priority walking and cycling infrastructure, such as the Cyclesafe Network, in the Hunter City Urban Development Program and task an appropriate development agency with its delivery.

3. Inner Newcastle District

The Heart Foundation commends the emphasis on enabling active transport in the plans for Inner Newcastle District. In particular, the recognition of the value of walkability and the aim to provide housing and urban design which makes walking and cycling a reality is to be commended.

As stated above, we believe there is a need for the active transport connections between the proposed four strategic centres of Hunter City to be delivered in an integrated and cohesive way as one transport infrastructure project. This will ensure that new cycling/walking paths integrate into other components of transport (such as public transport and car parking), encouraging people to consider active transport for part or all of their regular commuting.

The Heart Foundation supports the Cyclesafe Network proposal which would connect 6 of the nine proposed strategic centres and recommends it be undertaken as a State transport infrastructure project funded and managed under the auspice of a Hunter Development authority.

4. Northern Lake Macquarie District

In line with our previous comments, we believe Direction 3.1 needs to include an objective to grow the centres in order to deliver a healthy lifestyle for residents.

If infill housing is the growth objective of this District, the Heart Foundation urges the Government to require use of healthy built environment principles in the design and planning of new developments. Increasing density does not need to come at the expense of human health and natural environments. In fact, increasing density if delivered according to healthy built environment principles can improve physical activity levels by increasing access to local facilities, transport and other services within walkable distance.

However, as pointed out above, there are critical natural environment issues to be considered, especially in regard to maintaining the health of the lake system. Management of small local open green spaces and waterways which feed into the lake is critical and can be achieved by considering these alongside planning for housing and other development.

5. Inner West District

As stated in our comments above, Direction 4.1 *Grow Inner West centres* needs to articulate a commitment to deliver a quality lifestyle for residents, supporting their health, well-being and social connection and not just increase the number of houses, connections, economic centres etc. In order to achieve this, the Heart Foundation would like to see specific reference to development of housing and urban land use which follows best practice healthy built environment principles.

While it may be tempting to provide traditional 4 bedroom houses on individual blocks in response to demand for “family housing”, higher density developments can provide a greater population base to support faster development of local amenities – public transport, shops, entertainment – which is often lacking in new low density developments. In addition, housing mix providing apartments, townhouses, units etc will accommodate a greater variety of community members and household types, allowing people to remain within their communities as they grow up, leave home, start their own families and age.

Careful consideration of the type and density of housing needed, and the supporting amenity required (including sufficient green and open space) is particularly important as the Plan anticipates this area will provide a large proportion of Hunter's land release housing over the next 10 years. New housing developments will be very attractive to young people and young families, so it is important that these new urban spaces are designed to be healthy and health-supporting from the start. Important lessons have been learned from residential development on urban fringes of other cities where lack of land use diversity, local employment, public transport and other services and facilities has led to poor physical and mental health. ^{4 5 6}

Transport planning will be particularly important, especially if residents will need to commute to other centres for employment. The Heart Foundation commends the explicit acknowledgement of the importance of cycling and walking and public transport in the development of those areas. To prevent a decline into car congestion as has happened in other urban fringe developments it will be important to provide for active transport and not just car transport as the developments begin.

The Heart Foundation urges the government to include in all tenders for new roads, requirements for cycling and walking tracks, express bus lanes, connection with public transport and beginning/end of trip facilities for secure bike storage.

Recommendation:

13. Add "uses healthy built environment principles" to the framework for proposed land use and infrastructure strategy to be developed with Newcastle and Lake Macquarie City Councils (p35)
14. Include 'positive provision' for cycling/walking/express bus infrastructure, interconnection with public transport, beginning/end of trip facilities etc in tenders for new roads and rail networks.

6. Maitland-New England Highway Corridor District

The Heart Foundation commends consideration of public transport, walking and cycling for planning in Central Maitland and linking proposed health services in Green Hills-Metford.

7. Northern Gateways District

As outlined above, the Heart Foundation urges the Government to consider healthy built environment planning principles in the planning and development of new housing in this District.

4. Issues related to Monitoring and Evaluation of *Plan for Growing Hunter City*

The Heart Foundation commends the Government's intention to appoint a Coordinating and Monitoring Committee to oversee the delivery of the *Hunter Regional Plan* and we note that the delivery of the *Plan for Growing Hunter City* will be coordinated and monitored as part of the *Hunter Regional Plan*. However, given the complexity of the issues related to the metropolitan approach to planning for Hunter City, we believe there is a need for a specific authority to oversee the planning for Hunter City, perhaps along the lines of the Greater Sydney Commission. We urge the Government to consider the appointment of a specific authority tasked with the oversight of the development of Hunter City which can work with the Regional Plan Coordinating and Monitoring Committee but also ensure the specific issues of Hunter City are addressed.

One of the concerns we expressed in our submission to the *Draft Hunter Regional Plan* was the lack of health representation in the Governance structure for the Coordinating and Monitoring Committee (page 12 of the *Draft Hunter Regional Plan*).

We note that the *Illawarra/Shoalhaven Regional Plan* includes representation from NSW Health on the Committee and we would urge the Government to include NSW Health in the Hunter Committee as well.

NSW Health – and in particular the Hunter New England Local Health District – has valuable expertise in evaluation and assessment of planning related health performance indicators. In addition, Newcastle University has local experts who can undertake appropriate research which would significantly add to the knowledge of healthy planning in NSW and provide good evidence to inform future planning decisions in other regions.

We note that the proposed framework for the Hunter Regional Coordinating and Monitoring Committee to report progress includes indicators for population, housing, economy and employment, and natural environment and resources, but no measures of health or well-being of the people who live in the Hunter (page 11 of the *Draft Hunter Regional Plan*). We urge the Government to include indicators for health and well-being into the reporting framework.

A number of health related indicators have been developed which have particular salience to the Hunter region.

Hunter New England Local Health District (HNE LHD) has done substantial work on Liveability Indicators that could be drawn on for this purpose. The Hunter New England Population Health's *Liveability Assessment Tool*⁷, provides a community participation framework whereby local governments and their partners can assess liveability within a particular geographical area on an ongoing basis. The tool was developed by HNE LHD in partnership with five local governments in the Lower Hunter Region to assist decision making in relation to new development in the region.

The Healthy Built Environment Program (HBEP) at the University of NSW has also developed indicators to assist the health related assessment of built environments⁸. HBEP was established in 2010 with funding from the NSW Ministry of Health to provide evidence based support for the development of healthy communities through better planning.

The series of State of Australian Cities reports 2010 -2105⁹ also includes some useful indicators relevant to health, travel behaviours and social inclusion that could be included or adapted for the regional level. For example:

- Mode share of commuting, by area of employment and residence
- Mode share of trips under 5km and 10km
- Share of active transport by commuting
- Percent of people walking or cycling for transport; recreation
- Vehicle Kilometres Travelled
- Public transport passenger Km
- Affordable housing
- Employment
- Quality design and amenity
- Various indices of health and social outcomes

Recommendation:

15. Appoint a specific authority to oversee the implementation of the *Plan for Growing Hunter City* and monitor and evaluate the delivery of outcomes.
16. Include representation from NSW Health on the Coordinating and Monitoring Committee for the *Hunter Regional Plan* and the *Plan for Growing Hunter City*
17. Include health indicators in the framework to report on the progress of the *Hunter Regional Plan* and the *Plan for Growing Hunter City*

5. Appendix – Links to Health in Planning Resources

Premier's Council for Active Living (PCAL) resources

- Premier's Council for Active Living: Planning and Design Guidelines web page:
http://www.pcal.nsw.gov.au/planning_and_design_guidelines
- Premier's Council for Active Living: Development and Active Living: Designing Projects for Active Living¹⁰
http://www.pcal.nsw.gov.au/data/assets/pdf_file/0007/99943/PCAL_Final_web-v1_6.pdf

NSW Health resources:

- NSW Health: Healthy Urban Development Checklist¹¹
<http://www.health.nsw.gov.au/urbanhealth/Pages/healthy-urban-dev-check.aspx>
- Hunter New England Population Health 2012. Liveability Assessment Tool.
[http://www.hnehealth.nsw.gov.au/hneph/communities/Documents/Liveability%20Assessment%20Tool_Final_Low%20Res%20Version%20%20\(2\).pdf](http://www.hnehealth.nsw.gov.au/hneph/communities/Documents/Liveability%20Assessment%20Tool_Final_Low%20Res%20Version%20%20(2).pdf)

Healthy Built Environment Program, City Futures Research University of NSW:

- Healthy Built Environments: A review of the Literature
Kent J; Thompson SM and Jalaludin B (2011) *Healthy Built Environments: A review of the literature*, Sydney: Healthy Built Environments Program, City Futures Research Centre, UNSW. ISBN: 978-0-7334-3046-6. Accessed from
<https://cityfutures.be.unsw.edu.au/research/programs/city-wellbeing/city-wellbeing-resources/literature-review/>
- Healthy Built Environment Indicators 2016
<https://cityfutures.be.unsw.edu.au/research/programs/city-wellbeing/>

Heart Foundation resources:

- Information for built environment professionals. Includes guidelines and toolkits to provide evidence based information on the impact of planning and design decisions on health.
<http://heartfoundation.org.au/for-professionals/built-environment>

Heathy Active by Design resources:

- An on-line tool developed by WA Heart Foundation in collaboration with a wide range of partners including the WA Departments of Health, Planning, Sport and Recreation, transport; the Western Australian Local Government Association, University of Western Australia and the Planning Institute of Australia.
www.healthyactivebydesign.com.au

6. References

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- ¹ Kent J; Thompson SM and Jalaludin B (2011) *Healthy Built Environments: A review of the literature*, Sydney: Healthy Built Environments Program, City Futures Research Centre, UNSW. ISBN: 978-0-7334-3046-6. Accessed from <https://cityfutures.be.unsw.edu.au/research/programs/city-wellbeing/city-wellbeing-resources/literature-review/> on 23 March 2016
- ² Kent J; Thompson SM and Jalaludin B (2011) *Healthy Built Environments: A review of the literature*, Sydney: Healthy Built Environments Program, City Futures Research Centre, UNSW. ISBN: 978-0-7334-3046-6. Accessed from <https://cityfutures.be.unsw.edu.au/research/programs/city-wellbeing/city-wellbeing-resources/literature-review/> on 23 March 2016
- ³ http://www.pcal.nsw.gov.au/planning_and_design_guidelines
- ⁴ Giles-Corti B 2006, 'The impact of urban form on public health', paper prepared for the 2006 Australian State of the Environment Committee, Department of the Environment and Heritage, Canberra, <http://www.environment.gov.au/node/22559>
- ⁵ Kent J; Thompson SM and Jalaludin B (2011) *Healthy Built Environments: A review of the literature*, Sydney: Healthy Built Environments Program, City Futures Research Centre, UNSW. ISBN: 978-0-7334-3046-6
- ⁶ Griffin BA, Eibner C, Bird CE, et al 2013. The relationship between urban sprawl and coronary heart disease in women. *Health Place*. 20:51-61
- ⁷ Hunter New England Population Health (2012). *Liveability Assessment Tool*. Hunter New England Population Health. Accessed from www.hnehealth.nsw.gov.au/hneph/communities/Documents/Liveability%20Assessment%20Tool_Final_Low%20Res%20Version%20%20%282%29.pdf on 23 March 2016
- ⁸ Paine, Gregory and Thompson, Susan (2016) *Healthy Built Environment Indicators*, City Wellbeing Program, CFRC, UNSW, Australia.
- ⁹ Reference: Australian Government. Department of Infrastructure and Regional Transport. State of Australian Cities reports <https://infrastructure.gov.au/infrastructure/pab/soac/>
- ¹⁰ NSW Premiers Council for Active Living, NSW, Development and Active Living- Designing Projects for Active Living, 2010. Accessed from http://www.pcal.nsw.gov.au/_data/assets/pdf_file/0007/99943/PCAL_Final_web-v1_6.pdf on 17 Feb 2016
- ¹¹ NSW Health, Healthy Urban Development Checklist, NSW Department of Health, 2009. Accessed from <http://www.health.nsw.gov.au/urbanhealth/Pages/healthy-urban-dev-check.aspx> on 17 Feb 2016.