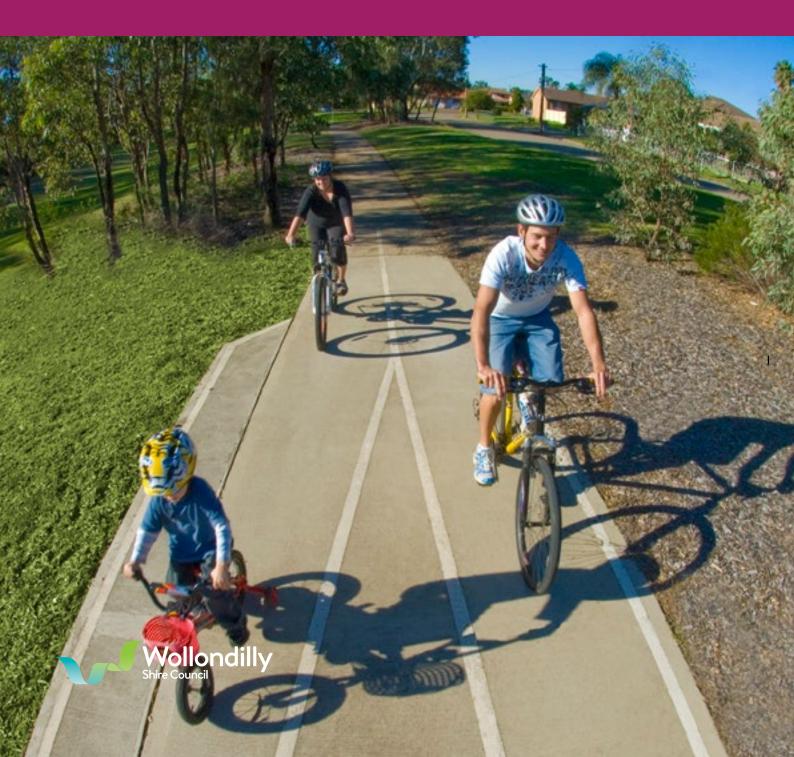


Wilton Junction Health Impact Assesment December 2014



2 Wollondilly Shire Council

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Suggested citation:

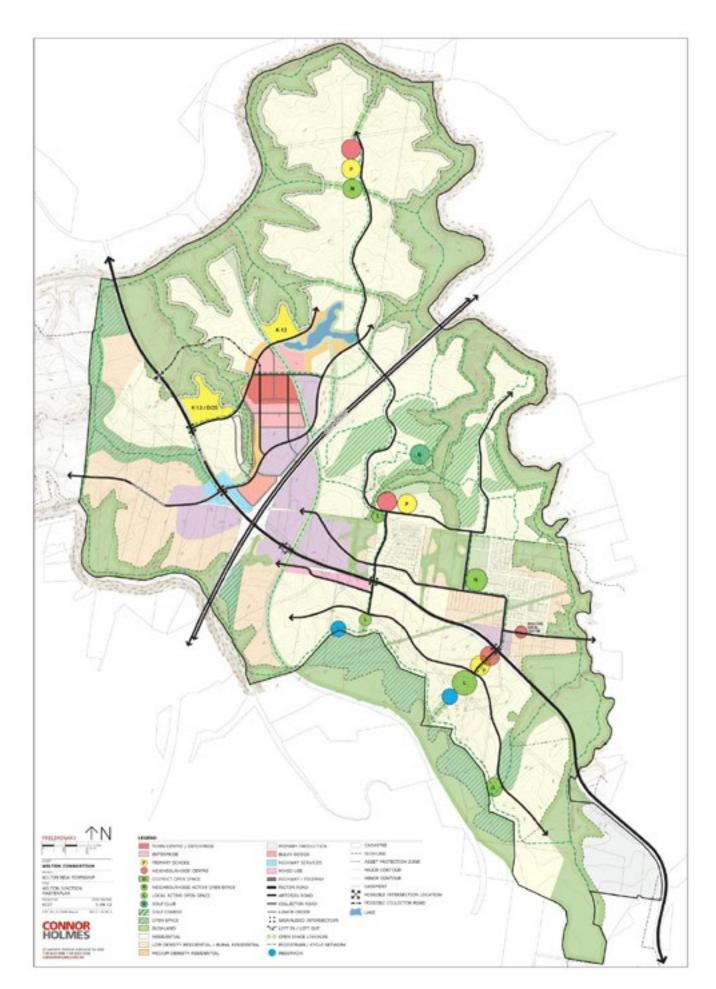
Wilton Junction Health Impact Assessment Working Group, 2014. Wilton Junction Master Plan Health Impact Assessment

Published by Wollondilly Shire Council 2016

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Wilton Junction Master Plan (Draft September 2012)

Introduction

This Health Impact Assessment (HIA) considers the draft Wilton Junction Master Plan for its potential health impacts for future residents. It seeks to maximise potential positive health impacts and minimise potential negative health impacts. It has been prepared both as part of a training exercise on Health Impact Assessment and also to inform Wollondilly Shire Council. It is intended that a long term monitoring process will be established with participation from the key stakeholders (developers, council staff, Population Health (South Western Sydney Local Health District), Department of Planning and Environment (DoPE), Resident Advisory Group). This could be achieved through a Wilton Project Control Group (PCG) for the Wilton Junction Master Plan or, alternatively, through Council's Greenfields Release Area Working Group (GRAWG).

The draft Wilton Junction Master Plan report was released in 2012 and seeks to inform the future development of an area of approximately 2,774 hectares which takes in mostly fragmented rural land generally in the vicinity of the Picton Road/Hume Highway (M31) interchange at Wilton. Wilton Junction is located within the Wollondilly Local Government Area (LGA) and is approximately 80km from the Central Sydney Business District and 30km north-west of Wollongong. The boundary is defined by natural features including the Nepean River, escarpments, creeks and a natural spur.

The master plan area includes the existing village of Wilton as well as the Bingara Gorge Estate currently being developed by Lend Lease. The Master Plan for Wilton Junction is a proposal to create a new community in Sydney's southwest involving;



Approximately 11-12,000 homes for 30-35,000 people



Employment opportunity for 11,000 jobs



A new town centre and neighbourhood centres with supermarkets, shops, offices, cafes, restaurants, schools, childcare;



Healthcare, banking, post office and community facilities



Recreation areas and facilities



Main road service centres such as a petrol station, shops and takeaway food premises.

The draft Master Plan report has been prepared to inform a land use planning process to rezone land within the Wilton Junction Investigation Area for urban purposes. It was prepared on behalf of the four major landowners for the area and has been endorsed by Wollondilly Shire Council after its public exhibition in October – November 2012. Development of the master plan area is anticipated to deliver housing in the short term, within the next 5 to 10 years.

A number of detailed studies are now being undertaken which will inform a final Master Plan for Wilton Junction, and if supported by the NSW Government, the rezoning of the land for urban purposes.

This Health Impact Assessment was undertaken by the Wilton Junction Working Group as part of the Centre for Health Equity Training Research and Evaluation (CHETRE) training program in partnership with South Western Sydney Local Health District, Population Health to build capacity amongst professionals to develop a greater awareness of health, wellbeing and equity within their work.

This Assessment is based on the Draft Wilton Junction Master Plan prepared by Connor Holmes and dated September 2012 and does not reflect changes made in more recent versions of the concept plan.

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The proponent is also completing a separate Health Impact Assessment on the Masterplan proposal as part of the Director General's requirements. This HIA is a standalone document and it was not appropriate for Council staff to be involved in the development of one of the required studies for the Wilton Junction Masterplan process due to Council's role in providing feedback on the suite of studies required by the State Government. This HIA will be available to the public and the proponents.



Population Profile

Currently the master plan area is undeveloped except for the existing village of Wilton and the initial stages of the Bingara Gorge Estate. The population of Wilton at the 2011 Census was 1675 persons or 586 dwellings (this includes the existing village of Wilton and the Bingara Estate at that time).

The future population of the Wilton Junction area has been modelled by MacroPlanDimasi as part of the suite of studies required by the State Government. Led by the NSW Department of Planning & Infrastructure (DPI) as part of the statutory planning process.

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Household Type New Estate SA2 Sample Regions

Household Type Families	Greater Sydney 2011	Sample New Estate Regions 2011	Wilton Junction 2041
Couples with no children	23%	16%	25%
Couples with children	35%	51%	44%
One parent families	11%	15%	15%
Lone persons households	21%	13%	15%
Group households	4%	1%	1%
Other	5%	4%	0%
Total	100%	100%	100%



Key findings from the MacroPlanDimasi 'Housing & Population Projections' demographic analysis are:

- A future population of 34,955 (11,900 dwellings) at Wilton Junction by 2041, including a contribution from the existing Wilton township and approved and future dwellings at Bingara Gorge.
- A similar age profile to Southwest Sydney but with a higher representation of residents aged 0-19yrs and 50+yrs, reflecting anticipated Wollondilly characteristics and broader regional demographic trends, this includes demand from 'retiree households' wishing to downsize.
- A dominance of family households, in particular New-Home Buyers or NHB's (couples with children reaching 44% by 2031) with a marginally greater representation of couple families without children (25% compared to 23%) and when compared to south-west Sydney.

 Household composition at Wilton Junction is expected to be broadly consistent with exemplar new estate regions in south west Sydney, except for greater representation from couple families without children, ie: 25% compared to 16% (see table 1 below).

- This is expected to be supported by a growing interest in new estate locations from retirees seeking to downsize;
- A broader trend towards smaller lots across Sydney's south west.
- A likely dominance of detached housing at Wilton Junction (90% by 2016 declining to 84% by 2041), but with an increasing proportion of smaller lots/mix of housing types to meet consumer demand for affordable product.

Current health status of Wollondilly LGA

Health Behaviors

33.0% of adults consume 2+ standard alcoholic drinks a day (NSW 30.4%)

49.7% of residents consume the recommended daily amounts of fruit (NSW 56.6%) and 10.6% consume the recommended daily amounts of vegetables (NSW 10.0%).

52.9% engage in adequate physical activity (NSW 55.2%)

40.9% are overweight (NSW 33.4%) and 26.0% are obese (NSW 19.6%)

17.3 % of adults currently smoke (NSW 17.0%). The Prevalence Ratio for women who smoke during pregnancy is 155.6 (NSW 100)xv

72.0% of women have their first antenatal visit before 14 weeks gestation (NSW 79.3%)

The cervical screening rate for women aged 20-69 years is 54.8% (NSW 57.3%). The rate of breast screening is 84.3% (NSW 76.3%)

Health Status

81.3 % of adult residents self-rated their health as being excellent, very good or good (NSW 80.2%)

Adults indicated lower rates (8.3%) of high or very high levels of psychological distress (NSW 11.1%)

Compared to NSW (100), Wollondilly has lower rates of death that are:

- from all causes (88.3)
- potentially avoidable (90.4)
- from preventable causes (98.6)
- amenable to health care (85.2)

Compared to NSW(100), Wollondilly has higher rates of death that are

- alcohol attributable (100.5)
- smoking attributable (106.4)
- high body mass index attributable (113)

Compared to NSW (100), Wollondilly has higher rates of hospitalisations that are

- coronary heart disease attributable (106.6)
- COPD related (104.4)
- high body mass index attributable (105.3)

Compared to NSW (100), Wollondilly has lower rates of hospitalisations that are

- from all causes (96.5)
- preventable (95.4)
- diabetes related (89.4)
- from falls-related injury (95.5)
- alcohol attributable (82.4)
- smoking attributable (95.3)

The prevalence of Diabetes is 5.2% (NSW 5.5%)

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Hepatitis B notifications are 8.9/ 100,000 people (NSW 37.6/ 100,000). Hepatitis C notifications are 25.5/ 100,000 people (NSW 57.2 / 100,000)



Management of the Wilton Junction Master Plan HIA

The Wilton Junction Master Plan HIA was undertaken by the Wilton Junction Working Group, facilitated by SWSLHD Population Health in conjunction with the Centre for Health Equity Training Research and Evaluation (CHETRE) and Wollondilly Shire Council (WSC) which assessed aspects of the Wilton Junction Master Plan.

The completed HIA will be presented to the Wollondilly Shire Council Executive for endorsement and subsequent reporting to Council.

Working Group

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The working group comprised:

- Growth Centres Manager, Wollondilly Shire Council
- Senior Strategic Planner, Wollondilly Shire Council
- Strategic Planner, Wollondilly Shire Council
- Senior Town Planner, Wollondilly Shire Council
- Social Planning Project Coordinator, Wollondilly Shire Council
- Facilities & Recreation Team Leader, Wollondilly Shire Council
- Assistant Director, Population Health, SWSLHD
- Service Development Officer, Population Health, SWSLHD
- Research Fellow, CHETRE
- Research Fellow, CHETRE

Methodology

The Health Impact Assessment was undertaken as part of the Centre for Health Equity Training Research and Evaluation's (CHETRE) training program in partnership with Population Health, South Western Sydney Local Health District, to improve planning and decision-making and to influence health outcomes by building capacity amongst staff from different disciplines and backgrounds, to develop a greater awareness of health, wellbeing and equity within their work. This was developed through the 'learning by doing' approach which involved completing a 3 day training session where HIA theory was presented and applied to a real life project, in this case conducting a HIA on the Wilton Junction Master Plan.

Project teams were guided through the stages of the development of a HIA using the "Health Impact Assessment: A Practical Guide" resource developed by CHETRE and NSW Health. These steps are summarised in the table below.



Steps of the HIA	Purpose	Methods used
Screening	Determine whether HIA is appropriate and required	A screening meeting was held by the HIA working group and a decision was made that there were potentially significant health impacts which warrant a HIA being undertaken and that a HIA could provide constructive input to the Master planning process for Wilton.
Scoping	Set out the parameters of the HIA	A HIA working group meeting took place to identify the areas of potential impact to focus on in the HIA and develop a project plan and terms of reference.
Identification	Develop a community/ population profile and collect information to identify potential health impacts	 During the identification stage, the working group carried out the following: 1. Literature review against each of the areas of impact 2. Reviewed other relevant HIA's 3. Reviewed the Master plan and matched up with the issues that had been scoped 4. Accessed a population and health profile for each population group and geographic area 5. Lead a community consultation to identify impacts to the surrounding communities and current residents of Wilton 6. Held a meeting with the Oran Park Project Developer and Program Manager to identify strategies that worked well with the planning of Oran Park Town and their experience of participating in a HIA process. Discussions were also had on the current and expected community profiles.
Assessment	Synthesise and critically assess the information in order to prioritise health impacts.	Develop and populate a matrix document to assess health impacts of the master plan for each area of impact, population group and geographic area.
Decision Making & Recommendations	Make decisions to reach a set of final recommendations for acting on the HIA's findings.	Working group meeting took place and based on the literature and evidence collected, developed recommendations. Report developed, finalised and presented to Wollondilly Council for appropriate action.
Evaluation and Follow-up	Evaluate the processes involved in the HIA and its impact, and follow up the HIA through monitoring and a health impact management plan	A Monitoring and Evaluation Plan was developed by the working group as a tool to assess and evaluate progress overtime against the recommendations.

The screening process identified that there are potentially significant health impacts from the project as well as opportunities to influence the development and implementation of the master plan. The HIA working group decided to take a 'broad view' approach to the process with a level of depth of analysis between 'rapid' and 'intermediate'. This method was chosen with a view to have the HIA ready for exhibition at the same time as the suite of studies required by the Director General's requirements as part of the overall statutory planning process.

The Goal of the project was to influence the consideration of health in the Wilton Junction Master Plan.

The Objectives of the Project were:

- To assess the Wilton Junction Master Plan against the scoped areas of impact.
- To identify potential health impacts resulting from the Master Plan.
- To develop recommendations to promote the consideration of health impacts of Wilton Junction.
- To develop an evidence base to support decision making.
- To build capacity to undertake health impact assessments.
- To develop ongoing relationships and cross-sectoral collaboration through the HIA process.
- To promote the consideration of health impacts in work practices.

Early scoping of areas of health impact identified a range of areas of potential impact for consideration. These were refined to focus on 'connectivity', particularly the social and physical aspects and how these relate to the four geographical development precincts within the Master Plan. This was considered to be critical in terms of how it can affect the way people use spaces in urban environments on a day to day basis.

The following eight (8) themes were identified due to the influence they have on social and physical connections within communities:

- Footpaths and Cycling
- Open Space
- Public Transport
- Recreational Facilities
- Community Facilities
- Employment and Work
- Networking and Community Building
- Activating the Public Realm

These themes were used to direct the identification, assessment and decision making and recommendation stages of the HIA. The matrix provided at Appendix 1 provides a summary of this process.

The HIA is largely supportive of the approach taken by the Master Plan, particularly its Vision for Wilton Junction and the key principles which underpin the Master Plan. The HIA reinforces the approach taken in the Master Plan and identifies opportunities to further strengthen how it provides physical and social connections. The recommendations have a

particular focus on the early delivery of infrastructure and communication with residents.

11 general and 35 theme based recommendations have been developed to reinforce areas where the Master Plan has success and to provide direction for maximising its full potential.

Wollondilly Shire Council

1.6 Utilise marketing opportunities for the development to promote Wilton Junction as a healthy active community.

1.7 Feedback results of HIA to:

- a. Wollondilly Shire Council
- b. Proponents
- c. Wilton Junction Community Reference Group

1.8 Implement a program of active monitoring and assessment of the emerging population and their needs.

1.9 Ensure that public spaces, facilities and activities are both safe and suitable (available, physically and geographically accessible, appropriate and acceptable) for elderly people, children, people with disabilities and different population groups within the community.

1.10 Ensure that messages are delivered in accessible formats to enable participation of all members of the community and develop targeted approaches to engage hard to reach groups.

1.11 Establish a process of ongoing monitoring and evaluation to assess and evaluate progress over time against the recommendations from the HIA.

Theme 2: Footpaths & Cycling

2.1 Ensure development and maintenance of the proposed infrastructure, including well maintained footpaths, bike paths and open spaces.

2.2 Include provisions to make walking and cycling infrastructure environments safe and perceived as safe, from crime and traffic to encourage physical activity;

Ensure that the safe design criteria such as Crime Prevention Through Environmental Design (CPTED) are utilised in the development of the walking and cycling infrastructure.

- a. Include end of trip facilities (storage lockers, secure parking for cycles) for cycle networks. Consider amending Master Plan to refer to 'cycling networks and end of trip facilities'.
- b. iii. Introduce provisions such as end of trip facilities early to promote use of tracks.
- c. iv. Develop well-planned bush tracks that are maintained and with adequate lighting to ensure users

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safety.

2.3 Promote bush tracks to encourage community use.

2.4 Consider establishing complimentary activities such as green gyms along the tracks. Undertake community education on green gyms to ensure safe use.

2.5 Consider and address early in the planning process potential barriers to pedestrian and cycling connections, as well as potential barriers to community connectivity and cohesion presented by the intersecting main roads.

2.6 If fly-overs are considered to deal with traffic connections, they should also be designed for pedestrian and cycle traffic.

2.7 Ensure inclusion of stairways in buildings that are attractive, safe, accessible and visible alternatives to the use of escalators and lifts to promote incidental exercise.

2.8 Develop programs to promote healthy travel behaviour. This could include: implementation of Travel plans/ Apps with distance times to facilities and infrastructure (e.g. school); walking programs; monitoring of pedestrian pathways (e.g. Walk Score).

Theme 1: General

1.1 Ensure the early introduction of facilities and infrastructure that are planned in consultation with the community and stakeholder groups.

1.2 Develop a Social Plan to ensure the delivery of a healthy and active community that aligns with the principles of the Master Plan and addresses the emerging needs of the community as it develops. Activities identified in this report which could be included in the Social Plan are:

- a. Develop adaptable policies for public participation in governance of the built environment to encourage inclusivity through participation from all community members.
- Develop a range of leisure and fitness activities through the Leisure Centre, both aquatic and dry land, consistent with local needs and preferences.
- c. Develop strategies to involve the community in the creation of the public domain such as tree planting, and involvement in running community events and place-making initiatives.
- d. Employ and support community development workers
- e. Conduct regular population surveys to identify emerging demographic profile.
- f. Undertake community education on green gyms to ensure safe use.
- g. Develop programs to promote healthy travel behaviour.
- Provide the financial support for the establishment and maintenance of community gardens.
- i. Development of a social plan to promote social activities and connections in the community.

1.3 One of the objectives of the Environmental Trust should be to prioritise access to bushland as an asset to foster future community building.

1.4 Engage the community in the design, development and activation of public domain and spaces. E.g. through community events and place making initiatives.

1.5 Build trust through open communication with current and future residents regarding future land use to mitigate potential conflict and stress e.g. future medium density.









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Theme 3: Open Space

3.1 Develop and monitor indicators for the provision of higher quality open space that compensates for the planned open space being under that outlined in government standards.

3.2 Implement strategies that provide access to Bingara Gorge facilities by residents in other parts of Wilton Junction.

3.3 Employ and support a community development worker to develop activities which encourage community use of open spaces.

3.4 Develop and apply strategies to involve the community in the creation of the public domain such as tree planting and involvement in running community events and place-making initiatives.

3.5 Provide dedicated personnel and appropriate funding for community gardens.

Theme 4: Public Transport

4.1 Support usage of public transport through:

- a. Early engagement with the community/stakeholders in planning/ delivery of supporting infrastructure.
- b. Ensuring connectivity between public transport routes and facilities, services, residential areas and transport hubs.
- c. Provision of quality infrastructure (see healthy urban development checklist).

4.2 Promote good connections to public facilities/shopping/public transport to encourage buyers who desire a more active lifestyle. For example marketing of active transport availability to potential residents.

4.3 Include within the transport plan consideration of how regional level facilities can be accessed via public transport.

Theme 5: Recreation Facilities

5.1The location of recreation facilities should be readily accessible, be visually prominent and located to enhance a sense of community pride and ownership.

5.2 Provide targeted approaches for different population groups (e.g. young people, families, older people, people with disabilities etc.) to encourage access to recreation, entertainment and leisure facilities, and meeting places.

5.3 Leisure Centre should carry a range or leisure and fitness activities both aquatic and dry land consistent with local needs and preferences.

5.4 Provide static exercise equipment and stations along pathways can enhance opportunities for recreational activities to be pursued and be of benefit.

5.5 Community facilities should be designed as flexible spaces that can easily adapt to changing needs of the community as it establishes.

5.6 Recreation spaces should be both passive and active spaces that are able to take advantage of the natural beauty of the location while still maintaining public safety standards with regards to lighting.

5.7 Identify within the Master Plan how informal/ casual unstructured opportunities for recreation and life stage appropriate recreation facilities are to be provided.

5.8 Supports the Master Plans approach to connectivity through;

- a. locating recreation facilities near local centres and community facilities.
- b. the consideration of co-location of facilities to improve access and utilisation.

Theme 6: Public Transport

6.1 Involve the community early in the design & development of the public domain such as urban design and tree planting, as well as involvement in running community events and place-making initiatives to build a greater sense of belonging for new/existing residents.

6.2 Be mindful of and seek to alleviate the potential for conflict between existing and new communities when:

- a. Planning roll out of facilities (who gets what when).
- b. Communicating importance of shared access, usage of community assets and community identity.

6.3 Community building should be supported by ensuring the provision of community spaces that promote opportunities for interaction, well-being and active living – thus making healthy lifestyle choices easier/more accessible.

6.4 Create neighbourhood 'clusters' of facilities, shops, transport facilities that provide residents with a reason to utilise 'walkable' features of the community, thus increasing opportunities for a greater sense of community connectedness as well as higher levels of physical activity.

Theme 7: Community Facilities

7.1 The HIA supports the emphasis in the Master Plan on the design and location of community facilities which are multi-purpose, flexible, co-located and accessible.

7.2 The Master Plan should consider the provision of other non-standard community facilities such as community gardens.

Theme 8: Employment and Work

8.1The Master Plan's intention to provide jobs and services locally through the provision of more than 70% of employment self-sufficiency in Wilton Junction is supported.

8.2 The HIA supports the indicative connections, pedestrian, cycling and bus, throughout the Master Plan area and also between centres and employment lands.

8.3 Consideration should be given to innovative work arrangements such as 'smart hubs' which would reduce the need to commute.

Theme 9: Activating the Public Realm

9.1 The HIA supports the inclusion of placemaking within the Master Plan, however it is too focussed on the physical elements of spaces and does not acknowledge the other elements that contribute to making successful places and how these might be fostered, e.g. structured community activities, community input into features such as public art.

9.2 Develop an overarching strategy, potentially a Development Control Plan or a public realm and movement strategy, to set out how distinctive, interesting and liveable places and the connections between these are to be achieved. The strategy will guide the future design of public spaces throughout the master plan area and might include things like public art, themes for centres, identifying local features to be retained, and creating stimulating and attractive routes for active modes of transport.

Future Direction

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In order to implement the recommendations contained within this HIA, it is intended that a long term monitoring process will be established with participation from the key stakeholders (developers, council staff, Population Health (SWSLHD), Department of Planning and Environment, and the Resident Advisory Group). This could be achieved through establishing a Wilton Project Control Group (PCG) to oversee the implementation of the Wilton Junction Master Plan or, alternatively, through the existing Greenfields Release Area Working Group (GRAWG) established by Council.

Appendix 2 provides a Monitoring and Evaluation Plan which can be used to assess and evaluate the progress of planning for and development on the ground in Wilton Junction against the recommendations from the HIA.

It is also anticipated that some of the recommendations, and reference to the HIA more broadly, could be incorporated into a future Development Control Plan to guide development within the Master Plan area.

The preparation of this health impact assessment has also given rise to the question of how consideration of the potential health impacts of development within Wollondilly can or should be practicably integrated into the planning process, both when determining the strategic direction of growth and also in the consideration of development applications for a particular site.

It is felt that strategies and policies which influence the location and design of development could better accommodate health considerations but further work is required to establish how this can be achieved. Commitment to this approach is to be sought from Council's Executive.

1. General Recommendations

The predicted population of Wilton junction will be dominated by family households, in particular new home buyers (NHB's), however there is likely to be increasing demand from retiree households as the population develops. The age structure will be similar to other new release areas but with a higher representation from 0-19yrs and 50+yrs. This potentially has a direct impact on infrastructure requirements throughout the life of the development and means that particular attention needs to be paid to ensuring both physical access and access to public transport and noncar transport for these groups. As development is largely market driven, demographic change will need to be closely monitored as the population grows and the needs of the emerging population assessed accordingly.

1.1 Ensure the early introduction of facilities and infrastructure that are planned in consultation with the community and stakeholder groups.

1.2 Develop a Social Plan to ensure the delivery of a healthy and active community that aligns with the principles of the Master Plan and addresses the emerging needs of the community as it develops. Activities identified in this report which could be included in the Social Plan are:

a. Develop adaptable policies for public participation in governance of the built environment to encourage inclusivity through participation from all community members. The following are a series of general or overarching recommendations that flow across all of the themes within this Health Impact Assessment. While some of the recommendations below may be repeated elsewhere in the document it was considered important to highlight them in this section of the report.

- b. Develop strategies to involve the community in the creation of the public domain such as tree planting, and involvement in running community events and place-making initiatives.
- c. Develop a range of leisure and fitness activities through the Leisure Centre, both aquatic and dry land, consistent with local needs and preferences.
- d. Employ and support community development workers
- e. Conduct regular population surveys to identify emerging demographic profile.
- f. Undertake community education on green gyms to ensure safe use.
- g. Develop programs to promote healthy travel behaviour.
- h. Provide the financial support for the establishment and maintenance of community gardens.
- i. Development of a social plan to promote social activities and connections in the community.

1.3One of the objectives of the Environmental Trust should be to prioritise access to bushland as an asset to foster future community building.

1.4 Engage the community in the design, development and activation of public domain and spaces. E.g. through community events and place making initiatives.

1.5 Build trust through open communication with current and

future residents regarding future land use to mitigate potential conflict and stress e.g. future medium density.

1.6 Utilise marketing opportunities for the development to promote Wilton Junction as a healthy active community

1.7 Present the final HIA report to the following key stakeholders:

- a. Wollondilly Shire Council
- b. Proponents
- c. Wilton Junction Community Reference Group

1.8 Implement a program of active monitoring and assessment of the emerging population and their needs.

1.9 Ensure that public spaces, facilities and activities are both safe and suitable (available, physically and geographically accessible, appropriate and acceptable) for elderly people, children, people with disabilities and different population groups within the community.

1.10 Ensure that messages are delivered in accessible formats to enable participation of all members of the community and develop targeted approaches to engage hard to reach groups.

1.11 Establish a process of ongoing monitoring and evaluation to assess and evaluate progress overtime against the recommendations from the HIA.

2 Footpaths and Cycling

Access to opportunities for active transport is a feature of healthy communities. Safe, well maintained and connected footpaths and cycleways can promote the level of physical activity in a community. This physical activity can be:

Planned – physical activity deliberately aimed at exercising

Incidental – physical activity gained through normal daily activity, such as walking to catch a bus

Good urban design from a health perspective involves designing the built environment to provide access to pedestrian and cycle pathways and which encourages the use of these facilities.

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Overall, the Wilton Masterplan has a very positive focus on providing a connected network of footpaths and cycling paths, including walking paths which take advantage of bushland. Areas where more detail could be included are end of trip facilities, security and safety considerations, and addressing potential problems of disconnection in the community created by the intersecting roads e.g. Picton Road and the Freeway.

What does the Master Plan say?

- The plan identifies a hierarchy of pedestrian footpaths depending on the level of road.
- There is a strong emphasis on walkable destinations (e.g. Town

centre) and pedestrian footpaths and networks.

- There are plans for schools to be located near town centres with access to walking and cycling networks.
- The plan describes a pedestrian network providing connectivity across the development and between services, facilities and open space.
- There will be integration of gorges and bushland with open space and a pedestrian network

 a connected community taking advantage of the natural setting. There will be a significant perimeter of bushland walking trails providing pedestrian linkages.
- Significant areas of vegetation will be preserved which will provide opportunity for recreational walking and pedestrian connectivity between open space and key facilities.

What does the evidence tell us?

Quality & Perception

Well maintained footpaths and bike paths encourage walking and cycling for transport, as does the provision of bike parking and other end of trip facilities. Innovative approaches to the provision of infrastructure such as 'green gyms' (outdoor exercise equipment in public open spaces) are popular and well utilised inclusions in the UK.

Perceptions that cycling is unsafe

because of traffic, and perceptions that walking is unsafe because of exposure to crime, concealment opportunities and lack of surveillance, are key infrastructure related deterrents to walking and cycling for transport and recreation.

There is an increasing volume of research showing that better footpaths and perceptions about good footpaths increase walking. This finding comes from a USA review of six studies that made changes in walking and cycling infrastructure and found that this can result in reduced car use and a change towards more active transport.

Destinations & Connectivity

- Destinations give people a place to walk to. Replacing uniform urban form with a variety of uses can lead to shorter distances between origins and destinations, which encourages active forms of transport.
- Keeping necessary trip distances short through mixed use and compact development will help to make active transport a viable option. Also, the existence and design of footpaths and bicycle paths determine the attractiveness of walking and cycling as a means of transport or recreation.
 Furthermore, the availability of parks and other recreational activities provides residents with more opportunities to engage in physical activity.

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

Walking & Health Benefits

- Physical activity provides mental and physical health benefits and reduces the risk of many chronic diseases. Walkway and cycleway infrastructure are to be encouraged as they result in connectivity within neighbourhoods and connectivity to local destinations, leading to increased activity levels and a reduced dependence on car usage.
- The Australian Health Survey 2011-2012 indicates that:
 - Only one third of children, and one in ten young people undertook the recommended 60 minutes of physical activity every day.
 - » 60% of Australian adults did less than the recommended 30 mins of moderate intensity physical activity per day.
 - » Fewer than one in three children and young people aged (5-7 year olds) met the "no more than 2 hours of screen based entertainment" guideline every day.
 - Nearly 70% of Australian adults (i.e. almost 12 million adults) are sedentary or have low levels of physical activity.
- Natural settings such as parks

and bushland have been found to foster recovery from mental fatigue. It can contribute to coping with and recovering from stress, illness and even injury.

- Stair climbing is physical activity which can easily be integrated into everyday life. Visible stairways signed by point-of-choice prompts increase the rate of stair climbing.
- Community consultation identified that residents would like to see improvements to bike paths and local parks.

Recommendations:

2.1 Ensure development and maintenance of the proposed infrastructure, including well maintained footpaths, bike paths and open spaces.

2.2 Include provisions to make walking and cycling infrastructure environments safe and perceived as safe, from crime and traffic to encourage physical activity.

- a. Ensure that the safe design criteria such as Crime Prevention Through Environmental Design (CPTED) are utilised in the development of the walking and cycling infrastructure.
- b. Include end of trip facilities (storage lockers, secure parking for cycles) for cycle networks. Consider amending Master Plan to refer to 'cycling networks and end of trip facilities'.
- c. Introduce provisions such as end of trip facilities early to promote

use of tracks.

d. Develop well planned bush tracks that are maintained with adequate lighting to ensure users safety.

2.3 Promote bush tracks to encourage community use.

2.4 Consider establishing complimentary activities such as green gyms along the tracks. Undertake community education on green gyms to ensure safe use.

2.5 Consider and address early in the planning process potential barriers to pedestrian and cycling connections, as well as potential barriers to community connectivity and cohesion presented by the intersecting main roads.

2.6 If fly-overs are considered to deal with traffic connections, they should also be designed for pedestrian and cycle traffic.

2.7 Ensure inclusion of stairways in buildings that are attractive, safe, accessible and visible alternatives to the use of escalators and lifts to promote incidental exercise.

2.8 Develop programs to promote healthy travel behaviour. This could include: implementation of Travel plans/Apps with distance times to facilities and infrastructure (e.g. school); walking programs; monitoring of pedestrian pathways (e.g. Walk Score). 3 Open Space

Public open spaces can include parks, gardens, shopping areas, sporting fields, public plazas, and playgrounds. Provision of these areas encourages people to exercise, to meet with others, and to relax and play, which can help to diminish the impact of major health risk factors such as lack of physical activity, being overweight, social isolation and stress. These spaces need to be accessible, pleasant and safe to encourage utilisation.

The Master Plan outlines the development of a broad range of open space areas to cater for the needs of all age groups and abilities. There is a stated commitment to the creation of 'quality' space although the detail of what constitutes quality space is not provided in this higher level plan. Issues which could require further investigation are the timing of the introduction of open space areas, and the balance between the amount of open space being under the government standards and the quality of this space.

What Does the Master Plan Say?

 There is some detail provided regarding the amount and type of open space developed or being developed in Bingara Gorge including 8.12 ha of land allocated for open space, an 18 hole golf course, 18kms of walking paths/ trails, and an upgrade of Wilton Showground.

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- For a population of 30-35,000 the accepted State Govt. standard would indicate the need for approximately 99 ha of open space in Wilton Junction. While there is the possibility of going under the government standards for open space, there will be an emphasis on providing higher quality of open space which would be of greater value to the community. The plan includes the integration of gorges and bushland with open space and a pedestrian network - a connected community taking advantage of the natural setting.
 - The opportunity has been identified in the plan for colocation of a school to district open space (shared sports fields).
 - Significant areas of vegetation will

be preserved which will provide opportunity for recreational walking and pedestrian connectivity between open space and key facilities.

- A broad and appropriate range of accessible public and open spaces for healthy organised and incidental activities are outlined.
- There is mention of the need to address the barriers to physical connectivity for traffic and public transport presented by the two main roads intersecting the development (Hume Highway and Picton Road), and the need to find solutions to this as the planning develops. The issue of effectively connecting the four quadrants of the development for pedestrians and cycling will be important for promoting social connections across Wilton Junction and access to services, facilities and open spaces for all residents.
- There is reference to developing access to a broad range of open spaces and facilities as meeting/ connecting places for young people, families, all age groups and all abilities.
- There is reference to the progressive roll out of facilities such as recreation facilities as needed.

What Does the Evidence Tell Us?

Proximity of Infrastructure, Quality and Size

- Research shows that better access to good quality and safe parks and public open space increases the incidence of physical activity. Enhanced access to parks has led to a 26% increase in the percentage of people undertaking physical activity on three or more days per week.
- Further research showed enhanced access to parks together with information outreach (active promotion of park use) produced a 48% increase in frequency of physical activity.
- In a case-study which investigated the influence of proximity, attractiveness and size of Public Open Space (POS) on walking in Perth. It was found that access to POS with attractive attributes such as trees, water features and bird life is associated with higher levels of walking. People

who access POS are almost 3 times more likely to achieve the recommended amount of physical activity per week.

- Planning and provision for required and accessible social infrastructure contributes to the development of healthy and sustainable communities. It is particularly important in new communities in terms of providing focal points for people to meet and connect, and also to facilitate connections between new and existing communities.
- Involvement in the creation of the public domain achieves community engagement, and also creates a sense of place and identity for a new community that promotes pride and sense of belonging.
- Use of open space can be increased if it adjoins or is within close proximity to other land uses, such as residential dwellings, employment or public transport services. Pedestrian and cycle networks along and through public open spaces also encourages use of these areas as part of active travel to a destination or specifically for recreational purposes.
- Community consultation identified that residents ranked playing fields highly in terms of their importance in contributing to a healthy and active community in Wilton Junction.

Recommendations

3.1 Develop and monitor indicators for the provision of higher quality open space that compensates for the planned open space being under that outlined in government standards.

3.2 Implement strategies that provide access to Bingara Gorge facilities by residents in other parts of Wilton Junction.

3.3 Employ and support community development worker to develop activities which encourage community use of open spaces.

3.4 Develop and apply strategies to involve the community in the creation of the public domain such as tree planting and involvement in running community events and place-making initiatives.

3.5 Provide dedicated personnel and appropriate funding for community gardens.

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4 Public transport

Public Transport provision within a community has an important influence on the choices we make with regard to health and well-being. Good public transport options will encourage less car usage and more active transport such as cycling and walking, which in turn supports individuals in meeting their daily required level of physical activity. Reliance on private vehicles can also have a negative impact on mental health and sense of community as well as negative impact on the environment.

The Wilton Junction Master Plan has a public transport strategy with a focus on the town centre and its public transport interchange and seeks to provide a viable alternative to private car use. A set of principals around provision of public transport have been designed to support the development of public transport that is integrated and responsive and enables the connection between residential areas and transport infrastructure.

What does the Master Plan say?

- Town centre will be the focus for public transport interchange and non-vehicular movements.
- Links (connectivity) from precincts to town centre with educational facilities located close to town centre to enable greater use of public transport/pedestrian/cycle network by students.
- Early delivery of services proposed to establish/reinforce sustainable transport habits.
- Vision for public transport as 'a viable alternative to private car use' – A 10% public transport mode share target proposed by 2031.
- Set of guiding principles to support goal/vision of public transport includes:
 - » Provision of an integrated and responsive public transport network to connect residential areas to designated centres and transport infrastructure.
 - Consideration of quality infrastructure to promote walking and cycling facilities connecting to 'destinations'

» Higher density land use to support public transport usage.

What does the evidence tell us?

Providing facilities for comfortable waiting at public transport stops encourages the incidental interactions which become building blocks of community.

While active transport presents opportunities for causal interaction not afforded by the private car, it also potentially reduces accessibility to family and friends.

Public transport extends the distances that people travel by foot and bicycle because it is associated with higher levels of incidental physical activity than private vehicle use. In order to be viable, public transport must be supported by higher population densities. Other urban form characteristics that are associated with greater physical activity include:

- Mixed land use and density
- Footpaths and cycle ways and facilities for physical activity
- Street connectivity and design
- Transport infrastructure and systems, linking residential, commercial and business areas.

Lack of public transport in areas can contribute to inadequate access to vital goods and services, including jobs, healthcare, and healthy food

Walking, cycling or catching public transport to work and other key destinations assists people to meet the min requirements for physical activity. In addition, ensure public transport connectivity between areas where there is a high level of activity and residential areas.

Recommendations:

4.1 Support usage of public transport through:

- i. Early engagement with the community/stakeholders in planning/delivery of supporting infrastructure.
- ii. Ensuring connectivity between public transport routes and facilities, services, residential areas and transport hubs.
- iii. Provision of quality infrastructure

(see NSW Health Healthy Urban Development Checklist for criteria).

4.2 Promote good connections to public facilities/shopping/public transport to encourage buyers who desire a more active lifestyle, for example marketing of active transport availability.

4.3 Include within the transport plan consideration of how regional level facilities can be accessed via public transport.

5 Recreation Facilities

Recreation, or Physical Activity is a deliberate form of activity where the main intent is to get some form of exercise. Recreation can be structured, unstructured, planned of incidental. It is influenced via a variety of factors including social and economic contexts, individual choices and the physical environments that people live in.

The Master Plan identifies recreation number of recreation facilities for Wilton Junction which include leisure centres, sportsgrounds and courts, parks, walking facilities and environmental areas. Some key components to ensuring that recreation is embraced by the community are its inclusiveness (catering for all ages and abilities), accessibility and variety.

Areas that could be further investigated include the opportunities for co-location and connectivity to the community and other places of interest within the development such as schools and shops.

What Does the Master Plan Say?

- The plan identifies a number of recreation facilities for Wilton Junction which include:
 - » Leisure Centre/ Indoor Recreation Centre.
 - » District Sports Facility.
 - » Local Facilities (sporting).
 - » Local Parks.
 - » District, Local and Neighbourhood Active Open Spaces.
 - » Walking Tracks.
- » Environmental and Asset Protection Areas.
- The current Wilton Recreation Reserve will be embellished to include additional recreation facilities such as a new oval, playground and open spaces.
- A Golf Course with a Golf Club including community facilities are included in the plan within the Bingara Gorge development.
 Community facilities should:
 - Respond to local needs and reflect the community's identity, values and aspirations.
 - » Contribute to the health, wellbeing and quality of life for

residents.

- » Be provided as multi-purpose, co-located and able to be shared facilities.
- » Promote equitable access for all the population.
- » Be accessible by all users.
- Local parks should cater for family and community activity with a diverse range of recreation opportunities for all ages and abilities.
- The Master Plan discusses the opportunity to co-locate educational recreational facilities with district open space.
- The notion of 'co-location' of recreational facilities with recreation, retail, and employment is explored.
- A range of community facilities are proposed (as existing facilities are limited). The Master Plan has a strong emphasis on passive recreation (walking/trails) as well as traditional recreational pursuits.
- Community and recreational facilities should be flexible – able to adapt to changing needs and close to public transport, thus



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reducing trips.

- Recreational facilities are to be designed to provide opportunities to increase physical fitness.
- A standard is to be established for Wilton Junction residents that all should reside within a 10 minute walk from some form of open space that contains opportunities for day to day passive recreation requirements.
- There is no specific mention of skate facility as a potential recreation activity or opportunity for youth.
- Reference to recreation, entertainment and leisure opportunities' for young people.

What Does the Evidence Tell Us?

- Links between development that encourages walking and high levels of neighbourhood social interaction and sense of community have also been demonstrated in recent Queensland research. Those living in mixed use walkable neighbourhoods were also found to have higher levels of social capital in a study in Ireland.
- Research has identified links between different forms of development and social cohesion. It has been found that there is more social capital in mixed-use communities than in single land use communities and there is a greater sense of community in the traditional neighbourhood than in the modern suburb. The most powerful explanatory variable was "perception of walking" – the better that people felt about walking in the neighbourhood, the higher their sense of community.
- Recent research has identified the following health and social benefits from recreation:
 - » Strengthened communities
 - » Reduced crime
 - » Unites families
 - Builds cultural diversity and harmony
 - » Supports seniors
 - » Develops youth
 - » Enhances education
 - » Deters negative behaviours
- Despite people having access to or making leisure time available, a study in the USA identified that 7

out of 10 American adults are not regularly active during their leisure time, and 4 out of 10 are not active at all.

- It is important that despite recreation facilities being made available for community use, there is added incentive provided for activity to be carried out.
- Skate Parks are also identified as positive recreational activities providing a cheap but good social and active interaction opportunity for predominantly youths. – Skate Parks as a Context for Adolescent Development.
- Compatible activity-based uses (such as playgrounds) can promote vitality and safety and encourage active travel.
- Children seek social contact with their friends through their outdoor play activity. To achieve this they need to be able to move around their housing development as widely and safely as possible and from an early age. – Child's Play: Facilitating Play on Housing Estates.

Recommendations:

5.1The location of recreation facilities should be readily accessible, be visually prominent and located to enhance a sense of community pride and ownership.

5.2 Provide targeted approaches for different population groups (e.g. young people, families, older people, people with disabilities etc.) to encourage access to recreation, entertainment and leisure facilities, and meeting places.

5.3 Leisure Centre should carry a range or leisure and fitness activities both aquatic and dry land consistent with local needs and preferences.

5.4 Provide static exercise equipment and stations along pathways to enhance opportunities for recreational activities. 5.5 Community facilities should be designed as flexible spaces that can easily adapt to changing needs of the community as it establishes.

5.6 Recreation spaces should be both passive and active spaces that are able to take advantage of the natural beauty of the location while still maintaining public safety standards with regards to lighting.

5.7 Identify within the Master Plan how informal/ casual unstructured opportunities for recreation and life stage appropriate recreation facilities are to be provided.

5.8 Supports the Master Plans approach to connectivity through;

- locating recreation facilities near local centres and community facilities.
- the consideration of co-location of facilities to improve access and utilisation.

6 Networking and community building

Urban Planning alone cannot be create cohesive local communities with strong social networks and high levels of community involvement, however the built environment can assist in bringing communities together by providing places where people can meet and gather and by ensuring that infrastructure (e.g. transport corridors) do not act as physical barriers to connectivity. The Wilton Junction Master Plan sets out a vision for Wilton that includes a commitment to creating a 'community heart for every neighbourhood' as well as several 'principles' that create a sense of neighbourhood through the establishment of meeting places and spaces that foster/promote interaction.

What does the Master Plan say?

- The Vision for Wilton is to create a community heart for every neighbourhood, collocated with recreational, retail and employment activities and access to transport.
- Principles outlined include:
 - Creating a sense of neighbourhood through the establishment of meeting places and spaces that foster/ promote interaction.
 - » High quality public realm/ domain

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- » Integration of public transport, walking and cycling
- > Utilise and promote iconic local species to reinforce a sense of place and identity
- » Limit car dependency and the impact of motor vehicle use within activity centres, public and civic spaces
- > Utilises human and social services as 'soft' community infrastructure that binds the urban fabric of the community
- Wilton Junction will provide a 'Critical Population Mass' that supports the viability of transport services, employment opportunities and social infrastructure.

What does the evidence tell us?

- Local Government have a crucial role to play in creating environments that promote opportunities for wellbeing and active living – support the community to make healthy choices the easy choices.
- Evidence suggests the need for urban design to focus on creating walkable, mixed land use neighbourhoods that can lead to increased community connectedness and increased physical activity. Neighbourhood clusters can be created through the use of corner stores, local parks and playgrounds.
- The literature clearly states that neighbourhoods that are walkable can lead to increased physical activity levels and as sense of community connectedness.
- Early community involvement in the planning phase of public urban design projects can lead to improved health outcomes as a result of participating in the process.
- The evidence suggests that a key aspect of urban design improvement is the process of engaging the community during the initial phases of a project. Community participation in the planning process can provide an opportunity for people to feel empowered regarding decisions that will affect their lives.
- While the physical (planning and design) foundations are important to creating places that foster social interaction and connection, it is becoming more widely recognised that achieving social goals such as sense of community and social cohesion requires more than a purely physical approach to planning. Leading practice recognises the need to stimulate and support 'community building' in new neighbourhoods, by providing resources for community development workers and programs, in addition to providing facilities and public spaces for social interaction and community activities.
- Community development programs commonly provide welcome initiatives for new residents, set up community activities and support groups, establish local organisations and support community events that draw a range of people together.

Recommendations:

6.1 Involve the community (early) in the design & development of the public domain such as urban design and tree planting, (as well as involvement in running community events and place-making initiatives) to build a greater sense of belonging for new/existing residents.

6.2 Be mindful of and seek to alleviate the potential for conflict between existing and new communities when:

- a. Planning roll out of facilities (who gets what when);
- b. Communicating importance of shared access, usage of community assets and community identity.

6.3 Community building should be supported by ensuring the provision of community spaces that promote opportunities for interaction, wellbeing and active living – thus making healthy lifestyle choices easier/more accessible.

6.4 Create neighbourhood 'clusters' of facilities, shops, transport facilities that provide residents with a reason to utilise 'walkable' features of the community, thus increasing opportunities for a greater sense of community connectedness as well as higher levels of physical activity.

7 Community Facilities

For the purposes of this HIA Assessment, community facilities generally refers to community centres, libraries, schools, public services, health related services and cultural facilities. It does not relate to open space or recreation facilities as these are examined separately within this report.

The Master Plan addresses the provision of community facilities in two ways. Firstly it identifies principles for the design of community facilities and also criteria for location. Secondly, it identifies, in general terms, the number, size and location for identified types of local and regional facilities anticipated.

The Master Plan recognises that community facilities are more than just a 'point of use' by acknowledging the potential role such facilities can play in and for the local community when they are accessible and connected to other facilities.

The Master Plan's focus on shared facilities could be further strengthened by considering other forms of community facilities such as community gardens and famers markets.

What does the Master Plan say?

- The Master Plan acknowledges the need for local (neighbourhood), district (Wilton Junction) and Shire (Wollondilly) wide facilities.
- The Master Plan provides a list of the community facilities which are expected to be required. This includes community centres, public and private primary and high schools, child care centres, medical centres, informal meeting and entertainment venues, civic & cultural facilities (library, arts and cultural facility, council civic and administration centre, district level community resource centre), human service organisations, medical centres, allied health services and community health.
- Identifies 10 objectives for the design of the community facilities and 8 criteria to guide their location.
- Places an emphasis on co-location

and shared facilities.

• The Master Plan is informed by a Social Infrastructure Background Investigation Report.

What does the evidence tell us?

- Participation in shaping the built environment supports interaction and psychological health directly by encouraging a sense of empowerment and custodianship. The way the built environment is governed can foster this participation.
- The economic benefits of providing community infrastructure far-outweigh the costs of provision.
- According to research in the British Medical Journal, for every \$1 invested in community networks and services, \$10 were saved in costs on poor health, reduced crime and better employment outcomes.
- Failure to provide adequate community infrastructure early in the establishment of a new community can result in long term social disadvantage. There are significant productivity implications of not funding community infrastructure, which will eventually constrain economic growth. Fundamentally, not investing adequately in community infrastructure will be planning for social disadvantage.
- Community focussed organisations, for example those in the voluntary sector, nongovernment organisations and faith organisations, are less likely to have their own facilities in outer metropolitan new growth areas. They are therefore competing for access to limited public facilities to undertake their activities. These limited facilities are often not fit-for-purpose or available at a time that meets the needs of the particular community group.
- Multipurpose community infrastructure can help to address the infrastructure and service deficits often experienced in outer metropolitan growth areas.

Recommendations:

7.1 The HIA supports the emphasis in the Master Plan on the design and location of community facilities which are multi-purpose, flexible, colocated and accessible.

7.2 The Master Plan should consider the provision of other non-standard community facilities such as community gardens.

8. Employment and Work

The consideration of employment and work in terms of health impacts is focussed on the separation and location of land uses and the affect this has on physical activity. Where housing is located away from employment areas the practicability of using active modes of travel, such as walking and cycling, are reduced. Long commutes affect the time an individual has for physical activity, social contact and community participation and this affects their health.

The Master Plan identifies selfcontainment in employment as one of its key principles. It proposes to achieve this by planning for sufficient employment land to generate jobs, promoting opportunities to work from home and by integrating land use and reducing the reliance of external areas to provide jobs and services.

Further consideration should be given as to whether Wilton Junction provides an opportunity to nurture innovative work arrangements.

What does the Master Plan say?

- Employment is dominant within the key principles.
- Forecasts at least 70% of employment self-sufficiency within Wilton Junction (this is the proportion of local jobs that are filled by local residents.
- 9,190 jobs forecast, plus a further 2,500 work-from-home jobs, across a mix of industries.
- 202ha of town centre and enterprise lands are proposed to generate the required jobs.
- Working from home will be encouraged through the provision of high speed internet connections.
- The town centre and employment lands are generally located adjacent each other in a concentrated area around the Picton Road/Hume Highway interchange. In addition 4 neighbourhood centres are identified throughout the master plan area.

What does the evidence tell us?

- Locating convenience shopping facilities, work places and community facilities in close proximity to residences reduces car trips and promotes walking.
- Commuting has negative impacts on three aspects of Australian life:
- People's psychological, emotional, and physiological wellbeing;
 - Their relationships and interactions with their families, neighbourhoods, communities, and workplaces, and
 - » The physical and social environment.
 - These impacts are at their worst when commuting journeys are lengthy, unpredictable or congested.
- Proximity to employment has a significant relationship with achieving a sense of community. Long commute times between home and employment mean people have less time and energy for participation in social networks and community activities.
- When commuting times to work are longer than 30 minutes and the transport mode is sedentary, a worker's time for physical activity, social contact and community participation can be negatively impacted.
- Individuals that have long commutes consistently have lower health, wellbeing and life satisfaction.
- A long commute time can also impact on family life as it decreases the time available for parents to spend with their families.
- The provision of broadband and improved communications can result in:
 - » an increased opportunity for social inclusion;
 - improvements in healthcare provision (reduced hospital, travel and drug costs and improvement in care),
 - improving access to social services (including health and education);
 - reduces the need to travel to work, shopping and other purposes
 - » a reduction in carbon emissions from transport.

- Teleworking/ smart work hubs can improve health and well-being by reducing stress and lowering the risk of illness.
- Smart work hubs support flexible work practices and offer commuters an alternative work location closer to home. They could free up public transport capacity, help reduce travel costs, increase productivity and provide a better and healthier work/life balance.
- People are more likely to walk when land use is mixed (locating shops, schools, workplaces and other destinations close to dwellings).
- A characteristic of outer metropolitan growth areas is a deficit in local employ employment. This insufficiency in employment impacts on many areas of wellbeing, including health, travel to work, and community cohesion.

Recommendations:

8.1 The Master Plan's intention to provide jobs and services locally through the provision of more than 70% of employment self-sufficiency in Wilton Junction is supported.

8.2 The HIA supports the indicative connections, pedestrian, cycling and bus, throughout the Master Plan area and also between centres and employment lands.

8.3 Consideration should be given to innovative work arrangements such as 'smart hubs' which would reduce the need to commute.

The public realm refers to shared, usually public spaces, large and small, such as streets, pavements, public squares, town centres, parks, community gardens, allotments, culde-sacs where people move through and sometimes linger.

This theme focusses on civic spaces such as public squares that will be the focal points for future communities in open spaces such as the town and neighbourhood centres.

The public realm is important because it provides an opportunity for people to interact, gather and meet, it provides local destinations for people to walk and cycle to and where these spaces are successful can develop and enhance community cohesion and social capital.

The Master Plan seeks to establish neighbourhood centres (activity centres) as the focal point of neighbourhoods. Focal points will have a high quality public realm and will be highly visible, accessible, and permeable.

The Master Plan is generic in its approach to the public realm and doesn't go far enough in setting the scene for how town and neighbourhood centres, and the spaces in between, will be designed around people to create unique and exciting liveable places that are reflective of the local place.

What does the Master Plan say?

- The key principles underpinning the master plan make reference to developing centres which 'act as the focal point for neighbourhoods' and will 'create a sense of neighbourhood through the establishment of meeting places and spaces that foster and promote interaction'.
- Centres will be developed with a high quality public realm, central village square and active thoroughfares that are flanked by a high level of activity and that emphasise the importance of the pedestrian.
- Neighbourhood centres are to act

as a focus for community activity A community heart is to be

- A community neart is to be created for every neighbourhood
- 'placemaking' and 'activity centres' are two of 8 identified key principles identified as underpinning a new town.

What does the evidence tell us?

- Providing attractive public spaces that create opportunities for people to meet and connect with one another or participate in community events has a direct relationship with achieving a sense of community.
- When public spaces are inaccessible, unpleasant or unsafe many people are discouraged from utilising them and their health can be adversely affected as a result.
- Streets are increasingly, being designed with a traffic movement focus and less as places in their own right where social interaction and other activities occur. This has reduced the richness and variety of public space and its uses.
- Public space can provide opportunities for social interaction, social mixing and social inclusion and it can facilitate the development of community ties.
- The public realm is important to people's well-being because, as a shared resource, it can sustain and improve people's quality of life, providing the setting for new experiences, human exchange and the creation of value in ways that are no possible in people's private lives alone.
- Public space can provide environments for restoration from mental fatigue, solitude and quiet, education, artistic expression, contemplation, reflection and inspiration and invoke a sense of place.
- 'Attractive' public spaces are associated with overall experience and use such as walking, cycling, viewing and conversation. If a space is attractive it is more inviting for people to use.
- When people use community spaces and associated assets it makes them feel part of a community and develop a sense of place. These two elements

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 A sense of community has significant positive impacts for individuals and groups. Community connections, networks and social cohesion play a significant role in the individual's health, wellbeing, and mental health outcomes. Community interaction and social contacts reduces the risk of stroke and depression.

Recommendations:

9.1 The HIA supports the inclusion of placemaking within the Master Plan, however it is too focussed on the physical elements of spaces and does not acknowledge the other elements that contribute to making successful places and how these might be fostered e.g. structured community activities, community input into features such as public art.

9.2 Develop an overarching strategy, potentially a Development Control Plan or a public realm and movement strategy, to set out how distinctive, interesting and liveable places and the connections between these are to be achieved. The strategy will guide the future design of public spaces throughout the master plan area and might include things like public art, themes for centres, identifying local features to be retained, and creating stimulating and attractive routes for active modes of transport.

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Appendix 1 - Assessment Matrix

Activity/ features	Master Plan	Determinant of health	Evidence
Footpaths & Cycleways (include bushland access)	 The plan identifies a hierarchy of pedestrian footpaths depending on the level of road. An emphasis on walkable destinations (e.g. Town centre) and pedestrian footpaths and networks. Plans for schools located near town centres with access to walking and cycling networks. Pedestrian network providing connectivity across the development and between services, facilities and open space. Plans for schools located near town centres with access to walking and cycling networks. Plans for schools located near town centres with access to walking and cycling networks. Plans for schools located near town centres with access to walking and cycling networks. Plan to integrate gorges and bushland with open space and pedestrian network - a connected community taking advantage of the natural setting. Significant perimeter of bushland walking trails providing pedestrian linkages. Significant areas of vegetation will be preserved which will provide opportunity for recreational walking and pedestrian connectivity between open space and key facilities. 	Physical connectivity Social connectivity Physical activity	 Quality & Perception Well maintained footpaths and bike paths encourage walking and cycling for transport, as does the provision of bike parking and other end of trip facilities. Innovative approached to the provision of infrastructure such as 'green gyms' are popular inclusions in the UK. Perceptions that cycling is unsafe because of traffic, and perceptions that walking is unsafe because of exposure to crime, concealment opportunities, lack of surveillance, are key infrastructure related deterrents to walking and cycling for transport and recreation. There is an increasing volume of research showing that better footpaths and perceptions about good footpaths, increase walking. This finding comes from a USA review of six studies that made changes in walking and cycling infrastructure found that this can result in reduced car use and change towards more active transport. Destinations give people a place to walk to. Replacing uniform urban form with a variety of uses can lead to shorter distances between origins and destinations, which encourages active forms of transport. Keeping necessary trip distances short through mixed use and compact development will help to make active transport a viable option. Also, the existence and design of footpaths and bicycle paths determine the attractiveness of walking and cycling as means of transport or recreation. Furthermore, the availability of parks and other recreational activities provides residents with more opportunities to engage in physical activity. Walking & Health Benefits Physical activity provides mental and physical health benefits and reduces the risk of many chronic diseases. Walkway and cycleway infrastructure are to be encouraged as they result in connectivity within neighbourhoods and connectivity to local destinations – providing clear health benefits for the community as it can lead to increased activity levels and a reduced dependence on car usage. Natural settings

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Appendix 1 - Assessment Matrix

What the community said	Impact	Populations Affected	Recommendation
Majority of (66.67% 6/9) of residents felt that their current community offered good opportunities for a healthy lifestyle. Examples given tracks, bushwalking and rural lifestyle – but that they would like to see improvement to bikepaths and local parks. Footpaths/bikepaths/tracks/	Increased physical activity and associated health gains (reduced risk of obesity, reduced risk of diabetes).	All	There is consistent evidence that infrastructure and facilities such as well-maintained and connected footpaths, bike paths and opens paces will encourage physical activity. Policies to support the development and maintenance of this infrastructure should be supported. Policies to make these environments safe (and perceived as safe) from crime and traffic will also encourage physical activity.
trails were ranked –highest in importance in contributing to a healthy/active community at Wilton Junction			While the master plan is broad in nature, there could be mention of end of trip facilities (storage lockers, secure parking for cycles) when referring to cycle networks. E.g. There could be mention in the plan of 'cycling networks and end of trip facilities'. Early introduction of facilities is important to promote use of tracks.
			Ensure well planned bush tracks that are maintained and well lit.
			Ensure promotion of bush tracks.

Appendix 1 - Assessment Matrix

Activity/ features	Master Plan	Determinant of health	Evidence
Open Space	 There is some detail provided of the amount and type of open space developed or being developed in Bingara Gorge including: 8.12 ha of land allocated for open space, an 18 hole golf course, 18 kms of walking paths/trails, and an upgrade of Wilton Showground. For a population of 30-35,000 the accepted State Govt, standard would indicate the need for approximately 99 ha of open space in Wilton Junction. While there is the possibility of going under the government standards for open space, there will be an emphasis on providing higher quality of open space which would be of greater value to the community. Plan to integrate gorges and bushland with open space and pedestrian network - a connected community taking advantage of the natural setting. The opportunity has been identified in the plan for co-location of a school to district open space (shared sports fields). Significant areas of vegetation will be preserved which will provide opportunity for recreational walking and pedestrian connectivity between open space and key facilities. A broad and appropriate range of accessible public and open spaces for healthy organised and incidental activities are outlined. There is mention of the need to address the barriers to physical connectivity for traffic and public transport presented by the two main roads intersecting the development (Hume Hwy. and Picton Rd), and the need to find solutions to this as the planning develops. Reference to access to a broad range of open spaces and facilities as meeting/connecting places for young people, families, all age groups and all abilities. The issue of effectively connecting the four quadrants of the development for pedestrians and cycling will be important for promoting social connections across Wilton Junction and access to services, facilities and open spaces for all residents. There is reference to the progressive roll out of facilities such as recreation faci	Physical connectivity Physical activity	 Proximity of Infrastructure, Quality and Size People with access to good quality and safe open space are more likely to be physically active for recreation. The size but also the quality of public space that influences people's use Research shows that better access to parks and public open space increases the incidence of physical activity. Enhanced access to parks has led to a 26% increase in the percentage of people undertaking physical activity on three or more days per week. Further research showed enhanced access to parks together with information outreach produced a 48% increase in frequency of physical activity. The location and treatment of green and open spaces facilitate contact with nature, as well as contact with community. Case-study (Billie Giles-Corti et al. 2005) investigated the influence of proximity, attractiveas and size of Public Open Space (POS) on walking in Perth. They found that access to POS with attractive attributes such as trees, water features and bird life is associated with higher levels of walking. People who access POS are almost x3 more likely to achieve the recommended amount of physical activity per week. Planning and provision for required and accessible social infrastructure contributes to the development of healthy and sustainable communities. It is particularly important in new communities in terms of providing focal points for people to meet and connect, and also to facilitate connections between new and existing communities. Involvement in the creation of the public domain achieves community engagement, it also creates a sense of place and identity for a new community that promotes pride and sense of belonging. The presence of multi-purpose open space encourages active living, facilitating both active and passive use of place. Use of open space can be increased if it adjoins or is within close proximity to other land uses, such as residential dwellings, employment or publ

What the community said	Impact	Populations Affected	Recommendation
Playing fields were ranked in the top 3 in terms of their importance in contributing to a healthy/active community at Wilton Junction.		Older people, women and people with mental illness appear to suffer disproportionately from fear of crime. Young men, in contrast, have a high-risk rate and a lower fear.	Similar detail of quantity, type and location of open space as provided for Bingara Gorge needs to be detailed for the rest of the Wilton Junction development. In addition the issue of how the facilities defined for Bingara Gorge can be accessed by residents in other parts of Wilton Junction needs to be addressed.
		The design of public spaces impacts (positively or negatively) on levels of social inclusion/isolation and the ability of certain	(99ha open space) Further detail of how higher quality open space will compensate for the planned open space being under that outlined in government standards needs to be detailed and monitored in development.
		groups (disabled people, the elderly and families with young children) to access community/social networks and services.	(barriers for physical connectivity) There should be a focus on the barrier to pedestrian and cycling connections presented by the intersecting roads. This needs to be highlighted early in the planning process to enable development of solutions. For example, if fly-overs are considered to deal with traffic connections, they could also be designed for pedestrian and cycle traffic if the need is highlighted early.
			(connecting four quadrants) This should be more specifically addressed as planning develops.
			While development to meet needs is admirable, it is important to identify areas where early development (ie. Before actually needed) can promote behaviour change and establish behaviours such as walking and cycling as the population moves in. These opportunities for early introduction of infrastructure should be identified and planned for.
			As well as the physical planning for space, facilities, etc to promote social connections, there should be a strong focus on planning and putting in place strategies which promote social activity and connections in the community and use of facilities provided (cycle tracks, paths, community development activities). This could involve the preparation of a social plan, or employment of community development workers to focus on these aspects as the population moves in.
			The development of a Community Plan or Social Plan is an effective way of taking a strategic approach to social infrastructure provision
			(The Social Plan should consider what is needed, who will provide it, and how it will be funded to ensure timely and efficient delivery).
			To involve the community in the creation of the public domain such as tree planting, and involvement in running community events and place-making initiatives.

Activity/ features	Master Plan	Determinant of health	Evidence
Public transport	 Town centre will be the focus for public transport interchange and non- vehicular movements. Links (connectivity) from precincts to town centre with educational facilities located close to town centre to enable greater use of public transport/ pedestrian/cycle network by students Early delivery of services proposed to establish/reinforce sustainable transport habits Vision for public transport as 'a viable alternative to private car use' Set of guiding principles to support goal./vision of public transport (includes consideration of quality infrastructure to promote walking and cycling facilities connecting to 'destinations' as well as higher density land use to support public transport usage 		 Providing facilities for comfortable waiting at public transport stops encourages the incidental interactions which become building blocks of community. While active transport presents opportunities for causal interaction not afforded by the private car, it also potentially reduces accessibility to family and friends. Public transport extends the distances that people travel by foot and bicycle because it is associated with higher levels of incidental physical activity than private vehicle use. In order to be viable, public transport must be supported by higher population densities. Other urban form characteristics that are associated with greater physical activity include: Mixed land use and density Footpaths and cycleways and facilities for physical activity Street connectivity and design Transport infrastructure and systems, linking residential, commercial and business areas. Lack of public transport in areas can contribute to inadequate access to vital goods and services, including jobs, healthcare, and healthy food Ensure public transport connectivity between areas where there is a high level of activity and residential areas. Walking, cycling or catching public transport to work and other key destinations assists people to meet the min requirements for physical activity.

What the community said	Impact	Populations Affected	Recommendation
		All	Support usage of public transport through:
		Older People	Early engagement with the community/
		Young People	stakeholders in planning/delivery of supporting infrastructure.
		Poor public transport disproportionately impacts on access for women, children and disabled people,	Ensuring connectivity between public transport routes and facilities, services, residential areas and transport hubs.
		people from minority ethnic groups, older	Provision of quality infrastructure (see healthy urban development checklist.)
	people and people with low socioeconomic status.	Promote good connections to public facilities/ shopping/public transport to encourage buyers who desire a more active lifestyle and can be marketed accordingly by the developers to potential residents.	
			Include within the transport plan consideration of how regional level facilities can be accessed via public transport.

Activity/	Master Plan	Determinant	Evidence
features		of health	
Recreation facilities	 The plan identifies a number of recreation facilities for Wilton Junction which include the following: One Leisure Centre/ Indoor Recreation Centre. One District Sports Facility (Three Playing Fields, Netball and Tennis Courts). Two Local Facilities (Two Playing Fields, One Cricket Pitch). Local Parks. District, Local and Neighbourhood Active Open Spaces. Walking Tracks. Environmental Protection Areas. Asset Protection Areas. The current Wilton Recreation Reserve will be embellished to include additional recreation facilities such as a new Oval, Playground and open spaces further catering for the existing user groups and future ones. A Golf Course with a Golf Club including bar, dining, lounge and community facilities are also included in the plan within the Bingara Gorge development. Community facilities should: Respond to local needs and reflect the community's identity, values and aspirations. Contribute to the health, well-being and quality of life for residents. Be provided as multi-purpose, colocated and able to be shared facilities. Promote equitable access for all the population. Be accessible by all users. Local parks should cater for family and community activity with a diverse range of recreation affection, or fecreational facilities with district open space. Notion of 'co-location' of recreational facilities with a geof facilities proposed (existing facilities are limited) – strong emphasis on passive recreation (walking/trails) as well as traditional recreational proses (existing facilities are limited) – stong emphasis on passive recreation requirements. Facilities of the rease physical fitness (by being accessible, well-lit etc). Standard for WJ that all residents should be 10 walk from some form of open space that contains oppo	Physical connectivity Social connectivity Physical activity	Links between development that encourages walking and high levels of neighbourhood social interaction and sense of community have also been demonstrated in recent Queensland research. Those living in mixed use walkable neighbourhoods were also found to have higher levels of social capital in a study in Ireland. Research has identified links between different forms of development and social cohesion. It has been found that there is more social capital in mixed- use communities than in single land use communities and there is a greater sense of community in the traditional neighbourhood than in the modern suburb. The most powerful explanatory variable was "perception of walking" – the better that people felt about walking in the neighbourhood, the higher their sense of community. California State Parks (2005) released a report, "The Health and Social Benefits of Recreation" which identified the following: Strengthened communities Reduced crime Unites families Builds cultural diversity and harmony Supports seniors Develops youth Enhances education Deters negative behaviours Despite people having access to or making leisure time available, a study in the USA identified that 7 out of 10 American adults are not regularly active during their leisure time, and 4 out of 10 are not active at all. It is important that despite recreation facilities being made available for community use, there is added incentive provided for activity to be carried out. Skate Parks are also identified as positive recreational activities providing a cheap but good social and active interaction opportunity for predominantly youths. – Skate Parks as a Context for Adolescent Development. Compatible activity-based uses (such as playgrounds) can promote vitality and safety and encourage active travel. Children seek social contact with their friends through their outdoor play activity. To achieve this they need to be able to move around their housing development as widely and safely as possible and from an early age. – Child's Play: Facilitating P

What the community said	Impact	Populations Affected	Recommendation
Parks and playground were ranked in the top 3 in terms of their importance in contributing to a healthy/active community at Wilton Junction.	e.g. lack of age appropriate facilities	For children, the environmental attributes consistently associated with physical activity are walkability, traffic speed/ volume, access/proximity to recreation facilities, land-use mix, and residential density. For adolescents the most associated are land-use mix and residential density.	 Pedestrian/ cycling network providing connectivity across the development and between services, facilities and open space to encourage less vehicle usage. The location of recreation facilities should: Be readily accessible via central location. Be visually prominent with a main street location and presentation. Located to enhance a sense of community pride and ownership. Access to recreation, entertainment and leisure facilities, and meeting places should be encouraged to promote usage by young people. Leisure Centre should carry a range or leisure and fitness activities both aquatic and dry land consistent with local needs and preferences. Provision of static exercise equipment and stations along pathways can enhance opportunities for recreational activities to be pursued and be of benefit. Provision of Skate Park facilities to enhance social interaction amongst youth and adolescents. Public participation provisions in existing built environment policy and legislation should be regularly reviewed to ensure they make use of contemporary technology and are suitable for today's communities. Policies for public participation in governance of the built environment should be adaptable to encourage inclusivity through participation from all community members. The involvement of children in the planning of green and open spaces should be particularly encouraged. Community facilities should be designed as flexible spaces that can easily adapt to changing needs of the community as it establishes. Facilities should be well-connected and located close to other amenities/public transport/bike-paths so that trips can be combined. Recreation spaces should be both passive and active spaces that are able to take advantage of the natural beauty of the location while still maintaining public safety standards with regards to lighting etc.

Activity/ features	Master Plan	Determinant of health	Evidence
Community Facilities	 The Master Plan acknowledges the need for local (neighbourhood), district (Wilton Junction) and Shire (Wollondilly) wide facilities. The Master Plan provides a list of the community facilities which are expected to be required. This includes community centres, public and private primary and high schools, child care centres, medical centres, informal meeting and entertainment venues, civic & cultural facilities (library, arts and cultural facilities (library, arts), allied health services and community health. Identifies 10 objectives for the design of the community facilities and 8 criteria to guide their location. Places an emphasis on co-location and shared facilities. The Master Plan is informed by a Social Infrastructure Background Investigation Report. 		 Participation in shaping the built environment supports interaction and psychological health directly by encouraging a sense of empowerment and custodianship. The way the built environment is governed can foster this participation. The economic benefits of providing community infrastructure far-outweigh the costs of provision. According to research in the British Medical Journal, for every \$1 invested in community networks and services, \$10 were saved in costs on poor health, reduced crime and better employment outcomes. Failure to provide adequate community infrastructure early in the establishment of a new community can result in long term social disadvantage. There are significant productivity implications of not funding community infrastructure, which will eventually constrain economic growth. Fundamentally, not investing adequately in community infrastructure will be planning for social disadvantage. Community focussed organisations, for example those in the voluntary sector, non-government organisations and faith organisations, are less likely to have their own facilities in outer metropolitan new growth areas. They are therefore competing for access to limited public facilities are often not fit-for-purpose or available at a time that meets the needs of the particular community group. Multipurpose community infrastructure can help to address the infrastructure and service deficits often experienced in outer metropolitan growth areas.

What the community said	Impact	Populations Affected	Recommendation
Majority of residents (8/9) surveyed were supportive of the 4 quadrants being well connected to ensure ease of access by residents to facilities.		All Older People	The HIA supports the emphasis in the Master Plan on the design and location of community facilities which are multi-purpose, flexible, co- located and accessible.
All respondents agreed that connection to the bush was important in new communities. It was suggested that this could be achieved through the use of natural playgrounds, bushwalking trails and mountain bike trails.			The Master Plan should consider the provision of other non-standard community facilities such as community gardens.
Trade-off attitude – would prefer that the place remain the same but would like to see bring better services/facilities for the area.			

Activity/	Master Plan	Determinant	Evidence
features		of health	
Employment & Work	 Employment is dominant within the key principles. Forecasts at least 70% of employment self-sufficiency within Wilton Junction (this is the proportion of local jobs that are filled by local residents. 9,190 jobs forecast, plus a further 2,500 work-from-home jobs, across a mix of industries. 202ha of town centre and enterprise lands are proposed to generate the required jobs. Working from home will be encouraged through the provision of high speed internet connections. The town centre and employment lands are generally located adjacent each other in a concentrated area around the Picton Road/Hume Highway interchange. In addition 4 neighbourhood centres are identified throughout the master plan area. 		Locating convenience shopping facilities, work places and community facilities in close proximity to residences reduces car trips and promotes walking. Commuting has negative impacts on three aspects of Australian life: 1. People's psychological, emotional, and physiological wellbeing; 2. Their relationships and interactions with their families, neighbourhoods, communities, and workplaces, and 3. The physical and social environment These impacts are at their worst when commuting journeys are lengthy, unpredictable or congested. Proximity to employment has a significant relationship with achieving a sense of community. Long commute times between home and employment mean people have less time and energy for participation in social networks and community activities. When commuting times to work are longer than 30 minutes and the transport mode is sedentary, a worker's time for physical activity, social contact and community participation can be negatively impacted. Individuals that have long commutes consistently have lower health, wellbeing and life satisfaction. A long commute time can also impact on family life as it decreases the time available for parents to spend with their families. The provision of broadband and improved communications can result in: an increased opportunity for social inclusion; improvements in healthcare provision (reduced hospital, travel and drug costs and improvement in care), improving access to social services (including health and education); reduces the need to travel to work, shopping and other purposes a reduction in carbon emissions from transport. Teleworking/ smart work hubs can improve health and well-being by reducing stress and lowering the risk of illness. Smart work hubs support flexible work practices and offer commuters an alternative work location closer to home. They could free up public transport capacity, help reduce travel costs, increase productivity and provide a better and healthier work/life balance. People are more likely to walk when land use is mixed (locat

What the community said	Impact	Populations Affected	Recommendation
said There is a hope that development opportunities		Affected Imployed Umemployed Women Families	The Master Plan's intention to provide jobs and services locally through the provision of more than 70% of employment self-sufficiency in Wilton Junction is supported. The HIA supports the indicative connections, pedestrian, cycling and bus, throughout the Master Plan area and also between centres and employment lands. Consideration should be given to innovative work arrangements such as 'smart hubs'.

Activity/ features	Master Plan	Determinant of health	Evidence
Activating the public realm	 The key principles underpinning the master plan make reference to developing centres which 'act as the focal point for neighbourhood' and will 'create a sense of neighbourhood through the establishment of meeting places and spaces that foster and promote interaction'. Centres will be developed with a high quality public realm, central village square and active thoroughfares that are flanked by a high level of activity and that emphasise the importance of the pedestrian. Neighbourhood centres are to act as a focus for community activity A community heart is to be created for every neighbourhood 'placemaking' and 'activity centres' are two of 8 identified key principles identified as underpinning a new town. 		 Providing attractive public spaces that create opportunities for people to meet and connect with one another or participate in community events has a direct relationship with achieving a sense of community. When public spaces are inaccessible, unpleasant or unsafe many people are discouraged from utilising them and their health can be adversely affected as a result. Streets are increasingly, being designed with a traffic movement focus and less as places in their own right where social interaction and other activities occur. This has reduced the richness and variety of public space and its uses. Public space can provide opportunities for social interaction, social mixing and social inclusion and it can facilitate the development of community ties. The public realm is important to people's wellbeing because, as a shared resource, it can sustain and improve people's quality of life, providing the setting for new experiences, human exchange and the creation of value in ways that are no possible in people's private lives alone. Public space can provide environments for restoration from mental fatigue, solitude and quiet, education, artistic expression, contemplation, reflection and inspiration and invoke a sense of place. 'Attractive' public spaces are associated with overall experience and use such as walking, cycling, viewing and conversation. If a space is attractive it is more inviting for people to use. When people use community spaces and associated assets it makes them feel part of a community and develop a sense of place. These two elements are importing in promoting wellbeing as they can form part of individual's identity, increase an individual's perceived quality of life and motivates people to be even more active and participate in group programs. A sense of community has significant positive impacts for individuals and groups. Community connections, networks and social cohesion play a significant role in the individual's h

What the community said	Impact	Populations Affected	Recommendation
No specific comment made		All Young People Older People Older people, women and people with mental illness appear to suffer disproportionately from fear of crime. Young men, in contrast, have a high-risk rate and a lower fear. The design of public spaces impacts (positively or negatively) on levels of social inclusion/isolation and the ability of certain groups (disabled people, the elderly and families with young children) to access community/social networks and services.	The HIA supports the inclusion of placemaking within the Master Plan, however it is too focussed on the physical elements of spaces and does not acknowledge the other elements that contribute to making successful places and how these might be fostered. Develop an overarching strategy, potentially a Development Control Plan or a public realm and movement strategy, to set out how distinctive, interesting and liveable places and the connections between these are going to be achieved. The strategy will guide the future design of public spaces throughout the master plan area and might include things like public art, themes for centres, identifying local features to be retained, and creating stimulating and attractive routes for active modes of transport.

Activity/ features	Master Plan	Determinant of health	Evidence
Networking & Community Building	 Vision for Wilton: p. 3 Principles for a New Town p. 18 "create sense of neighbourhood through the establishment of meeting places and spaces that foster/promote interaction" High quality public realm/domain Integration of public transport, walking and cycling Utilise and promote iconic local species to reinforce a sense of place and identity Limit car dependency and the impact of motor vehicle use within activity centres, public and civic spaces Utilises human and social services as 'soft' community infrastructure that binds the urban fabric of the community Social infrastructure p.31 – Development of WJ will provide a I Critical Mass address social issues – support the viability of transport services, employment opportunities and social infrastructure. 		LG have a crucial role to play in creating environments that promote opportunities for wellbeing and active living – support the community to make healthy choices the easy choices. Evidence suggests the need for urban design to focus on creating walkable, mixed land use neighbourhoods that can lead to increased community connectedness and increased physical activity. Neighbourhood clusters can be created through the use of corner stores, local parks and playgrounds. The literature clearly states that neighbourhoods that are walkable can lead to increased physical activity levels and as sense of community connectedness. Early community involvement in the planning phase of public urban design projects can lead to improved health outcomes as a result of participating in the process. The evidence suggests that a key aspect of urban design improvement is the process of engaging the community during the initial phases of a project. Community participation in the planning process can provide an opportunity for people to feel empowered regarding decisions that will affect their lives.

What the community said	Impact	Populations Affected	Recommendation
Suggested activities to promote community well-being include: active groups, good communication of projects and activities. Skate park. Walking tracks and good flow between natural and built environment, organised community activities.		All Children & Families Young People In order to reach those most in need and help reduce health inequality activities need to be physically accessible, acceptable, affordable and appropriate for different population groups. The design of public spaces impacts (positively or negatively) on levels of social inclusion/isolation and the ability of certain groups (disabled people, the elderly and families with young children) to access community/social networks and services.	 Involve the community (early) in the design & development of the public domain such as urban design and tree planting, (as well as involvement in running community events and place-making initiatives) to build a greater sense of belonging for new/existing residents. Be mindful of and seek to alleviate the potential for conflict between existing and new communities when: Planning roll out of facilities (who gets what when). Communicating importance of shared access, usage of community assets and community identity Community building should be supported by ensuring the provision of community spaces that promote opportunities for interaction, well-being and active living – thus making healthy lifestyle choices easier/more accessible. Create neighbourhood 'clusters' of facilities, shops, transport facilities that provide residents with a reason to utilise 'walkable' features of the community, thus increasing opportunities for a greater sense of community connectedness as well as higher levels of physical activity.

Appendix 2 – Monitoring and Evaluation Plan – Wilton Junction New Town Health Impact Assessment

Members attending the review:

This monitoring and evaluation plan will be used to assess and evaluate progress overtime against the recommendations from the HIA. If and when a negative finding is allocated to any of the recommendations, this will serve as a trigger to the Committee for a review of this recommendation or necessary action to be taken to address the negative finding. Positive impacts are also included in the report.

	Actions arising from Recommendations
1	General
1.1	Ensure the early introduction of facilities and infrastructure that are planned in consultation with the community and stakeholder groups.
1.2	 Develop a Social Plan to ensure the delivery of a healthy and active community that aligns with the principles of the Master Plan and addresses the emerging needs of the community as it develops. Activities identified in this report which could be included in the Social Plan are: a. Develop adaptable policies for public participation in governance of the built environment to encourage inclusivity through participation from all community members. b. Develop strategies to involve the community in the creation of the public domain such as tree planting, and involvement in running community events and place-making initiatives. c. Develop a range of leisure and fitness activities through the Leisure Centre, both aquatic and dry land, consistent with local needs and preferences. d. Employ and support community development workers e. Conduct regular population surveys to identify emerging demographic profile. f. Undertake community education on green gyms to ensure safe use. g. Develop programs to promote healthy travel behaviour. h. Provide the financial support for the establishment and maintenance of community gardens. i. Development of a social plan to promote social activities and connections in the community.
1.3	Environmental Trust objectives should include the prioritisation of access to bushland as an asset to foster future community building.
1.4	Engage the community in the design, development and activation of public domain and spaces. E.g. through community events and place making initiatives.
1.5	Foster trust through open communication with current and future residents regarding future land use to mitigate potential conflict and stress e.g. future medium density.
1.6	Utilise marketing opportunities for the development to promote Wilton Junction as a healthy active community.
1.7	Feedback results of HIA to: Wollondilly Shire Council Proponents Wilton Junction Community Reference Group
1.8	Implement a program of active monitoring and assessment of the emerging population and their needs.
1.9	Ensure that the spaces, facilities and activities are both safe and suitable (available, physically and geographically accessible, appropriate and acceptable) for elderly people, children, people with disabilities and different population groups within the community.
1.10	Ensure that messages are delivered in accessible formats to enable participation of all members of the community and develop targeted approaches to engage hard to reach groups.
1.11	Establish a process of ongoing monitoring and evaluation to assess and evaluate progress overtime against the recommendations from the HIA.

Appendix 2 – Monitoring and Evaluation Plan – Wilton Junction New Town Health Impact Assessment

Performance Indicator	Responsibility	Progress/Actions
The community is engaged in planning for the early introduction of facilities and infrastructure	Proponents Council	
A social plan is developed and implemented as the development takes shape.	Proponents Council	
Strategies to encourage active but controlled use of bushland are prioritised.	Proponents Council	
Community input into the design, development and activation of public domain and spaces can be clearly seen.	Proponents Council	
Current and future residents are well informed of the timing of delivery of future land use.	Proponents Council	
Wilton Junction is promoted as a place that supports active and healthy lifestyles.	Proponents	
Stakeholders are well informed of the recommendations arising from the HHIA	Proponents Council	
Welcome initiatives (eg: surveys) are used to monitor and assess emerging population needs .	Proponents Council	
All population groups' needs are met through the design of flexible and innovative spaces.	Proponents Council	
The needs of hard to reach groups are met through ensuring communication is always accessible and tailored to emerging community needs (eg: languages)	Proponents Council	
Monitoring and evaluation process is developed and implemented throughout the life of the development.	Proponents Council	

Appendix 2 – Monitoring and Evaluation Plan – Wilton Junction New Town Health Impact Assessment

	Actions arising from Recommendations
2	Footpaths and Cycling
2.1	Implementation of planned walking, cycling and open space infrastructure which are safe and well maintained.
2.2	Ensure that the safe design criteria such as Crime Prevention Through Environmental Design (CPTED) are utilised in the development of the walking and cycling infrastructure.
2.3	Include end of trip facilities (storage lockers, secure parking for cycles) for cycle networks. Consider amending Masterplan to refer to 'cycling networks and end of trip facilities'.
2.4	Introduce provisions such as end of trip facilities early to promote use of tracks.
2.5	 Develop well planned bush tracks that are maintained and well lit to ensure users safety. Promote bush tracks to encourage community use. Consider establishing complimentary activities such as green gyms along the tracks. Undertake community education on green gyms to ensure safe use.
	Consider and address early in the planning process potential barriers to pedestrian and cycling connections, as well as potential barriers to community connectivity and cohesion presented by the intersecting main roads.
2.6	(For example, if fly-overs are considered to deal with traffic connections, they could also be designed for pedestrian and cycle traffic if the need is highlighted early.)
2.7	Ensure inclusion of stairways in buildings that are attractive, safe, accessible and visible alternatives to the use of escalators and lifts to promote incidental exercise.
2.8	Develop programs to promote healthy travel behaviour.
3	Open Space
3.1	Develop and monitor indicators for the provision of higher quality open space that compensates for the planned open space being under that outlined in government standards.
3.2	Implement strategies that provides access to Bingara Gorge facilities by residents in other parts of Wilton Junction
	Development of a social plan to promote social activities and connections in the community
3.3	 Employ and support community development worker Develop and apply strategies to involve the community in the creation of the public domain such as tree planting and involvement in running community events and place-making initiatives
3.4	Provide dedicated personnel and appropriate funding for community gardens.

Appendix 2 – Monitoring and Evaluation Plan – Wilton Junction New Town Health Impact Assessment

Performance Indicator	Responsibility	Progress/Actions
Proposed pathways, cycle ways and open space developed	Proponents Council	
Maintenance program established		
Walk ways and cycle ways have been developed using the CPTED criteria	Proponents	
End of trip cycling facilities are developed	Proponents	
CPTED criteria are used in the development of bush tracks. Maintenance program established.	Proponents Council	
Green gym facilities are established on bush tracks.	Proponents	
Strategies developed and implemented to promote the use of green gyms.	Council	
Strategies are developed to maximise car, pedestrian and cycle access between the four quadrants.	Proponents	
Stairs are provided as alternatives to escalators and lifts.	Proponents	
Healthy travel programs are developed	Council	
A detailed plan is developed that includes a significant amount of open space.	Proponents	
A monitoring system implemented.	Council	
Strategies developed to ensure that Residents of Wilton Junction are able to access Bingara Gorge facilities	Proponents	
A social plan developed and a community development worker is employed.	Proponents/ Council	
Well managed community gardens are in operation	Council	

Wollondilly Shire Council

	Actions arising from Recommendations
4	Public Transport
	Support usage of public transport through:
4.1	 Early engagement with the community/stakeholders in planning/delivery of supporting infrastructure. Ensuring connectivity between public transport routes and facilities, services, residential areas and transport hubs. Provision of quality infrastructure (see healthy urban development checklist).
4.2	Promote good connections to public facilities/shopping/public transport to encourage buyers who desire a more active lifestyle and can be marketed accordingly by the developers to potential residents.
4.3	Include within the transport plan consideration of how regional level facilities can be accessed via public transport.
5	Recreation Facilities
5.1	Ensure recreation facilities are readily accessible, visually prominent and located to enhance a sense of community pride and ownership.
5.2	Provide targeted approaches for different population groups (e.g. young people, families, older people, people with disabilities etc.) to encourage access to recreation, entertainment and leisure facilities, and meeting places.
5.3	Ensure the Leisure Centre carries a range or leisure and fitness activities (both aquatic and dry land) consistent with local needs and preferences.
5.4	Provide static exercise equipment and stations along pathways to enhance opportunities for recreational activities to be pursued and be of benefit.
5.5	Ensure community facilities are designed as flexible spaces that can easily adapt to changing needs of the community as it establishes.
5.6	Recreation spaces should be both passive and active spaces that are able to take advantage of the natural beauty of the location while still maintaining public safety standards with regards to lighting etc.
5.7	Identify within the Master Plan how informal/ casual unstructured opportunities for recreation and life stage appropriate recreation facilities are to be provided.
	Supports the Master Plans approach to connectivity through;
5.8	locating recreation facilities near local centres and community facilities.
	the consideration of co-location of facilities to improve access and utilisation.
6	Networking and Community Building
	Involve the community (early) in the design & development of the public domain such as urban design and tree planting, (as well as
6.1	involvement in running community events and place-making initiatives) to build a greater sense of belonging for new/existing residents.
	Be mindful of and seek to alleviate the potential for conflict between existing and new communities when:
6.2	Planning roll out of facilities (who gets what when);
	Communicating importance of shared access, usage of community assets and community identity.
6.3	Community building should be supported by ensuring the provision of community spaces that promote opportunities for interaction, well- being and active living – thus making healthy lifestyle choices easier/more accessible.
6.4	Create neighbourhood 'clusters' of facilities, shops, transport facilities that provide residents with a reason to utilise 'walkable' features of the community, thus increasing opportunities for a greater sense of community connectedness as well as higher levels of physical activity.

Performance Indicator	Responsibility	Progress/Actions
Develop a public transport strategy and monitoring program to track changes overtime.	Proponents Council State Government	
Recreation and facilities plan developed to encourage and support active lifestyle of residents.	Proponents Council	
Guidelines are developed and implemented as development is established.	Proponents Council	

	Actions arising from Recommendations		
7	Community Facilities		
7.1	Support the emphasis in the Master Plan on the design and location of community facilities which are multi-purpose, flexible, co-located and accessible.		
7.2	Consider the provision of other non-standard community facilities such as community gardens.		
8	Employment and Work		
8.1	The Master Plan's intention to provide jobs and services locally through the provision of more than 70% of employment self-sufficiency in Wilton Junction is supported.		
8.2	The HIA supports the indicative connections, pedestrian, cycling and bus, throughout the Master Plan area and also between centres and employment lands.		
8.3	Consideration should be given to innovative work arrangements such as 'smart hubs' which would reduce the need to commute.		
9	Activating the Public Realm		
9.1	Consideration should be given to fostering elements (other than physical) that contribute to successful public places.		
9.2	Develop an overarching strategy, potentially a Development Control Plan or a public realm and movement strategy, to set out how distinctive, interesting and liveable places and the connections between these are to be achieved. The strategy will guide the future design of public spaces throughout the master plan area and might include things like public art, themes for centres, identifying local features to be retained, and creating stimulating and attractive routes for active modes of transport.		

Performance Indicator	Responsibility	Progress/Actions
Consider and plan for the opportunity for community gardens, farmers markets and other non-standard community facilities.	Proponent/ Council	
Consider and plan for the opportunity for smart work hubs.	Proponent	
Strategy to set out how distinctive, interesting and liveable places and the connections between these are to be achieved.	Proponent/Council	







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