Mudgee Hospital
Green Travel Plan
For Health Infrastructure NSW
26 June 2018
Document Control

Mudgee Hospital
Green Travel Plan, Report

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Contact

Andrew Morse
+61 2 8920 0800
+61 414 618 002
andrew.morse@ptcconsultants.co

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ptc
Suite 102, 506 Miller Street
Cammerey NSW 2062
info@ptcconsultants.co
t + 61 2 8920 0800
ptcconsultants.co
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1. Introduction

1.1 Project Summary

ptc. has been engaged by Health Infrastructure NSW (HI) to prepare a Green Travel Plan (GTP) for Mudgee Hospital as per the Secretary’s Environment Assessment Requirements (SEARS).

The redevelopment of the hospital involves demolition of all existing buildings and construction of one consolidated hospital containing all required facilities. The new hospital will be located at the south – west of the site, near the corner of Church and Meares Streets.
1.2 Purpose of the Plan

The purpose of the GTP is to provide a package of measures with the aim of promoting and reducing the reliance on car usage and encouraging and supporting the uptake more sustainable modes of travel.

This may be achieved through the review of existing policies and identifying programmes to encourage hospital visitors and employees to adopt more active and sustainable forms of transport. This document identifies the following:

- Review of existing public transport infrastructure and future transport options;
- Assessment of existing travel patterns within the area;
- A modal share target for the hospital;
- A framework to identify and respond to travel demand from the hospital and surrounding area;
- Strategies to implement prior and during the development; and
- The monitoring strategy to track performance of the Green Travel Plan.
2. Mudgee Hospital

Mudgee Hospital is a regional health service facility with 31 overnight beds, which provides emergency care, domiciliary care, rehabilitation and obstetric services. The campus is located at the north-western corner of Meares & Lewis Streets.

Transport modes available to Hospital attendees (staff, outpatients and visitors) are primarily road, with limited bus services. Per our surveys, no Hospital attendees travel to the Hospital by public transport. All parking (circa 77 spaces) at the Hospital is currently unrestricted and free of charge.

The hospital provides the following services:

- Domiciliary care
- Obstetric services
- Rehabilitation unit
- 24-hour emergency department

A summary of the current key statistics of the Hospital is as follows:

<table>
<thead>
<tr>
<th>Key Statistics</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff – Clinical, Administration &amp; Support Services (FTE)</td>
<td>100</td>
</tr>
<tr>
<td>Overnight Beds</td>
<td>31</td>
</tr>
<tr>
<td>Outpatients Occasions of Services (2016/17)</td>
<td>21,991</td>
</tr>
<tr>
<td>Emergency Department Presentations (2014/15)</td>
<td>12,260</td>
</tr>
</tbody>
</table>

The campus is bordered by Church Street, Meares Street, and Lewis Street.
3. Green Travel Plan (GTP)

3.1 What is a green travel plan?

A GTP is a document that outlines how a development intends to make travel to and from the site safer and more sustainable for employees and visitors. The GTP addresses local traffic issues around the site and encourages active, safe and sustainable travel methods, such as walking, cycling, scooting, public transport or car sharing. A GTP correlates with the development’s overall aspirations and is a document that is monitored and reviewed regularly.

A GTP is not just the installation of bike racks or provision of end-of-trip facilities. A good GTP aims to promote and maximise the use of more sustainable modes of travel via a range of actions, promotional campaigns and incentives. The plan includes site management tools that encourage staff and visitors to make more sustainable transport choices. A GTP requires ongoing implementation, monitoring and review. As such, nominating an individual or a team to oversee the implementation of a travel plan is a crucial component of success.

An effective GTP can offer many benefits such as reduced parking costs, less congestions on the public road networks, health and environmental benefits which generally results a healthier and happier campus with fewer sick days to staff.

3.2 Why a green travel plan is required

Development of a Green Travel Plan is widely accepted as one of the best ways to increase active travel around the site. A successful Travel Plan offers many benefits for the community, including:

- Building confidence and improving social interaction by walking and/or cycling;
- Assists in implementation of health, fitness and wellbeing programs;
- Improving social interaction with others to be more interested and involved in the with the precinct as they walk or cycle;
- Improving safety by reducing traffic and local road congestion;
- Improving the environment by reducing air pollution from private vehicles;
- Creating opportunities for healthier lifestyles and more vibrant, cohesive and accessible communities; and
- Providing individuals with leadership opportunities.

It is likely that staff and visitors with a good understanding of an active and sustainable mode of transport will follow a healthy and active lifestyle, care about the environment and prioritise location and lifestyle over car ownership.
3.3 The purpose of green travel plan

The purpose of the GTP is to provide a package of measures with the aim at promoting and reducing the reliance of private car usage and encourage and support the uptake of daily business in a more sustainable way. This may be achieved through the review of existing policies and identifying programmes to encourage visitors and employees to adopt more active and sustainable forms of transport. This document identifies the following:

- Review of existing public transport infrastructure and future transport options;
- Assessment of existing travel patterns within the area;
- A modal share target for the development;
- A framework to identify and respond to travel demand from the development and surrounding area;
- Strategies to implement prior and during occupancy; and
- The monitoring strategy to track performance of the Green Travel Plan.
4. Existing Transportation Facilities

4.1 Road Hierarchy

The Hospital is located in the centre of Mudgee, which is primarily served by State and Regional Roads including the Castlereagh Highway, Ulan Road and Hill End Road. The site is also serviced by local roads managed by Mid-Western Regional Council.

![Road Hierarchy Map](Source: RMS Classification Review)

The NSW administrative road hierarchy comprises the following road classifications, which align with the generic road hierarchy as follows:

- **State Roads** - Freeways and Primary Arterials (RMS Managed)
- **Regional Roads** - Secondary or sub arterials (Council Managed, Part funded by the State)
- **Local Roads** - Collector and local access roads (Council Managed)
4.2 Public Transport

Bus services to the Mudgee township are provided by Ogdens Coaches. Bus stops are located on Church Street and Meares Street, servicing the Hospital Campus as shown in Figure 2 and Table 2:

The Hospital is serviced by two bus routes only in morning (2-3 hours) and afternoon (2-3 hours) on weekdays.

Both routes provide infrequent services during these hours (4 per day), therefore, bus usage is not a particularly attractive transport option for day-shift and administration staff, who need to be at work prior to the first service time.

Table 2 - Bus routes servicing the Hospital Campus

<table>
<thead>
<tr>
<th>Route No.</th>
<th>Route Name</th>
<th>Weekday Services</th>
<th>Weekend Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>560</td>
<td>Mudgee to Mudgee East at Mudgee Hospital</td>
<td>02, 08, 30, 10: 40, 46, 11: 08, 12: 08, 13: - 14: 39, 45, 15: 07, 16: 15, 21, 43</td>
<td>No Services</td>
</tr>
<tr>
<td>562</td>
<td>Mudgee to Mudgee South at Mudgee Hospital</td>
<td>09: 36, 41, 10: 59, 11: - 12: - 13: 10, 15, 33, 14: - 15: 13, 18, 36, 16: - 17: 44, 49, 07</td>
<td>No Services</td>
</tr>
</tbody>
</table>

4.3 Community Transport

Mid-Western Regional Council provides community transport to people who require specialised needs such as disadvantaged groups in the community, including isolated families, the frail aged, younger people with disabilities, and their carers.
5. Opportunity and targets

5.1 Walking

Walking is likely to be an attractive option for people who live relatively close to the campus. It is a viable transport option for distances under one (1) kilometre (approximately 20-25min) and is often quicker for short trips door to door.

Walking is also the most space efficient mode of transport for short trips and presents the highest benefits.

Walkers might include staff, outpatients and visitors; however, staff on early morning or late evening/night shifts would unlikely to walk for safety reasons. For these reasons, it is expected that walking would only be an attractive mode share for people living locally. This appears to be supported by ptc. surveys which show 4.4% of staff walking to work, while 3.8% of visitors and 5% of outpatients walked to the Hospital.

Co-benefits where walking replaces a motorised trip include improved health for the individual, reduced congestion on the road network and reduced noise and emission pollution. Site observations show that the existing footpath networks and crossing points between the adjoining residential precincts and the hospital are generally adequate.

ptc. site observations show that the existing footpath networks and crossing points between the adjoining residential precincts and the hospital are generally adequate, although there is no pedestrian crossing facility in Church Street. Currently parking is restricted to two (2) hours on the eastern side and unrestricted on the western side (60° angel parking rear to kerb) of Church Street. Staff and visitors to the Mudgee Medical Centre were observed to park on the opposite side (western side) and cross the street. Therefore, further discussion could be held with Mid-Western Regional Council for a possible pedestrian crossing facility in Church Street.

In the staff survey, staff members living within the walking catchment of the hospital could not be determined due to large geometry of the postcode 2850 (Mudgee). As such, it is recommended that further staff survey should be undertaken to target staff living within 800m-1km catchment (approximately 10-20min walk). Walk trip should be promoted to these staff members.

Pedestrian access to the hospital will be separated from the vehicular access.

‘Walk to Work Day’ should be celebrated to the hospital on annual basis.
5.2 Bicycle Infrastructure

Currently 1.5% staff cycle to the hospital, however, 34.3% staff has advised that they would be interested to cycle if end of trip facilities are provided. Currently only one (1) non-standard bike rack is provided at carpark D. No bike was observed to be parked at this rack. However, a bike was found to be parked near car park A. The existing end-of-trip facilities include 3 showers in the Main Hospital and 2 showers in Wellness Centre (for Staff).

Staff members living within 2.5m radius (considered as a short trip) should be encouraged to ride. Discussions could also be held with the Council for a safe and direct cycling path to the hospital from the nearby residential precincts.

5.3 Proposed Bicycle Parking and End-of-Trip Provisions

To improve the future bike usage by the hospital day time staff and visitors, the proposed redevelopment includes:

- 4 Public bike racks (Ground Level Main Entry)
- 5 Staff bike racks (Lower Ground Service Yard)
- 2 Staff WC/Change Rooms (Adjacent to Staff Room)
- 1 Staff Shower (Adjacent to Staff Room)

End of Trip facility example

5.4 Future Transport Targets

To encourage and promote more active travel opportunities, the hospital should consider adopting targets as set by similar hospitals. In addition, it is recommended that the hospital consider carrying out benchmarking by conducting intercept surveys to gain an accurate base from which this data can be improved upon year by year. Should the survey indicate staff living within the 800m-1km catchment area (approximately 10-20min walk), a walking trip should be promoted to these staff members.

These targets would apply to all staff travelling to and from work on a daily basis.
## 6. Strategies

There are a number of strategies which can be employed to encourage non-car modes of transport to and from the Hospital. The following table outlines potential strategies that can be adopted in achieving future transport targets.

Table 3: Potential strategies for adoption to achieve future transport targets

<table>
<thead>
<tr>
<th>Target</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public Transport</strong></td>
<td>Create a map identifying the location of bus stops and routes and make this available to all staff and visitors.</td>
</tr>
<tr>
<td></td>
<td>Promote the use of apps for public transport connectivity.</td>
</tr>
<tr>
<td></td>
<td>Improve the promotion of Public Transport on the Hospital website.</td>
</tr>
<tr>
<td><strong>Cycling</strong></td>
<td>Create maps and bike routes, which link to surrounding key amenities and available facilities.</td>
</tr>
<tr>
<td>Increase journeys to site by cycling</td>
<td>Provide facilities on-site for staff and visitors to repair bikes. Ensure visitor bicycle racks are positioned in an accessible and sheltered location that provides good passive surveillance, and is easily recognisable to visitors.</td>
</tr>
<tr>
<td></td>
<td>Provide secure, internal End of Trip facility with bike storage racks and shower and change amenities.</td>
</tr>
<tr>
<td><strong>Walking</strong></td>
<td>Work in partnership with Council and RMS to determine whether there are opportunities to improve the pedestrian connectivity to the Hospital. For example, ensure that pedestrians are considered within the proposed RMS road upgrades.</td>
</tr>
<tr>
<td><strong>Car Pooling/Car Share</strong></td>
<td>Create, or work with carpooling networks to increase the ability for staff to carpool.</td>
</tr>
<tr>
<td>Improve accessibility to car share</td>
<td>Promote the existence of car share within the building and surrounding areas, via potential promotional campaigns on site.</td>
</tr>
<tr>
<td></td>
<td>Engage with a car share provider to provide spaces/pods within the Hospital. This would provide staff with the ability to undertake short trips during their shift, without having to bring a vehicle to the campus</td>
</tr>
</tbody>
</table>
6.1 Workplace Transport Plans

The core principle in reducing the demand for car parking spaces (specifically for Hospital Staff) is to introduce and promote “Healthy Transport Plans”.

The availability of the rail, bus, cycle and pedestrian network near the Hospital Precinct combined with a proportion of staff living within relatively close proximity to the Precinct clearly highlights the possibility of introducing a robust and sustainable travel plan. Travel plans should aim to:

- Encourage staff, patients and visitors to use more sustainable travel options to get to the Hospital;
- Encourage staff to adopt healthy transport choices such as walking and cycling where this is a realistic option;
- Pursue opportunities for sharing vehicles or transport not only for staff but to explore innovative solutions to minimise journeys;
- Consider journey management and distance covered;
- Ensure that the Hospital’s actions in respect to transport do not have an adverse impact upon the environment and consequently the health of the population which we serve. There is a requirement to balance the needs of patients, visitors and staff against ensuring protection of the environment for which we all have a responsibility; and,

Furthermore, there are other methods of shifting the number of staff accessing work by incentivising and increasing the use of carpooling, cycling, park and ride. However these forms of transport need to be supported by an incentivised system to make these forms of access more desirable than driving.

6.1.1 Dedicated Carpooling Space

The hospital could allocate some dedicated carpooling spaces to promote carpooling by the staff members living in the same areas. There are many ways to manage carpooling spaces which can be explored in due course. As a start, two (2) to three (3) parking spaces are recommended for carpooling with an effective marketing strategy to promote these spaces to the staff members.

6.1.2 Public Transport

To improve the relative attractiveness of public transport, other transport modes such as driving should be benchmarked against and generally exceed the cost of public transport. The Local Health District (LHD) could engage with Council to seek increased bus services at times that staff need to travel.

6.1.3 Car Share

Car share services will remove a common requirement to drive to the hospital for personal or business purposes. Subsidising car share membership will attract more car share users. Inter hospital trips can be made by car share vehicles, thus reducing the overall hospital fleet numbers. Discussion should be held with the car share operators (e.g. GoGet, Flexicar, PopCar etc.) to ascertain the demand for car share vehicles within the hospital campus.
6.1.4 Transport access guide

To encourage staff and visitors to adopt alternative sustainable transport options, a Transport Access Guide should be developed to summarise available transport options identified. A Transport Access Guide is a concise presentation of how to reach the site using low-energy, sustainable and active forms of transport.

The aim of a Transport Access Guide is to make sure people know how to get to the subject development by walking, cycling or public transport (as well as by car).

A Transport Access Guide can take many forms such as a map printed on the back of business cards or invitations to more comprehensive information provided to new residents or staff as part of their induction kit. Guides may be incorporated into stationery, brochures and sales literature and provided electronically on the web site and in emails. An electronic version can be kept on a computer and produced electronically on the web site and in emails. An electronic version can be kept on a computer and produced electronically. Reception and enquiry staff should be familiar with the content so they can advise callers about easy transport alternatives to car travel.

Transport and Access Guides should be included in Green Travel Plans and should comply with RMS guidelines.
7. Steps to develop the green travel plan

To develop a GTP, there are five (5) key steps to follow to commence its operation:

**Step 1 – Set up an Advisory Committee**

- Appoint an individual to coordinate specific actions and to track the progress of this work;
- Develop a working group that involves representatives from the campus community;
- Identify ways how the whole community will be involved and informed of the work (e.g. regular articles in the precinct website / social media).

**Step 2 – Data Collection & Review Existing Situation**

An initial transport survey was carried out as part of the State Significant Development Application, which provides a snapshot of the current travel characteristics. It is recommended that this type of survey is undertaken on a regular basis in order to record the results of the GTP. As a minimum the following questions should be considered:

**Staff Only Questions**

- If you are a staff member, do you have an allocated parking space within the hospital campus?
- How do you currently travel to work and the distance of their travel?
- Based on the public transport and other sustainable travel options available, which would be their preferred mode of travel?
  - Walk/run
  - Bicycle
  - Bus
  - Drive car
  - Passenger in car
  - other ____
- Is your residence in an area not serviced by any of the identified transport options?
- Do you need to drive to work for another reason? Why and how often this would occur (i.e. shift work).

**Visitors Only Questions**
• If you are a visitor, where did you travel from today?
• What mode of transport did you use?
• Why did you use this particular method of travel mode?

All Users
• Have you heard of car share? If this was readily available to you, would you use if you did not have a car parking is unavailable?
• If not, what are the barriers to you using car share to travel to and from site?
• What would make you consider using car share to access the site?
• Any suggestion/recommendations to encourage sustainable mode of transport etc.;

Once the survey findings are available, methods to achieve specific targets can be identified with proposed time frames. This could include adopting strategies outlined in Section 6. These methods and targets are then available to be monitored (refer Section 8).

Step 3 – Prepare the travel plan

Based on the data, an overall vision for the modal travel should be considered with clear objectives. The GTP should be prepared based on those objectives, notably:

• Build a precinct culture that supports active travel by motivating and encouraging the community to get involved
• Set specific SMART (Specific, Measurable, Achievable, Relevant, Timed) targets
• Develop an action plan that lists activities and strategies that eliminates the community’s barriers to active travel to meet the objectives
• Estimate the budget required to meet the objectives, identify funding source and develop implementation strategies
• Review and consult with the community

Step 4 - Deliver & Implement

Once developed, launch the GTP and carry out regular monitoring (every 12 months is recommended) as part of the implementation strategy. Travel mode data should be collected and reviewed each quarter.

Step 5 – Record Results / Recognise Process

The successes of the GTP should be celebrated regularly, for example at key community events. The plan should regularly be reviewed and include new ideas, targets and benchmarks.
8. Monitoring and evaluation

A Travel Plan Co-ordinator and Travel Plan Group should be established to monitor and review the sustainability targets.

As a minimum, the Plan should be reviewed on a quarterly basis incorporating consultation with staff and visitors at the completion of a regular travel survey.

The yearly review should result in an update to the Travel Plan which may include, where necessary:

- Modifications to the previously agreed targets as a result of data collected and analysed.

- Implementation of additional remedial actions if the Travel Plan is not meeting its objectives within the timescales specified which remedial actions may include but not be limited to, undertaking new or additional monitoring activities to those specified in the Travel Plan.

Encourage staff group rides