

Local Government Infrastructure Plan

Active Transport Background Report



Table of Contents

Introduction	2
Active Transport Trips	4
Active Transport Facilities	6
Connecting Places	9
Desired Standard of Service	12
Network Planning Methodology	20
Infrastructure Prioritisation	21
Service Catchments	24
References	63
Catchment Population and Employment Growth	64
Catchment Mapping	65
Project Details	66
Appendix A	
Appendix B	
Appendix C	
Table 1: Trip Types within Hierarchy	10
Table 2: Desired and Undesired Forms for Cycling	13
Table 3: Desired and Undesired Pedestrian Forms	15
Table 4: Provision for Cycling Forms at Various Speeds	16
Table 5: 2021 - 2036 Active Transport Program Summary	21
Table 6: 2021 - 2036 Active Transport Number of Projects by Catchment	22
Table 7: 2021 - 2036 Active Transport Budget Forecasts by Catchment	22
Table 8: Catchment Identifiers	24
Table 9: Woodford Future Infrastructure Summary	26
Table 10: Petrie and Kallangur Future Infrastructure Summary	28
Table 11: Bribie Island Future Infrastructure Summary	31
Table 12: Redcliffe and Kippa-Ring Future Infrastructure Summary	33
Table 13: Dayboro Future Infrastructure Summary	36
Table 14: Burpengary Future Infrastructure Summary	41
Table 15: Caboolture Future Infrastructure Summary	45
Table 16: Morayfield Future Infrastructure Summary	49
Table 17: Deception Bay Future Infrastructure Summary	51
Table 18: North Lakes and Mango Hill Future Infrastructure Summary	54
Table 19: The Hills Future Infrastructure Summary	56
Table 20: Narangba Future Infrastructure Summary	59
Table 21: Strathpine and Brendale Future Infrastructure Summary	62

Figure 1: Mobility User Types	4
Figure 2: Active Transport Route Hierarchy	9
Figure 3: Trunk Route Cycling Form Considerations	14
Figure 4: Vehicle to Cyclist Interaction Considerations	18
Figure 5: MBRC Active Transport Catchments	24
Figure 6: Woodford Future Pedestrian Network	26
Figure 7: Woodford Future Cycling Network	26
Figure 8: Petrie and Kallangur Future Cycling Network	28
Figure 9: Petrie and Kallangur Future Pedestrian Network	28
Figure 10: Bribie Island Future Cycling Network	31
Figure 11: Bribie Island Future Pedestrian Network	31
Figure 12: Redcliffe and Kippa-Ring Future Cycling Network	33
Figure 13: Redcliffe and Kippa-Ring Future Pedestrian Network	33
Figure 14: Dayboro Future Cycling Network	36
Figure 15: Dayboro Future Pedestrian Network	36
Figure 16: Samford Valley Future Cycling Network	38
Figure 17: Samford Valley Future Pedestrian Network	38
Figure 18: Burpengary Future Cycling Network	40
Figure 19: Burpengary Future Pedestrian Network	40
Figure 20: Caboolture West Cycling Infrastructure	43
Figure 21: Caboolture West Pedestrian Infrastructure	43
Figure 22: Caboolture Future Cycling Network	45
Figure 23: Caboolture Future Pedestrian Network	45
Figure 24: Morayfield Future Cycling Network	48
Figure 25: Morayfield Future Pedestrian Network	48
Figure 26: Deception Bay Future Cycling Network	51
Figure 27: Deception Bay Future Pedestrian Network	51
Figure 28: North Lakes and Mango Hill Future Cycling Network	54
Figure 29: North Lakes and Mango Hill Future Pedestrian Network	54
Figure 30: The Hills Future Cycling Network	56
Figure 31: The Hills Future Pedestrian Network	56
Figure 32: Narangba Hill Future Cycling Network	59
Figure 33: Narangba Future Pedestrian Network	59
Figure 34: Strathpine and Brendale Future Cycling Network	61
Figure 35: Strathpine and Brendale Future Pedestrian Network	61

Introduction

INTRODUCTION

BACKGROUND

The purpose of this report is to provide the supporting information for the Active Transport Network within Moreton Bay Regional Council's (MBRC) updated Local Government Infrastructure Plan (LGIP). The LGIP comprises plans for infrastructure within MBRC under categories such as roads, parks, sewer, water and active transport. The purpose of the LGIP is to prioritise projects within Council budgets to efficiently deliver a program of works.

The previous LGIP was released in 2017 and is now being renewed with updated forecasts and planning. The work outlined within this document will inform the development of the updated LGIP2 which is expected to be released in late 2021. The active transport network and infrastructure plan considers other networks within the LGIP, as active transport projects can be delivered as part of projects from other disciplines such as road upgrades, road maintenance and park upgrades.

This report outlines the key considerations and methodologies used to determine the list of future infrastructure projects. It is structured around the following investigation areas:

- Active Transport Trips
- Active Transport Facilities
- Active Transport Hierarchy
- Desired Standard of Service
- Network Planning Methodology
- Service Catchments
- Future Infrastructure Prioritisation

Each of these investigation areas provide background information that supports the development of the Desired Standard of Service and the future infrastructure programme.

The following considerations are outside the scope of this background study report:

- Identification of appropriate funding sources for each individual project
- Constructability or local site-specific constraints

IMPORTANCE OF ACTIVE TRANSPORT

The Queensland Government's Walking Strategy 2019-2029 (State of Queensland, 2019) highlighted the benefits of an active lifestyle to the well-being of the community. Providing communities with safe, clear, direct, attractive and comfortable active transport infrastructure may improve the uptake of active travel modes.

"Active Transport in Moreton Bay provides safe, comfortable and attractive movement choices for more people more often, integral to an active, healthy, vibrant, amenable and sustainable lifestyle"

MBRC Active Transport Vision Statement (2012 – 2031)

Increased uptake of active transport can result in several benefits, both to those who use it and to the wider community. The following benefits are the most widely experienced:

- reduced demand for motorised travel
 - reduced congestion through changed mode share
- reduced environmental impact
 - reduced air pollution, noise pollution and demand on resources
- improved general health and well-being, including mental health

ACTIVE TRANSPORT STRATEGY

The strategy for the identification of the active transport infrastructure prioritises projects which enable the following outcomes:

- providing connectivity to local attractors
- prioritising connectivity to catchments within activity centres and between catchments
- promoting the uptake of active transport
- supporting connectivity to public transport
- providing connectivity to schools
- promoting, where feasible, separated or off-road facilities for the reduction of conflict of active transport users with vehicles
- providing fit-for-purpose solutions

Active Transport

Trips

ACTIVE TRANSPORT TRIPS

USERS

Active transport users are commonly divided into two main categories: pedestrians and cyclists. These categories are typical in the industry and reflect the terminology used in Austroads Guidance for the design of active transport facilities. The following outlines additional specific mobility types within the active transport user groups:

- People with disabilities (e.g. using wheelchairs)
- People using wheeled recreational devices (e.g. rollerblades, skateboards, scooters)
- Personal mobility devices (PMDs)
- Motorised mobility devices (MMDs)
- Wheeled toys (e.g. pedal cars, tricycles)

The following Figure 1 shows the specific mobility types that may typically be present on each type of facility.

Figure 1: Mobility User Types



Each type of active transport user will typically undertake trips for different reasons and will choose their trip mode and route based on how well the infrastructure meets their needs and values.

TRIP TYPES

Users of active transport will usually undertake trips for a variety of reasons, which are often categorised by trip types. These typically vary based on the type of user and the type of active transport method.

Pedestrian trip types include the following:

- Access to public transport
- General sports training
- Walking for recreation and fitness
- Most individual trips include a walking section either as the predominant part of the journey or the first, middle and/or last section of the journey

Cycling trip types include the following:

- Commuting to work and educational centres
- Access to public transport
- Trips to commercial centres
- General sports training
- Cycling for recreation and fitness

USER VALUES

As active transport users typically choose their trip route and consider their user experience based on how infrastructure meets their values it is important to consider these values. Pedestrians and cyclists place different value on different features. According to Austroads (2017), pedestrian network users value:

- Connectivity and flow (most valued)
- Pedestrian safety and personal security (equally most valued)
- Health and well-being
- Supporting facilities

Pedestrians with limited mobility will typically also place a high value on accessibility.

Cycle network users value:

- Safe connectivity and flow (most valued)
- Safe behaviour
- Supporting facilities
- Health, well-being and knowledge

A cyclists' level of experience influences the importance they may place on each of the above values. The active transport network facilitating cycling users have been planned to encourage the uptake of cycling in novice and infrequent cyclists. For inexperienced riders, ensuring that a facility is, and is perceived to be safe is typically the most important consideration.

Active Transport

Facilities

ACTIVE TRANSPORT FACILITIES

FACILITY FORMS

Active transport facilities are broadly categorised by the user groups they are designed for. At a high-level, facilities are typically referred to as Cycling, Pedestrian or Shared (i.e. shared pedestrian and cycling) Facilities. For each of these categories there are several facility types that can be provided to cater for active transport user groups.

Within each facility, design standards allow the provision of different form widths and qualities.

Cycling Facilities

This active transport infrastructure plan nominates cycling facilities for the sole use by cyclists. Although cyclists are legally permitted to use footpaths under the Queensland Road Rules (Queensland Government, 2017), in this Plan footpaths are not considered to be a cycling provision. Cycling provisions are typically separated into the following categories:

- Off-road (exclusive or shared with pedestrians)
- On-road (protected)
- On-road (unprotected)
- Mixed (shared with motor vehicles)

The following are typical types of cycling facilities.

Veloways are high order, trunk route cycling dedicated facilities that are typically designed to a high standard and allow users to travel at high speeds with limited interaction with other modes. They are generally situated on high demand routes, utilising motorways and highways connecting high population areas to centres.

Off-Road Cycle Lanes provide connectivity along the active transport network utilising open space corridors or the road verge. Off-Road Cycle Lanes can provide connectivity to recreational and tourist active transport routes but require additional consideration in terms of supporting facilities including personal safety.

A **Protected Two-Way Cycle Lane** is a consistent two way cycle treatment installed on one side of a road, utilising the existing road width. It is separated from adjacent traffic lanes by a physical kerb or median.

Separated Cycle Lanes are typically located within the left-hand side of a roadway but provide separation between vehicles and cyclists through painted medians or physical kerb or median. Separated cycle lanes are the preferred on-road cycling facility.

On-Road Cycle Lanes are generally located on the left of adjacent in-line traffic flow and are the preferred treatment for cyclists on roads where physical separation is not available. A cycle lane is delineated by regulatory signage and pavement markings.

On-Road Peak Period Cycle Lanes are typically used in constrained environments where the cycling and network peak hour demand coincide, creating a need to temporarily separate user groups. Separation can be created via removal of car parking; however, an adequate level of parking enforcement is required for the treatment to be effective for cyclists.

Contra-flow Bicycle Lanes is an exclusive bicycle lane deployed on one side of the road of a one-way road, allowing cyclists to travel opposite to the legal direction of travel. This facility used sparingly can provide benefits to cyclists from a network connectivity point of view.

Cycle Streets are for cyclists to use the centre of the road. Cycle streets are typically local access, low speed streets within a road network that can be prioritised for cycling movements.

Advisory Bicycle Lanes are advisory bicycle facilities that indicate an area of the carriageway that is intended for the use of cyclists. Parking needs to be either banned or provided as indented bays.

Wide Kerbside Lanes may be appropriate on road corridors with a posted speed limit of up to 70km/h or less. Wide kerbside lanes are appropriate on sections of road where sufficient space is not available to accommodate an exclusive bicycle lane or where parking is either minimal or prohibited during peak periods.

Bicycle Awareness Zones are a line-marking treatment to raise awareness of cyclist presence. This treatment is typically not a desired form of active transport facility and is not supported by several jurisdictions.

Pedestrian Facilities

This active transport infrastructure plan nominates pedestrian facilities for the sole use of pedestrians, which are not intended to be a mixed or shared environment with cyclists.

Footpaths are typically located within the verge of a road corridor, often elevated from traffic lanes through the use of a kerb and separated from the road corridor by landscaping or a grass verge. Footpaths should be planned and provided to cater for a variety of mobilities including mobility impaired and people with wheeled recreational devices (e.g. rollerblades, roller-skates, skateboards, scooter, etc.) or wheeled toys (e.g. pedal cars, tricycles, etc.). Footpaths may also be provided through parks or nature reserves.

Shared Facilities

Shared facilities are planned and provided to cater for use by both pedestrians and cyclists simultaneously.

Shared Paths can be located within a verge of a road corridor and within nature reserves or off-road local areas and parks. Shared paths cater for both pedestrians and cyclists and are appropriate when the demand exists for both, with the form provided satisfying the intensity of both users.

END OF TRIP FACILITIES

The provision of end of trip facilities are not considered within the LGIP planning exercise and should be considered separately; however they are important supporting facilities that enable and encourage the uptake of active transport. End of trip facilities are facilities that are provided within a building, workplace or education facility at the end destination of a journey.

These may include typical facilities such as:

- bicycle racks or secure storage
- lockers
- changing rooms
- showers

End of trip facilities are typically highly valued by users commuting to places of employment and education.

IN-TRIP SUPPORTING FACILITIES

As well as the cycling or pedestrian facility itself and the end of trip facilities, there are several other in-trip facilities that should be considered. Similarly to the end of trip facilities, in-trip supporting facilities are not considered within the LGIP planning. These may include infrastructure elements such as:

- safety provisions, such as balustrading/fencing
- road crossings, in various forms and as required
- rest stops, seating and toilets
- drinking fountains
- cycle repair and maintenance facilities
- digital display usage counters (tube or infrared technologies)
- non-visual display usage counters
- shade
- way-finding signage
- landscaping
- lighting
- provision of locality identifiers for use in emergency situations

This then can inform assessments of offsets and infrastructure provision to ensure that it includes other supporting elements where required.

Active Transport

Hierarchy

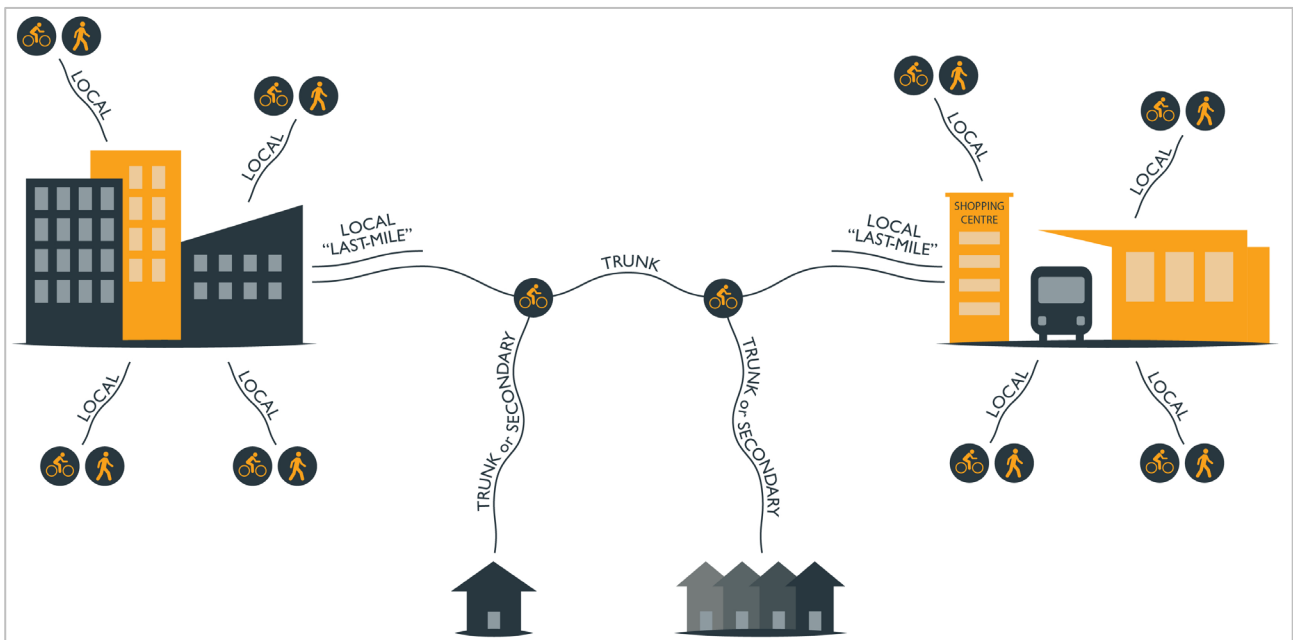
CONNECTING PLACES

HIERARCHY

Within an active transport network, different types of links perform different functions within the network. These can be best categorised within a hierarchy of route types. The hierarchy can also assist in determining which trip types are likely to be undertaken and which user types are likely to be present on different routes. For the purpose of the LGIP, the focus is on infrastructure on trunk routes. Figure 2 demonstrates the active transport route hierarchy.

The function of the active transport hierarchy allows the identification of routes that should be prioritised for provision of high standard facilities. Whilst this approach of designating a route hierarchy is similar to road network management, the hierarchical designations of an active transport facility does not necessarily share that of its road counterpart. Although the LGIP only considers trunk routes, descriptions of all route types have been provided below for context.

Figure 2: Active Transport Route Hierarchy



Trunk Routes

The trunk active transport network's primary function is to provide connectivity to major employment and transport centres for demand within, or to service, the Priority Infrastructure Area. Trunk routes are classified as high demand and high order routes. Trunk routes should act as a spine for the overall network and be safe, high quality, and almost uninterrupted. Trunk routes may also provide long-distance connectivity between activity centres and catchments.

Secondary Routes

The secondary active transport network provides connections from residential catchments and local routes to the trunk routes. Secondary routes have lower demand but should still provide a similar level of quality, safety and connectivity as that of trunk routes.

Local Routes

Local routes are lower demand routes within local road networks. Local routes provide the 'last-mile' connectivity and transition from higher order routes to activity centres.

Recreational Routes

Recreational routes provide long and short distance trails through nature reserves and away from traffic. Recreational routes are typically on unsealed pavements and can provide connectivity between regions.

It is noted that other route types may be used for recreational purposes without being classified as a recreational route.

Last-Mile

Last mile facilities are typically secondary or local routes that provide a critical, short distance link between a higher order route and an intended destination.

Table 1 below matches the Austroads active transport trip types and user types and identifies expected utilisation of each route hierarchy level.

Table 1: Trip Types within Hierarchy

DESCRIPTOR	SUB-DESCRIPTOR	TRUNK ROUTES	SECONDARY ROUTES	LOCAL ROUTES	RECREATIONAL ROUTES
Austroads Cycling Trip Types	Commuting	Yes	Yes	Yes	-
	Utility	Yes	Yes	Yes	-
	Training	Yes	-	-	Yes
	Touring	Yes	-	-	Yes
	Recreation	Yes	-	-	-
Pedestrians	Trips	Possible	Expected	Expected	Expected
Cyclists	Operating Speed	25 ¹ -40km/h	20 ¹ -30km/h	<20km/h	<20km/h
	Immature	-	-	Yes	Yes
	Novice	- ¹	- ¹	Yes	Yes
	Intermediate	Yes	Yes	Yes	Yes
	Advanced	Yes	Yes	Yes	Yes

¹The operating speed and the inclusion of novice riders can be achieved on Trunk and Secondary Routes if the form of the cycling infrastructure is Shared Paths (nature reserve) or higher. For example, the existing Moreton Bay Rail Link Shared Path caters for novice riders.

Desired Standard of Service

DESIRED STANDARD OF SERVICE

As identified, there is a need to shift from Australia's predominantly vehicular mode of transport to more active travel methods. This is best promoted by providing high quality, accessible active transport infrastructure. A Desired Standard of Service (DSS) directs the industry's planners, developers, engineers, designers, and landscape architects in successfully planning, implementing and promoting the uptake of future active transport networks within MBRC's Local Government Area (LGA). The DSS is intended to have a clear and easily interpreted position regarding the acceptable standard for active transport infrastructure.

The active transport DSS provides guidance on the following:

- a structure of route types and hierarchy
- an appropriate form and function of each route type
- the intended user group within each route type
- spectrum of width profiles of each facility
- flexibility for existing constraints and/or financial burdens

For each of the hierarchical levels, the functional requirements were considered to determine the DSS. Trunk routes, for example, have the primary function of providing connectivity to major centres for employment and transport demand. Therefore, DSS facilities should be those that facilitate high demand movement of active transport users.

The different active transport forms can generally be described as one of five categories.

OFF-ROAD

Off-road facilities can be located within the road corridor, or can be separate from the road reserve, such as through a nature reserve or park. Typical examples are:

- Veloways
- Off-road cycle lanes
- Shared paths (through nature reserve)

These facilities are typically suitable where there are high volumes of cyclists. Where cyclists travel at higher speeds, separation from pedestrians should be considered. As these facilities are separate from the road formation they can be constructed from concrete instead of pavement.

ON-ROAD PROTECTED

On-road protected facilities are located within the road formation, but are separated from vehicular traffic by physical barriers such as kerbing. Typical examples are:

- Separated cycle lanes
- Protected two-way cycle lanes

ON-ROAD

On-road facilities are also located within the road formation, but are different to on-road protected facilities as they are typically only separated from vehicular traffic by line marking. Cyclists are given a clearly designated area within which to operate. Typical examples are:

- On-road cycle lanes
- On-road, peak period cycle lanes
- Contraflow cycle lanes

MIXED

Mixed facilities are on-road facilities where there is no clearly designated area for cyclists within the road reserve and motorists are expected to safely pass and give way to cyclists based on the road rules. Line markings may be used to make motorists aware of the presence of cyclists in the area. Typical examples are:

- Cycle streets
- Advisory cycle lanes
- Bicycle awareness zones (BAZ)

FOOTPATHS

Pedestrian forms are those such as footpaths, shared paths and off-road recreational trails.

DESIRED AND UNDESIED FORMS

For each level within the hierarchy of active transport routes, there are facility forms that are deemed desirable and undesirable. For instance, while cycle streets are unlikely to be appropriate for a higher order trunk or secondary route, they may be a desirable treatment on a local route.

From the desired forms for a route type, the chosen facility form should be identified based on what is desirable for the type of route, then based on the expected safety, conflict areas and typical cost. It may also be subject to site constraints.

Cycling Forms

For cycling infrastructure, facilities where cyclists are separated from other road users are typically considered to be more desirable than shared or mixed facilities.

Table 2 shows the desired and undesired forms for cycling facilities for each level of the hierarchy. Figure 3 shows the typical considerations that may assist in determining the most appropriate form, including safety, cost and desired maximum length limitation.

Table 2: Desired and Undesired Forms for Cycling

SUB-DESCRIPTOR	TRUNK ROUTES	SECONDARY ROUTES	LOCAL ROUTES	RECREATIONAL ROUTES
DESIRED	Off-Road Cycle Lanes/Velowsays	Off-Road Cycle Lanes/Velowsays	Off-Road Cycle Lanes	Off-Road Separated Trails (unsealed)
	Shared Paths (nature reserve)	Shared Paths (nature reserve)	Cycle Streets	Off-Road Shared Trails (unsealed)
	Separated Cycle Lanes	Separated Cycle Lanes	Advisory Bicycle Lanes	-
	Shared Paths (road corridor)	Shared Paths (road corridor)	Separated Cycle Lanes	-
	Protected Two-Way Cycle Lanes	Protected Two-Way Cycle Lanes	Shared Paths (nature reserve)	-
	On-Road Cycle Lanes	On-Road Cycle Lanes	Shared Paths (road corridor)	-
	On-Road Peak Period Cycle Lanes	On-Road Peak Period Cycle Lanes	Protected Two-Way Cycle Lanes	-
	Contra-flow Bicycle Lanes	Contra-flow Bicycle Lanes	On-Road Cycle Lanes	-
UNDESIED	Bicycle Awareness Zones	Bicycle Awareness Zones	Bicycle Awareness Zones	All forms within road reserve
	Cycle Streets	Cycle Streets	On-Road Peak Period Cycle Lanes	-
	Advisory Bicycle Lanes	Advisory Bicycle Lanes	Contra-flow Bicycle Lanes	-

Figure 3: Trunk Route Cycling Form Considerations

		DESIRED	SAFE	CONFLICT AREAS	TYPICAL COST	LIMITATION
OFF-ROAD	OFF-ROAD CYCLE LANES/VELOWAYS	↑	↑		↑	← UNLIMITED →
	SHARED PATHS (NATURE RESERVE)					← UNLIMITED →
ON-ROAD (PROTECTED)	SEPERATED CYCLE LANES					← UNLIMITED →
	SHARED PATHS (ROAD CORRIDOR)					← UNLIMITED →
	PROTECTED TWO-WAY CYCLE LANES					← UNLIMITED →
ON-ROAD	ON-ROAD CYCLE LANES					← UNLIMITED →
	ON-ROAD, PEAK PERIOD CYCLE LANES					← MAX 2km →
	CONTRAFLOW CYCLE LANES			↓		← MAX 0.5km →
SHARED	BAZ, CYCLE STREETS, ADVISORY CYCLE LANES	↓				← N/A →
		UNDESIRE	UNSAFE	SHARED IN LANE	TYPICAL COST	LIMITATION

Pedestrian Forms

Provision of pedestrian facilities in at least one verge of a road is considered desirable. In locations where there is likely to be high demand, having a facility on both sides of the road is also preferred.

Table 3 shows the desired and undesired forms for pedestrian facilities at each level of the hierarchy.

Table 3: Desired and Undesired Pedestrian Forms

SUB- DESCRIPTOR	TRUNK ROUTES	SECONDARY ROUTES	LOCAL ROUTES	RECREATIONAL ROUTES
DESIRED	Footpath	Footpath	Footpath	Off-Road Separated Trails (unsealed)
	Shared Paths	Shared Paths	Shared Paths	Off-Road Shared Trails (unsealed)
UN- DESIRED	Missing Facilities	Missing Facilities	Missing Facilities	Missing Facilities

PROVISION

The provision of an active transport facility refers more to its design than the form type, with the width typically being the most critical element of the provision. The provision is dictated by minimum design standards; however, a higher than desired provision should be provided where possible.

For on-road cycling provisions, the width of the facility is typically based on the speed of the road on which it is being implemented. For off-road cycling facilities and shared paths, the width depends on the expected volumes of both pedestrians and cyclists.

Once an appropriate form has been identified, the provision can be determined. Each provision has design requirements that can be found in Austroads guidance. Table 4 shows a minimum and a desirable facility width for each cycling form. Where a cycling form has been determined as being undesirable or unsafe at the identified speed, "N/A" has been used.

Table 4: Provision for Cycling Forms at Various Speeds

		50km/h	60km/h	80km/h	100km/h
OFF-ROAD	OFF-ROAD CYCLE LANES/ VELOWAYS	3.0m - 4.0m	3.0m - 4.0m	3.0m - 4.0m	3.0m - 4.0m
	SHARED PATHS (NATURE RESERVE)	2.5m - 4.0m	2.5m - 4.0m	2.5m - 4.0m	2.5m - 4.0m
ON-ROAD (PROTECTED)	* SEPERATED CYCLE LANES	N/A	1.2m - 2.5m	2.0m - 2.7m	2.5m - 3.0m
	SHARED PATHS (ROAD CORRIDOR)	2.5m - 3.0m	2.5m - 3.0m	2.5m - 3.0m	2.5m - 3.0m
	PROTECTED TWO-WAY CYCLE LANES	3.0m - 4.0m	3.0m - 4.0m	3.0m - 4.0m	3.0m - 4.0m
ON-ROAD	* ON-ROAD CYCLE LANES	N/A	1.2m - 2.5m	2.0m - 2.7m	N/A
	* ON-ROAD, PEAK PERIOD CYCLE LANES	N/A	1.2m - 2.5m	2.0m - 2.7m	N/A
	* CONTRAFLOW CYCLE LANES	1.5m - 2.5m	1.5m - 2.5m <i>with physical seperation</i>	N/A	N/A
SHARED	CYCLE STREETS	4.5m – 5.0m	N/A	N/A	N/A
	ADVISORY CYCLE LANES	1.5m - 2.5m	N/A	N/A	N/A

* Dimensions given per direction of travel

FIT FOR PURPOSE CONSIDERATIONS

The DSS gives practitioners flexibility through both form and provision, to enable the development of fit for purpose outcomes. Dependent on the type and hierarchy of the active transport routes, a certain category of forms may be preferred over others. Each of these forms can then be considered in terms of safety, connectivity, cost and site constraints to determine the most appropriate facility to provide in that location.

Within each form, design standards give flexibility in the provision of a facility. For instance, rather than an on-road cycling lane always having to be the same width, there is the opportunity to provide a narrower lane when on-road speeds are lower, and a wider lane when on-road speeds are higher.

Provision and spacing of supporting facilities such as mid-block crossings, has not been provided as it should be based on likely desire-lines for crossing points and determined on a case-by-case basis.

Vehicle to Cyclist Conflict

For on-road facilities and facilities in the road reserve, there is a risk of vehicle to cyclist conflicts occurring. This risk should aim to be minimised where possible as these crashes typically result in high severity outcomes. Ideally, providing physical separation between users is the best way to achieve this.

Vehicle to cyclist conflicts may also occur at crossing points, so providing appropriate cyclist crossing facilities should also be considered.

Figure 4 has been adapted from Austroads Guide to Road Design (AGRD) Part 4 (Austroads, 2017a), and demonstrates the consideration of vehicle and cyclist conflicts used to determine appropriate forms of cycling facility.

Vehicle to Pedestrian Conflict

Vehicle to pedestrian conflicts are also a risk that should be managed due to the likely high severity outcomes of these conflicts. On higher-order roads pedestrians are most likely to come into contact with vehicles at intersections or crossing points. Where there is demand for a crossing movement, particularly on higher volume or higher speed roads, crossing facilities for pedestrians should be provided as close as practicable to desire lines.

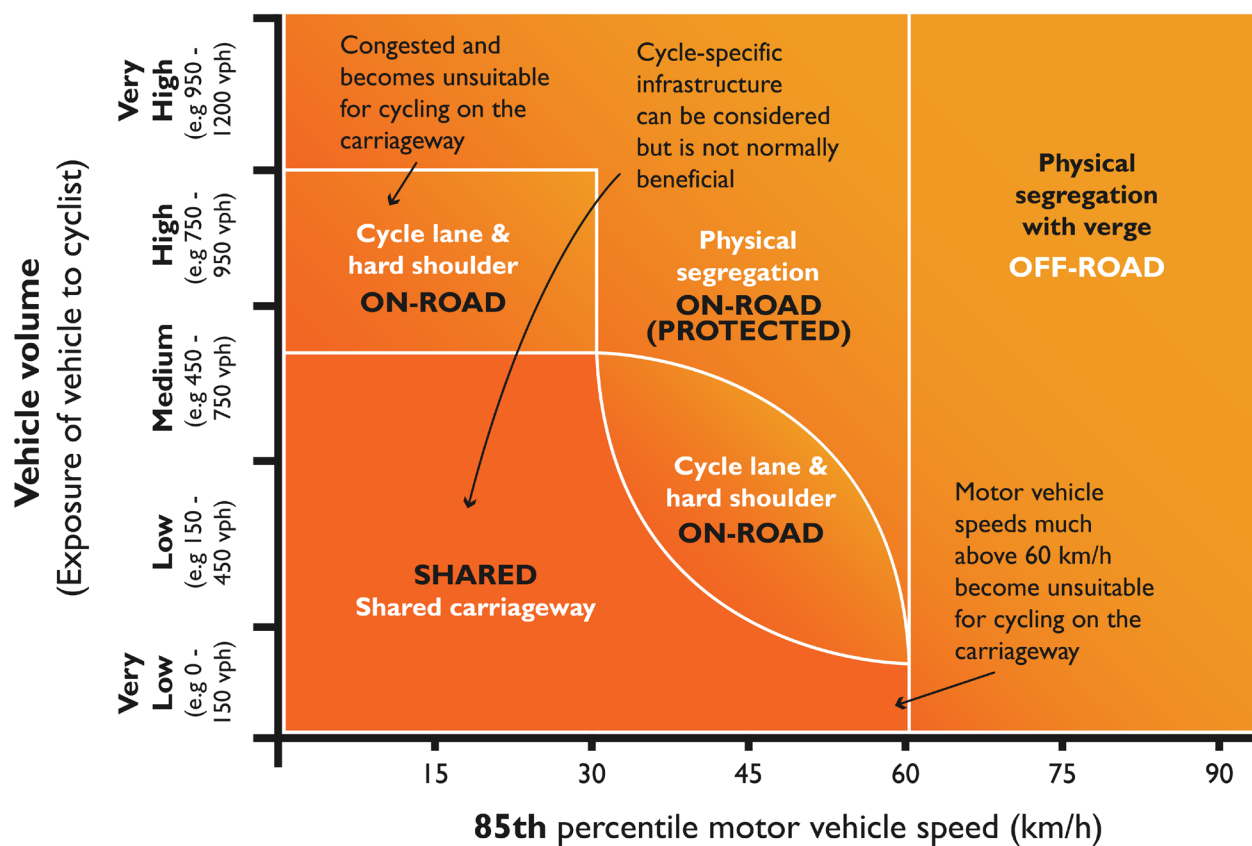
On lower order local roads, where there is no footpath, pedestrians, particularly those with prams or on mobility devices, may choose to operate on road as it may be a more traversable surface than the typically grassed verge. This increases the likelihood of pedestrians coming into conflict with vehicles.

Cyclist to Pedestrian Conflict

Cyclist to pedestrian conflicts are more likely to occur on facilities that are shared between pedestrians and cyclists, i.e. shared paths. When there are relatively low volumes of both cyclists and pedestrians using a shared facility, the likelihood of a conflict occurring may be low. If volumes of pedestrians and/or cyclists are higher, the likelihood of a conflict occurring is higher, and a shared facility may no longer be suitable. Alternatively, if the speeds cyclists are expected to be travelling are high, the severity of a conflict is likely to be higher, and a shared facility may no longer be suitable.

Austroads Guide to Traffic Management Part 4 (Austroads, 2020) provides guidance on the provision of cycling or shared facilities based on the volumes of cyclists and pedestrians and the speeds of cyclists.

Figure 4: Vehicle to Cyclist Interaction Considerations



Network Planning

Methodology

NETWORK PLANNING METHODOLOGY

PRINCIPLES

The network planning was undertaken by first assessing the existing network. This allowed the identification of compliant and non-compliant facilities and enabled the gap analysis. The gap analysis was undertaken to identify gaps in the existing, compliant network. Parts of the network with an existing non-compliant facility were considered for upgrade. During this process, opportunities to provide highly desirable infrastructure and improve the uptake of active transport were also considered.

This resulted in a long list of projects, which was then refined in consultation with Council Representatives before a prioritisation methodology was undertaken.

EXISTING NETWORK

The existing network was categorised based on its existing cycling and pedestrian infrastructure facilities to determine whether the existing facility complied with this Plan's DSS. The following data were used to undertake the assessment of existing infrastructure facilities:

- Existing Network as at LGIP1, July 2017
- Completed LGIP1 Projects, June 2020
- Development Approval conditioned facilities, July 2020
- Aerial Imagery of MBRC, 2018

Where a cycling or pedestrian facility existed but was not deemed appropriate within this DSS, that section was put forward as a potential future project for consideration within the gap analysis.

GAP ANALYSIS

A gap analysis was undertaken at a catchment level. It focused particularly on missing links between existing facilities and the availability of active transport facilities within proximity to attractors such as public transport, schools and retail or employment centres, and areas of future growth.

Future infrastructure projects were also identified where active transport projects may be able to be incorporated into another project, particularly for new road corridors and connections.

The following data informed the undertaking of the gap analysis:

- Existing Network at 2020
- Population and Employment Growth, September 2019
- Train stations within MBRC and adjacent LGAs
- MBRC Schools
- MBRC Parks

OPPORTUNITIES

The following opportunities were identified and have been utilised where possible:

- providing active transport links through parallel, lower volume or lower order road corridors
- providing separated or off-road facilities where the road reserve and geometry allows
- connecting segments of existing infrastructure to provide enhanced connectivity
- utilising shared paths and parks to provide links through reserves

WORKSHOPS AND CONSULTATION

To assist with the planning and prioritisation of appropriate active transport infrastructure facilities, a series of workshops were held with key stakeholder groups. Each of the workshops focussed primarily on a key aspect of the LGIP planning process; existing network and catchments, gap analysis and costing, and prioritisation. Feedback from the workshops was incorporated into the planning exercise.

INFRASTRUCTURE PRIORITISATION

PRIORITISATION

The LGIP2 Infrastructure Program considers projects for delivery up until 2036, split into five-yearly delivery increments. Due to the number of proposed projects, some of the projects proposed at the gap analysis stage were deemed unlikely to be able to be delivered with the expected funding within the 15-year LGIP design horizon. The prioritisation has been utilised to ensure that the projects with the most benefits have been included within the final LGIP2 Infrastructure Program.

METHODOLOGY

The prioritisation of the proposed active transport infrastructure projects was undertaken by performing a Multi-Criteria Analysis. Each project was assessed against the following six categories and given a score:

- **Population:** Density of population at 2036 for the catchment where the project is located.
- **Employment:** Density of employment at 2036 for the catchment where the project is located.
- **Linkage:** Assess the project's direct connectivity between two existing active transport facilities.
- **Schools:** Assess the project's connectivity to an existing educational facility.
- **Attractor:** Assess the project's 'last-mile' connectivity to an existing attractor such as a shopping centre, employment precinct, or public transport hub.
- **Cost:** Anticipated project expenditure.

Some specific projects have been allocated a delivery timing that did not consider the prioritisation Multi-Criteria Analysis, but instead were based on other factors. Typically, this resulted from projects already being programmed for delivery, such as LGIP1 projects, or projects being delivered alongside another major infrastructure project.

PROJECT TIMING

The prioritised infrastructure program has allocated the projects into one of three (3) future timeframes as listed below. Projects that were proposed at the gap analysis stage and did not fall within the expected funding availability for the 15-year design horizon have not been included in the final LGIP2 Infrastructure Program.

- 2021 to 2026
- 2026 to 2031
- 2031 to 2036

The 2021 to 2036 program funding forecast is estimated to be \$56,197,841, with:

- \$18,414,228 in 2021 to 2026
- \$19,121,611 in 2026 to 2031
- \$18,662,002 in 2031 to 2036

This equates to an equivalent yearly expenditure of approximately \$3,746,523. The numbers of projects and expected budget for each of the three design horizons are shown below in Table 5.

Table 5: 2021 - 2036 Active Transport Program Summary

PLANNING HORIZON	NUMBER OF PROJECTS	BUDGET FORECAST
2021-2026	47	\$18,414,228
2026-2031	33	\$19,121,611
2031-2036	45	\$18,662,002

Table 6 and Table 7 below summarise the active transport future program for each catchment by number of projects and budget forecasts.

Table 6: 2021 - 2036 Active Transport Number of Projects by Catchment

Catchment	Description	No. Projects (2021-2026)	No. Projects (2026-2031)	No. Projects (2031-2036)	No. Projects (2021-2036)
1	Woodford	0	1	0	1
2	Petrie Kallangur	5	6	5	16
3	Bribie Island	0	2	0	2
4	Redcliffe and Kippa-Ring	10	10	6	26
5	Dayboro	0	0	1	1
6	Samford Valley	0	0	0	0
7	Burpengary	6	0	5	11
8	Caboolture West	0	0	0	0
9	Caboolture	7	1	5	13
10	Morayfield	9	1	6	16
11	Deception Bay	1	4	6	11
12	North Lakes and Mango Hill	2	3	0	5
13	The Hills	2	1	5	8
14	Narangba	2	1	0	3
15	Strathpine and Brendale	3	3	6	12
TOTAL		47	33	45	125

Table 7: 2021 - 2036 Active Transport Budget Forecasts by Catchment

Catchment	Description	Project Value (2021-2026)	Project Value (2026-2031)	Project Value (2031-2036)	Project Value (2021-2036)
1	Woodford	\$-	\$3,126,816	\$-	\$3,126,816
2	Petrie Kallangur	\$3,492,437	\$2,646,898	\$361,829	\$6,501,164
3	Bribie Island	\$-	\$175,611	\$-	\$175,611
4	Redcliffe and Kippa-Ring	\$2,248,330	\$6,916,141	\$1,139,613	\$10,304,084
5	Dayboro	\$-	\$-	\$1,913,048	\$1,913,048
6	Samford Valley	\$-	\$-	\$-	\$-
7	Burpengary	\$3,737,896	\$-	\$1,632,816	\$5,370,712
8	Caboolture West	\$-	\$-	\$-	\$-
9	Caboolture	\$2,387,299	\$303,152	\$1,212,158	\$3,902,609
10	Morayfield	\$1,223,344	\$436,808	\$4,345,212	\$6,005,364
11	Deception Bay	\$616,941	\$1,434,066	\$1,721,586	\$3,772,593
12	North Lakes and Mango Hill	\$320,950	\$1,394,647	\$-	\$1,715,597
13	The Hills	\$2,166,700	\$887,014	\$5,379,962	\$8,433,676
14	Narangba	\$1,816,633	\$413,844	\$-	\$2,230,477
15	Strathpine and Brendale	\$403,698	\$1,386,614	\$955,778	\$2,746,090
TOTAL		\$18,414,228	\$19,121,611	\$18,662,002	\$56,197,841

Service

Catchments

SERVICE CATCHMENTS

SUMMARY

The Local Government Area of Moreton Bay was divided into a number of service catchments to represent the expected service areas by active transport. Service catchments were determined by identifying activity centres, rural centres and areas that had been identified for future development and assigning a surrounding area as the catchment. The catchments within the LGA are shown Figure 5. Each catchment has been named based on the major centres within the catchment area. Although the catchment names do correlate with suburb names, the catchments often encompass several suburbs.

Each of the catchments has been assigned a number from 1 to 15, as shown in Table 8 below. For additional mapping regarding population and employment growth in the respective catchment, see Appendix A. It is noted that as the LGIP only considers the trunk infrastructure network, the secondary, local, last-mile and recreational infrastructure are not shown within any of the mapping.

Figure 5: MBRC Active Transport Catchments

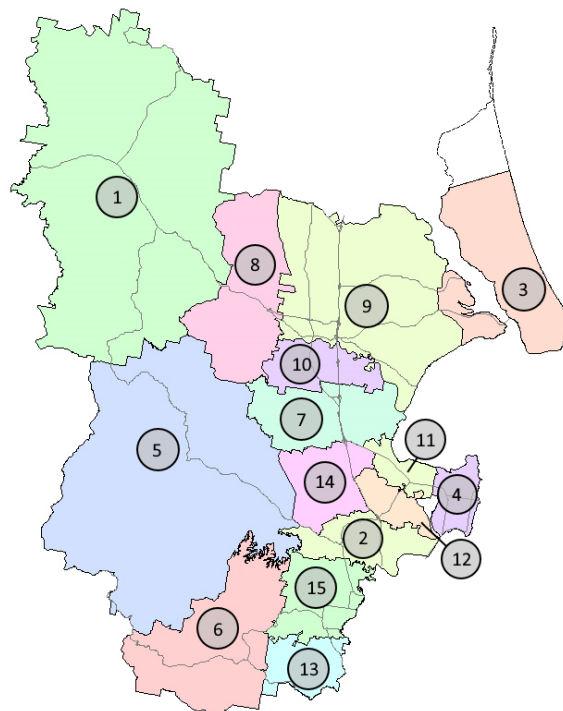


Table 8: Catchment Identifiers

ID	CATCHMENT	CATCHMENT SIZE (KM ²)	EXPECTED POPULATION (2036)	EXPECTED EMPLOYMENT (2036)
1	Woodford	537.90	11,334	2,855
2	Petrie and Kallangur	50.75	69,676	15,593
3	Bribie Island	167.30	33,780	6,069
4	Redcliffe and Kippa-Ring	27.75	78,167	23,226
5	Dayboro	461.45	10,484	1,434
6	Samford Valley	151.51	13,747	1,864
7	Burpengary	81.15	51,107	8,957
8	Caboolture West	121.64	17,075	3,427
9	Caboolture	235.86	57,966	25,471
10	Morayfield	44.39	55,363	15,529
11	Deception Bay	20.91	31,136	7,752
12	North Lakes and Mango Hill	25.20	49,734	21,091
13	The Hills	40.68	34,958	6,472
14	Narangba	55.52	31,273	8,249
15	Strathpine and Brendale	59.67	69,099	31,288

CATCHMENT 1 - WOODFORD

Local Area Attractors

The Woodford catchment is a large rural district with limited pockets of residential development. The most populated area is Woodford town, located in the centre of the district. The catchment is in the north-western corner of MBRC and shares its northern and western borders with Sunshine Coast Council and Somerset Regional Council, respectively. The catchment borders Caboolture and Caboolture West to the east, and Dayboro to the south.

The catchment includes a limited number of attractors that generate pedestrian and cyclist trips. These attractors include:

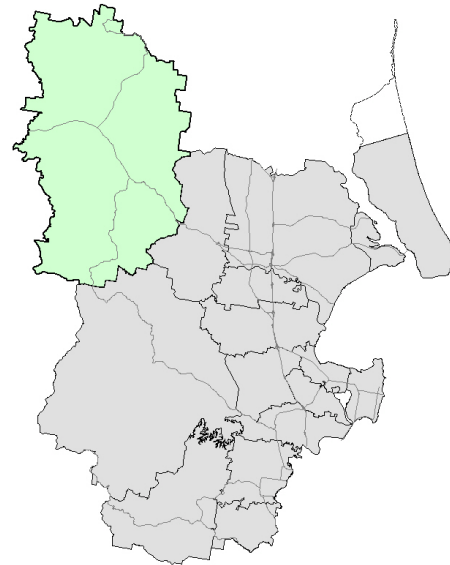
- **Woodford town Centre:** This is the largest town in the area and features supermarkets and food outlets. These will provide as a generator for pedestrian and cyclist trips.

Woodford is a relatively undeveloped area. As a result, the catchment features a smaller public transport network than other surrounding catchments.

Growth Areas

The Woodford catchment is expected to experience a low population growth of less than 6,000 between 2021 and 2036. This consists of anticipated population increases of:

- A medium growth around the area of D'Aguilar, with significant increase occurring after 2031.
- A small increase in the Woodford town area.



Jobs in the catchment are expected to experience a small increase of less than 1,000 from 2021 to 2036. The following areas will experience specific growths of:

- A small increase in the township of Woodford.
- A small increase around the D'Aguilar area.

Future Infrastructure Summary

The future active transport infrastructure projects (both cycling and pedestrian) planned for the Woodford catchment are shown in Figure 6 and Figure 7, and summarised in Table 9 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 6: Woodford Future Pedestrian Network

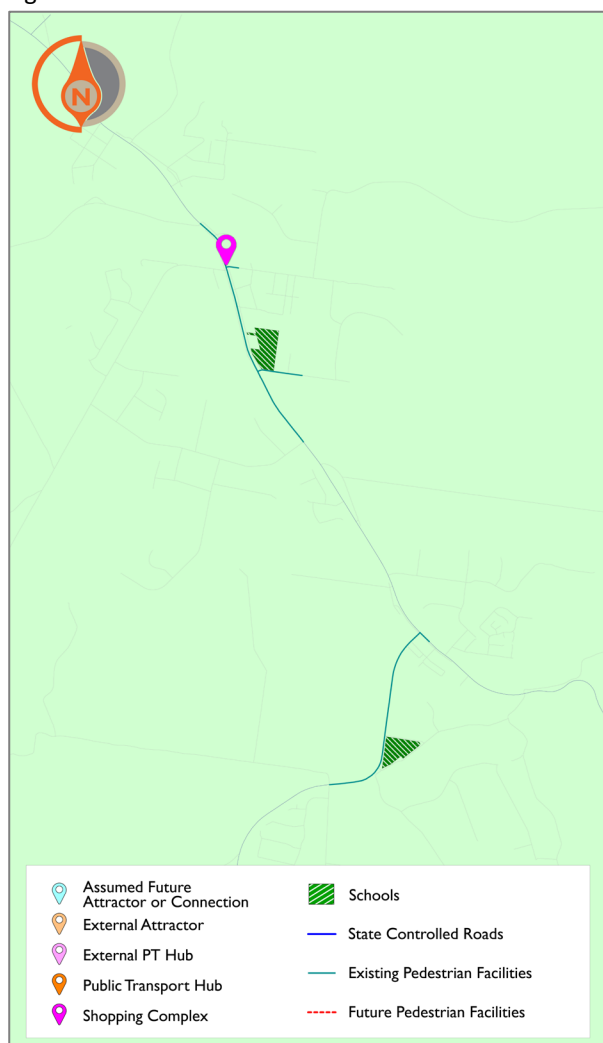


Figure 7: Woodford Future Cycling Network

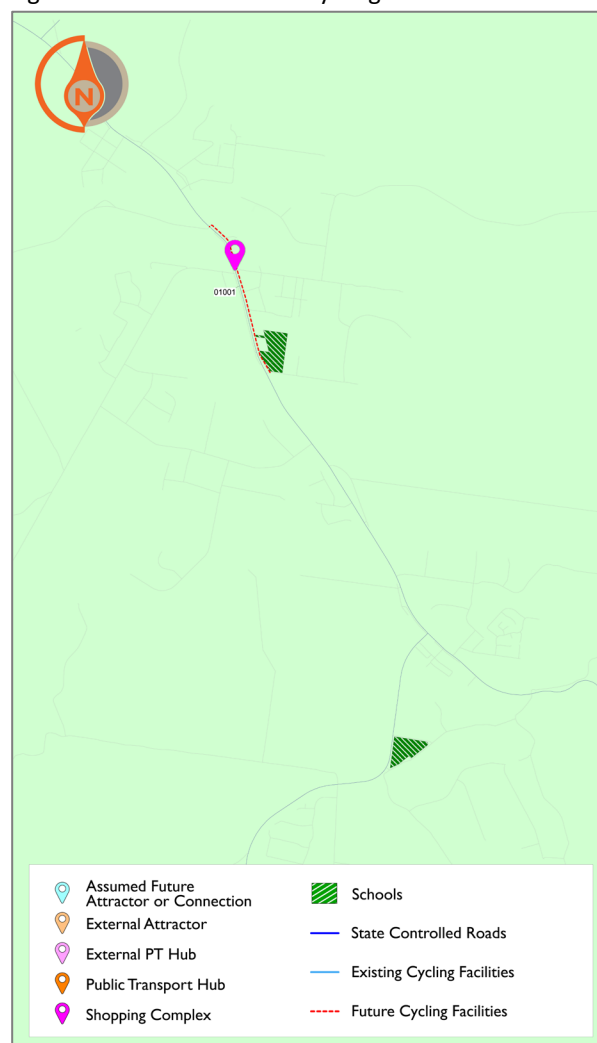


Table 9: Woodford Future Infrastructure Summary

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
1001	New two-way protected on-road cycle lanes on Archer St from Margaret St to Neurum Rd, Woodford		✓	

CATCHMENT 2 - PETRIE AND KALLANGUR

Local Area Attractors

The Petrie and Kallangur catchment is a residential pocket located in the centre of MBRC, with many new housing and industrial developments popping up. The catchment borders Strathpine and Brendale to the south, Narangba to the North, and North Lakes and Mango Hill to the east. The suburbs in this catchment consist largely of low-density residential dwellings, with new housing estates and educational institutions being developed on existing industrial and farmland.

Public transport in the catchment consists of four train stations (Lawnton, Petrie, Kallangur, Murrumba Downs), which all provide connections along the Kippa-Ring Line. The Petrie train station also provides access to the Caboolture – Ipswich line, and further into the Queensland Rail intrastate network.

Other attractors in the area consist of:

- University of Sunshine Coast (USC) Moreton Bay campus: The university campus is a new facility located on the disused Petrie Mill site and is expected to produce significant population and job growth in the catchment.
- Dohles Rocks Road industrial estate: This area features several small to medium sized businesses, including vehicle maintenance shops and childcare centres.
- The Element new housing development: This is a large-scale new housing development located in Griffin, which will generate a large volume of pedestrians and cyclists travelling to schools and public transport hubs in the area.

Growth Areas

The Petrie and Kallangur catchment is expected to have a large population growth of more than 12,000 between 2021 and 2036. In particular, the following areas will experience anticipated population growth of:



- A large increase in Kallangur and Dakabin, with significant growth expected to occur after 2031.
- A small increase in the Petrie area.
- A large increase in the suburbs of Murrumba Downs and Griffin.

The catchment is expected to see a large job growth of more than 5,000 between 2021 and 2036. The following areas will experience specific growths of:

- A large increase in Petrie, with significant growth occurring before 2026.
 - This is in alignment with the expected completion and opening of the USC Moreton Bay campus.
- A medium increase in the Kallangur and Dakabin area.
- A small increase in Griffin and Murrumba Downs.

Future Infrastructure Summary

The future active transport infrastructure projects (both cycling and pedestrian) planned for the Petrie and Kallangur catchment are shown in Figure 8 and Figure 9, and summarised in Table 10 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 8: Petrie and Kallangur Future Cycling Network



Figure 9: Petrie and Kallangur Future Pedestrian Network

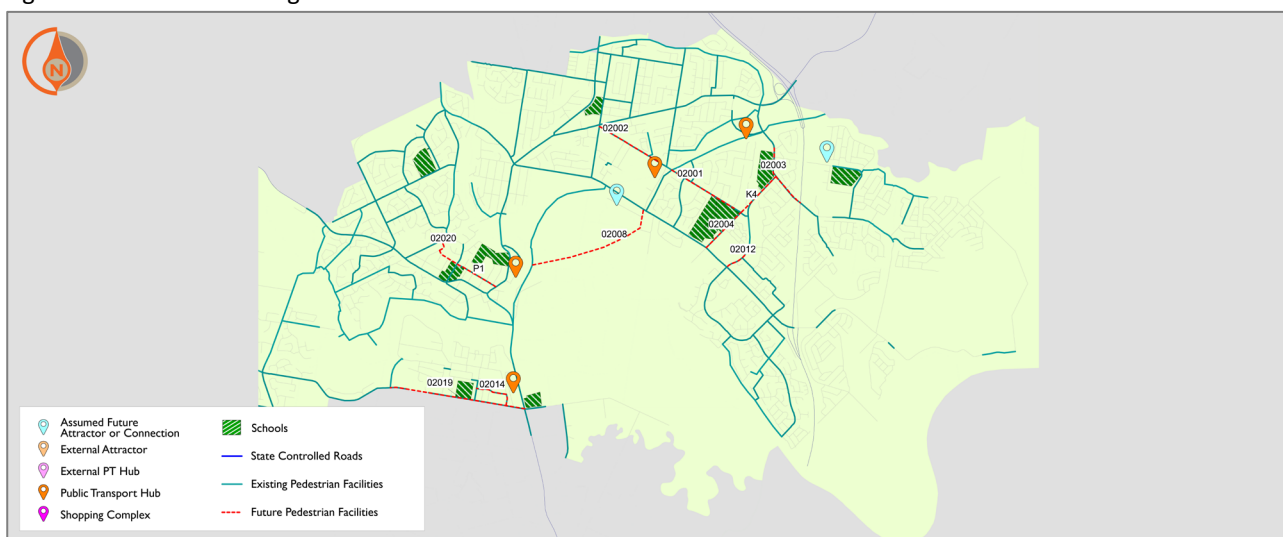


Table 10: Petrie and Kallangur Future Infrastructure Summary

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
K4	New 1.2m footpath in one verge on Ogg Road and McClintock Drive from Goodfellows Rd to Brays Rd, Murrumba Downs			✓
2001	Upgrade footpath to shared path in verge on Goodfellows Rd from Moreton Bay Rail Cycleway to Goodwood Rd, Murrumba Downs	✓		
2003	Upgrade footpath to shared path in verge on Brays Rd from Bruce Highway to Moreton St, Murrumba Downs	✓		
2004	Upgrade footpath to shared path in verge on Ogg Rd from Goodfellows Rd to Dohles Rocks Rd, Murrumba Downs	✓		
2019	Upgrade footpath to shared path in verge on Todds Road from Gympie Rd to Ron Thomason Park, including new bridge between Tapini Ave E and Tapini Ave W, Lawnton	✓		
2014	Upgrade footpath to shared path in verge on Butcher Ave from Todds Rd to Spencer St, Lawnton	✓		

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
2002	Upgrade footpath to shared path in verge on Goodfellows Rd from School Rd to Duffield Rd, Kallangur	✓		
2008	New 3.0m shared path in verge on Petrie Mill Campus from Petrie Train Station to Dohles Rocks Rd, Kallangur	✓		
2016	New on-road cycle lanes on existing formation on School Rd from Anzac Ave to Brickworks Rd, Kallangur		✓	
2020	Upgrade footpath to shared path in verge on Joora Avenue from Young St to Woonara Dr, Petrie	✓		
P1	Upgrade footpath to shared path in verge on Young Street from Anzac Ave to Joora Ave, Petrie	✓		
K1	New on-road cycle lanes on existing formation on Anzac Ave from School Rd to Duffield Rd, Kallangur		✓	
2006	New on-road cycle lanes on existing formation on School Rd from Dohles Rocks Rd to Doon St, Kallangur		✓	
2011	New on-road cycle lanes on existing formation on Duffield Rd from Anzac Ave to Orchid Ave, Kallangur		✓	
P3	New on-road cycle lanes on existing formation on Frenchs Road from Beeville Rd to Rue Montaigne, Petrie		✓	
2012	Upgrade footpath to shared path in verge on McClintock Dr from Dohles Rocks Rd to Entry Parade, Murrumba Downs	✓		

CATCHMENT 3 - BRIBIE ISLAND

Local Area Attractors

The Bribie Island catchment is located off the coast of Moreton Bay in the north-eastern corner of MBRC. The majority of the catchment is surrounded by water and is connected to the mainland via the Pumicestone Passage Bridge. Adjoining catchments consist only of Caboolture and Morayfield to the west. Housing in the area is mainly low-density residential dwellings, with some medium-density housing located along the waterfront. A considerable portion of the catchment is taken up by uninhabited national park and forestry plantations.

The catchment includes a vast amount of shoreline, which acts as a significant attractor for active transport movements to and from the waterfront corridor. Other major attractors include:

- **Bribie Island Shopping Centre:** This is the largest shopping precinct in the catchment and is in close to proximity to surrounding residential suburbs. This will generate a high number of pedestrian and cyclist trips.

The Bribie Island catchment does not feature any train stations and utilises only minor bus routes for public transport around the catchment.

Growth Areas

The Bribie Island catchment is expected to experience a small population growth of less than 5,000 between 2021 and 2036. This consists of anticipated population increases of:

- A medium growth in the areas of Sandstone Point and Beachmere, with significant increase expected to occur by 2026.
- A medium growth on the western side of the island around Bongaree, Bellara and Banksia Beach. With a significant population increase expected to occur by 2026.
- A small growth in the northern pocket of Pacific Harbour.



Jobs in the catchment are expected to experience a small increase of less than 1,000 from 2021 to 2036. The following areas will experience specific growths of:

- A small growth on the western side of the island around Bongaree, Bellara and Banksia beach.
- A small growth on the mainland around Sandstone Point, with significant increase occurring by 2031.

Future Infrastructure Summary

The future active transport infrastructure projects (both cycling and pedestrian) planned for the Bribie Island catchment are shown in Figure 10 and Figure 11, and summarised in Table 11 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 10: Bribie Island Future Cycling Network

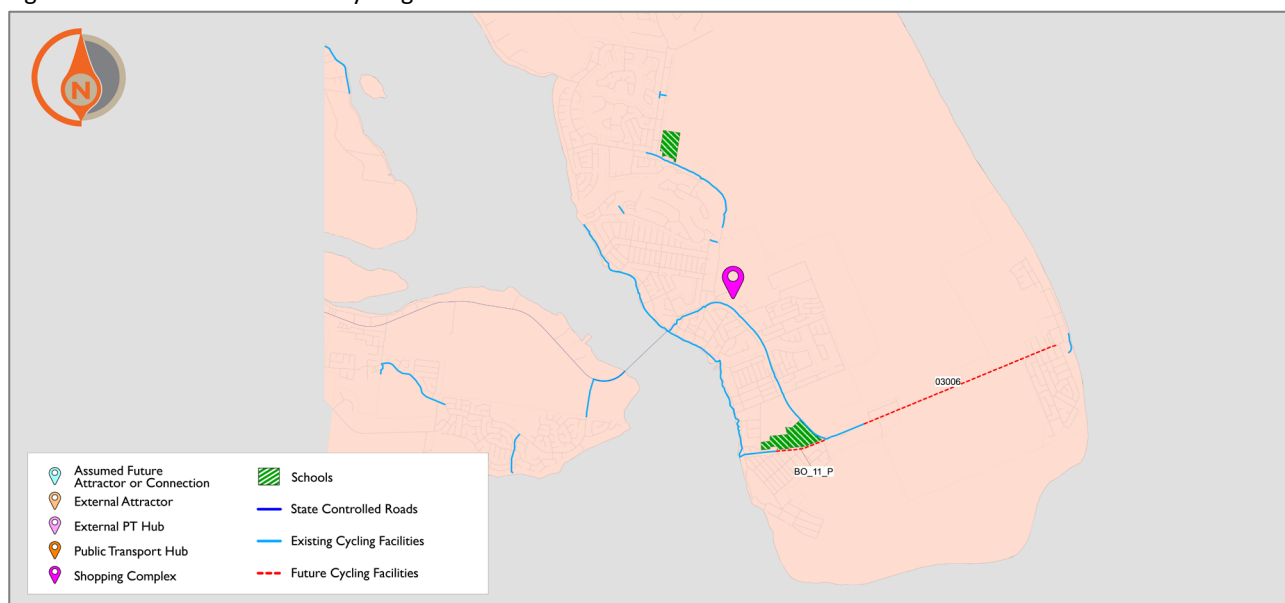


Figure 11: Bribie Island Future Pedestrian Network

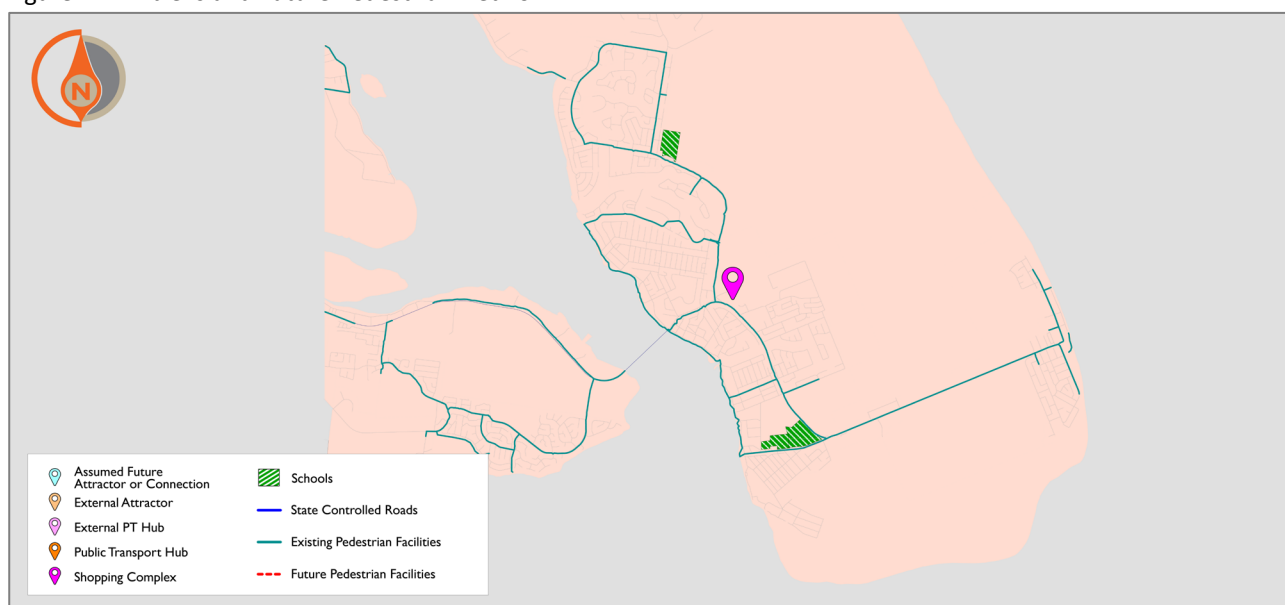


Table 11: Bribie Island Future Infrastructure Summary

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
BO_11_P	New on-road cycle lanes on existing formation on First Ave, Bongaree from Goodwin Dr to Bonham St, Bongaree		✓	
3006	New on-road cycle lanes on existing formation on First Ave, Woorim from 195 First Ave to Boyd Street, Woorim		✓	

CATCHMENT 4 - REDCLIFFE AND KIPPA-RING

Local Area Attractors

The Redcliffe and Kippa-Ring catchment is a well-established suburban area located on the south-eastern edge of MBRC. The catchment borders the Deception Bay catchment to the west and Brisbane City Council (BCC) to the south. The suburbs consist largely of low-density residential areas, with medium-density residential housing located along the waterfront.

The catchment includes a vast amount of shoreline, which acts as a significant attractor for active transport movements to and from the waterfront corridor. Major attractors include:

- **Redcliffe Beach:** This area features a large volume of pedestrians and cyclists due to the number of cafes, shops and restaurants located in the area.
- **Peninsula Fair Shopping Centre:** This is a major attractor featuring large supermarkets and a shopping centre precinct.

Major public transport links in the catchment includes the Kippa Ring Train Station on the western edge of the catchment and the Redcliffe Beach bus interchange on the eastern edge. The rail line provides direct access to the Brisbane CBD and features an additional bus interchange facility. The Moreton Bay Rail Cycleway also starts at this location and provides bicycle access to the North Lakes catchment. The Redcliffe bus interchange facility provides direct access to major surrounding attractors such as Westfield North Lakes. The Ted Smout Memorial Bridge on the southern border also provides a major active transport link between the Redcliffe and Kippa-Ring catchment and Brisbane City Council's northern suburbs of Brighton, Bracken Ridge and Sandgate.

Growth Opportunity

The Redcliffe/Kippa-Ring catchment is expected to experience a large population growth of over 12,000 between 2021 and 2036. This consists of anticipated population increases of:



- A large growth in the Newport area, with significant increase occurring by 2026.
- A large growth in the eastern region around Redcliffe.
- A medium population increase in the southern area around Margate and Woody Point.

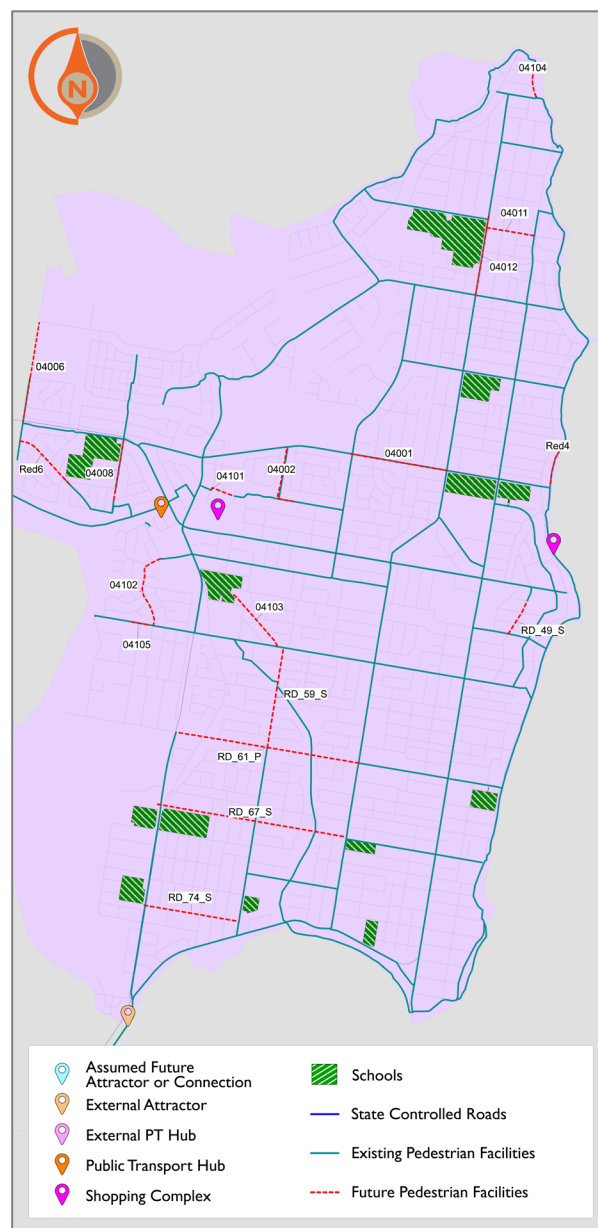
Jobs in the catchment are expected to experience a medium increase of less than 5,000 from 2021 to 2036. The following areas will experience specific growths of:

- A medium increase in the Redcliffe region, with a significant growth expected to occur by 2026.
- A small increase in the northern area of Newport and Scarborough, with a significant increase expected to occur by 2026.

Future Infrastructure Summary

The future Active Transport infrastructure projects (both cycling and pedestrian) planned for the Redcliffe and Kippa-Ring catchment are shown in Figure 12 and Figure 13, and summarised in Table 12 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 13: Redcliffe and Kippa-Ring Future Pedestrian Network



IDENTIFIER		LOCATION	SHARED	CYCLING	PEDESTRIAN
4002	Upgrade footpath to off-road shared path between Dalton St and Klinger Rd, Redcliffe		✓		
4001	Upgrade footpath to shared path in verge on Klingner Rd from Ashmole Rd to Scarborough Rd, Redcliffe		✓		
4008	Upgrade footpath to shared path in verge on Hercules Rd from Anzac Ave to Southwell St, Kippa-Ring		✓		
Red8	New on-road cycle lanes on existing formation on Duffield Road from Margate Pde to Victoria Ave, Margate			✓	

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
4007	New on-road cycle lanes on existing formation on King St from Snook St to Victoria Ave, Clontarf		✓	
4004	New on-road cycle lanes on existing formation on King St from Victoria Ave to Margate Parade, Woody Point		✓	
4012	Upgrade footpath to shared path in verge on Scarborough Rd from Griffith Rd to Sunnyside Rd, Scarborough	✓		
RD_67_S	New 1.2m footpath in one verge on King St from Snook St to Victoria Ave, Clontarf			✓
RD_74_S	New 1.2m footpath in one verge on Cornelius St from Elizabeth Ave to Maine Rd, Clontarf			✓
4101	New 1.2m footpath in one verge on Dorothy St from Macfarlane St to Hungerford St, Kippa-Ring			✓
4003	New on-road cycle lanes on existing formation on Recreation St and Scarborough Rd from Klingner Rd to Anzac Ave, Redcliffe		✓	
Red6	New 3.0m shared path in verge on Nottingham St between Chelsea St and Fleet Dr, Kippa-Ring	✓		
4103	New 1.2m footpath in both verges on Church St from Macdonnell Rd to Henzell St, Kippa-Ring			✓
RD_14_S	New 1.8m on-road cycle lanes with road widening on Oxley Ave from Anzac Ave to Donkin St, Redcliffe		✓	
4105	New 1.2m footpath in one verge on Macdonnell Rd at Grice St, Clontarf			✓
Red4	Upgrade footpath to shared path to cross streets between Klingner Rd and Shields St, Redcliffe	✓		
RD_49_S	New 1.2m footpath in one verge on John St from Sydney St to Henry St, Redcliffe			✓
4102	New 1.2m footpath in one verge on Miller St from Macdonnell Rd to Ballina St, Kippa-Ring			✓
4005	New on-road cycle lanes on existing formation on Scarborough Rd from Griffith Rd to Eversleigh Rd, Redcliffe		✓	
4006	New 3.0m shared path in verge on Nathan Road between Anzac Avenue and Lakeview Promenade, Kippa-Ring	✓		
RD_59_S	New 1.2m footpath in one verge on Maine Rd from Macdonnell Rd to Duffield Rd, Clontarf			✓
RD_61_P	New 1.2m footpath in one verge on Duffield Rd, Clontarf from Snook St to Victoria Ave, Clontarf			✓
4011	New 3.0m shared path in verge on Murphy St from Landsborough Ave to Scarborough Rd, Scarborough	✓		
4010	New on-road cycle lanes on existing formation on Griffith Rd from Scarborough Rd to Prince Edwards Parade, Scarborough		✓	
4013	New on-road cycle lanes on existing formation on Woodcliffe Cres from Oxley Ave to Gayundah Esp, Woody Point		✓	
4104	New 1.2m footpath in both verges on Fortune St from Fifth Ave to Second Ave, Scarborough			✓

CATCHMENT 5 - DAYBORO

Local Area Attractors

The Dayboro catchment is a very large rural district located on the western edge of MBRC. The catchment shares its western border with the Somerset Regional Council and its northern, eastern, and southern borders with many MBRC catchments. The most populated area is Dayboro town, located in the centre of the district.

The catchment includes a limited number of attractors that generate pedestrian and cyclist trips. These attractors include:

- **Dayboro Town Centre:** This is the largest town in the area and features supermarkets and food outlets. These will provide as a generator for pedestrian and cyclist trips.

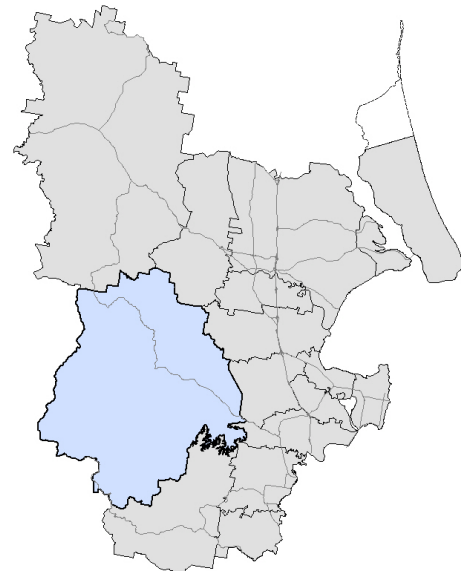
Dayboro is a relatively undeveloped area. As a result, the catchment does not feature any major public transport links and utilises minimal bus routes as public transport.

Growth Areas

The Dayboro catchment is expected to experience a small population growth of less than 6,000 between 2021 and 2036. This consists of anticipated population increases of:

- The majority around the township of Dayboro, with significant increase expected to occur by 2026.

Jobs in the catchment are expected to increase by less than 1,000 from 2021 to 2036. This is expected to mostly occur around the Dayboro town centre, with a significant increase occurring by 2026.



Future Infrastructure Summary

The future active transport infrastructure projects (both cycling and pedestrian) planned for the Dayboro catchment are shown in Figure 14 and Figure 15, and summarised in Table 13 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 14: Dayboro Future Cycling Network

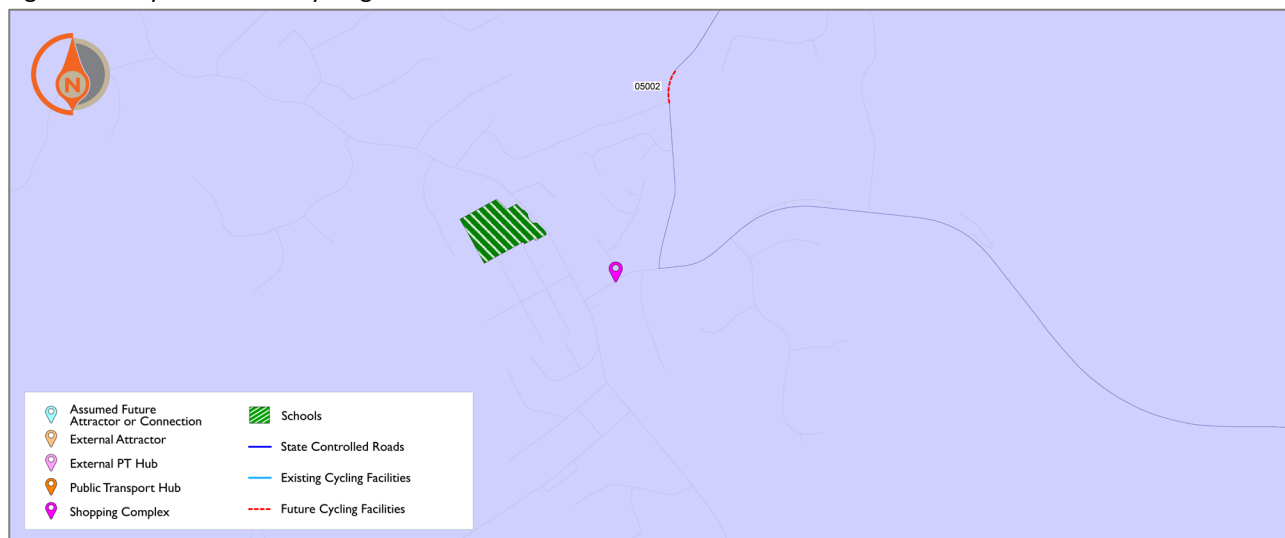


Figure 15: Dayboro Future Pedestrian Network



Table 13: Dayboro Future Infrastructure Summary

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
5002	New 3.0m shared path in verge on Mount Mee Road, across Terrors Creek, including a bridge, Dayboro	✓		

CATCHMENT 6 - SAMFORD VALLEY

Local Area Attractors

The Samford Valley catchment is a large semi-rural area located on the south-western edge of MBRC. The area is made of mostly semi-rural residential properties with pockets of low-density housing estates. The catchment shares its western and southern borders with the Somerset Regional Council and BC, respectively. Samford valley also borders the MBRC catchments of Dayboro to the north, and Strathpine and Brendale and The Hills to the east. The most populated area is Samford Village, located near the districts' eastern border.

The catchment includes a number of attractors that generate pedestrian and cyclist trips. These attractors include:

- **Samford Valley Shopping Complex:** This is the largest town in the area and features supermarkets and food outlets. These will provide as a generator for pedestrian and cyclist trips.

Samford valley features a low population density and very limited pockets of housing estates. As a result, the catchment does not feature any major public transport links and utilises minimal bus routes as public transport.

Growth Areas

The Samford Valley catchment is expected to experience a small population growth of less than 6,000 between 2021 and 2036. This consists of anticipated population increases of:

- A small growth around the township of Samford Village, with significant increase occurring by 2031.
- A small growth around the suburbs of Camp Mountain and Wights Mountain.



Jobs in the catchment are expected to experience a small increase of less than 1,000 from 2021 to 2036. This is expected to mostly occur around Samford Village.

Future Infrastructure Summary

There are no future active transport infrastructure projects proposed within the LGIP horizon. The existing infrastructure within Samford Valley for cyclists and pedestrians are shown in Figure 16 and Figure 17 below. Refer to Appendix B for detailed mapping.

Figure 16: Samford Valley Future Cycling Network

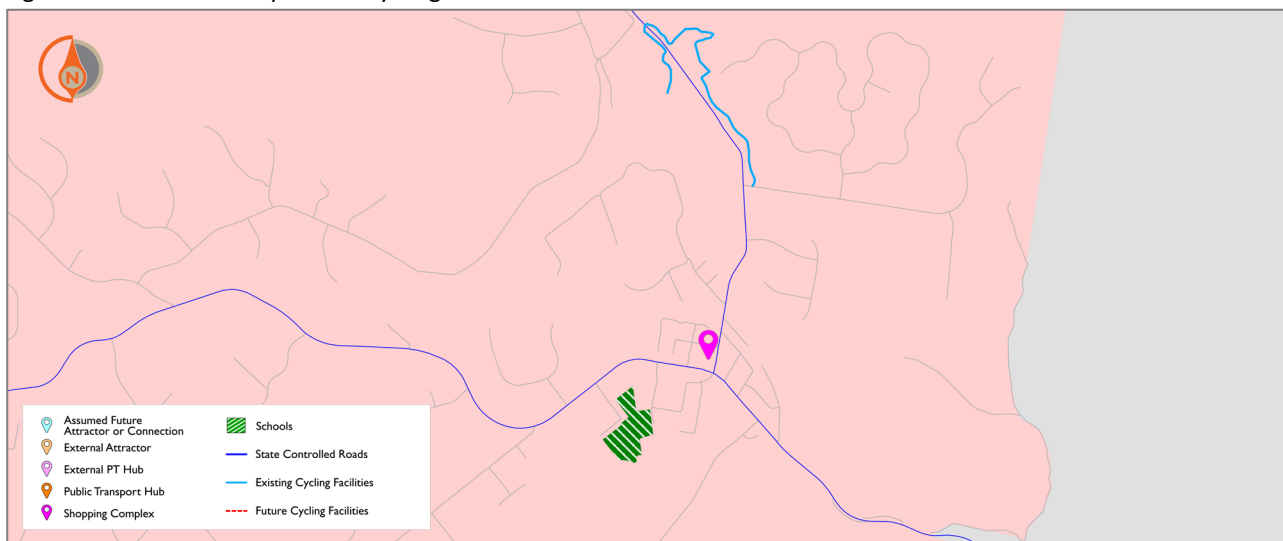
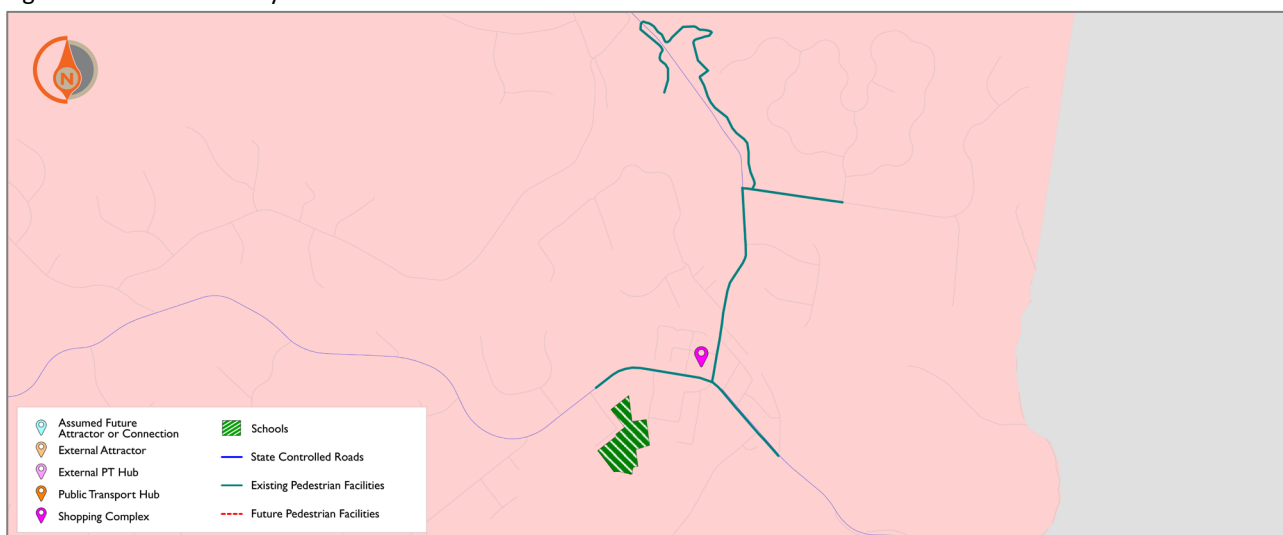


Figure 17: Samford Valley Future Pedestrian Network



CATCHMENT 7 - BURPENGARY

Local Area Attractors

The Burpengary catchment is a well-established area consisting of mostly low density and semi-rural residential housing. The catchment shares a southern border with the Narangba catchment, a northern border with the Morayfield catchment, and an eastern border with the rural catchment of Dayboro.

The catchment is a fast-growing residential region in close proximity to major public transport links and major attractors. These major attractors include:

- **Burpengary Village:** This is a major attractor featuring several large supermarkets and food outlets.

Major public transport links in the catchment includes the Burpengary Train Station. The rail line provides direct access south to the Brisbane CBD and north towards Caboolture along the Caboolture line.

Growth Areas

The Burpengary catchment is expected to encounter a medium population growth of less than 12,000 between 2021 and 2036. This consists of anticipated population increases of:

- A large growth in the southern area around the Narangba border, with significant increase occurring by 2031.
- A large growth in the central Burpengary area. A small growth in the east around the Deception Bay border, with a significant population increase expected to occur by 2026.



Jobs in the catchment are expected to experience a medium increase of less than 5,000 from 2021 to 2036. The following areas will experience specific growths of:

- A medium increase in the central Burpengary region.
- A small increase in the southern area around the Narangba catchment border.

Future Infrastructure Summary

The future active transport infrastructure projects (both cycling and pedestrian) planned for the Burpengary catchment are shown in Figure 18 and Figure 19, and summarised in Table 14 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 18: Burpengary Future Cycling Network

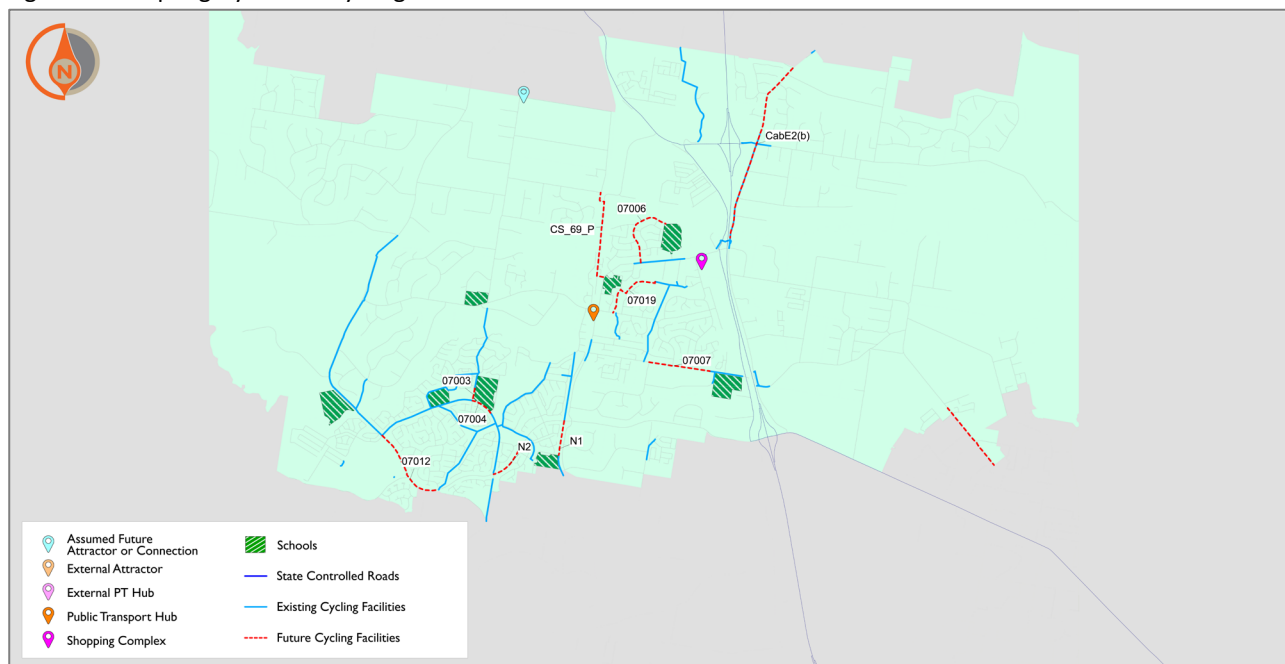


Figure 19: Burpengary Future Pedestrian Network

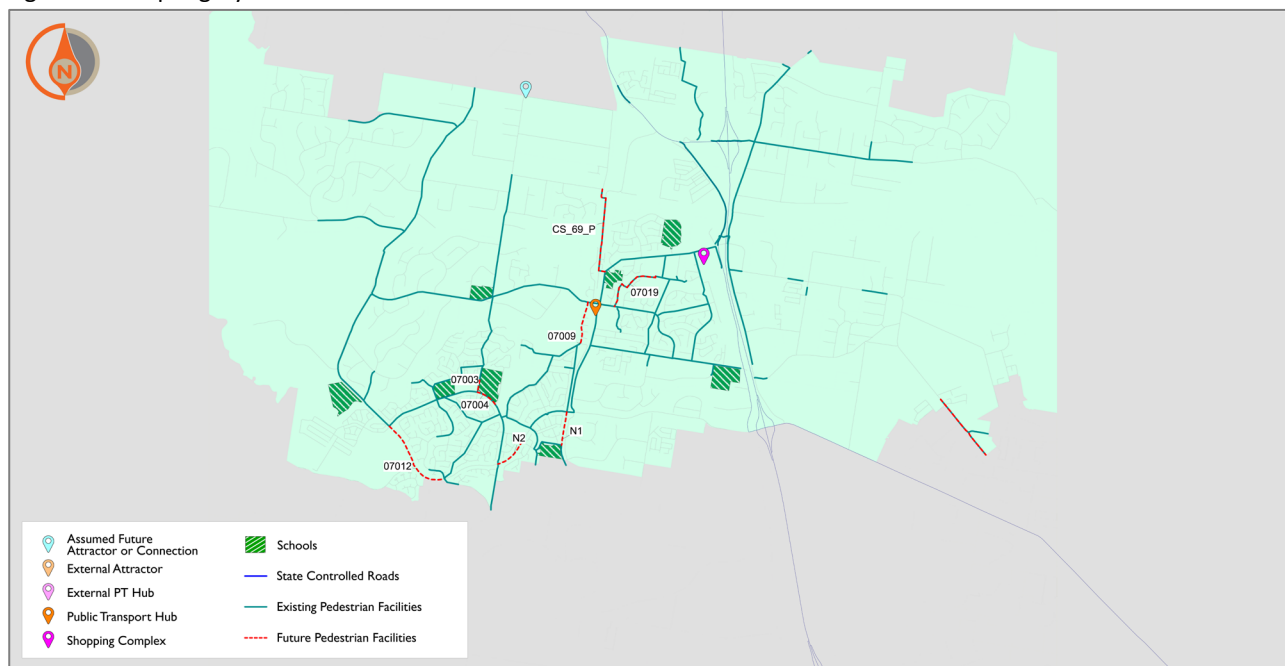


Table 14: Burpengary Future Infrastructure Summary

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
CabE2(b)	New on-road cycle lanes on existing formation on Buckley Rd between North East Business Park and Eastern Service Rd, Burpengary		✓	
N1	Continuation of shared path along Omara Rd reserve, Narangba, including new bridge crossing of New Settlement Road.	✓		
N2	New 3.0m shared path in verge on New Settlement Road from Young Rd to Banyan St, Narangba	✓		
CS_69_P	Upgrade footpath to shared path in verge on O'Brien Rd from Station Rd to Hunt Rd, Burpengary	✓		
7006	New on-road cycle lanes on existing formation on Springfield Drive from Station Rd to St Eugene College entrance, Burpengary		✓	
7003	Upgrade footpath to shared path in verge on Golden Wattle Drive from Young Rd to Central Green Dr access path, Narangba	✓		
7004	Upgrade footpath to shared path in verge on Young Rd from Golden Wattle Dr to Harris Ave, Narangba	✓		
7007	New on-road cycle lanes on existing formation on Pitt Rd from Rosehill Dr to Wain Rd, Burpengary		✓	
7009	New 1.2m footpath in both verges on Bantry Ave from Rowley Rd to Carin Ct, Burpengary			✓
7012	New 3.0m shared path in verge on Oakey Flat Rd from Young Rd to Forest Ridge Dr, Narangba	✓		
7019	Upgrade footpath to shared path in verge in Crendon St Park N from Henderson Rd to Peter Scala Oval, Burpengary	✓		

CATCHMENT 8 - CABOOLTURE WEST

Local Area Attractors

The Caboolture West catchment is an up-and-coming area in MBRC. The area currently consists of semi-rural properties with pockets of new residential developments. The catchment is bordered by Caboolture to the north-east, Woodford to the west and Dayboro to the south.

The catchment includes futures attractors that are expected to generate pedestrian and cyclist trips. These attractors include:

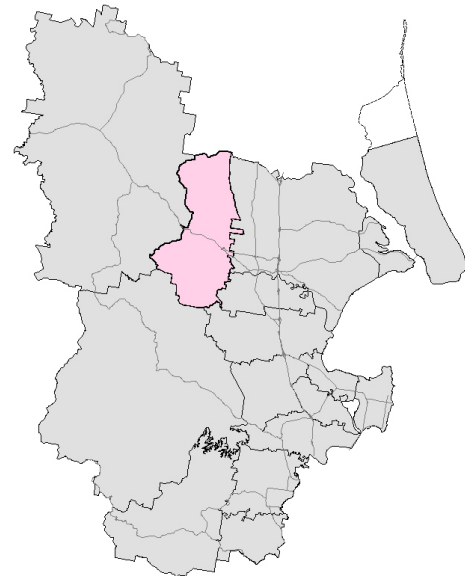
- **Bellmere Road Housing Development:** This is a large-scale housing development that is an expected future attractor. This will generate a large quantity of active travel trips.

As Caboolture West is still a relatively undeveloped area, the catchment does not feature any major public transport links and utilises only minor bus routes for public transport around the catchment.

Growth Areas

The Caboolture West catchment is expected to see a medium population growth of under 12,000 between 2021 and 2036. This consists of anticipated population increases of:

- The majority in the Upper Caboolture area adjacent to the Morayfield catchment border, with a significant increase occurring after 2026.
- A small increase in the north-western area of Wamuran.



Jobs in the catchment are expected to see a medium increase of less than 5,000 from 2021 to 2036. The following areas will experience specific growths of:

- The majority in the Upper Caboolture region, with a significant increase expected to occur after 2026.
- A medium increase in the north-western area of Wamuran, with significant growth expected to occur after 2031.

Future Infrastructure Summary

There are no future active transport infrastructure projects proposed for Caboolture West within the LGIP horizon. This is due to the development and expansion of Caboolture West occurring after the LGIP planning horizon. The existing infrastructure within Caboolture West for cyclists and pedestrians are shown in Figure 20 and Figure 21 below. Refer to Appendix B for detailed mapping.

Figure 20: Caboolture West Cycling Infrastructure

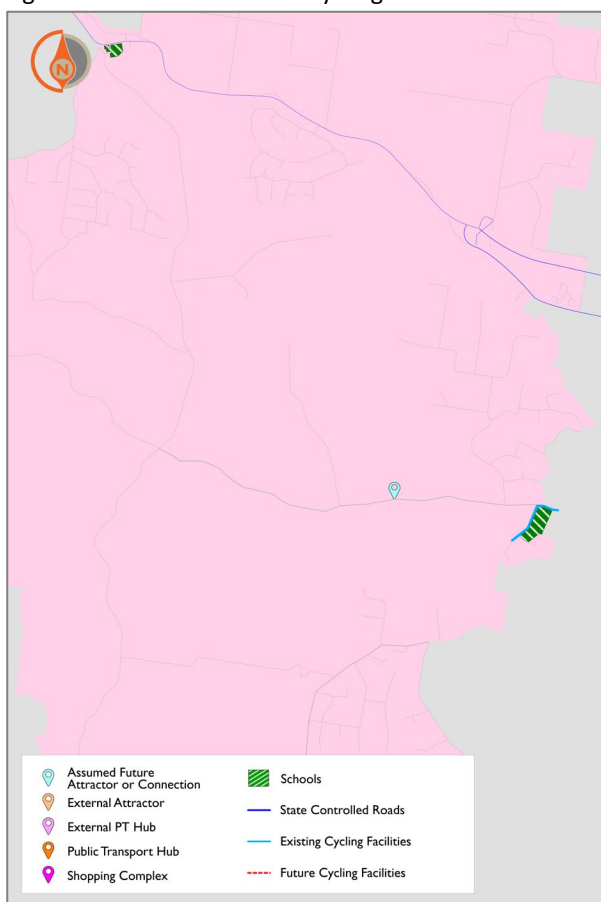
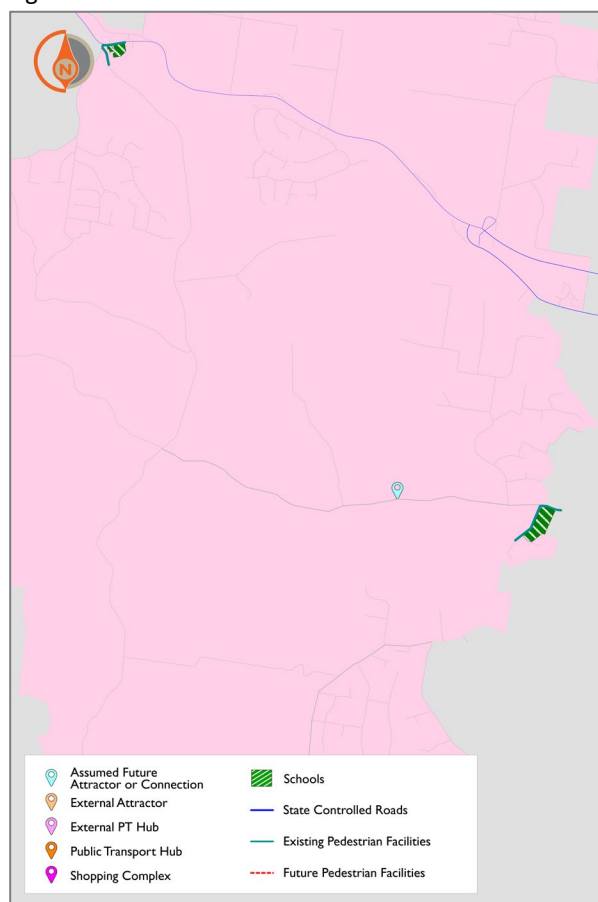


Figure 21: Caboolture West Pedestrian Infrastructure



CATCHMENT 9 - CABOOLTURE

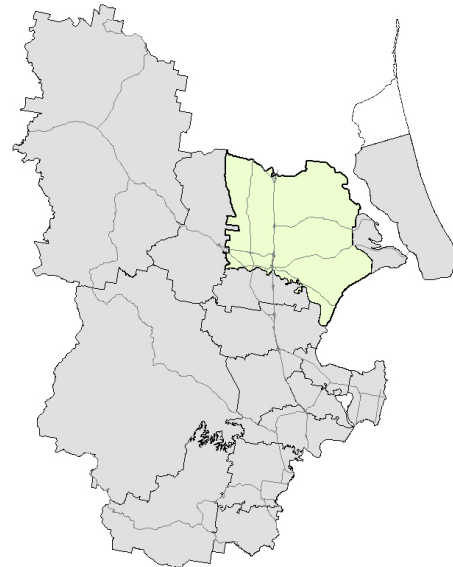
Local Area Attractors

The Caboolture catchment is a well populated, large area with a high number of low-density residential housing located around its southern border. Due to the expansive size there are numerous new developments being built in the catchment, contributing to the catchments already large quantity of residential housing. Caboolture is located at the northernmost edge of the MBRC where it meets with the Sunshine Coast Council (SCC). The catchment borders Caboolture West and Woodford to the west, Morayfield to the south, and Bribie Island to the east.

The catchment includes a number of attractors that generate pedestrian and cyclist trips. These major attractors include:

- **Caboolture Square:** This is a major shopping complex with many large supermarkets and retail stores. This will generate a considerable number of pedestrian and cyclist trips in the region.

Major public transport links in the catchment includes the Caboolture and Elimbah Train Stations. These provide direct access to the Brisbane CBD along the Caboolture line. They also provide as stations along the Sunshine Coast rail line for travel north into the SCC area. An additional bus interchange facility is also located at the Caboolture station for further public transport around the catchment.



Growth Areas

The Caboolture catchment is expected to experience a large population growth of over 12,000 between 2021 and 2036. This consists of anticipated population increases of:

- The majority around the town centre of Caboolture.
- A medium growth in the eastern region near the Bribie Island catchment border, with a significant increase expected to occur by 2026.

Jobs in the catchment are expected to experience a large growth of over 5,000 from 2021 to 2036. The following areas will experience specific growths of:

- The majority in the Caboolture town centre area.
- A small growth in the northern area of Elimbah.

Future Infrastructure Summary

The future active transport infrastructure projects (both cycling and pedestrian) planned for the Caboolture catchment are shown in Figure 22 and Figure 23, and summarised in Table 15 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 22: Caboolture Future Cycling Network

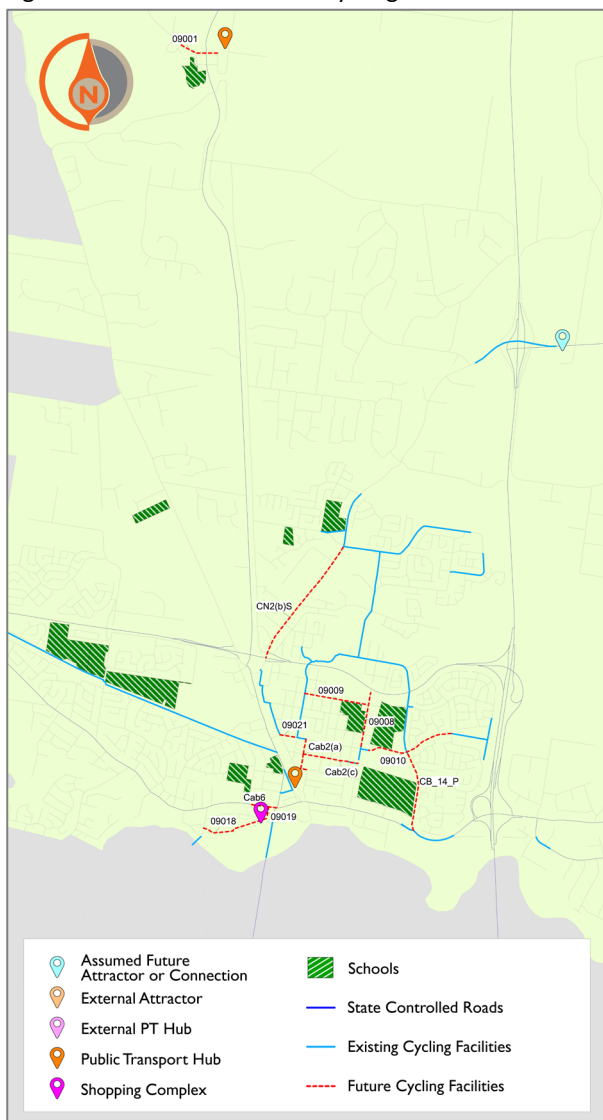


Figure 23: Caboolture Future Pedestrian Network

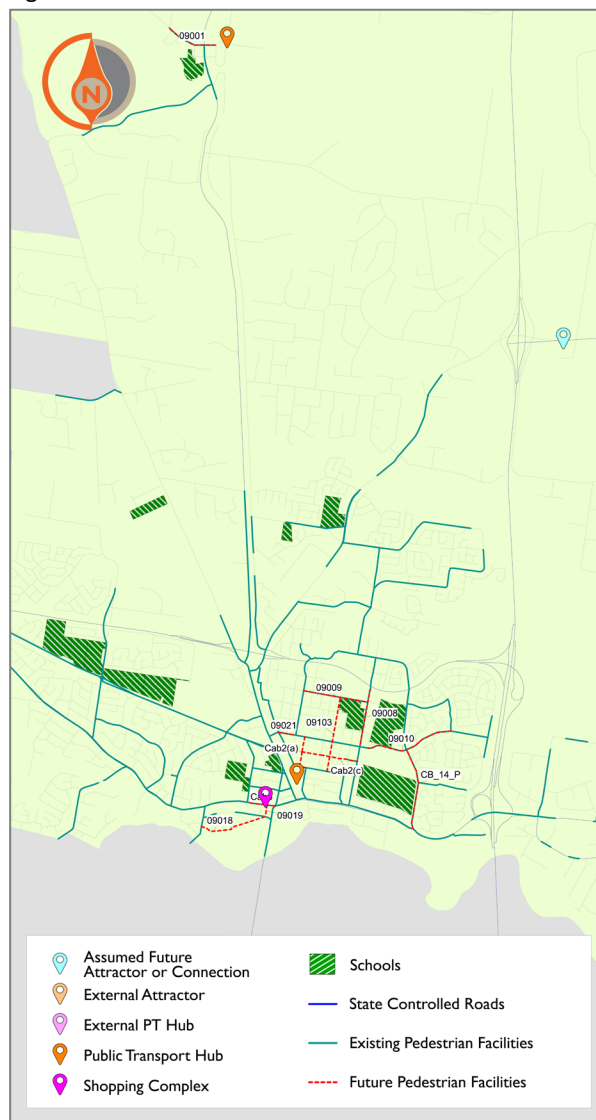


Table 15: Caboolture Future Infrastructure Summary

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
Cab2(a)	Upgrade footpath to shared path in verge along Rowe St connecting McKean St and Hayes St, including a shared path connection along Bury St drain.	✓		
Cab2(c)	Upgrade footpath to shared path in verge on Bury Street, Caboolture from Manley St to Lang St, Caboolture	✓		
CN2(b)S	New on-road cycle lanes on existing formation on Pumicestone Road, Caboolture North from D'Aguilar Highway to Reserve Dr, Caboolture		✓	
CB_14_P	New 3.0m shared path in verge on Mewett St from McKean St to Lower King St, Caboolture	✓		
9010	Upgrade footpath to shared path in verge on Central Lakes Dr and McKean St from Summerfields Dr to Manley St, Caboolture	✓		

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
9008	Upgrade footpath to shared path in verge on Manley St, Caboolture from McKean St to Caboolture Bypass, Caboolture	✓		
9009	Upgrade footpath to shared path in verge on Tallon St, Caboolture from Manley St to Wallace St N, Caboolture	✓		
9001	Upgrade footpath to shared path in verge on Twin View Rd from Soldier Rd to Lynch St, Elimbah	✓		
9103	New 1.2m footpath in both verges on Mitchell St and Bradman St from Tallon St to Hayes St, Caboolture			✓
9018	Upgrade footpath to shared path through Centenary Lakes Park from Riverview St to Morayfield Rd, Caboolture	✓		
Cab6	New 1.2m footpath in one verge on King Street from George St to Beerburrum Rd, Caboolture			✓
9021	Upgrade footpath to shared path in verge along Mc Kean St from Railway Pde to Wallace St N, Caboolture	✓		
9019	Upgrade footpath to shared path in verge along 56 King Street, Caboolture	✓		

CATCHMENT 10 - MORAYFIELD

Local Area Attractors

The Morayfield catchment is a well-established suburban area located south of the Caboolture River. The catchment shares borders with three other catchments, these include: Caboolture (north), Caboolture West (west), and Burpengary (south). The suburbs consist largely of low-density residential areas with pockets of light industrial estates.

The catchment includes a number of attractors that generate pedestrian and cyclist trips. These major attractors include:

- **Morayfield Shopping Centre:** This is a large shopping mall precinct that features several major supermarket chains and retail stores. This is expected to generate a high number of pedestrian and cyclist trips in the catchment.
- **North Harbour Estate:** This is a new, large scale housing development located on the eastern side of the catchment. This is expected to generate a large volume of pedestrian and cyclist trips travelling to schools, public transport hubs and other attractors in the area.

Major public transport links in the catchment includes the Morayfield Train Station. The station is located on the Caboolture line and provides direct access to the Brisbane CBD and is only one stop away from the council hub of Caboolture. This station also features additional bus interchange facilities that provide access to surrounding suburbs.

Growth Areas

The Morayfield catchment is expected to experience a large population growth of over 12,000 between 2021 and 2036. This consists of anticipated population increases of:



- The majority of growth in the Caboolture South area.
- A medium growth in the Morayfield East area, with a significant increase expected to occur by 2031.
- A small growth in the Burpengary area, with significant increase expected to occur by 2026.

Jobs in the catchment are expected to experience a medium increase of less than 5,000 from 2021 to 2036. The following areas will experience specific growths of:

- A medium increase in the Caboolture South region.
- A medium increase in the southern area of Burpengary, with significant growth expected to occur after 2031.

Future Infrastructure Summary

The future active transport infrastructure projects (both cycling and pedestrian) planned for the Morayfield catchment are shown in Figure 24 and Figure 25, and summarised in Table 16 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 24: Morayfield Future Cycling Network

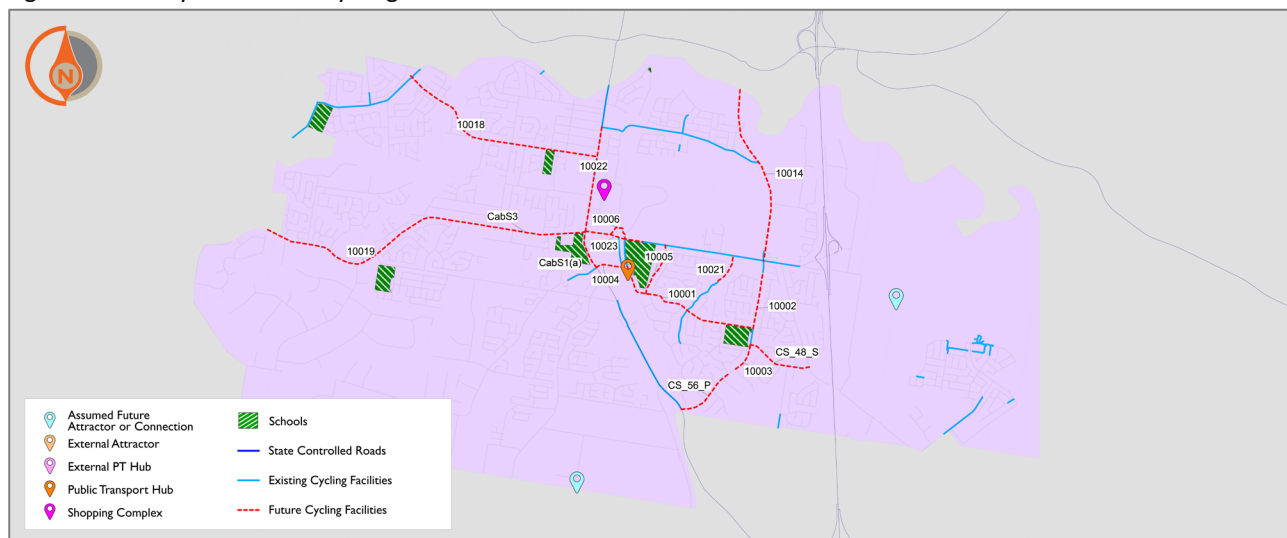


Figure 25 Morayfield Future Pedestrian Network

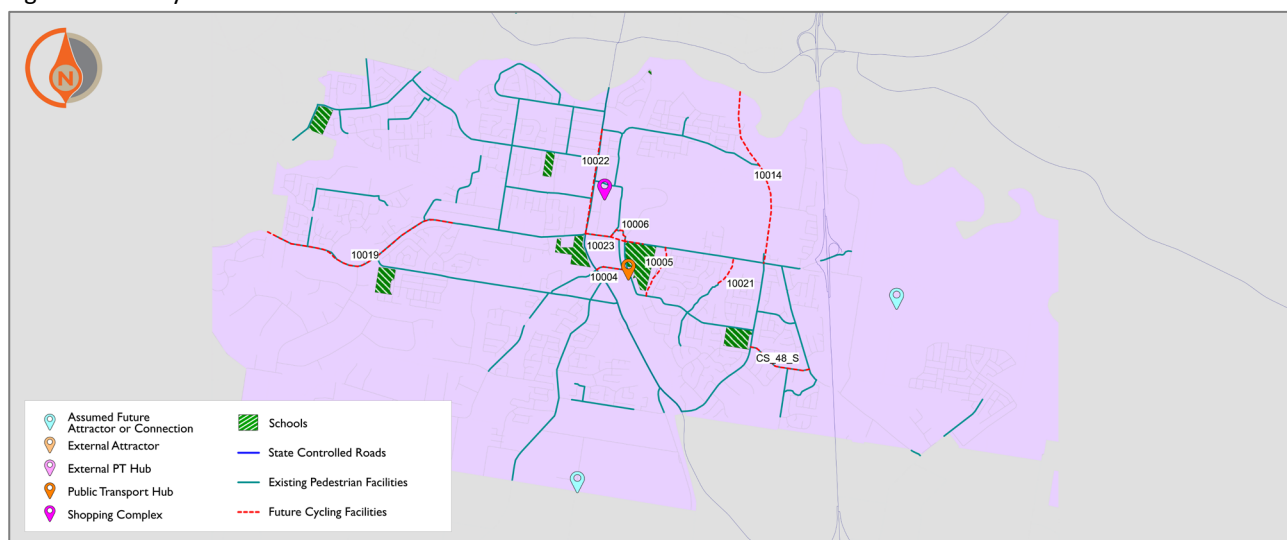


Table 16: Morayfield Future Infrastructure Summary

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
CabS1(b)	New on-road cycle lanes on existing formation on Morayfield Road from Caboolture River Rd to Station Rd, Morayfield		✓	
10004	Upgrade footpath to shared path in verge on Station Rd, Morayfield from Morayfield Rd to Visentin Rd, Morayfield	✓		
10023	New 3.0m shared path in verge on New Alignment along William Berry Dr from William Berry Dr to Buchanan Dr, Morayfield	✓		
CS_56_P	New on-road cycle lanes on existing formation on Graham Rd, Morayfield from Morayfield Rd to Wimbledon Dr, Morayfield		✓	
10002	New on-road cycle lanes on existing formation on Graham Rd, Morayfield from Glenwood Dr to Meadowview Dr, Morayfield		✓	
10003	New on-road cycle lanes on existing formation on Graham Rd, Morayfield from Morayfield East State School to Masters Ct, Morayfield		✓	
10001	New on-road cycle lanes on existing formation on Glenwood Dr, Morayfield from Graham Rd to Station Rd, Morayfield		✓	
CabS3	New on-road cycle lanes on existing formation on Caboolture River Road, Morayfield from Cresthaven Dr to Morayfield Rd, Morayfield		✓	
10022	Upgrade footpath to 3.0m shared path in verge on Morayfield Road, from Market Drive to Caboolture River Road, Morayfield	✓		
10005	New off-road shared path through Arthur Allan Park from Buchanan Rd to Glenwood Dr, Morayfield	✓		
10018	New on-road cycle lanes on existing formation on Torrens Rd and River Dr from Morayfield Rd to Bellmere Rd, Caboolture South		✓	
10006	Upgrade footpath to shared path in verge from William Berry Dr to Buchanan Rd, Morayfield	✓		
CS_48_S	New 3.0m shared path in verge on Laver St, Morayfield from Graham Rd to Coach Rd W, Morayfield	✓		
10021	New 4.0m shared path through Brodies Park from Buchanan Rd to Bauhinia Ct shared path	✓		
10019	Upgrade footpath to shared path in verge on Caboolture River Rd from Cresthaven Dr to Darley Rd, Caboolture South	✓		
10014	New 3.0m shared path in verge on a New Road Alignment at Weier Rd from Buchanan Rd to Lower King St, including bridge over Caboolture River	✓		

CATCHMENT 11 - DECEPTION BAY

Local Area Attractors

Deception Bay is a small suburban catchment located on the eastern shoreline of Moreton Bay. The area consists of mostly low-density housing, with a collection of rural properties and new developments. The catchment borders Redcliffe and Kippa-Ring to the east, North Lakes and Mango Hill to the south, Narangba to the north-west, and Burpengary to the north.

The catchment features a large waterfront promenade that attracts a large amount of pedestrian and cyclist activity. Other major attractors include:

- **Rothwell Central homemaker centre:** This is a large shopping centre precinct with many large retail and general stores. This acts as an attractor to a vast number of pedestrians and cyclists.
- **Wallin Avenue/Captain Cook Parade development:** This location features some small cafes and medium density apartment blocks. Further medium-density apartment blocks are expected to be built in this area along with additional shopfronts. These will act as a major attractor in the area.

The Deception Bay catchment features one major public transport hub. This is the Rothwell Train Station located in the south of the catchment. This station provides access along the Kippa-Ring Line, which includes connections to the Brisbane CBD. A bus interchange is also located at this station, which provides local access to surrounding suburbs and business districts such as Redcliffe.

Growth Areas

The Deception Bay catchment is expected to experience a small population increase of less than 6,000 between 2021 and 2036. This growth is significantly less than surrounding catchments, with a growth rate of less than 10 percent between 2021 and 2036 (In comparison to North Lakes/Mango Hill, which has a growth rate of 25 percent over the same timeframe). Population growth is expected occur in these areas:



- **Deception Bay,** with a medium expected growth and a significant increase expected to occur after 2026.
- **Rothwell,** with a small predicted population growth.

Much like population growth, job growth in the catchment is expected to rise by a small amount (less than 1,000 jobs) between 2021 and 2036. This will be shared across the entire catchment, with no areas displaying significantly higher growth than the other.

Future Infrastructure Summary

The future active transport infrastructure projects (both cycling and pedestrian) planned for the Deception Bay catchment are shown in Figure 26 and Figure 27, and summarised in Table 17 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 26: Deception Bay Future Cycling Network

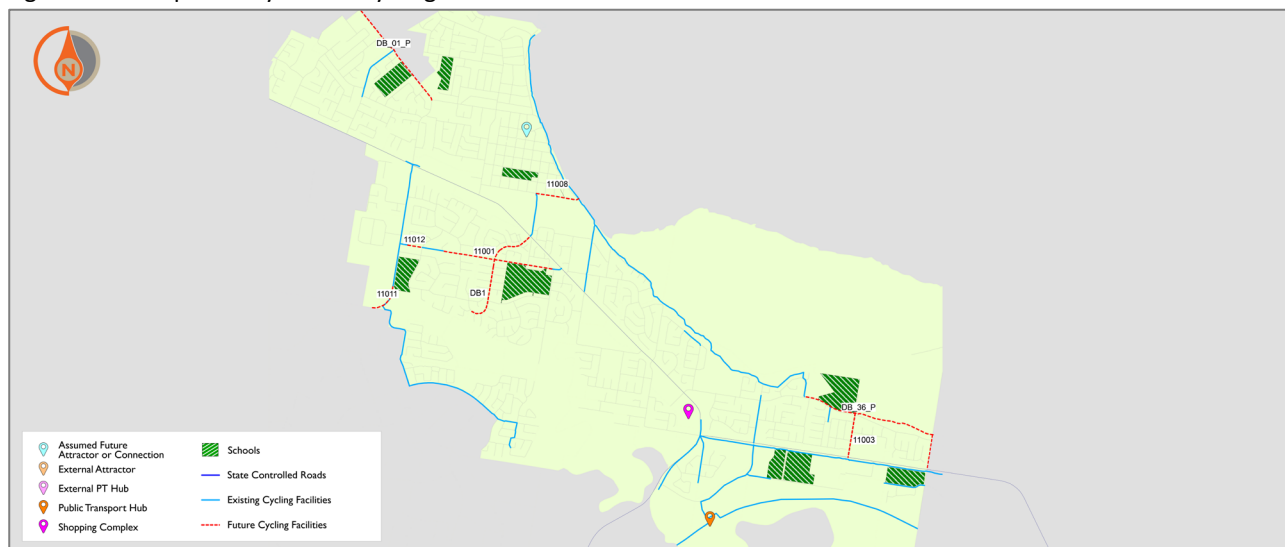


Figure 27: Deception Bay Future Pedestrian Network

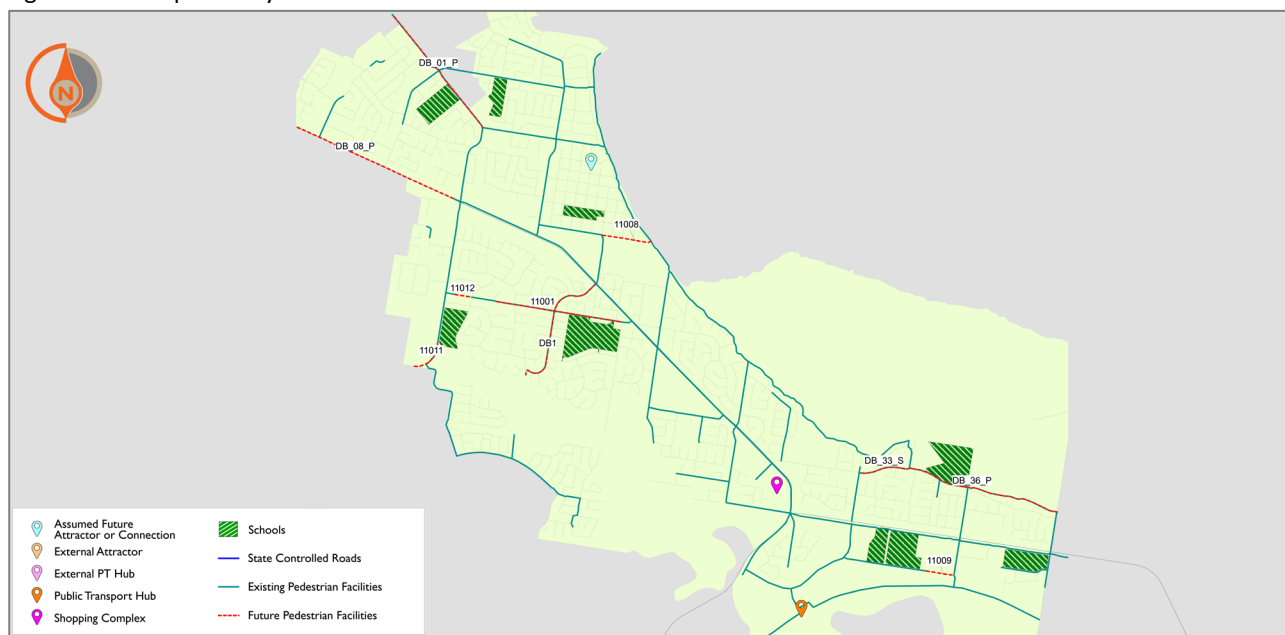


Table 17: Deception Bay Future Infrastructure Summary

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
DB1	Upgrade footpath to shared path in verge on Moreton Downs Dr from Deception Bay Rd to Arina Pl, Deception Bay	✓		
11001	Upgrade footpath to shared path in verge on Phillip Pde, from Government St to Nambour Ct, Deception Bay	✓		
DB_33_S	New 1.2m footpath in one verge on Morris Rd from Melaleuca Cres to Gynther Rd, Rothwell			✓
11003	New on-road cycle lanes on existing formation on Wattle Rd from Anzac Ave to Morris Rd, Rothwell		✓	

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
DB_36_P	Upgrade footpath to shared path in verge on Morris Rd and Morris Park from Melaleuca Cres to Nathan Rd, Rothwell	✓		
11011	Upgrade footpath to shared path in verge on Lipscombe Rd from Moreton Downs State School to Boundary Rd, Deception Bay	✓		
DB_01_P	Upgrade footpath to shared path in verge on Old Bay Rd from Bayview Tce to Palmridge Ct, Deception Bay	✓		
11012	New footpath and shared cycle street on Cairns Cr from Parsons Blvd to Lipscombe Rd access path, Deception Bay	✓		
11009	New 1.2m footpath in both verges on Buchanan St from Bremner Rd to Grace Lutheran College, Rothwell			✓
11008	Upgrade footpath to shared path in verge on Main Tce from Bay Ave to The Esplanade, Deception Bay	✓		
DB_08_P	New 1.2m footpath in one verge on Lisa St from Park Rd to Seagull Ct, Deception Bay			✓

CATCHMENT 12 - NORTH LAKES AND MANGO HILL

Local Area Attractors

The North Lakes and Mango Hill catchment is a highly developed residential area featuring many new residential developments and large shopping precincts. The catchment borders Redcliffe and Kippa-Ring to the east, Deception Bay to the north and Petrie and Narangba catchments to the East. North Lakes and Mango Hill has been a thriving catchment with numerous low-density residential developments claiming existing farmland in the area. As a result, numerous attractors have been built, these include:

- **Westfield North Lakes:** This is a large multistorey shopping centre. It features many retail shops, an expansive homemaker centre, and a large dining/entertainment precinct. This is a significant attractor for a large volume of pedestrians and cyclists in the catchment.
- **Capestone Estate:** This a large new housing development located in the south-eastern pocket of the catchment.

Major public transport attractors in the catchment include the Mango Hill and Mango Hill East train stations. These are located on the Kippa-Ring line and provide direct access to and from Brisbane CBD. Additional bus interchange facilities are also located at these train stations and Westfield North Lakes.

Growth Opportunity

The North Lakes/Mango Hill catchment is predicted to experience a medium population growth of less than 12,000 between 2021 and 2036.

- The majority in the south-east of the catchment around Mango Hill, with significant growth occurring by 2031.
- A medium increase around the eastern edge of North Lakes, with significant growth occurring by 2026.



The catchment is expected to see a large growth in jobs of more than 5,000 from 2021 to 2036. Growth is expected to occur most rapidly by 2026. The following areas will experience specific growths of:

- A large growth around Westfield North Lakes, with significant growth occurring by 2031.
- A large growth around the industrial areas in the north-western corner of the catchment.

Future Infrastructure Summary

The future active transport infrastructure projects (both cycling and pedestrian) planned for the North Lakes and Mango Hill catchment are shown in Figure 28 and Figure 29, and summarised in Table 18 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 28: North Lakes and Mango Hill Future Cycling Network

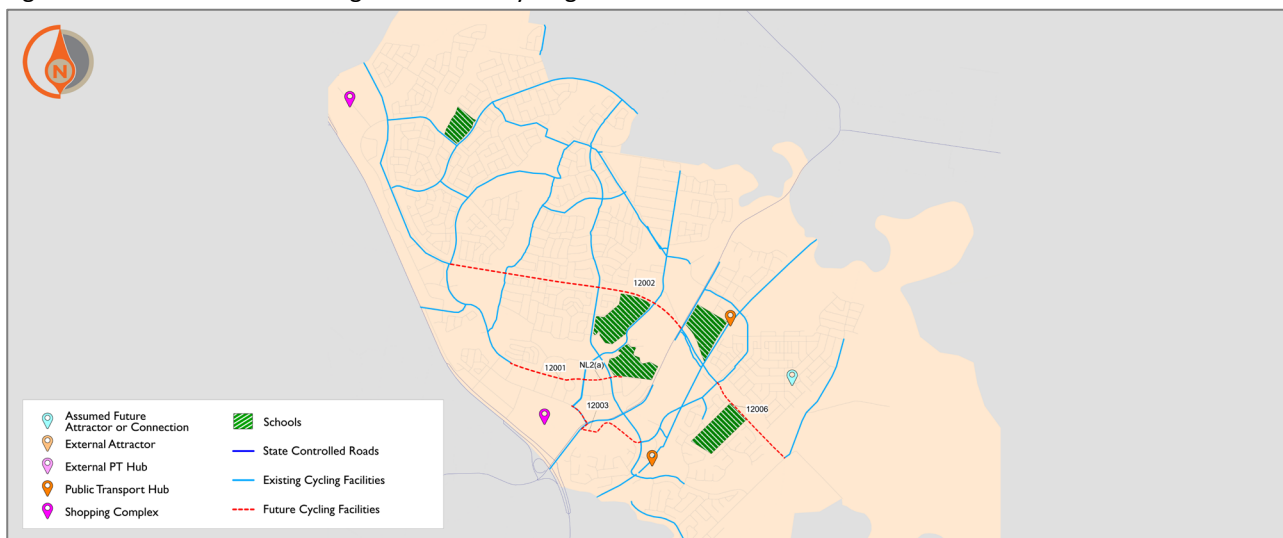


Figure 29: North Lakes and Mango Hill Future Pedestrian Network

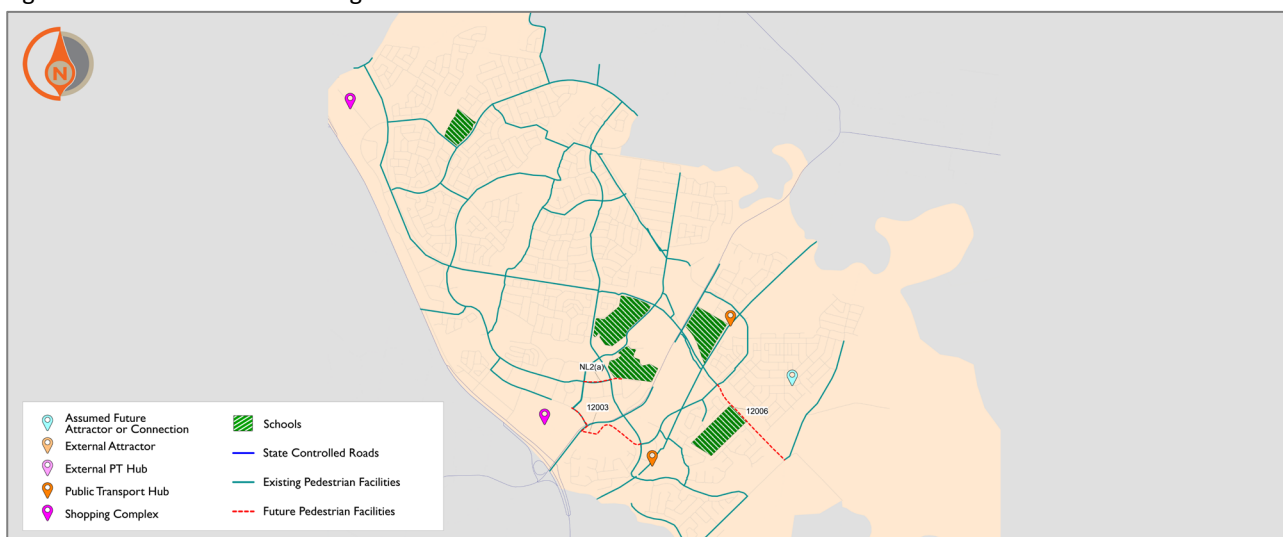


Table 18: North Lakes and Mango Hill Future Infrastructure Summary

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
12002	New on-road cycle lanes on existing formation on Diamond Jubilee Way from Anzac Ave to Endeavour Blvd, North Lakes		✓	
NL2(a)	Upgrade footpath to shared path in verge on Endeavour Blvd and Joyner Cct from Memorial Dr to Joyner Cct, North Lakes	✓		
12003	Upgrade footpath to shared path in verge on North Lakes Dr from Anzac Ave to Memorial Ave, North Lakes	✓		
12006	New 3.0m shared path in verge on Kinsellas Rd E from Mango Hill Blvd to Maryvale Rd, Mango Hill	✓		
12001	New on-road cycle lanes on existing formation on Endeavour Blvd from Memorial Dr to Bergin St, North Lakes		✓	

CATCHMENT 13 - THE HILLS

Local Area Attractors

The Hills catchment is a well-established suburban area located on the southern edge of MBRC and consists largely of low-density residential dwellings. The catchment shares a large portion of its southern and eastern borders with BCC, as well as the Strathpine and Brendale catchment to the north, and Samford Valley to the west.

The catchment includes a number of attractors that generate pedestrian and cyclist trips. These major attractors include:

- **Arana Hills Plaza:** This is a major attractor featuring large supermarkets, food outlets and a shopping mall precinct.
- **Albany Creek Central:** This is an attractor in the area featuring many takeaway food outlets and supermarkets.

The Hills features many bikeway and path connections to surrounding BCC suburbs such as Mitchelton, Keperra, and Ferny Grove. These links act as attractors to pedestrians and cyclists traveling around the region due to their proximity to BCC pathways, like the Kedron Brook Bikeway.

The catchment is situated just north of the Ferny Grove train station. This station is located on the Ferny Grove line and provides access to surrounding stations such as Mitchelton and Enoggera, as well as a direct link to Brisbane CBD.

Growth Areas

The Hills catchment is expected to experience a low population growth of less than 5,000 between 2021 and 2036, with population reductions occurring in some areas. This consists of anticipated population changes of:

- A small population decrease in the northern area around Albany Creek.
- The majority of the population increase in the southern Hills district, with significant increase occurring by 2026.



Jobs in the catchment are expected to increase by less than 1,000 between 2021 and 2036. The following areas will experience specific growths of:

- A small increase in the southern Hills district, with a significant increase occurring by 2026.
- A small increase in the northern suburb of Albany Creek.

Future Infrastructure Summary

The future active transport infrastructure projects (both pedestrian and cyclists) planned for The Hills catchment are shown in Figure 30 and Figure 31, and summarised in Table 19 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 30: The Hills Future Cycling Network

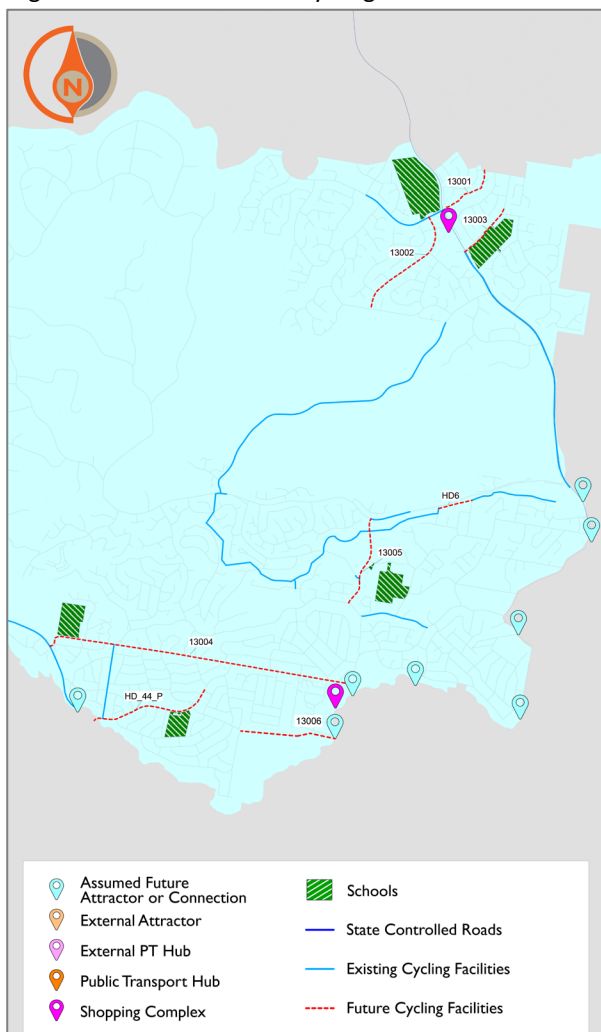


Figure 31: The Hills Future Pedestrian Network

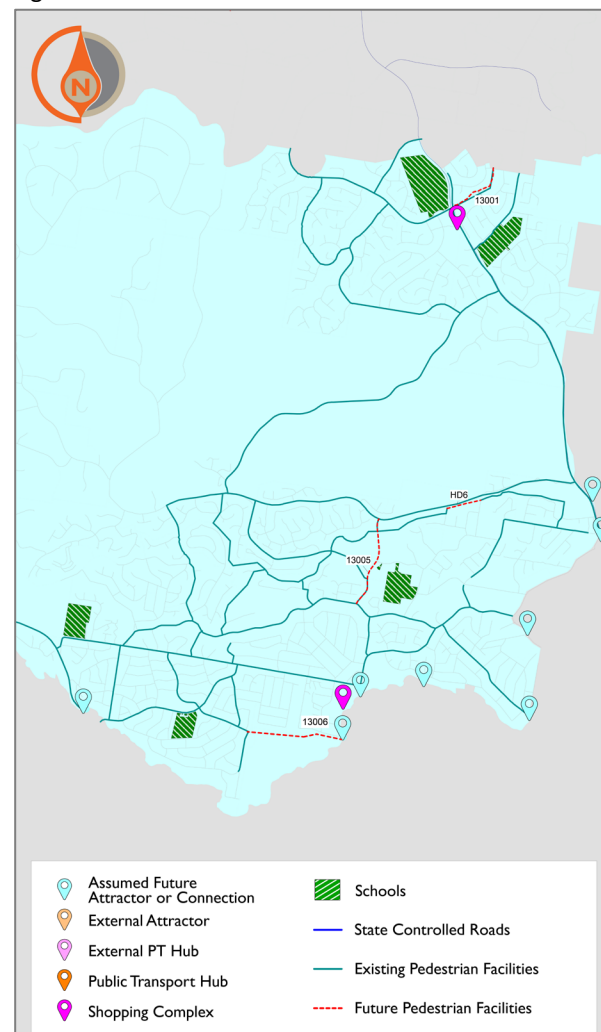


Table 19: The Hills Future Infrastructure Summary

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
13001	Upgrade footpath to off-road shared path on Bleakley Park from Old Northern Rd to Sussex Dr, Albany Creek	✓		
HD6	New 4.0m off-road Shared Path on Cabbage Tree Creek corridor from Elizabeth St to John St, including shared bridge over Cabbage Tree Creek	✓		
13002	New 3.0m shared path in verge on Jagora Dr from Albany Forest Dr to Thuess Dr, Albany Creek	✓		
13003	New on-road cycle lanes on existing formation on Keong Rd from Old Northern Rd to Dawn Rd, Albany Creek		✓	
HD_44_P	New on-road cycle lanes on existing formation on Ferny Way from Dya Pl to Samford Rd, Ferny Hills		✓	
13004	New on-road cycle lanes on existing formation on Patricks Rd from Patricks Road Sate School to Cobbity Cres, Ferny Hills		✓	
13005	New 3.0m shared path in verge on South Pine Rd and Francis Rd from Plucks Rd to Collins Rd, Everton Hills	✓		

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
13006	New 3.0m shared path through Harry Evans Park, including bridge, Arana Hills	✓		

CATCHMENT 14 - NARANGBA

Local Area Attractors

The Narangba catchment is a large residential area located in the centre of MBRC. The catchment borders Deception Bay and North Lakes and Mango Hill to the east, Petrie to the south, Burpengary to the north, and the large rural catchment of Dayboro to the west. The catchment consists of a mix of large rural properties in the western region, with areas of low-density residential housing near the Burpengary catchment border. Due to the expansive land available, there is an increasing number of residential estates being built in the area. Attractors in the catchment consist of:

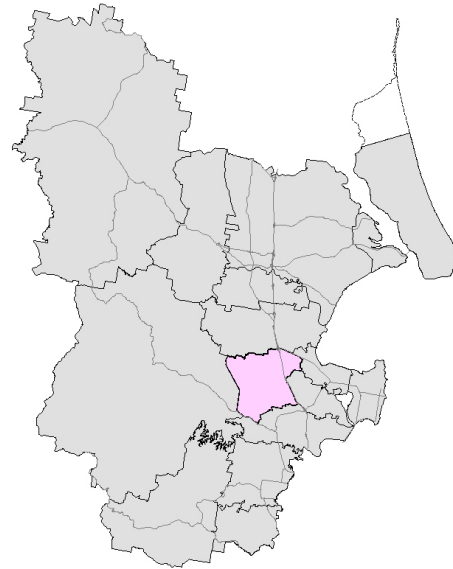
- **Amity Estate:** This a new housing development estate that will generate a high number of pedestrian and cyclist trips.

The Narangba catchment is located directly on the Caboolture train line with two stations: Narangba and Dakabin. This rail line connects the catchment to south towards the Brisbane CBD, and north towards the Caboolture business district.

Growth Areas

The Narangba catchment is expected to encounter a medium population growth of less than 12,000 between 2021 and 2036. This will be a resultant of the following population growths:

- A large growth in the northern area of Narangba, with significant increases occurring by 2026 and after 2031.
- A large growth around Dakabin and Kallangur, with a major increase occurring by 2031.



A medium growth of less than 5,000 jobs is expected to occur in the catchment between 2021 and 2036. This consists of the following anticipated growths:

- A medium growth in the northern area of Narangba.
- A small growth around the suburbs of Dakabin and Kallangur.

Future Infrastructure Summary

The future active transport infrastructure projects (both cycling and pedestrian) planned for the Narangba catchment are shown in Figure 32 and Figure 33, and summarised in Table 20 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 32: Narangba Hill Future Cycling Network

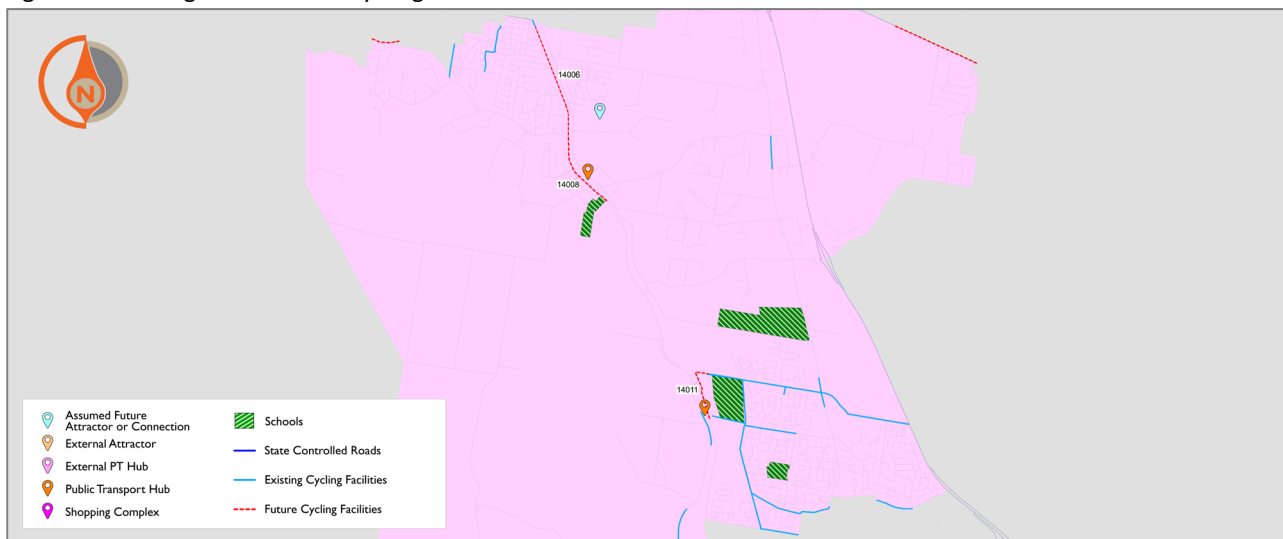


Figure 33: Narangba Future Pedestrian Network

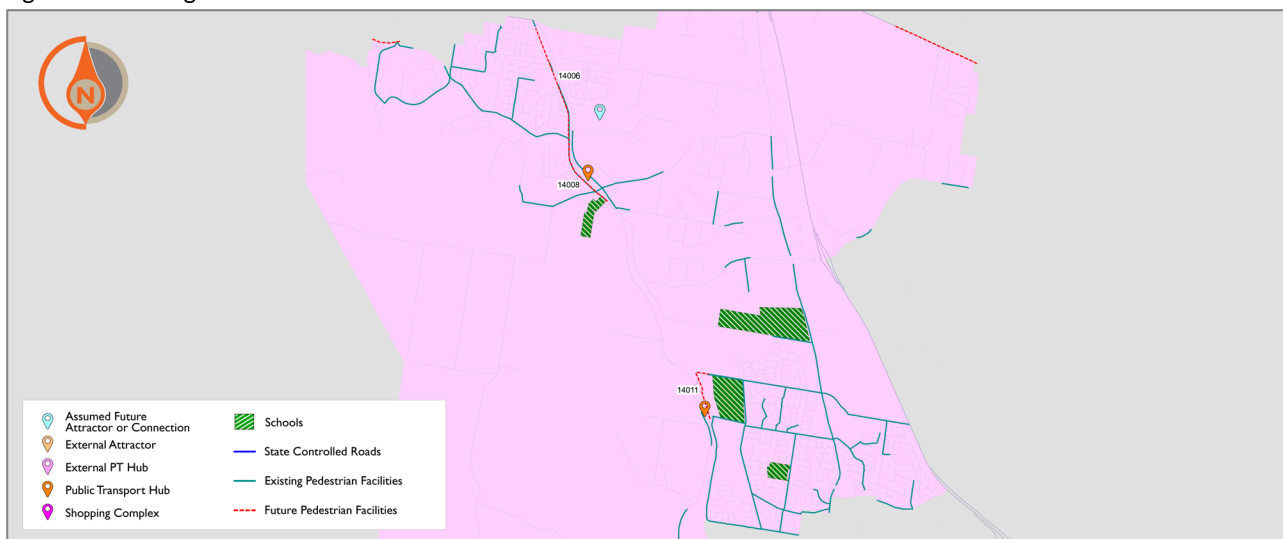


Table 20: Narangba Future Infrastructure Summary

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
14008	Upgrade footpath to shared path in verge on Main St from School St to Oakey Flat Rd, Narangba	✓		
14006	Upgrade footpath to shared path in verge on Omara Rd from Oakey Flat Rd to New Settlement Rd, Narangba	✓		
14011	Upgrade footpath to shared path in verge on Alma Rd and Thompson Rd, from Lindeque St to Dakabin Station, Dakabin	✓		

CATCHMENT 15 - STRATHPINE AND BRENDALE

Local Area Attractors

The Strathpine and Brendale catchment is a well-established suburban area with a large number of light industrial complexes. The catchment is located on the southern border of MBRC. The catchment shares its eastern border with BCC, western border with Samford Valley, northern border with Petrie and Kallangur, and southern border with The Hills catchment.

The catchment includes a number of attractors that generate pedestrian and cyclist trips. These major attractors include:

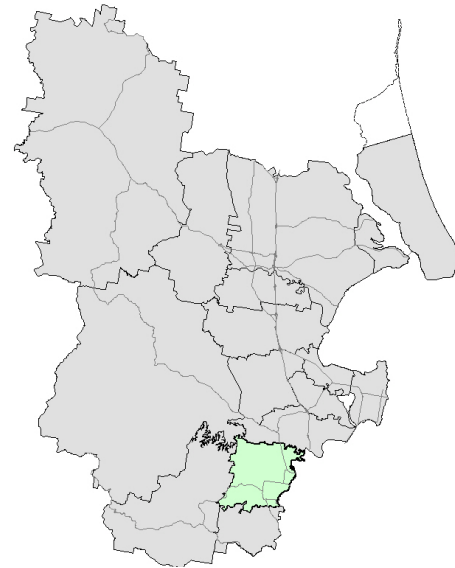
- **Strathpine Central:** This is a major attractor with several supermarkets, retail stores and food outlets that generate many pedestrian and cyclist trips.
- **Albany Creek Village:** This is a large shopping mall precinct with supermarkets and several retail stores. This is a major attractor in the area.
- **Brendale Connect business complex:** This is a light industrial development that currently features popular stores such as Bunnings. This is a future attractor and is expected to generate many more pedestrian and cyclist trips.

Due to the large border the catchment shares with BCC, there are many connections to BCC pathways and bikeways that act as an attractor to pedestrians and cyclists.

Major public transport links in the catchment includes the Strathpine and Bray Park Train Stations. The rail line provides direct access along the Kippa-Ring line to the Brisbane CBD and features additional bus station facilities. The bus interchange facility provides direct access to major surrounding attractors.

Growth Areas

The Strathpine and Brendale catchment will experience a medium population growth of less than 10,000 between 2021 and 2036. This consists of anticipated population increases of:



- A large growth in the populated areas of Strathpine and Brendale, with a significant population increase of occurring after 2031.
- A medium growth in the western region of Cashmere, with a significant increase occurring after 2031.
- A medium growth in the southern area around Albany Creek and Eatons Hill.
- A medium population increase in the northern suburbs of Bray Park and Lawnton.

Jobs in the catchment are expected to see a medium increase of more than 5,000 from 2021 to 2036. The following areas will experience specific growths of:

- The majority of growth in the Strathpine/Brendale region.
- A small increase in the northern area of Lawnton.

Future Infrastructure Summary

The future active transport infrastructure projects (both cycling and pedestrian) planned for the Strathpine/Brendale catchment are shown in Figure 34 and Figure 35, and summarised in Table 21 below. Refer to Appendix B for detailed mapping and Appendix C for specific project details.

Figure 34: Strathpine and Brendale Future Cycling Network

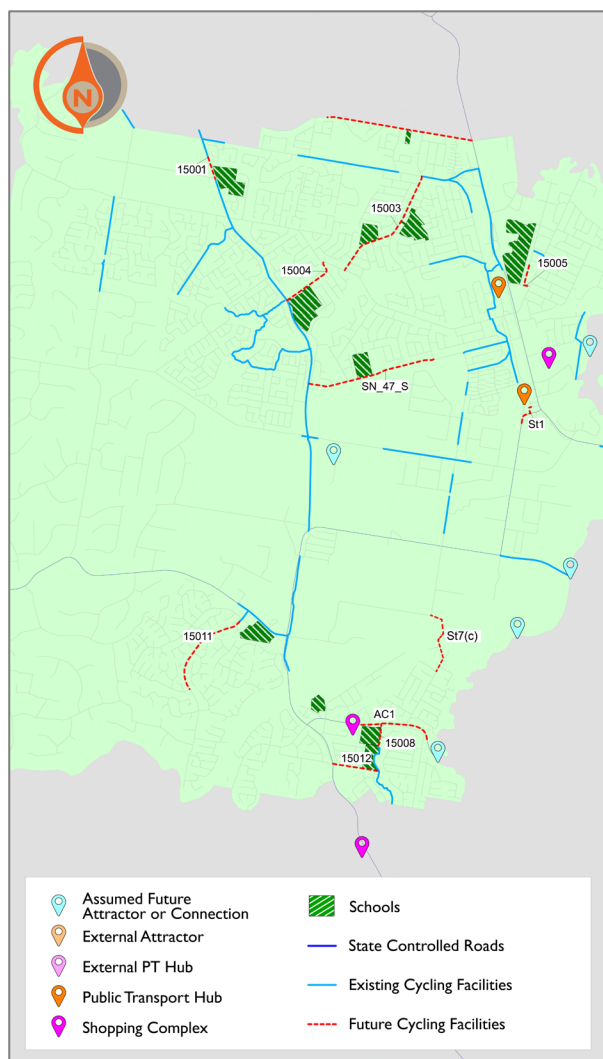


Figure 35: Strathpine and Brendale Future Pedestrian Network

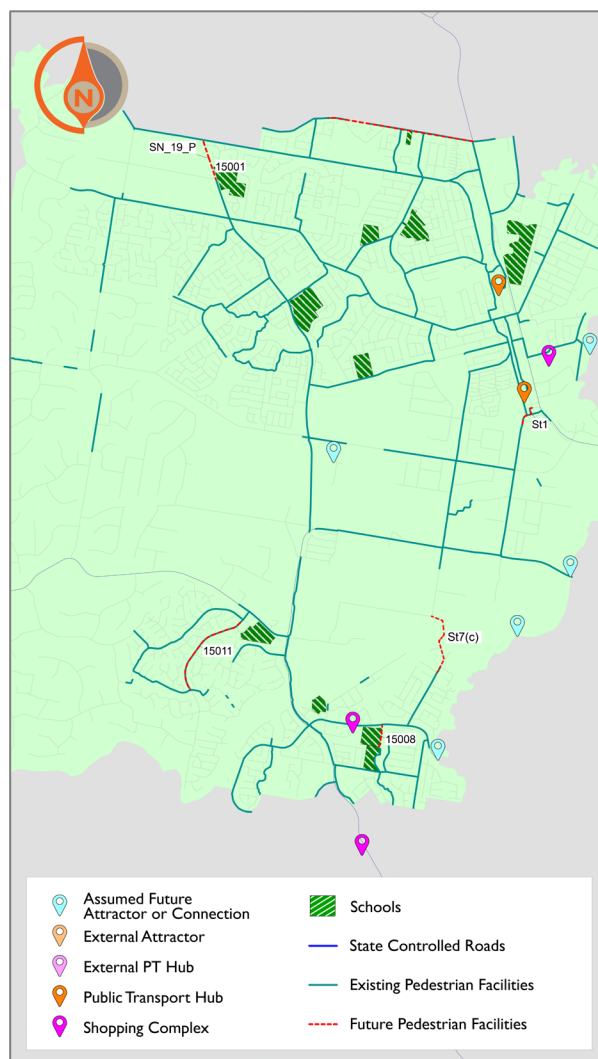


Table 21: Strathpine and Brendale Future Infrastructure Summary

IDENTIFIER	LOCATION	SHARED	CYCLING	PEDESTRIAN
AC1	New on-road cycle lanes on existing formation on Albany Creek Road from Wruck Cres to Keong Rd, Albany Creek		✓	
SN_47_S	New on-road cycle lanes on existing formation on Stanley St from Old Northern Rd to Livingstone St, Strathpine		✓	
SN_19_P	New 1.2m footpath in one verge on Youngs Crossing Rd from Francis Rd to Tawny Ct access path, Bray Park			✓
15012	New on-road cycle lanes on existing formation on Faheys Rd East from Old Northern Rd to Tom Simpson Park, Albany Creek		✓	
15011	Upgrade footpath to shared path in verge on Queen Elizabeth Dr from Marilyn Terrace to Saraband Dr, Eatons Hill	✓		
15001	New 3.0m shared path in verge on Youngs Crossing Rd from Oxford St to Tawny Ct access path, Bray Park	✓		
15003	New on-road cycle lanes on existing formation on Sparkes Rd, Bray Park from Samsonvale Rd to Francis Rd, Bray Park		✓	
15004	New on-road cycle lanes on existing formation on Lavarack Rd, Bray Park from Old Northern Rd to Samsonvale Rd, Bray Park		✓	
15005	New on-road cycle lanes on existing formation on Spitfire Ave from Bells Pocket Rd to Stirling St, Strathpine		✓	
St1	New 1.2m footpath in one verge over South Pine Rd level crossing, Brendale			✓
15008	Upgrade footpath to off-road shared path on Sandy Creek corridor from Albany Creek Rd to Faheys Rd East, Albany Creek	✓		
St7(c)	New shared path on Leitchs Rd and Leitchs Crossing from Cribb Rd to Gaskill Ct, Albany Creek	✓		

REFERENCES

Austroads 2017, *Guide to Road Design Part 6A: Paths for Walking and Cycling*, Austroads, Sydney

Austroads 2020, *Guide to Traffic Management Part 4: Network Management Strategies*, Austroads, Sydney

Moreton Bay Regional Council 2015, *Active Transport Strategy 2012-2031*, Moreton Bay Regional Council, Queensland

Moreton Bay Regional Council 2020, *DataHub Open Data Portal*, Moreton Bay Regional Council, Queensland

State of Queensland 2017, *Transport Operations (Road Use Management – Road Rules) Regulations 2009*, State of Queensland, Queensland

State of Queensland 2019, *Queensland Walking Strategy 2019-2029*, State of Queensland, Queensland

Appendix A

Catchment Population and Employment Growth



Appendix B

Catchment Mapping



Appendix C

Project Details

