

Weipa Walking and Cycling Strategy

Weipa Town Authority

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"Life on the Cape"

1 EXECUTIVE SUMMARY

Cycle and walking paths make a considerable contribution to the local character and outdoor lifestyle of Weipa. Weipa currently has a reasonable network of paths but with many of the paths requiring major maintenance, the addition of a new school requiring path access and an invitation from the Department of Transport and Main Roads to contribute to the Far North Queensland Principle Cycle Network Plan, the WTA was prompted to take a more strategic approach to the prioritization and construction of paths in the town.

Through the Weipa Walking and Cycling Strategy, WTA hopes to provide safer, more attractive paths with improved linkages between key community infrastructure for pedestrians and cyclists. It is hoped this will encourage more people to walk and cycle more often, for a more healthy lifestyle and environment.

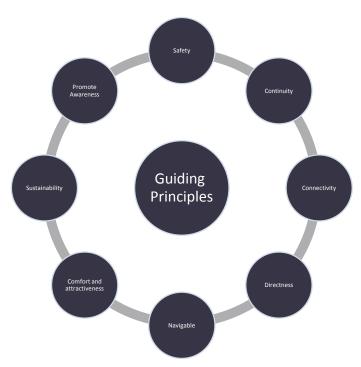
Weipa currently has over 12km of paths throughout the town in varying conditions and of various construction designs. The Strategy will provide direction on the delivery of realistic infrastructure that reflects the community needs.

The Strategy reviewed the current network provision and consulted with the community to identify gaps in the path network which included:

- a direct route from Rocky Point to Napranum,
- linkages between the paths provided and residential areas,
- the standard of existing maintenance,
- and safe crossings for children riding to school.

The Strategy also reviewed best practice treatment in the design and construction of paths, the outcome of which was the development of a series principles to guide the development and maintenance of future and existing path networks.

Overall the Strategy determined that maintenance improvements and linking the existing pieces of the network are the biggest opportunities for improvement for the WTA should be prioritized highest.



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3 Introduction

The purpose of the Cycling and Walking strategy is to provide a strategic framework for the development of walking and cycling networks in Weipa over a five year period and includes an implementation plan which provides a list of prioritized actions. The strategy focuses on supporting active transport, healthy lifestyles and a connected community by developing sustainable solutions for local issues that are achievable and affordable.

3.1 VISION

The Weipa Town Authority will provide appropriate infrastructure, amenities and education to encourage walking and cycling as a viable option for recreation and transport.

3.2 OBJECTIVE

The Cycling and Walking Strategy will aim to improve the effectiveness of the walking and cycling network by;

- Creating an integrated and connected cycling and walking network plan
- Providing safe routes to schools
- Designing and constructing new routes to appropriate standards
- Maintain current infrastructure to appropriate standards
- Developing appropriate maintenance practices which result in smooth clear surfaces
- Promote paths by way of maps and signage
- Encourage use through community programs

4 GUIDING POLICIES

4.1 NATIONAL

4.1.1 The Australian National Cycling Strategy 2005 – 2010

The Australian National Cycling Strategy 2005-2010 was released following a comprehensive review of Australia Cycling 1999-2004. Its vision is 'More cycling, to enhance the well-being of all Australians.' It provides a coordinating framework identifying responsibilities for government, community and industry stakeholders to encourage and facilitate increased cycling. The Strategy has six overarching priority areas:

Priority 1 – Improved Coordination: Improve coordination of activities relevant to increased cycling in the appropriate portfolios of Australian, state, territory and local government.

- Priority 2 Integrated Planning: Include cycling as an essential component of integrated transport and land use planning in all spheres of government.
- Priority 3 Infrastructure & Facilities: Create infrastructure and facilities that support increased cycling.
- Priority 4 Road Safety: Enable and encourage safe cycling.
- Priority 5 Cycling Support & Promotion: Provide leadership and develop partnerships, to support and promote cycling in Australia.

Priority 6 – Increased Profession Capacity: Develop the skills needed to undertake actions that will increase cycling.

4.1.2 Australian Pedestrian Charter 1999

The Australian Pedestrian Charter is an outcome of the first National Pedestrian Summit in September 1999. The Charter is a vision for walking as an alternative and regular mode of transport, and re-asserts the rights and freedoms of pedestrians. It is based on five principles:

- 1. Accessibility Those creating public and private space or facilities must give priority to walk in access which is attractive, safe, convenient and accessible for everyone.
- 2. Sustainability and Environment Walking is the most environmentally sustainable form of transport.
- 3. Health and Wellbeing A healthy community is a walking community.
- 4. Safety and Personal Security A safe environment for pedestrians should be one that stimulates and encourages walking.
- 5. Equity Walking is the only transport mode available to almost everybody at any time and without charge.

4.2 STATE

4.2.1 Queensland Cycle Strategy 2011-2021

Queensland values cycling for the important contribution it makes to the development of a sustainable and effective transport system. Cycling is not just a transport issue. It has significant benefits for health, the environment and tourism, as well as having positive local impacts in connecting communities.

The Queensland Government's cycling vision is 'more cycling more often' on safe, direct and connected routes.

The Queensland Cycle Strategy 2011-2021 sets the direction for cycling to achieve this vision and get more people on bikes for school, work, leisure and shopping trips.

The strategy includes initiatives such as:

- building safe, direct and connected cycle networks
- growing a cycling culture
- creating cycle-friendly communities
- developing a cycle economy
- delivering end-of-trip facilities and promoting cycling as an alternative to private vehicle use.

4.2.2 Action Plan for Walking 2008-2010

Walking is supported by the State Government through the Action Plan for Walking 2008-2010, which was prepared by Queensland Transport and the State Pedestrian Committee. The Action Plan provides strategic direction for increasing levels of walking across Queensland for transport, health and social reasons. It seeks to achieve this by promoting pleasant walking environments, creating comfortable and attractive facilities, and practical routes for pedestrians. The Action Plan contains specific 'action areas' based on the eight main principles of the International Charter for Walking (Walk21). These are:

- A culture of walking
- 2. Increased inclusive mobility
- 3. Well designed and managed spaces and places for people

- 4. Improved integration of networks
- 5. Supportive land use and spatial planning
- 6. Reduced road danger
- 7. Increased security and safety
- 8. More supportive authorities

4.3 REGIONAL

4.3.1 Far North Queensland Principal Cycle Network Plan 2009-2031

The Far North Queensland Principal Cycle Network Plan (FNQPCNP or plan) provides a vision for the principal cycle network in Far North Queensland to support, guide and inform practitioners involved in the planning, design and construction of the transport network.

The FNQPCNP identifies routes primarily for cyclists within urban areas, with a particular focus on the 5 km radius around trip destinations. The purpose of the FNQPCNP is to present agreed desire lines for principal cycle routes in the region.

A key focus of the FNQPCNP is to connect the four localities of Evans Landing, Nanum, Trunding and Rocky Point. Linking these communities by the principal cycle network enables journey to work, journey to school and utility trips to be made by cycling. Iconic recreation routes have been identified that provide connections to Lake Patricia and Lake McLeod in addition to the coastal area between Duyfken Crescent and Rocky Point. The coastal and lakes areas of Weipa provide scenic values and contribute to the tourism values of the area.

Connections have been provided to a number of significant employment nodes. These include the Andoom, Lorim Point and East Weipa mining areas.

4.3.2 Department of Transport and Main Roads – Priority Route Maps Far North Queensland Addendum to Principle Cycle Network Plan

The Department of Transport and Main Roads have worked with representatives from the WTA to develop a Principle Cycle network Plan for Weipa and the surrounding councils. These maps have been included in Appendices.

4.4 LOCAL

4.4.1 Weipa Community Plan 2012-2022

The Weipa Community Plan outlines the vision for the town over a 10 year timeframe. It identifies key economic, community and environmental goals to guide future decision making. The goals and subsequent strategies and actions relevant to this strategy include;

Key Environment Goal three - Improve the environment

Clean and healthy transport options - Over time, increasing the length of cycle and walking paths in the town and in particular:-

- linking existing sporting and recreational facilities e.g. skate park
- ultimately creating a pathway link between Weipa and Napranum

4.4.2 Weipa Town Planning Scheme

At the time of writing this strategy the Weipa Town Planning scheme was still being drafted. Discussion with the consultants was undertaken to ensure provision is made in the TPS to cater for future needs for cycling, in particular with regard to the assessment of future development applications. This strategy will be reviewed and updated accordingly when the Weipa Town Planning Scheme is released.

5 BENEFITS OF WALKING AND CYCLING

Walking and cycling benefits both people and the places in which they reside. People who participate in walking and cycling reap the benefits of improved health and social wellbeing, whilst places that offer good walking and cycling conditions benefit from a more active public realm. Each of the benefits listed below positively reinforces the other.

Health

The health benefits of exercise and walking and cycling are well known and include a reduction in; blood pressure, risk of heart disease, joint and muscular stiffness, weight and obesity levels, resulting in improvements in general health, fitness, life expectancy, and wellbeing. Despite these benefits almost 60% of Australians are still below the recommended guidelines for physical activity. (ABS Australian Health Survey 2011-12)

As walking and cycling are two of the most popular forms of exercise, providing supportive environments and infrastructure is essential to encourage more walking and cycling in the community.

Social

Walking and cycling gets people on the streets and out in our neighbourhoods encouraging social engagement and interaction within the community. Quality paths improve the amenity of a neighbourhood and having more people walking and cycling through an area improves community safety through passive surveillance.

Environment

Environmental benefits are largely associated with a shift away from car based transport and the environmental benefits related to reductions in vehicles. There is also the added benefit of tree plantings associated with improving the amenity of paths.

Economy

Economic benefits are typically associated with the reduction in costs associated with poor health. Individually, walking and cycling are also cheap transport options.

6 GUIDING PRINCIPLES

A quality network of cycling and walking routes contribute to the culture and livability of our community, promoting safer more connected neighbourhoods and the social and physical wellbeing of both adults and children. The WTA have identified a set of principles to guide the future development and ongoing maintenance of the network of cycling and walking routes within the town.

SAFETY

Routes are designed for minimum risk of conflict with vehicles and other users, minimal risk of accident and low perceived danger. Infrastructure is constructed with adequate space to ride and to meet Australian Standards.

CONTINUITY

Routes are designed to promote continuous travel with consistent standard of facility along the route.

CONNECTIVITY

Routes are designed to form part of a larger network that connects major destinations and residential areas within the town.

DIRECTNESS

Routes are designed to follow the most direct path providing efficient operating speeds and minimal delay times.

NAVIGABLE

Routes are designed to be easily navigated which include signage.

COMFORT AND ATTRACTIVENESS

Infrastructure is built to maximize personal safety and comfort for the users.

SUSTAINABILITY

The network is designed and will be maintained within the WTA resourcing and management capabilities.

PROMOTION & AWARENESS

Responsible use will be promoted and information will be provided to educate the community on the various route options within the township.

7 Weipa in context

7.1 OVERVIEW OF WEIPA

Weipa is the largest town on the Cape York Peninsula and was established in the 1950's as a mining community. Since its establishment, the town's population and economy has fluctuated to meet the needs of local mining projects. In recent times, through strong leadership by the WTA and strategic government investment the town has established a broader role as a service hub for the communities of the Western Cape .

The township of Weipa consists of four main residential areas; Rocky Point, Trunding, Nanum and Golf Links and the light industrial area Evans Landing. The town spans a distance of approximately 6 km from southwest to northeast. The various core community facilities of education, health, commercial, recreation are spread through the five areas.

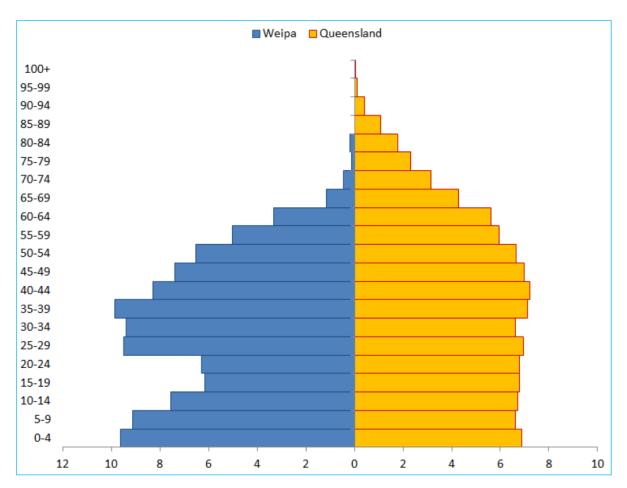


Town area	1,082.2 ha
Town length	6.2km
Town width	2.8km
Length of path network	12.5km
Estimated residential population (ABS)	3856
Cycle to work (ABS)	93
Walk to work (ABS)	96

7.2 DEMOGRAPHICS

A study undertake by Urbis, in 2014, on behalf of Rio Tinto reveals that Weipa's demographic profile is skewed towards persons of prime working age (25-49) as well as children aged 14 and under, when compared to the rest of Queensland. This profile supports the need to create and maintain a path network within Weipa.

FIGURE 2 - ESTIMATED RESIDENT POPULATION BY AGE (2011), TOWN OF WEIPA AND QUEENSLAND



Source: ABS 2011 Census

7.3 DESCRIPTION OF SUBURBS

Whilst the topography of Weipa is consistently flat through the town, there are four distinct residential areas with different planning design and character as a result of being built in different eras. A summary of the differences is provided below. These areas will require slightly different approaches to ensuring connectivity and access for walking and cycling.

Suburb	Rocky point	Trunding	Nanum	Golflinks
Age	Oldest; Built in 1960's	Built in early 1970's	Built in 2003	Built in 2014
Street layout	Grid style pattern with cul-de-sacs	Circular layout with cul-de-sacs	Curved layout with cul-de-sacs	Curved layout with cul-de-sacs
Greenspace	Large amounts of open space in the form of green belts. Much of the greenspace is storm water drainage in the form of deep spoon drains.	Large amount of open space in form of land locked parks with access from cul-de-sacs only.	Large amounts of green space in the form of storm water drainage areas.	Lesser amounts of green space but built along the golf course therefore providing the impression of high levels of open space.
Trees	Lots of large old trees in greenbelts. Very little street trees except on private land.	Lots of trees in open space. Very little street trees except on private land	Some street trees planted on verges that are still very young and small, offering little shade at this stage.	Obvious effort to plant street trees although still very young and small.
Street details	Narrow streets with deep spoon drains alongside of road. Very little verge space for paths. Very low vehicle usage numbers.	Curb and channeling through the suburb. Most streets are cul-desacs with low traffic volume.	curb and channeling through suburb with shared use paths built along major streets. Some cul-de-sacs but major streets have higher traffic volume than other areas of Weipa.	curb and channeling through suburb with shared use paths built along major streets. Some cul-de-sacs but major streets have higher traffic volume than other areas of Weipa.
Paths	Paths have been built through the green belts. Very little space on roadside and verges for paths due to the storm water drains.	Minimal paths through suburb. 2.4m wide shared use path through Central park but no linking paths to the cul-de-sacs or recreation hub of Golf/Bowls club.	2.0m wide paths along main streets and through large park in the southern part of Nanum. Northern section has no paths or linkage to shops and John Evans Drive.	Paths included along most streets but not cul-de-sacs.

Treatments

Connecting the greenbelts through the road network is cheapest option. The path through the green belt is the attractive option, however there is a need to provide links to this path from the cul-desacs.

Connect quiet culde-sacs to the parks and green belts to extend the network. Signage will be crucial in making this work.

Extend the current Continue paths to connect to through shopping complex Kookaburra and path along John ensure **Evans** Investigate adding exist. paths along Pandanus to service northern Nanum.

path and adequate Dve. linkage to schools

8 Community Survey Results

Understanding why people choose to walk and cycle helps inform the planning process to meet current user's needs and also attract more people to walk and cycle more often.

To gain an understanding of who uses the existing path network within Weipa, where and why they are travelling, and what they think needs improving, the community were consulted via an online survey. The survey was open for two weeks with 94 responses received. An analysis of the survey results is available in Appendices Table 2.

8.1 Who walks and cycles?

An overwhelming majority of respondents in the Weipa Cycling and Walking Survey (70%) indicated they used the paths as both a cyclist and a pedestrian and that their use of paths was predominantly for exercise, followed by leisure or recreation, then commuting for work or school and social reasons.

Available evidence suggests that both walking and cycling are becoming more popular as forms of both recreation and transport nationally. The Australian Sports Commissions 'Participation in Exercise Recreation and Sport Survey' (ERASS) conducted annually from 2001 to 2010 shows that nationally, walking is the highest ranked form of recreation and cycling is consistently in the top five activities. According to the ERASS data, cycling achieved a 14.5% increase in participation between 2001 and 2010 while walking achieved a 10.6% increase in participation over the same period.

Pedestrians

Most people walk as a part of their daily routine. Safety, convenience and distance are all factors that will influence a person's decision to walk more. Addressing these factors when planning a network of paths can improve the walking environment to encourage more walkers.

Safety concerns, both real and perceived are a major deterrent to pedestrians. These can include concerns with the physical infrastructure such as maintenance issues and poor design of the path network. It can also include social concerns regarding conflict between users and perceived personal safety issues such as remoteness of the path, abduction or attack, lack of lighting or poor passive surveillance of the path. To encourage pedestrians, paths should be highly visible, well lit, with minimal hazards or obstacles.

Convenience for pedestrians is largely related to directness of a route. People prefer to take the most direct route with the least barriers. This is evident in the prevalence of worn tracks through green spaces where pedestrians have created their own paths. Direct routes that encourage efficient travel times will encourage more pedestrians.

Distance is also a critical factor in the decision to walk, as people tend to perceive distances as further than they actually are. Signage referencing the time taken to reach a destination walking, running or cycling may address misconceptions thereby encouraging more pedestrian access.

Cyclists

Cyclists are diverse in their range of abilities, their reasons for cycling and consequently their needs. Understanding why people ride will assist in planning the most suitable type of facility provision. The Cycling Aspects of Austroads Guidelines describes seven groups of cyclists with different characteristics and requirements.

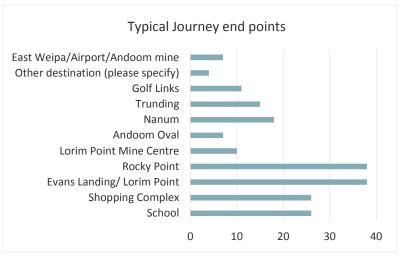
Category	Rider characteristics	Riding environment
Primary school children	Cognitive skills not developed, little knowledge of road rules, require supervision.	Off-road path, footpath (where permitted) or very low volume residential street.
Secondary school children	Skill varies, developing confidence.	Generally use on-road facilities or off-road paths where available.
Recreational	Experience, age, skills vary greatly.	Desire off-road paths and quiet local streets, avoid heavily trafficked routes, more experienced will prefer to use road system for long journeys.
Commuter	Vary in age, skill and fitness, some highly skilled and able to handle a variety of traffic conditions.	Some prefer paths or low-stress roads, willing to take longer to get to destination, others want quick trips regardless of traffic conditions, primarily require space to ride and smooth riding surface, speed maintenance.
Utility	Ride for specific purposes (shopping), short length trips, routes unpredictable.	Not on highly trafficked roads, needs include comprehensive, low-stress routes, appropriate end-of-trip facilities.
Touring	Long distance journeys, may be heavily equipped, some travelling in groups.	Often route is similar to that of other tourists.
Sporting	Often in groups, two abreast occupying left lane, needs similar to commuters.	Travel long distances in training on arterials, may include challenging terrain in outer urban or rural areas, generally do not use off-road routes because of high speed and conflict with other users.

8.2 Where are people going?

Understanding which locations people commonly walk and cycle to can help determine where walking and cycling facilities and network connections are best placed. There are certain destinations that people are more likely to get to by walking and cycling. The following destinations are typically popular locations that people walk and cycle to:

- School
- Employment areas
- Shopping complex
- Sports grounds/ public facilities

This is consistent with the Weipa Cycling and Walking survey results which indicated that most popular journeys in Weipa were to Rocky Point (public facilities like the library, pool, skate park, kindergarten and play group), Evans Landing, schools and the shopping complex.



8.2.1 Schools

Weipa has two schools in close proximity to each other, Western Cape College (WCC) and St Joseph's Catholic Primary school. Both schools suffer from significant pressure from car parking and congestion at drop off and pick up times and encouraging walking and cycling may relieve this pressure. To achieve this, it is necessary to address the connectivity of the schools to the existing network and ensure the routes to the schools are safe for children to ride.

The Western Australian Government's *Guideline for Developing a Bicycle Plan May 2015* recommends a cycling catchment radius for primary schools of 1 - 2 km and secondary schools 3 - 5 km. Using these as a guideline, it is reasonable to expect students from Rocky Point, Trunding and Golf Links to ride to both primary schools and all areas of Weipa to be riding to the secondary school. Consequently safe school routes need to extend to the outskirts of the town.

In the preparation of this strategy a count of the number of bikes at each school was undertaken for one week from the $7^{th} - 11^{th}$ November 2016. The results revealed that an average of 130 students, between both schools, rode their bikes. Refer to Table 1. It should be noted that the bike rack facilities at both WCC primary and WCC secondary were less than half full. Anecdotal evidence indicates that typically these facilities are over flowing most days in the cooler months of the year and it would be estimated that closer to 200 students ride in the dry season.

8.2.2 Sports Ground/Public Facilities

Parks, sporting and community facilities are places people commonly like to walk or ride to so they can build the walk or ride into their recreation time. Good connections and appropriate end trip facilities are important to encourage more cycling and walking to these destinations.

8.2.3 Employment and Commercial Centres

The Guidelines for Developing Bicycle Plans May 2015 suggests a catchment radius of 3-5 km for commuters travelling for work or utility purposes. Using these figures, all areas of Weipa are within a 5km radius of the Commercial precinct in Nanum the light industrial area at Evans Landing and the Lorim Point Mine Centre.

The survey results show a high proportion of respondents walk or cycle to Lorim Point and Evans Landing. Given this is the route for the weekly park run event, it is likely these respondents are a combination of commuters or exercisers making the path along John Evans drive one of the most highly used in Weipa. It is also likely that the commuters and exercisers are accessing the path at similar times of the day making for higher traffic volumes. Any upgrades to this path should take this volume into consideration along with appropriate end trip facilities to ensure safe use by all.

8.3 Where do we need to improve?

When asked to rate the condition of the existing path network, just over half of the respondents found the paths to be of average condition, with a third of respondents rating the paths below average. Those respondents rating the paths below average were asked to identify their specific issues. The issues identified fell into four main barriers to walking and cycling.

Barrier	Issue	Response
Poor cycling and walking	Paths not continuous and finish in the	Provide routes that follow the
routes	middle of nowhere, poor connectivity to	guiding principles
	the higher order community facilities,	

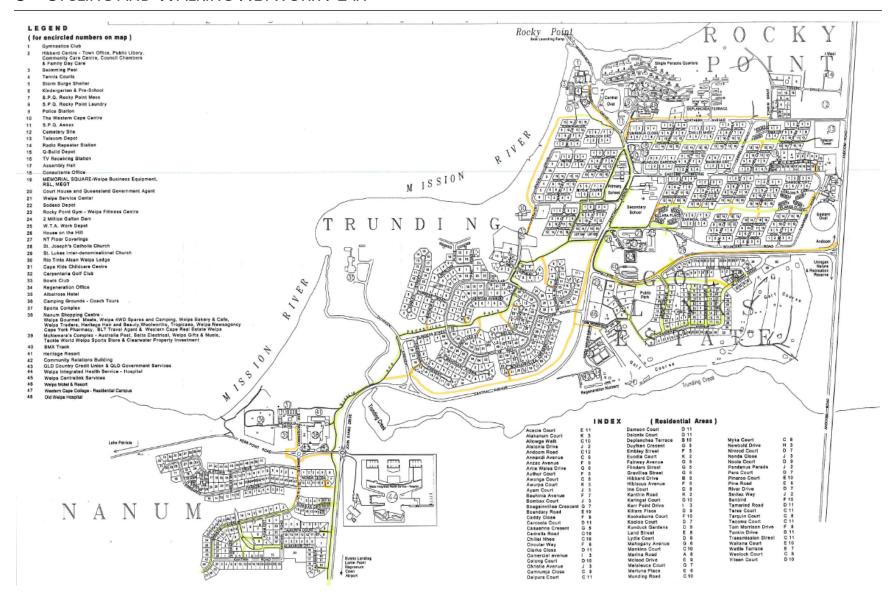
	no linkage to major paths, indirect routes	
Lack of maintenance	Paths are often covered in debris, dirt, broken glass, sticks and bauxite. Paths are in a poor state of disrepair with root damage, cracks, pot holes, uneven surface	Undertake an audit of the path network to identify condition of paths. Develop plans for maintenance and management of paths. Increase funding in maintenance budget
Safety	Perceived lack of safety on paths due to lighting and inadequate road crossings. Some paths with no passive surveillance.	Investigate lighting feasibility for high use paths. Investigate crossing treatments across town.
Poor amenity	Many areas with no trees, more bins/drink fountains required	Provide supporting amenities to improve comfort and attractiveness including planting appropriate trees for shade and attractiveness.
Lack of information	No directional or way finding signage, no maps available	Develop strategies for promoting paths.

The survey also asked respondents to suggest additional routes to be added to the network. The three most popular suggestions were;

- a path along Central Avenue
- a recreational trail around the Lakes
- linking all the paths in Nanum especially to the shops and hospital.

These suggestions are consistent with the recommendations in the Far North Queensland Regional Principle Cycling Plan.

9 CYCLING AND WALKING NETWORK PLAN



10 KEY FOCUS AREAS

10.1 PLAN APPROPRIATE ROUTES

Develop an integrated network of cycling and walking routes that connect key destinations within the town as per the proposed Weipa Cycling and Walking Network Plan.

10.1.1 Provide safe routes to schools

In the last year, the WTA has recently upgraded paths around both schools with two meter concrete paths. This work needs to be continued to ensure these upgraded paths link to the remainder of the network and direct children travelling to school to safe crossing points.

10.1.2 Provide a major route linking Rocky Point to Napranum

In the last 5 years there has been two deaths on the road between Weipa and Napranum. This route is an important link between the two towns and major employment destinations. The road passes through WTA controlled land, Napranum Aboriginal Shire Council land, Cook Shire land and mining lease and development of this route will require developing partnerships between the land owners. This route would be eligible for funding from the Department of Main Roads.

10.1.3 Provide safe efficient routes to major employment areas

There is currently a path linking Rocky Point to Nanum which passes through Trunding. This path is not the most direct route and has numerous crossings where cyclists need to slow and therefore is not an efficient commuter route. An alternative route along Central Ave with less crossings would be desirable. This route would be eligible for funding from the Department of Transport and Main Road Cycling program. The path to Evans Landing along John Evans drive is one of the highest traffic volume paths and could be upgraded to 3m to accommodate users.

10.1.4 Provide linkages from residential areas to the existing network

Whilst this is a lower priority body of work, there is an arguable need to link the existing path network to the roads to allow pedestrians and cyclists to travel particularly to school without walking through mud and storm water drains in the wet season.

Number	Recommendation	Timeframe
10.1	Complete integrating new paths around the schools to the existing network	Short term
10.1 In partnership with Napranum Aboriginal Shire S Council, investigate developing a cycling walking route from Evans Landing to Napranum.		Short term
10.1	Investigate an alternative route along Central Ave and submit an application for funding to TMR.	Immediately
10.1	Investigate upgrading the John Evans Drive path to accommodate users and submit an application for funding to TMR	Immediately

10.2 Provide the infrastructure

Provide the physical infrastructure that will encourage and support more walking and cycling activity, in particular improve the perception of safety by focusing on path surfaces and crossings, and improve the amenity along paths with more attractive trees and path furniture.

10.2.1 Standards and Guidelines

Information on the planning, design, and management of cycling and pedestrian facilities is contained in the Austroads Guides primarily the *Guide to Road Design*, the *Guide to Traffic Management* and the *Guide to Road Safety*.

Australian Standards also exist for pedestrian and cycling infrastructure including but not limited to design for *Access and Mobility* and *Lighting for Roads and Public Spaces*.

WTA will use the information in these documents to ensure we design, construct and upgrade infrastructure to best practice and Australian Standards.

10.2.2 Surfaces

For comfort and safety of walkers and cyclists, the path surface should be smooth and consistent. Many bicycles and prams have no suspension so it is desirable for the surface to be smoother than roads when possible. Whilst it would be ideal to provide smooth concrete paths throughout Weipa, the cost of concrete (approximately \$135 per sqm) may prove prohibitive. Asphalt is currently not an option as there is no longer an asphalt plant in Weipa. Bitumen may prove to be the most cost effective solution (approximately \$60 per sqm) particularly when combined with smaller aggregate (7-10mm) than is currently used on roads. Further investigation will need to be undertaken to determine if the life cycle cost of bitumen will make it worth the initial outlay.

The existing street sweeper in Weipa requires a path width of 2.4m to travel with minimal issues. When providing paths in future, this will be taken into consideration with preference given to developing paths a minimum 2.5m wide to ensure the surface can be kept debris free with ease.

It is also preferable to minimize the number of changes in surface or width in a route and ensure consideration is given to fall and drainage of paths to minimize debris washing onto paths during wet season of Weipa.

10.2.3 Crossings

Safe intersections between pedestrian and cycle routes and roads are important to connect our community. Within Weipa there is currently an inconsistent level of infrastructure and signage at existing road crossings. There is inconsistency in which major roads have a median refuge, which local low volume streets have signage indicating cyclist or pedestrians crossing, the ramp treatments from the path to the road and the barrier treatments from the path to the road.

The type of treatment where paths cross the roads should be consistent within the town based on the category of path and the volume of use on the road. These crossings should also be designed in compliance with relevant Austroad Guides.

10.2.4 Trees & Plantings

Given the climate of Weipa, planting large shade trees will help in reducing the temperatures experienced whilst utilizing the paths. Planting will also contribute to the attractiveness of our paths providing vertical scale, colour and interest.

Consideration should be given to drought tolerance, root structure, flowers, fruit or nuts of the tree, the propensity for leaf litter and maintaining sight lines and passive surveillance along the paths for safety.

10.2.5 Furniture

Street furniture plays an important role in creating the finishing touches to our outdoor living environment. Street furniture includes;

- Seating should be placed in areas with a view or attractive location and primarily along recreation routes.
- Shelters Picnic settings WTA will only consider picnic settings and shelters co located with facilities such as Play spaces or major recreational facilities. This may change should further planning around public open space treatments be undertaken.
- Bike stands to be located at key destinations or co located with other WTA recreational facilities as public need and usage demands.
- Bins/dog bag dispenser stations To be located in accordance with the Animal Management Plan.
- Drinking stations currently provided for in parks and reserves in and at major destination end points.
- Fitness stations three locations are currently provided for with an addition possible location identified at Andoom Oval.

10.2.6 Signage

Consistent coordinated signage along cycle and walking paths improves the safety of users, provides clear directions for finding the way and can advise users of distances, cultural or historical information. Weipa currently has very few signs indicating the direction or distance to various destinations, and inconsistent signage at intersections between paths and roads.

10.2.7 Lighting

Lighting paths extends the usability of the network allowing for safe early morning use and later night use. Many paths can be adequately lit by nearby street lights but those located in parks and green belts may need additional lighting. The decision to light a path lies with the relevant authority and will depend upon usage during periods of low light, however should the decision be made the lighting must be constructed and planned in accordance with Australian Standards. (AS/NZ 1158.3.1-2005)

Considerations for lighting include, cost of solar vs installing electrical connection, complying with Austroads guidelines, having timers or sensors on the lights, and managing the repairs and maintenance.

Due to Budgetary constraints it is not recommended that the WTA seek to light the path network until usage volume indicates it is necessary. Instead users should be educated to wear reflective clothing and use head lights and bike lights.

Number	Recommendation	Timeframe	
10.2	All paths and on road treatments for cycling and walking to be designed and constructed according to relevant Standards and Best Practice guidelines.	Immediately	
10.2	Further investigate the installation and lifecycle costs of Immediately concrete vs bitumen paths to confirm the viability of moving to predominantly bitumen.		
10.2 Construct all paths at 2.5m wide as shared use paths as a Immed preference		Immediately	
10.2 Investigate and install appropriate road crossing treatments for Short each path in the network.		Short term	
10.2	WTA should seek to increase the tree canopy along cycling and walking routes.	Medium term	
10.2	Develop and install consistent directional signage along the network.	Short term	

10.3 MANAGEMENT AND MAINTENANCE

Many of the paths around Weipa are in need of maintenance. Some need roots removed, cracks or pot holes repaired, vegetation removed or debris cleaned up. There is the need to develop a planned maintenance program including sweeping, pruning, weed control and surface repair to manage the cycle and walking paths. This will result in an increase in maintenance funding required in the annual budget.

A detailed audit of all paths in Weipa should be undertaken to gain an accurate depiction of the current state of path network and the extent of maintenance required. The audit should provide a prioritized list of repairs/maintenance based on a risk management approach and should also identify gaps in the path network for future capital works expenditure.

Number	Action	Timeframe
10.3	Undertake an audit/inspection of all paths to identify areas requiring repair, replacement or clean up.	Underway
10.3	Prepare a costed annual maintenance plan for sweeping, pruning, weed control and surface repair to manage the cycle and walking paths.	Immediate

10.4 PLANNING THE BUILT ENVIRONMENT

The built environment has a large influence on encouraging cycling and walking. WTA needs to ensure that moving forward, any future developments within the town consider pedestrian and cycle access is maintained. Factors that will need to be considered in the future include; permeability of the road network in a new development to allow for cycle and walking links, site layout and car parking of business to promote ease of access, cycling and walking infrastructure to be developed to be consistent with the proposed cycling and walking network plan.

The new Weipa Town Planning scheme will need to provide criteria for assessing development. In particular infrastructure relating to cycle and path networks around Weipa.

Number	Recommendation	Timeframe
10.4	Officers to ensure the new Weipa Town Planning	Immediately
	Scheme has criteria and policies to assess and	
	encourage pedestrian and cycle access.	

10.5 PROMOTION, EDUCATION AND ADVOCACY

There is an opportunity for the WTA to play a more proactive role in encouraging people to plan more trips walking or cycling through educating and raising awareness in the community. It would be helpful to prepare and make available maps of the cycling and walking network and information on safe pedestrian and cycling practices, including road crossings to improve the safety of all users. There are opportunities to form partnerships with existing groups in the town, Park Run and the Weipa Cycling Group Facebook page and the school to promote the use of the path network in Weipa.

Number	Recommendation	Timeframe
10.5	Develop community education package to promote the use of the network paths and safe usage practices etc.	Short Term

11 IMPLEMENTATION

TIMEFRAME	Number	Action
Underway	10.3	Undertake an audit/inspection of all paths to identify areas
		requiring repair, replacement or clean up.
Immediately	10.1	Investigate an alternative route along Central ave and submit an application for funding to TMR.
Immediately	10.1	Investigate upgrading the John Evans Drive path to accommodate users and submit an application for funding to TMR
Immediately	10.2	All paths and on road treatments for cycling and walking to be designed and constructed according to relevant Standards and Best Practice guidelines.
Immediately	10.2	Further investigate the installation and lifecycle costs of concrete vs bitumen paths to confirm the viability of moving to predominantly bitumen.
Immediately	10.3	Prepare a costed annual maintenance plan for sweeping, pruning, weed control and surface repair to manage the cycle and walking paths.
Immediately	10.4	Officers to ensure the new Weipa Town Planning Scheme has criteria and policies to assess and encourage pedestrian and cycle access.
Short term	10.1	Complete integrating new paths around the schools to the existing network
Short term	10.1	In partnership with Napranum Aboriginal Shire Council, investigate developing a cycling walking route from Evans Landing to Napranum.
Short term	10.2	Investigate and install appropriate road crossing treatments for each path in the network.
Short term	10.2	Develop and install consistent directional signage along the network.
Short term	10.5	Develop community education package to promote the use of the network paths and safe usage practices etc.
Medium term	10.2	WTA should seek to increase the tree canopy along cycling and walking routes.
Long term	10.1	Link existing road network to the existing path network particularly in Rocky point and Trunding to improve access for school commuters.

12 FUNDING OPPORTUNITIES

WTA will need to allocate funding for adequate maintenance and ongoing replacement of the cycling and walking path network in each annual budget. These amounts will need to be considered in the update of the WTA asset management plan.

The Queensland Department of Transport and Main Roads currently provide cycling infrastructure funding for those routes identified in the Far North Queensland Principle Cycling Network Plan. Local Governments who endorsed the plan may apply for funding for 50% of the value of the project. WTA has endorsed the FNQ PCNP in late 2016 and was invited by the Department to submit an application for funding.

At the time of writing this plan there were no other specific funding programs for off road trails to be developed.

13 REVIEW AND REPORTING PROCESS

The Walking and Cycling Strategy has been developed to provide strategic direction for the current and future networks within the township of Weipa for the period of 2017-2027.

The Walking and Cycling Strategy will be reviewed as required;

- Ensure the plan and strategies still align with the WTA's corporate and business plan
- Identify new issues and strategies to be incorporated into the plan
- Review submissions from the members, staff and community for inclusion and discussion.

The review will take place prior to the budget being finalised each year to ensure sufficient funds are set aside for new projects and services.

14 BIBLIOGRAPHY

ABS Australian Health Survey 2011-12

Australian Sports Commissions 'Participation in Exercise Recreation and Sport Survey' (ERASS)

The Cycling Aspects of Austroads Guidelines

Western Australian Government's Guideline for Developing a Bicycle Plan May 2015 r

15 APPENDICES

Weipa Town Authority & Napranum Aboriginal Shire Council

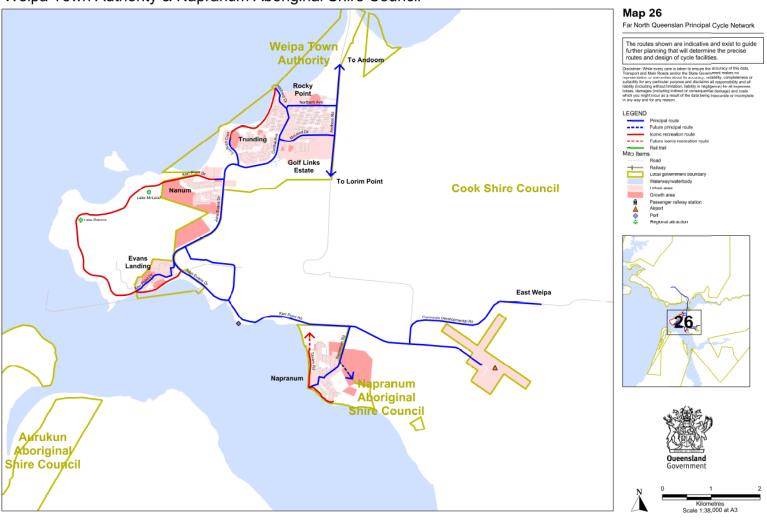




Table 1- Numbers of children riding to the two schools in Weipa in November 2016.

	Mon	Tues	Wed	Thur	Fri
St Joseph	15	15	14	15	15
WCC Primary	56	59	69	65	65
WCC High School	54	53	53	50	52
Total	125	127	136	130	132