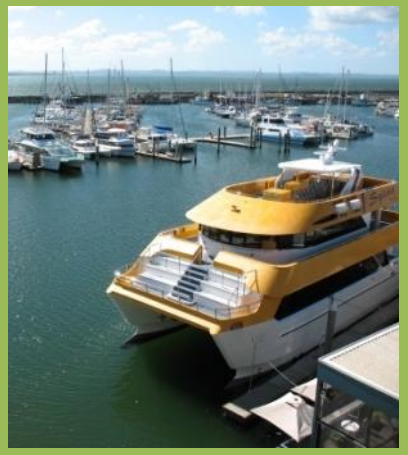

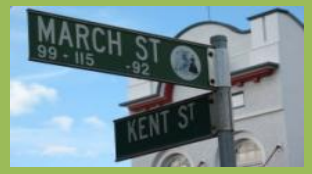

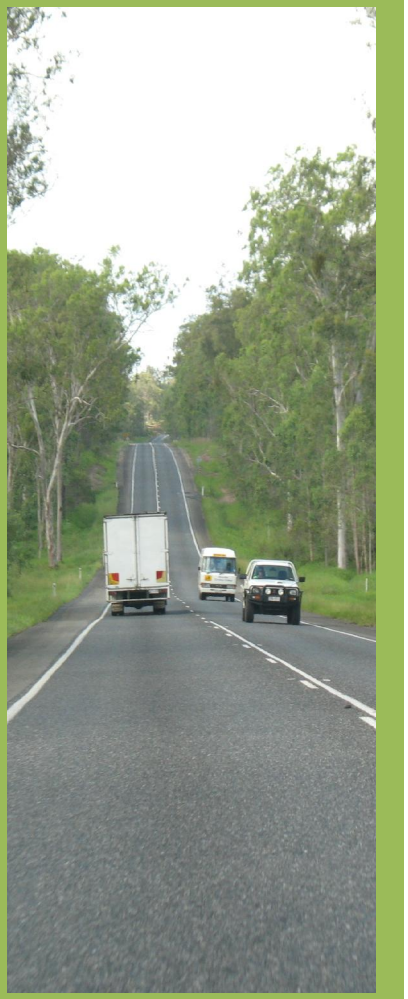

Fraser Coast Regional Council

Sustainable Growth Strategy 2031
Integrated Transport Study
April 2011

Fraser Coast Regional Council

GHD

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PREFACE

This individual planning study report was commissioned by the Fraser Coast Regional Council (Council) as part its Sustainable Growth Strategy project to assist and inform in the development of a new planning scheme for the entire local government area. It is important to understand that while the study report and its recommendations are a significant input, it does not necessarily represent the final integrated policy position of Council. Rather, the information will be used to assist the drafting of elements of the new planning scheme. The integration and balancing of a range of project inputs, community and State government engagement and other information which becomes available to Council will also influence the final policy content of the new planning scheme. Following an initial review by the State, a statutory public consultation process will occur where formal submissions are considered by Council and the State government before the planning scheme is finally adopted.

1. Introduction

1.1 Background

The Fraser Coast Regional Council (FCRC) has embarked on a Whole of Council Area Planning Project, which comprises two main components:

- Component 1 – Fraser Coast 2031: Sustainable Growth Strategy (SGS)
- Component 2 – A new planning scheme for the Fraser Coast Regional Council area to be undertaken, as per the requirements of the Sustainable Planning Act 2009 under the Queensland Planning Provisions (QPP)

GHD has been commissioned by the FCRC to undertake the first component; the Sustainable Growth Strategy. This Integrated Transport Study is one of the technical studies required as part of Component 1.

The objectives of Fraser Coast 2031 are to provide:

- A vision for Fraser Coast based on community aspirations
- A strategic framework for the sustainable growth of the Fraser Coast to 2031
- The foundation for Component 2 – a Whole of Fraser Coast Regional Council Planning Scheme

The Fraser Coast Regional Council area is shown in Figure 1. The map reflects the Council land use zones as designated in the Planning Scheme. This base is also used for most of the maps within this report for context.

1.2 Objectives of the Integrated Transport Study

Transport connectivity in terms of moving people and goods safely and efficiently is critical to the economic growth of a region. The following objectives govern this Integrated Transport Study:

- To understand the existing transport network situation
- To identify gaps within the transport network
- To recommend measures to ensure the transport network will support the Sustainable Growth Strategy to 2031

To achieve these objectives the following tasks were undertaken:

- Collection and collation of all available data and information
- Review and summary of the key relevant points with regards to the transport network from previous reports and studies

- Site visits to Hervey Bay and Maryborough and the wider Fraser Coast region
- Liaison undertaken with selected stakeholders to identify issues, constraints and opportunities to improve the transport infrastructure in the region
- A Gap Analysis of the existing situation for each of the following categories:
  - Road Network
  - Public Transport Network
  - Active Transport Network
  - Freight Network
  - Airports
  - Boating and Shipping
  - Travel Demand Management
- Recommend potential strategies to inform future planning exercises

The future Transport Strategy will be developed in accordance with the *Integrated Transport Planning Framework for Queensland* (Queensland Government, September 2003).

1.3 Scope of this report

The announcement of the intention to prepare a statutory regional plan for the Wide Bay Burnett (WBB) region occurred in December 2009. Any future statutory regional plan has significant implications for local government land use strategy and planning scheme processes, as it will direct a future settlement pattern for the WBB region and all constituent local government areas. There is also a possibility that in addition to determining a future urban footprint, there may also be the inclusion of population and infill targets for certain locations.

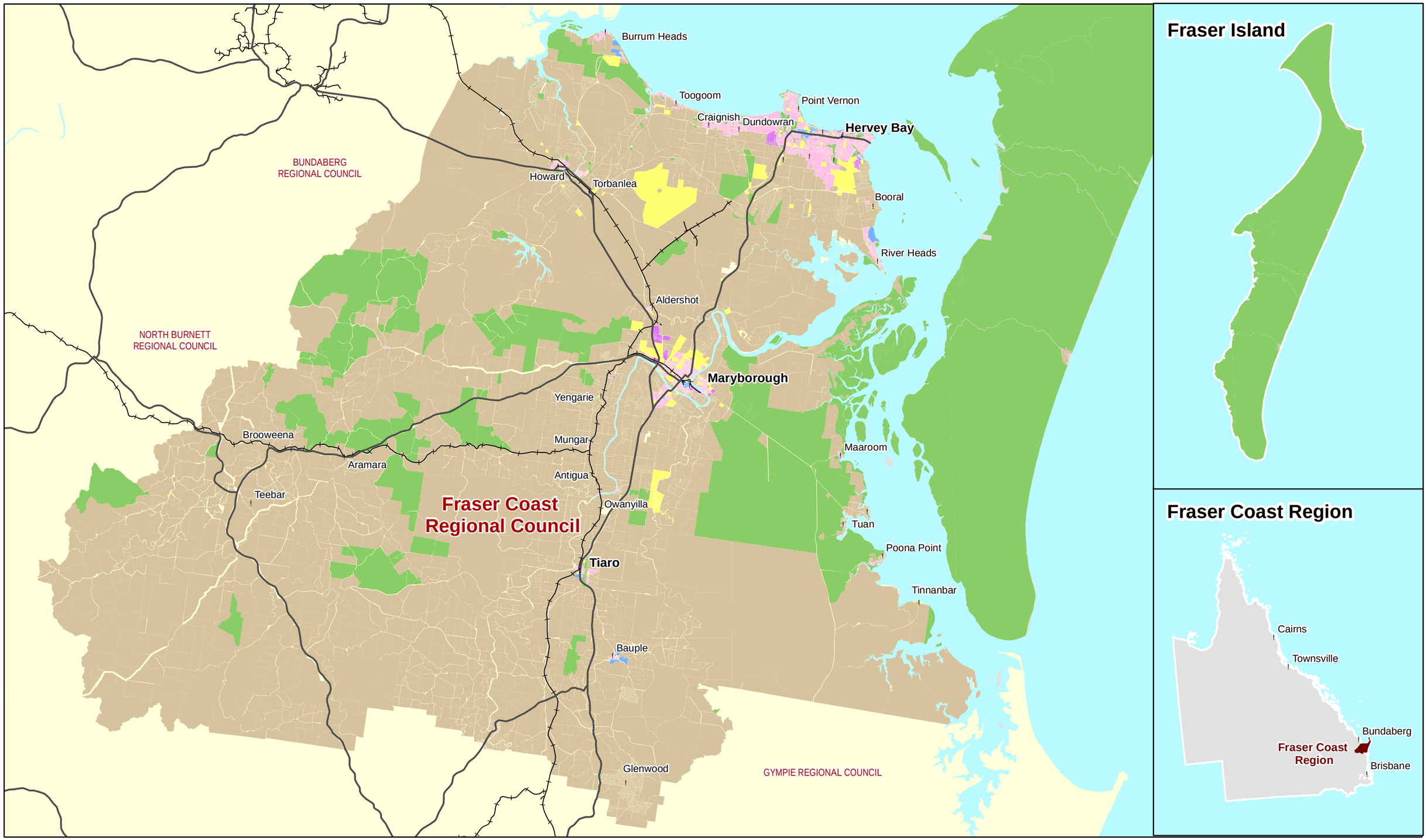
Any future population projections for specific catchment areas within the FCRC area which would inform the ability to project future retail centres, social infrastructure, open space and transport infrastructure needs should be based on assumptions derived from the Wide Bay Burnett Regional Plan (WBBRP).

Further, there are a number of planning studies being undertaken in parallel with this study which have a direct impact on the future possible transport network to support the FCRC SGS 2031:

- Flood Study
- Habitat and Biodiversity Study
- Housing Needs Assessment
- Demographic Profile and Dwelling Capacity Analysis Study
- Community Health and Wellbeing Assessment
- Social Infrastructure Needs Assessment
- Economic Assessment
- Landscape Character Strategy
- Urban Open Space Strategy
- Built Form and Urban Design Report

Also, being undertaken is the Hervey Bay Area Transport Strategy for the Department of Transport and Main Roads due for completion June 2011. Although as part of this study Maryborough is being incorporated into the strategic transport model, the Maryborough Area Transport Strategy will only be undertaken in the next financial year.

These studies will be used to inform the subsequent Part 2 of this study to deliver an Integrated Transport Plan in support of the new planning scheme.



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Kilometres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

- Highway
- Railway
- Rural
- Residential
- Industrial
- Commercial
- Community Use / Special Purpose
- Parks / Open Space / Community Use

CLIENTS | PEOPLE | PERFORMANCE

Fraser Coast Regional Council
Sustainable Growth Strategy - Integrated Transport Study

Job Number 41-22108
Revision C
Date 07 APR 2011

Fraser Coast Regional Council Locality Map

Figure 1

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Level 4, 201 Charlotte St Brisbane QLD 4000 **T** 61 7 3316 3000 **F** 61 7 3316 3333 **E** bnemail@ghd.com **W** www.ghd.com

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2. Methodology

2.1 Methodology

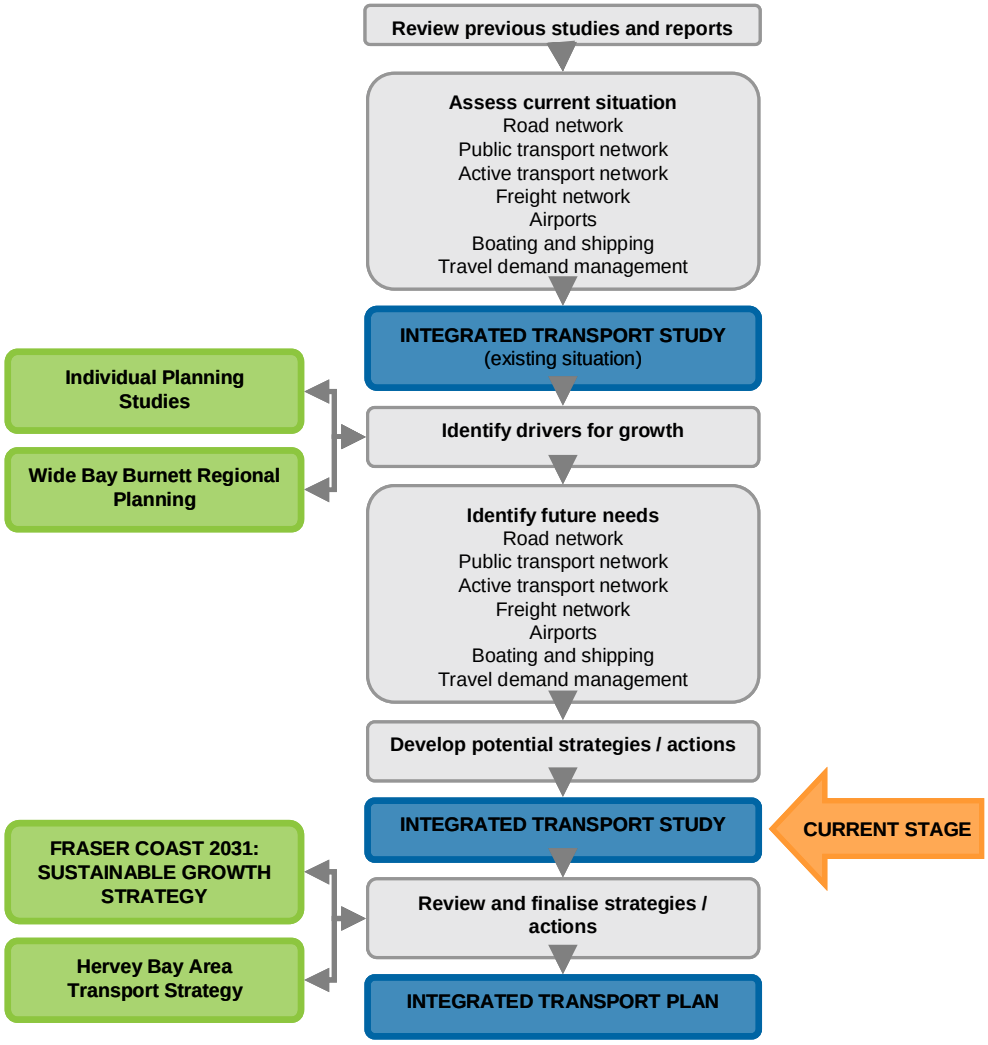
The Fraser Coast Regional Council Integrated Transport Study (FCRC ITS) is the background paper to inform the Fraser Coast Regional Council Integrated Transport Plan.

The Fraser Coast Integrated Transport Plan is being developed in support of the *Fraser Coast 2031: Sustainable Growth Strategy*. The FCRC ITS is guided by and informs the emerging local government land use plan and Walk and Cycle Strategy, the Wide Bay Burnett Regional Planning Process and the Department of Transport and Main Roads (TMR) Area Transport Strategies for Hervey Bay and Maryborough.

There is a desire to maintain consistency between regional and local planning. However, given the ongoing parallel development of each of these documents, information on desired future land use patterns and population and employment distribution is not available at this time. Consequently, the Fraser Coast Integrated Transport Study has sought to analyse the existing situation based on available information from FCRC and TMR only.

The Methodology for developing the Fraser Coast Integrated Transport Study and Plan is summarised in Figure 2.

Figure 2 FCRC Integrated Transport Study and Plan methodology



3. Literature review

3.1 Introduction

A comprehensive list of existing policy, previous studies and reports and emerging documents was reviewed to inform the Fraser Coast 2031 Integrated Transport Study. Section 3 provides a summary of the key documents.

A number of studies currently in development will inform the preparation of the Fraser Coast 2031 Integrated Transport Plan. These include:

- Fraser Coast 2031: Sustainable Growth Strategy
- Fraser Coast Walk and Cycle Strategy, which includes the findings of the *Hervey Bay City Council Access and Equity Plan* (Hervey Bay City Council, 2006), *Maryborough Walk and Cycle Strategy* (Arup, 2003) and the *Hervey Bay Living Streets Strategy: Walk and Cycle Plan* (Eppel Olsen, 2003) – Currently being considered for adoption
- Wide Bay Burnett Regional Plan – consultation closed on the draft plan on 24 December 2010. The final plan and regulatory provisions are due for release in mid-2011
- Wide Bay Burnett Integrated Regional Transport Plan – Under development
- Hervey Bay Area Transport Strategy – Under development, expected completion July 2011

The full list of resources reviewed can be found in Section 13 – Bibliography.

3.2 Existing planning schemes

Prior to the March 2008 local authority elections, the Fraser Coast Regional Council was divided into four separate local government areas with individual planning schemes:

The **Maryborough City Plan** (MCP) was adopted in March 2000 and updated in January 2007 and December 2010. The MCP seeks to secure the role and attractiveness of Maryborough City Centre as the dominant location for shopping, commercial and entertainment activities in the region.

The MCP seeks to consolidate urban residential uses in the vicinity of the Maryborough City Centre. Residential communities are also located at Granville and Tinana. The MCP notes that it is unlikely that the Tinana Investigation Area, to the south of the centre, will be required to be developed for residential purposes within the next 10 years.

The MCP promotes industry expansion at:

- The Pocket – Light industry, the transportation of heavy or hazardous materials by road is not preferred in The Pocket Local Area.
- Granville – The Fraser Coast Marine Industrial Precinct in the area between Beaver Rock Road and the Mary River.
- Maryborough West – Consolidation and extension of light industrial area in the vicinity of the Bruce Highway interchange at Baddow. A major area of general industry is intended to be developed between the railway and the present rifle range.
- Maryborough North – Moonaboola Industrial Estate is the preferred location for new heavy or hazardous industries.

The **Hervey Bay City Planning Scheme** (HBCPS) was adopted in December 2006 with numerous amendments until October 2009. The HBCPS seeks to consolidate population growth in the main city area through containing urban expansion and encouraging infill development. The balance is accommodated in the coastal settlements of Burrum Heads, Toogoom and River Heads and the rural townships of Howard, Torbanlea and Aldershot.

The HBCPS identifies eight structure plan areas to facilitate integrated planning and development outcomes within the following emerging community areas:

- Eli Waters/Dundowran
- Pialba/Point Vernon
- Eli South/Christensen
- Urraween West
- Kawungan North East (Main Street)
- Doolong Flats / Ghost Hill
- Highfields East
- Urangan South

Outside of urban and residential areas the HBCPS supports a mixture of agricultural uses, extractive industries, reserves and vacant land.

The retail and commercial strategy in Planning Scheme Policy No. 7 (PSP 7 Retailing and Commercial Centres) focuses on the following key areas:

- Pialba Precinct
- Boat Harbour Drive Precinct
- Urangan Central
- Eli Waters
- Business/tourist nodes at Scarness, Torquay, Urangan and the Boat Harbour
- Neighbourhood / cluster shopping
- Local shops

Industrial areas will be protected, however, no further expansion is envisaged within the planning period. Hervey Bay industrial areas are located at:

- Urangan (Pulgul Creek) – Service industry
- Pialba and the Lower Mountain Road / Burrum Heads Road area – General industry
- Elizabeth Street and the Islander Road area – Light / service industry
- Hervey Bay Airport Industrial Precinct

The Hervey Bay City Planning Scheme is supported by numerous planning scheme policies (PSP), notably PSP 4– *Water Supply, Sewerage, Transport, Stormwater and Public Parks and Community Land Infrastructure Contributions,* adopted June 2009.

The **Planning Scheme for the Woocoo Shire** (PSWS) was adopted in November 2006 and amended in June 2010. The WSPS supports the area's primarily rural nature with minor service centres at Mungar, Brooweena, Oakhurst Gardens and Little Tinana.

The **Tiaro Shire Planning Scheme** (TSPS) was adopted in October 2005 and amended in November 2010. Only the northern divisions of the former Tiaro Local Government area were amalgamated with the Fraser Coast. The TSPS seeks to maintain the rural and residential character of the area with urban development at Tiaro, Curra, Gunalda, Glenwood, Tinnanbar and Bauple.

A comparison of transport related Desired Environmental Outcomes for each planning scheme is summarised in Appendix A. As can be seen, there are varying levels of detail for transport outcomes in each planning scheme; this is reflective of the varying degree of urbanisation in the region.

3.3 Regional – Wide Bay Burnett

Fraser Coast is part of the larger Wide Bay Burnett Statistical District, which includes:

- Bundaberg Regional Council
- Fraser Coast Regional Council
- Gympie Regional Council
- North Burnett Regional Council
- South Burnett Regional Council
- Cherbourg Aboriginal Shire Council
- the part of the local government area of Gladstone Regional Council that was immediately before 15 March 2008 the local government area of Miriam Vale Shire Council

3.3.1 Draft Wide Bay Burnett Regional Plan (Growth Management Queensland, October 2010)

The *Draft Wide Bay Burnett Regional Plan* (Draft WBB Regional Plan 2010) was released on the 1 October 2010. The Draft WBB Regional Plan 2010 builds on the strategic directions, principles and policies of the previous Wide Bay Burnett Regional Plan 2007-2026. Population and housing projections have been extended for the 2009-2031 timeframe. Unlike its predecessor, the Draft WBB Regional Plan 2010 is a statutory planning document under the *Sustainable Planning Act 2009* and takes precedence over all planning instruments, other than state planning regulatory provisions.

Strategic directions statements establish the broad policy framework for managing growth and include:

- "The region has liveable and vibrant communities that have access to integrated, coordinated and flexible ranges of culturally diverse services and delivery options."
- "The region's infrastructure is identified and planned for in a coordinated manner to ensure its efficient and timely delivery supports future growth and maximises existing capacity."

The preferred settlement pattern will:

- Relieve pressures on the coast by limiting coastal development at Burrum Heads, Dundowran and Toogoom. Alternatively, Nikenbah will be promoted as a Local Development Area (It should be noted that the FCRC submission to the draft WBB Regional Plan 2010 identifies the expansion of the urban footprint at Burrum Heads to approximately double the proposed footprint).
- Promote additional growth in Maryborough – St Helens has been identified as a Local Development Area to deliver medium to long term residential growth (It should be noted the that FCRC submission to the WBB Regional Plan 2010 identifies the focus of St Helen to be employment/industry rather than residential).
- Support centres through promoting mixed land uses, improving the quality of the overall urban design and improving sustainability.
- Ensure rural towns have opportunities to prosper and accommodate growth.
- Manage rural residential development.

The document details Regional Plan Policies, Principles and Actions split into 11 Regional Strategies, and states the following regarding transport:

- Policy 1.1.2(3) Adopt patterns of urban development that reduce the need to travel
- Objective 2.2 Regional community green space network – areas of land publicly owned that facilitate community health and wellbeing through physical activity, social interaction, liveability and direct interaction with the environment
- Policy 2.3.3(2) Identify and protect significant mineral and extractive resource areas for potential future extraction and use, including the provision of appropriate transport corridors and buffers
- Policy 3.1.1(3) Promote better flexibility, coordination and efficiency in service planning and delivery
- Program 3.1.3(9) Coordinate community transport requirements and seek innovative

solutions to help meet the travel needs of rural communities

- Program 4.1.2(9) Provide accessible and affordable transport options to enhance connectivity and service access
- Principle 4.1.3 Community wellbeing is optimised by the provision of open space, sport and recreation opportunities, walk and cycle paths, and supporting infrastructure that makes physical activity and participation safe. Support infrastructure should consider aspects such as seating, lighting, toilets, shade and water fountains
- Policy 6.4.3(5) Prioritise new broadhectare development sites, including industry, with access to existing or planned transport infrastructure that supports the function of the development
- Principle 6.4.3 It is unlikely that public transport will reach significant capacity to develop traditional transit oriented communities. However, similar objectives should be applied to the planning or urban neighbourhoods
- Policy 6.4.4(3) Ensure connectivity of open space via a well planned network of trails, footpaths and public transport options

Objective 8.2 of the Draft WBB Regional Plan 2010 is to provide the region with a "safe, connected, efficient, integrated and sustainable transport network and services that support economic development, accessibility, energy-efficient and low carbon transport options, and the preferred settlement pattern". Four principles support this objective:

- 8.2.1 Integrating transport and land use – minimise freight impacts, development patterns that promote walking and cycling and public transport, multi-modal networks, prioritise and sequence transport investment with land use decision making
- 8.2.2 Sustainability and accessibility – safe, convenient and legible walk and cycle and public transport networks, including appropriate end-of-trip facilities, increase awareness of sustainable travel options, support community transport and community-based transport, implement demand management strategies
- 8.2.3 Safety and efficiency – prioritise transport investment in high crash zones, implement an effective road hierarchy, establish priority freight routes
- 8.2.4 Supporting economic growth – protect key freight corridors, develop new transport terminals to support a range of industry, protect and enhance airport and marina infrastructure

3.3.2 Wide Bay Burnett Regional Plan (Department of Local Government, Planning, Sport and Recreation, 2007–2026)

The *Wide Bay Burnett Regional Plan 2007-2026* (WBB Regional Plan) was developed under the direction of the Wide Bay Burnett Regional Planning Advisory Committee (RPAC). The non-statutory policy document follows the *Wide Bay 2020 Regional Framework for Growth Management* and was released in 2007. The Wide Bay Burnett region is split into four sub-areas. The Southern Wide Bay area includes the Fraser Coast Regional Council and the former Cooloola Shire.

The WBB Regional Plan "seeks to provide a framework for managing the growth and sustainability of the Wide Bay Burnett region as it heads towards the year 2026."

The Vision for 2026 includes the following transport elements:

- ”The arrangement and density of commercial and residential development is conducive to providing an effective public transport and freight system for the movement of people and goods both within and between centres, and throughout the region.”
- ”Modern transport systems underpin the efficient movement of the region’s people and products within the region and facilitate exports to other destinations in Queensland, Australia and beyond.”

The document details Regional Plan Policy Principles and Actions split into 11 Themes. The Transport theme includes:

- 6.1.1 Connecting People, Places and Activities – Transport and land use planning should be carried out in an integrated and coordinated planning and policy framework so that the development of transport services and infrastructure supports efficient travel, regional freight requirements and settlement patterns, rather than responding to ad hoc land use demand.

  Action B – Ensure the Wide Bay Burnett Integrated Transport Plan (review) provides strategic direction to the Roads Alliance planning process that:

  – Jointly manages and invests in Local Roads of Regional Significance, working towards agreed long-term visions for the road network
  – Focuses on consistent objectives with prioritised investment meeting local and regional network needs

  Action D – Protect regional airports of State Significance (Bundaberg, Hervey Bay, Maryborough, Kingaroy)

  Action F – In conjunction with the review of the Wide Bay Integrated Transport Plan, prepare a passenger transport plan for the region
- 6.2.1 Equitable Access to Transport – An acceptable level of transport services should be available to all residents, particularly members of the community who do not have access to transport and so have limited access to services.
- 6.3.1 Sustainable Transport Initiatives – The region’s transport system will be developed to avoid significant environmental damage as a result of inadequate planning, work programs and daily operations and activities.
- 6.4.1 Transport System Efficiency – Transport planning within the Wide Bay Burnett region should encourage the provision and protection of transport services and infrastructure to service the needs of industry and facilitate the development that fosters the region’s economic growth.

  Action A – Identify and promote the location of freight hubs and distribution centres to ensure efficient local delivery routes

  Action D – Agree on objectives for the establishment of a regional airport, determine the feasibility and timeframes of potential solutions, and ensure development proposals do not restrict future options

  Action G – Implement measures to sustain the road hierarchy, including:

  – Developing local arterial road networks to preserve the capacity of existing highways to carry inter-city and inter-regional traffic and to improve safety for local traffic
  – Keeping non-local traffic out of local streets
  – Maintaining the capability of major roads to carry essential traffic

3.3.3 Wide Bay Integrated Transport Plan 2002 – 2020 (Queensland Government, 2002)

The *Wide Bay Integrated Transport Plan 2002-2020* (WB ITP) was developed by Queensland Transport in partnership with the Department of Main Roads and the Councils of Bundaberg, Burnett, Cooloola, Hervey Bay, Isis, Kolan, Maryborough, Miriam Vale, Tiaro and Woocoo to support the *Wide Bay 2020 Regional Growth Management Framework*.

The WB ITP is underpinned by the following transport principles:

- Integrated land use and transport planning
- Economic efficiency and growth
- Sustainable development
- Equity, employment and social justice
- Affordability
- Efficient & effective transport solutions

The WB ITP contains four action plans aimed at improving the transport system in Wide Bay. The action plans have been based on the four transport themes of the Wide Bay 2020 Regional Growth Management Framework:

- Transport and land use coordination
- Road and transport facilities
- Passenger transport services and facilities
- Other transport infrastructure for economic development

The *Wide Bay Burnett Integrated Regional Transport Plan* (WBBIRTP) is currently being developed to replace the *Wide Bay Integrated Transport Plan.* The overall aim of the transport plan is to provide a safe, efficient, integrated and sustainable transport network and services that support economic development, accessibility and the preferred settlement pattern, in line with objective 8.2 of the Draft WBB Regional Plan 2010.

Core themes for the WBBIRTP will include:

- Support for economic development and growth
- Integrated land use and transport
- Enhanced equity and accessibility
- Healthy living, environmental sustainability and the region's unique amenity and liveability
- Safety and security

In 2007, TMR (formerly Queensland Transport) produced two research papers to inform the review of the Wide Bay Integrated Transport Plan:

- Background Paper for the Wide Bay Burnett Integrated Transport Plan
- Discussion Paper for the Wide Bay Burnett Integrated Transport Plan

The findings of these two studies provide the greatest indication of the contents of the WBBIRTP and have accordingly been incorporated into the following chapters.

Three background reports are currently being compiled and expected to be released in early 2011. These reports address:

- Active travel
- Passenger transport
- Strategic road and freight movements

The Fraser Coast Integrated Transport Strategy development will be reviewed in light of any information released on the Wide Bay Burnett Integrated Regional Transport Plan (2010) at the next stage.

More detailed area transport strategies will be prepared for Hervey Bay and Maryborough through the Department of Transport and Main Roads. They will investigate the future transport needs of specific localities including road hierarchy, multi-modal planning, congestion management and travel behaviour change.

3.3.4 Roads Implementation Program for the Wide Bay Burnett Region (TMR, 2008 & 2009)

The *Roads Implementation Program 2008-9 to 2012-13* (RIP) details the program of roadworks the Department of Transport and Main Roads plans to deliver over the next five years. The program was updated in 2009 extending the program of roadworks to 2013-14.

The program includes intentions for planning, constructing, enhancing, preserving, maintaining, operating and delivering roads in the Wide Bay Burnett Region.

The program identifies firm funding commitments for the first two years, and indicative funding for the remaining three years. Australian Government funding is subject to review as part of the annual Australian Government budget.

Subsequent to the drafting of this report, the *Queensland Transport and Roads Investment Program 2010-11 to 2013-14* (QTRIP) was released. Although QTRIP updates the RIP, it was not considered materially significant to this strategic work to update Appendix C – FCRC Roads Projects List.

3.4 Local – Fraser Coast Regional Council

3.4.1 PSP. 4 – Water Supply, Sewerage, Transport, Stormwater & Public Parks and Community Land Infrastructure Contributions (FCRC, June 2009)

Planning Scheme Policy No. 4 – Water Supply, Sewerage, Transport, Stormwater & Public Parks and Community Land Infrastructure Contributions of the Hervey Bay City Planning Scheme was adopted on the 18th June 2009.

The policy provides the method of calculating contributions to be paid to Council for trunk infrastructure as a consequence of a development approval. It provides the most up to date definition of the existing and future road, pathways and public transport infrastructure in Hervey Bay.

Desired Standards of Service (DSS) direct the form and scale of infrastructure networks to be constructed to service areas within the local government area. The DSS does not imply a guaranteed level of performance for the network but the level at which planning and development of networks has been undertaken.

3.4.2 Fraser Coast Regional Council Economic Development Strategy 2009-2013 (FCRC, August 2009)

The Fraser Coast Economic Development Strategy (EDS) sets a framework for enhanced growth and development across a broad range of industry sectors aligned to the 2009-2013 FCRC Corporate Plan.

The EDS provides a series of objectives and actions across seven broad themes:

1. Tourism and marketing
2. Plan, create and foster precincts
3. Business attraction and retention
4. Infrastructure
5. Lifestyle, health and recreation
6. Knowledge management and education
7. Rural futures

The EDS aims to:

- Create an environment that is conducive to business and industry development and attraction.
- Support existing business and industry to build on the region's competitive advantage
- Encourage sustainable and innovative practices by facilitating or supporting forums and in modelling our own business practices

- Ensure infrastructure meets industry and community needs
- Encourage partnerships, business networks and alliances
- Plan and facilitate economic development

3.4.3 Doolong Flats / Ghost Hill & Kawungan North East (Main Street) Structure Plan (FCRC, 2010)

The *Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan* was approved on the 8 September 2010. The structure plan area is located generally at the south-eastern margins of the existing Hervey Bay urban area comprising of two distinct sections as follows:

a. The Kawungan North East (Main Street) section with its boundaries generally defined by –
   - McLiver Street in the north
   - Existing urban residential development in the locality of Kawungan in the east
   - Doolong Road in the south
   - Main Street in the west

b. The Doolong Flats / Ghost Hill section with its boundaries generally defined by –
   - Doolong Road in the north
   - Existing rural residential development and open space areas in the locality of Wondunna in the east
   - The Ghost Hill ridgeline in the south
   - Existing urban residential development in the locality of Kawungan in the west

The structure plan seeks to guide future development of this area by "identifying the preferred layout of future residential and commercial development as well as the location of major roads, open space and infrastructure".

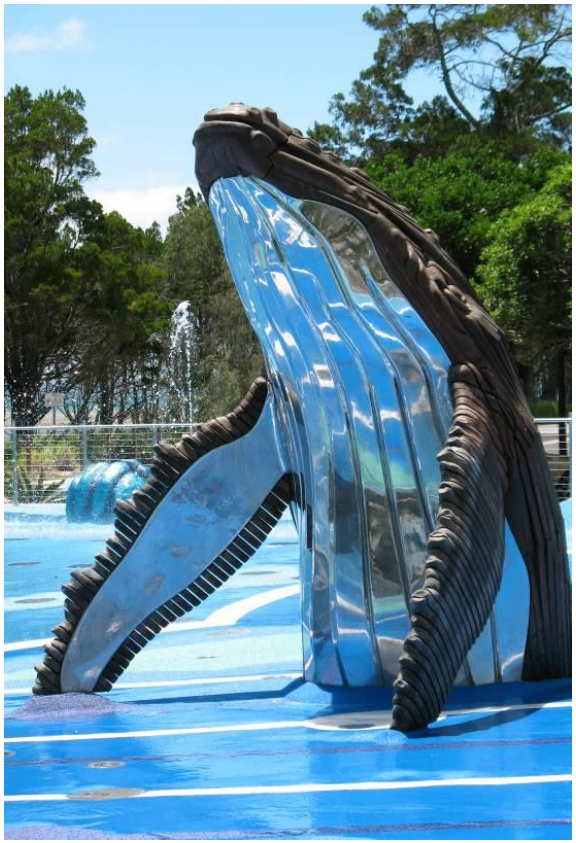
The structure plan vision statement details the following in relation to transport:

- "efficient north-south road connections, improved public transport services and an interconnected network of pedestrian and cycle paths"
- "a range of densities and housing forms…a higher level of local self-sufficiency where residents have less need to travel by motor vehicle because more and better facilities are available locally and are easier to access"

The structure plan notes the following transport infrastructure considerations:

- Coordinated provision for public transport modes including linkages to the existing transport network
- Pedestrian and cycle networks to align with recreation trails and new road upgrades, upgrades to the external network may also be required
- Upgrade Rassmussens Road to a Controlled Distributor and part of Doolong South Road to a Traffic Distributor
- Implement future Urraween Extension(east) and Kawungan Distributor

In recognition of the significant costs associated with providing major road infrastructure, the preferred sequence of development for the Doolong Flats / Ghost Hill part of the structure plan is as follows:



- the southern sector first
- the north-eastern sector second (subject to extension of the trunk sewer)
- the central-western sector third
- the north-western sector fourth

"No particular sequence has been identified for the Kawungan North East (Main Street) part of the structure plan area as there are no significant infrastructure constraints or planning imperatives that would favour delaying development in this area. However, it is intended that the direction of development in this part of the structure plan area will generally proceed in a north to south direction."

3.5 Other State agencies

There are a number of other State Agency priorities that rely on a well functioning transport network. In particular, Queensland Tourism has produced a series of papers on the important tourism industry in the Fraser Coast Region. These papers discuss transport improvements needed to support the tourism industry and include:

- Fraser Coast – Bundaberg Regional Tourism Investment and Infrastructure Plan (Tourism Queensland, 2007)
- Destination Management Plan for Tourism in the Fraser Coast 2007-2010 (Tourism Queensland, 2007)
- Bundaberg Fraser Coast Tourism Opportunity Plan 2009-2019 (Tourism Queensland, 2009)

3.6 Technical papers

The following technical papers will also inform the Fraser Coast Integrated Transport Study and reference to them will be made in the appropriate sections of this report:

- Fraser Coast Regional Council Corporate Plan 2009-2013 (FCRC, 2009)
- Fraser Coast Regional Snapshot (FCRC, 2009)
- Hervey Bay Road Hierarchy Study (Eppel Olsen, 2000)
- Hervey Bay Road Network Study (Arup, 2000)
- Regional Infrastructure Profile 2009 – Wide Bay Burnett Region (Queensland Government, 2009)
- Wide Bay Burnett 2008-2009 Change Driver Report (DETA, 2008)
- Wide Bay Burnett Aviation Infrastructure Requirements Study (Aurecon, 2009)
- Wide Bay Burnett Integrated Transport Plan Background and Discussion Papers (Queensland Transport, 2007)
- Wide Bay Burnett Regional Economic Profile (Department of Infrastructure and Planning, 2009)
- Wide Bay Burnett Strategic Road Network Modelling Report (Queensland Transport, 2008)
- Wide Bay Marine Infrastructure Study (GHD, 2007)

4. Context

4.1 Population and demographics

Between 2001 and 2007, the Fraser Coast population increased by approximately 18,038 persons to 92,458 persons in 2007 (ABS, 2007a in Fraser Coast Economic Profile, 2009). Over this period, Hervey Bay experienced the most significant growth, followed by Woocoo / Tiaro and Maryborough. Projected growth over the twenty years to 2026 in the Fraser Coast is expected to exceed that of Non-Metropolitan Queensland, with Hervey Bay expected to maintain a higher average annual population growth compared to Woocoo / Tiaro and Maryborough.

Existing and projected population figures for the Fraser Coast Region have been summarised in Table 1.

The data presented in Table 1 shows that the majority of the population of the Fraser Coast resides in the Hervey Bay and Maryborough areas (approximately 92%), with the Hervey Bay area being accountable for 62% of the population of the Fraser Coast Region.

Table 1 Existing and projected population [1]

Catchment	2006	2011	2016	2021	2026	2031
Tiaro	3,016	3,496	3,964	4,401	4,937	5,531
Woocoo	1,821	2,111	2,388	2,650	2,969	3,278
Maryborough	27,217	29,094	30,306	31,306	32,299	33,268
Hervey Bay	55,157	67,217	77,521	86,848	96,322	105,814
Fraser Coast Regional Council	89,179	104,605	117,241	128,601	136,960	151,300
Non-Metropolitan Queensland [2]	2,271,146	-	2,830,674	-	3,311,139	-

[1] Prepared by Buckly Vann (2010). Catchment areas as defined by the FCRC Sustainable Growth Strategy. Catchment areas do not align with former LGA boundaries, therefore, total population per former LGA cannot be directly compared with the medium series population projections prepared by PIFU. Projected growth rates have been based on a combination of population projections prepared by PIFU and the population projections that were determined as part of the Draft Wide Bay Burnett Regional Plan preparations.

[2] Source: ABS (2007a) in Fraser Coast Economic Profile 2009

The age distributions of Hervey Bay, Maryborough and the Fraser Coast Region are shown in Figure 3.

There is a large elderly population within the Fraser Coast Region. The percentage of the population aged 65 or over is 18%. This percentage is greater in Hervey Bay at 22%. There is also a large population of children under 15 years of age at 20%. The proportion of persons in the Fraser Coast aged over 65 is expected to increase to 28% by 2026, and the population of children is expected to decrease to 16%.

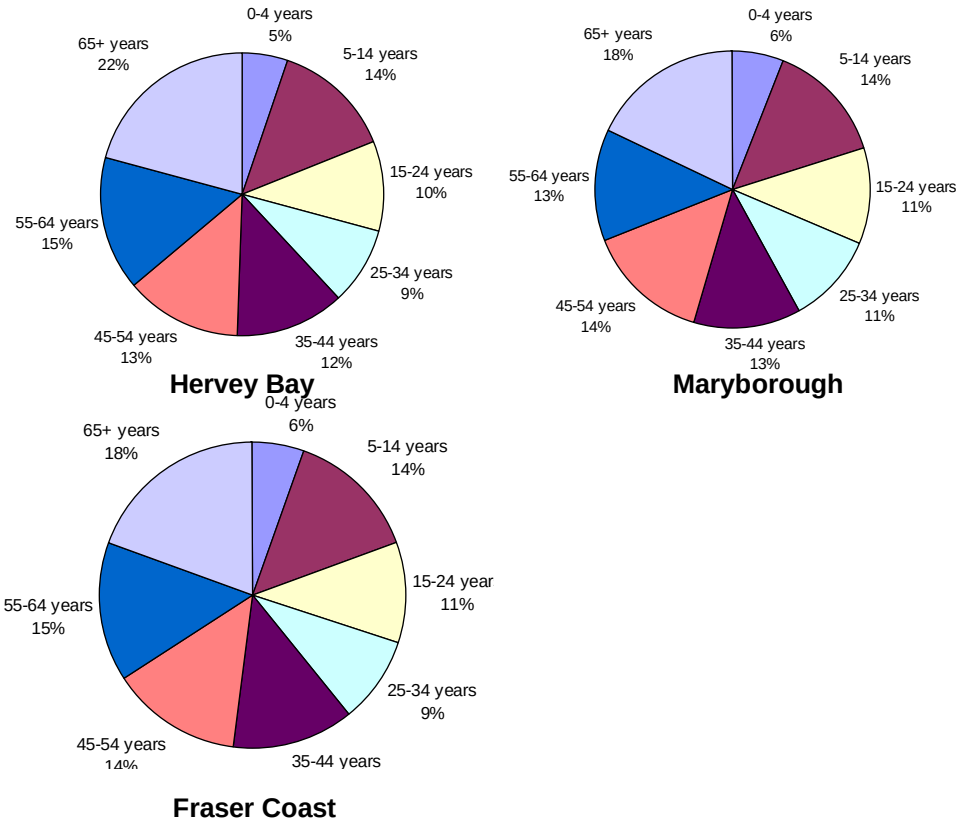
The proportion of people employed and unemployed within the Fraser Coast Region is shown in Table 2. Only 48% of all residents are employed, this compared to the Queensland average of 62% reflects the large proportion of persons in the elderly bracket. The lack of industry and significant investment in the region is also limiting employment.

4.2 Economy

Fraser Coast's labour force has increased by 4.1% per annum on average between 2001 and 2006. Industries of significant employment are:

- 13.6% Retail trade
- 13.2% Health care and social assistance
- 11.0% Construction

Figure 3 Age distribution (2006)



Source: Buckley Vann, 2010

Table 2 Labour force summary (2006)

	Hervey Bay	Maryborough	FCRC	Queensland
Employed Persons	17,635	10,133	29,619	1,824,997
Unemployment rate (%)	9%	8%	8%	5%
Participation rate (%)	42%	46%	48%	62%

Source: Australian Bureau of Statistics, 2006 Census

The Fraser Coast business industry structure has a high proportion of businesses in:

- 23.1% Construction
- 16.6% Property and Business Services
- 14.0% Agriculture, Forestry and Fishing
- 13.7% Retail Trade

The Fraser Coast recorded lower average wages for all industries in comparison to Non-Metropolitan Queensland.

4.3 Tourism

Tourism is a major economic generator in the Fraser Coast Regional Council area. The key tourist attractions centre upon Hervey Bay and include Fraser Island, the Great Sandy Strait Marine Park, access to Lady Elliot Island and the annual Whale Watching Season. Maryborough is one of Queensland's oldest provincial cities and attracts heritage tourism enthusiasts.

The seasonal influx of visitors creates localised pressures along primary access routes into the main activity centres of Hervey Bay and along the Esplanade, where the majority of tourist accommodation is located. Consequently, peak transport demand must consider seasonal as well as daily fluctuations.

The Hervey Bay Destination Management Plan 2007-2010 notes that "tourism plays an increasingly key role in the financial and social economy of the region, contributing significantly to the revenue base and employment in a number of sectors including retail and wholesale trade, accommodation, cafés and restaurants, and recreational, personal and other services".

Fraser Coast has experienced an increase in visitor numbers over the last five years and this trend is expected to continue (refer to Table 3).

Table 3 Annual visitor number forecasts

	Actual	Projected	
	2007	2012	2018
FCRC	939,500	1,087,900	1,185,700

Source: Bundaberg Fraser Coast Tourism Opportunity Plan (2009)

4.4 Education

According to the Fraser Coast Region Schools guide there are 41 primary and high schools in the Fraser Coast. Primary schools are scattered through residential communities. High schools are generally concentrated in Hervey Bay and Maryborough.

Tertiary education is provided at the University of Southern Queensland's Hervey Bay Campus in Pialba. The University of Southern Queensland states that although there are no planned upgrades at this stage, there is sufficient land to accommodate an enrolment of at least 5,000 estimated full time students and to develop some other related activities.

TAFE Queensland has two campuses in the Fraser Coast, at Urraween in Hervey Bay and Maryborough West.

4.5 Land use

The Fraser Coast Regional Council area extends from Glenwood in the south to Burrum Heads in the north, from Fraser Island in the east to rural lands and a number of small townships in the west.

The Fraser Coast Regional Council area includes two key urban centres, Hervey Bay and Maryborough located in the north-eastern portion of the Council area; with the broader region containing a number of rural hinterland townships and settlements including Tiaro, Howard, Torbanlea, Oakhurst, Bauple, Glenwood and Aldershot; and coastal townships and settlements including Burrum Heads and Toogoom, Craignish and Dundowran on the northern coast, and River Heads, Poona, Boonooroo, Tuan, Tinnanbar and Maaroom on the eastern coast.

The mainland part of the region is approximately 95 kilometres at its widest point and approximately 90 kilometres from its most southern point, south of Glenwood, to its most northern point at Burrum Heads.

Overall, the region is characterised by:

- A concentration of urban settlement within the urban area of Hervey Bay in the far north-eastern part of the region and in Maryborough City in the near north-eastern part of the region.
- Coastal townships and sensitive environmental areas on the eastern and northern coasts.
- Significant rural farming lands in the western and southern part of the region, with rural townships and settlements located throughout.

4.6 Environment

The Fraser Coast region has an eastern coast that adjoins the Great Sandy Strait Marine Park and is directly opposite Fraser Island. The eastern coast includes the mouth of the Mary River and supports small coastal townships and the Urangan Boat Harbour (in the north). This part of the coast also includes the Poona National Park and a number of wetlands and sensitive environments associated within the Great Sandy Strait. Burrum Heads National Park and the Burrum River separates Burrum Heads from the coastline further north in the Bundaberg Regional Council.

The terrain is low lying with numerous water courses and subsequently is susceptible to flooding. The Mary River traverses the centre of the Fraser Coast region extending south-west through Maryborough. Other significant water courses include Burrum River, Susan River, and Lake Lenthal which is the main water supply for the region.

Areas outside of the key population centres are generally designated national park, state forestry or rural. Outside of the Great Sandy Strait, national parks are located at Burrum Coast and Poona. State forests include Wongi State Forest and Tuan State Forest. There are significant wetland areas around River Heads and Burrum Heads.

The warm tropical climate supports a large agriculture, forestry and fishing sector, most notably for sugar cane and timber production, but also for pastoral and orchard crop enterprises.

There are over 800 parks, gardens and recreational areas in the Fraser Coast. The largest of which include Queens Park and Mary River Parklands in Maryborough and various parks along the Hervey Bay Foreshore.

4.7 Travel behaviour

The Fraser Coast Region is predominantly private car dependant. As can be seen in Table 4, in 2006, the percentage of residents travelling to work via private vehicle in the four previous local government areas is higher than the Queensland mode share of 84.2% and much higher than the Brisbane mode share of 76%. Hervey Bay has the highest private vehicle mode share at 91% in 2006. The proportion of people travelling to work via private vehicles in all areas has increased since 2001. This is reflected in the number of households with two or more vehicles. 77.67% of households in the Fraser Coast have two or more vehicles, compared to 52.13% in Queensland.

The second most common form of travel to work is walking and cycling. In the major population centres of Hervey Bay and Maryborough less than 1% of residents commute to work using a public bus.

Table 4 Mode of travel to work (2006)

	Tiaro[1]		Woocoo		Maryborough		Hervey Bay	
Mode	2001	2006	2001	2006	2001	2006	2001	2006
Private Vehicle	88.9%	89.3%	88.5%	89.9%	82.2%	85.1%	89.0%	91.0%
Public Bus	0.8%	1.1%	0.8%	0.4%	0.7%	0.9%	0.7%	0.7%
Walk / Cycle	6.9%	6.4%	5.5%	5.4%	12.5%	10.4%	6.7%	5.1%
Taxi / Private Bus	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%	0.3%	0.3%
Motorbike	2.5%	1.2%	3.5%	3.0%	3.3%	2.7%	1.8%	1.2%
Train	0.4%	0.3%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%
Other	0.5%	1.6%	1.7%	1.3%	0.8%	0.6%	1.4%	1.2%

Source: Australian Bureau of Statistics, Mode of Travel to Work as shown in Basic Community Profiles, 2001 and 2006
[1] Includes total Tiaro LGA prior to amalgamation with Fraser Coast Regional Council

5. Road network

5.1 Fraser Coast road network

Analysis of the road network in the Fraser Coast is based on the following previous studies and relevant policies:

- Hervey Bay Road Hierarchy Study, Eppell Olsen & Partners, 2000
- Hervey Bay Road Network Study, Arup, 2001
- Maryborough CBD Traffic Study, Cardno Eppell Olsen, 2007
- Planning Scheme Policy No. 4 – Water Supply, Sewerage, Transport, Stormwater & Public Parks and Community Land Infrastructure Contributions of the Hervey Bay City Planning Scheme, Fraser Coast Regional Council, 2009
- Roads Implementation Program, Dept of Transport and Main Roads 2009-10 to 2013-14

The Fraser Coast Road Network includes:

- State Controlled Roads – owned and managed by the Department of Transport and Main Roads
- Local roads – owned and managed by Fraser Coast Regional Council
- Local roads of regional significance (LRRS) – individual roads owned and managed by either TMR or FCRC, with some of the funding managed by the Wide Bay Burnett Regional Roads Group

A network of State Controlled Roads connects the centres of Maryborough, Hervey Bay and Tiaro with regional townships and coastal communities. The key arterial routes within Fraser Coast are:

- The Bruce Highway running north-south through Glenwood, Tiaro, Maryborough, Torbanlea and Howard
- Maryborough-Hervey Bay Road provides a connection between the two major population and employment centres
- Boat Harbour Drive provides the primary continuous east-west link through Hervey Bay from Urangan to Eli Waters. (the Esplanade also provides a continuous connection, however, given adjacent land uses should not be encouraged as an arterial route)
- Pialba-Burrum Heads Road is the primary sub-regional access from Hervey Bay to Burrum Heads in the north
- Torbanlea-Pialba Road provides an alternative east-west connection to the Bruce Highway in the north of Fraser Coast
- Booral Road skirts south of Hervey Bay connecting Torquay and Urangan to the Maryborough-Hervey Bay Road at Sunshine Acres. It is important as the primary access to Hervey Bay Airport and River Heads

- River Heads Road runs north-south from Booral Road providing the only access to the River Heads community and Fraser Island Barge landing site
- Maryborough-Biggenden Road runs east-west to through Oakhurst, Broweena and Teebar
- Maryborough-Tuan Forest Roads connects south through forestry providing access to Maroom, Boonaroo, Poona Point and Tinnanbar coastal communities

There is significant variation in the type and quality of roads in the Fraser Coast responding to the disparate land use types and settlement patterns. In the urban areas of Hervey Bay and Maryborough the majority of roads are to a high quality paved standard catering to high volumes of traffic. In the regional townships and rural areas roads may be unpaved and cater to only a few vehicles per day. Routes may accommodate residential traffic, commercial traffic, public transport and heavy goods vehicles. According to the Wide Bay Burnett Integrated Transport Plan Background Paper (2007) many of the roads in the Fraser Coast region are not equipped to handle B-Doubles, caravans, tourist vehicles, buses etc. The sheer weight and size of some road transport is beyond the planned carrying capacity

and design of many local roads and the result is deteriorating road standards, conflicts between road users and impacts on amenity and road safety. Road safety and user conflicts have become a concern within the urban areas, particularly between mobility scooters, pedestrians and other road users. Poor directional and interpretive signage has been identified as an issue on Fraser Coast roads. Figure 4 presents the existing road hierarchy within the Fraser Coast provided by Council.

5.1.1 Road hierarchy

In 2008, the four local government areas of Maryborough, Hervey Bay, Woocoo and Tiaro were amalgamated to form Fraser Coast Regional Council. Since that time there has been no consistent designation of road hierarchy classifications in the Fraser Coast. Table 5 provides a comparison of naming conventions of the existing road hierarchies in Fraser Coast as outlined in the following documents:

- Maryborough City Plan (adopted)
- Maryborough CBD Traffic Study
- Hervey Bay Road Hierarchy Study
- Hervey Bay City PSP4 (adopted)
- State Digital Road Network supplied by the Department of Infrastructure and Planning
- Department of Transport and Main Roads (Integrated Transport Planning) Road Hierarchy (Draft – For Discussion Purposes Only – Not Government Policy, Version 2.1 Dated 18 June 2009)

It is understood that the road hierarchy recommended within the Maryborough CBD Traffic Study was not adopted. The hierarchy recommended within the Hervey Bay Road Hierarchy Study is consistent with Planning Scheme Policy No. 4 (PSP4).

PSP4 of the Hervey Bay City Planning Scheme provides the most up to date and comprehensive road hierarchy, however, it only extends to the previous Hervey Bay local government area.

GIS layers were sought from Fraser Coast Regional Council to demonstrate the existing road hierarchy across Fraser Coast. Only PSP4, covering Hervey Bay was made available. As a result the State Digital Road Network was sought from the Department of Infrastructure and Planning. Consequently, Figure 4 shows a combination of both PSP4 and the State Digital Road Network.

It is understood that the road hierarchy described in PSP4 (currently under review) is intended to be adopted across the whole of the Fraser Coast Regional Council Area. It is further understood that TMR (Integrated Transport Planning) is currently working towards developing a consistent road hierarchy to be adopted across Queensland and the draft discussion categories have been included for comparison purposes in Table 5. The full draft TMR road hierarchy matrix is included in Appendix B for reference.

Table 5 Comparison of existing road hierarchy naming conventions

Maryborough City Plan	Maryborough CBD Traffic Study	Hervey Bay Road Hierarchy Study	Hervey Bay City Planning Scheme Policy No. 4	State Digital Road Network	TMR Classification (DRAFT ONLY)*
Arterial Road					
State Controlled Roads	Highway	Highway	Highway (SCR)	Highway	Motorway
Existing Urban Arterial Future Urban Arterial	Arterial Road	Arterial Road	Urban Arterial Rural Arterial		Arterial
	Arterial Main Street	Arterial Main Street	Main Road		Arterial Main Street
Sub Arterial Road					
	Traffic Distributor	Traffic Distributor	Traffic Distributor	Secondary Road	Distributor
	Controlled Distributor	Controlled Distributor	Controlled Distributor		Controlled Distributor
	Sub Arterial Main Street	Sub Arterial Main Street	Sub Arterial Main Street		Sub Arterial Main Street
Collector Street					
	Major Collector	Major Collector	Major Collector Collector		District Collector
	Minor Collector	Minor Collector	Minor Collector	Local Connector Road	Neighbourhood Collector
Local Street					
	Access Street	Access Street	Access Street	Local Street	Access Street
	Access Place	Access Place	Access Place		Access Place
				Private & Restricted Roads Unconstructed	

*Source: Department of Transport and Main Roads (Integrated Transport Planning) Road Hierarchy (Draft – For Discussion Purposes Only – Not Government Policy, Version Dated 18 June 2009)

'Planning Scheme Policy No. 2 – Development Manual' (PSP2) of the Hervey Bay City Planning Scheme defines in detail the geometry, access and design requirements of each road classification. The full definition of each classification shown in Table 5 (including the function, role, management and physical attributes) needs to be examined in detail to ensure that they mean the same on the ground.

Potential strategy / action

1. Adopt a consistent road hierarchy for the whole of the Fraser Coast Regional Council area which is consistent with the whole of Queensland.
2. Identify road safety hotspots and investigate mitigation measures.

5.1.2 Proposed major road infrastructure projects

GHD have consulted with Fraser Coast Regional Council and the Department of Transport and Main Roads to produce an updated list of completed and proposed projects in the Fraser Coast. The full table can be found in Appendix C.

Planning Scheme Policy No. 4 – Water Supply, Sewerage, Transport, Stormwater & Public Parks and Community Land Infrastructure Contributions of the *Hervey Bay City Planning Scheme* was written in June 2009. It provides the most up to date definition of the existing and future road network in Hervey Bay including proposed infrastructure improvements.

PSP4 currently covers only Hervey Bay, subsequently there is significantly more knowledge of the road infrastructure requirements in Hervey Bay than the remainder of the Fraser Coast local government area.

Maryborough-Hervey Bay Road

There is a high level of interdependency between the two major centres of Hervey Bay and Maryborough resulting in high trip demand on Maryborough-Hervey Bay Road.

Significant works are currently under construction or recently completed along the corridor including:

- The Maryborough-Hervey Bay Road / Pialba-Burrum Heads Road intersection is extremely busy and experiences safety issues. Signalisation of the intersection in the coming years should improve road safety and traffic flow.
- Planning is in progress for the upgrade of the Urraween Road intersection to serve the business development at the Tourist Information Centre node, the connection with Burrum Heads, and increased demand expected in association with the Urraween Extension (west).
- The duplication to four lanes from the Torbanlea turn-off to Nikenbah-Dundowran Road is due to be completed in 2011. The project will provide much improved road safety conditions and cater to higher volumes of traffic and involves:
  - Realigning the existing Torbanlea-Pialba Road and Booral Road intersections to a new intersection on Maryborough-Hervey Bay Road
  - A new T-intersection on Torbalea-Pialba Road to replace the Old Walligan Road intersection
  - Improved bus stops

Bruce Highway

TMR is currently upgrading the Bruce Highway to cater for increased trip demand and improve road safety. Road improvements along the corridor include overtaking lanes, rest areas and vehicle stopping places.

The ongoing upgrade of the Bruce Highway is a strategy in the Fraser Coast Regional Council Economic Development Strategy (2009-2013) to "maximise and facilitate economic growth and investment through coordinated planning, funding and provision of key 'hard' and 'soft' infrastructure" (Objective 4.1). It is also a Tourism Opportunity Plan priority.

Rural Roads

The WBB ITP (2007) indicated a lack of safety on rural sections of road in the Wide Bay Region. These hazards were caused by: dangerous intersections / local access points; inadequate shoulder width and maintenance; roadside hazards; rough surface road conditions; ageing pavement; poor alignment and a need for fatigue management including safe pull off zones.

The Gravel Roads Resealing Program is an ongoing programme of works implemented by Fraser Coast Regional Council identified each financial year.

The construction of Tinnanbar Road to a new sealed two lane standard is partially complete as is the upgrade of Pilerwa Road.

The construction of Old Gayndah Road to a new sealed two lane standard is planned to be implemented through Roads Implementation Program funding.

Refer to Figure 5

Hervey Bay

Maryborough

Refer to Figure 7

1:165,000 (at A3)

0 1 2 4 6

Kilometres

Map Projection: Universal Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

- Highway
- Main Road
- Major Collector
- Collector
- Minor Collector
- Controlled Distributor
- Urban Arterial
- Rural Arterial
- Sub Arterial Main Street
- Traffic Distributor
- Access Place
- Access Street
- Other

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Fraser Coast Regional Council
Sustainable Growth Strategy – Integrated Transport Study

Road Hierarchy Fraser Coast

Job Number 41-22108
Revision C
Date 05 APR 2011

Figure 4

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Level 4, 201 Charlotte St Brisbane QLD 4000 **T** 61 7 3316 3000 **F** 61 7 3316 3333 **E** bnemail@ghd.com **W** www.ghd.com

Data source: FCRC (Roads 2009), Geoscience Aust. (Built Up Areas - year unknown), DIP (Road Heirarchy - year unknown). Created by: M.Brooks. Modified by: S.Cross

5.2 Hervey Bay road network

PSP 4 builds upon previous studies by the former Hervey Bay City Council (HBCC) including:

- The *Hervey Bay Road Hierarchy Study* (Eppell Olsen & Partners, 2000) which sought to establish a future road hierarchy based upon the planning intent of the Hervey Bay City Council. The outcomes of the Hervey Bay Road Hierarchy Study informed the Hervey Bay Road Network Study.
- The *Hervey Bay Road Network Study* (Arup, 2001) which reviewed and updated the previous Hervey Bay Road Network Study (1993) and the Pialba Central Area Traffic Study (1994), and evaluated any new road infrastructure improvements proposed by HBCC and the former Department of Main Roads. The updated study was based on an expected 70% increase in population to 2020 with significant growth at Dundowran, Eli Waters, Kawungan, Urraween and Urangan and minor growth at Point Vernon, Scarness and Torquay.

The Hervey Bay Road Network is defined by five key routes as shown in Figure 5:

- Maryborough-Hervey Bay Road provides access between Hervey Bay and Maryborough.
- Boat Harbour Drive connects to Maryborough-Hervey Bay Road and provides one of the only two continuous east-west routes through Hervey Bay between the two key centres of Pialba in the west to Urangan in the east via Scarness and Torquay (the other being the Esplanade, which also provides access to Point Vernon).
- Booral Road is important as the primary access to Hervey Bay Airport and the sole access to River Heads via River Heads Road. It provides a viable alternative from Maryborough to Urangan and potentially Torquay. However, it has poor flood imunity.
- Main Street runs north-south between Booral Road and the Esplanade, however, this access is limited for heavy vehicles by the grade of Ghost Hill Ridge on the northern side.
- Pialba-Burrum Heads Road provides east-west access from Hervey Bay to Burrum Heads and other coastal communities.

Freight routes in Hervey Bay are discussed in Section 8.

The *Wide Bay Burnett Integrated Transport Plan* (2007) identified a lack of connections between the Hervey Bay's residential suburbs, Urangan Boat Harbour and the central business district at Pialba. There is no satisfactory alternative to Boat Harbour Drive – Torquay Road and Freshwater Street / Cypress Street act as a secondary system, however, the link is disconnected and not sufficient for all modes of transport. The Esplanade is a significant tourist route and through traffic should be discouraged in order to maintain amenity and reduce pedestrian-vehicle conflict.

Urraween Road / Doolong Road / Denmans Camp Road / Boundary Road are currently used as a southern east-west alternative to Boat Harbour Drive. This route, however, is discontinuous and involves a number of right angle turns. It passes Hervey Bay Hospital as well as a number of schools and sports grounds that could result in potential pedestrian conflict; however, it serves a significant number of trip attractors.

The *Hervey Bay Road Network Study* predicts that the Esplanade will experience an increase in traffic volumes. There is a simultaneous desire to develop the waterfront as a series of activity nodes with tourism and commercial functions. The *Bundaberg Fraser Coast Tourism Opportunity Plan* (2009) suggests that the Esplanade could have sections pedestrianised or made one-way to improve amenity. Although the Esplanade is not promoted as a commuter through route, it is an integral element of the Hervey Bay Tourist Drive and it would be appropriate to encourage passing tourist traffic.

Secondary north-south links to Main Street are Doolong South Road / Denmans Camp Road and Woods Road /Madsen Road / Nissen Street. Doolong South Road has quite a narrow seal width and some sections are unsealed, which would require upgrading in the future. The staggered intersection at Madsen Road / Urraween Road / Nissen Street will require improvement to enable this route in the future. A new design has been completed.

Hervey Bay's disconnected road network is a result of the original dispersed settlement pattern and a history of ad-hoc new residential areas. This lack of connectivity reduces routing options for private vehicles placing increased demand on a limited number of routes, reduces options for bus network operations and makes it undesirable to walk and cycle.

The Hervey Bay Road Network Study identified expected increased traffic movements and subsequent intersection deficiencies along the following routes:

- Boat Harbour Drive
- Old Maryborough Road
- Hunter Street
- Main Street
- Pialba-Burrum Heads Road

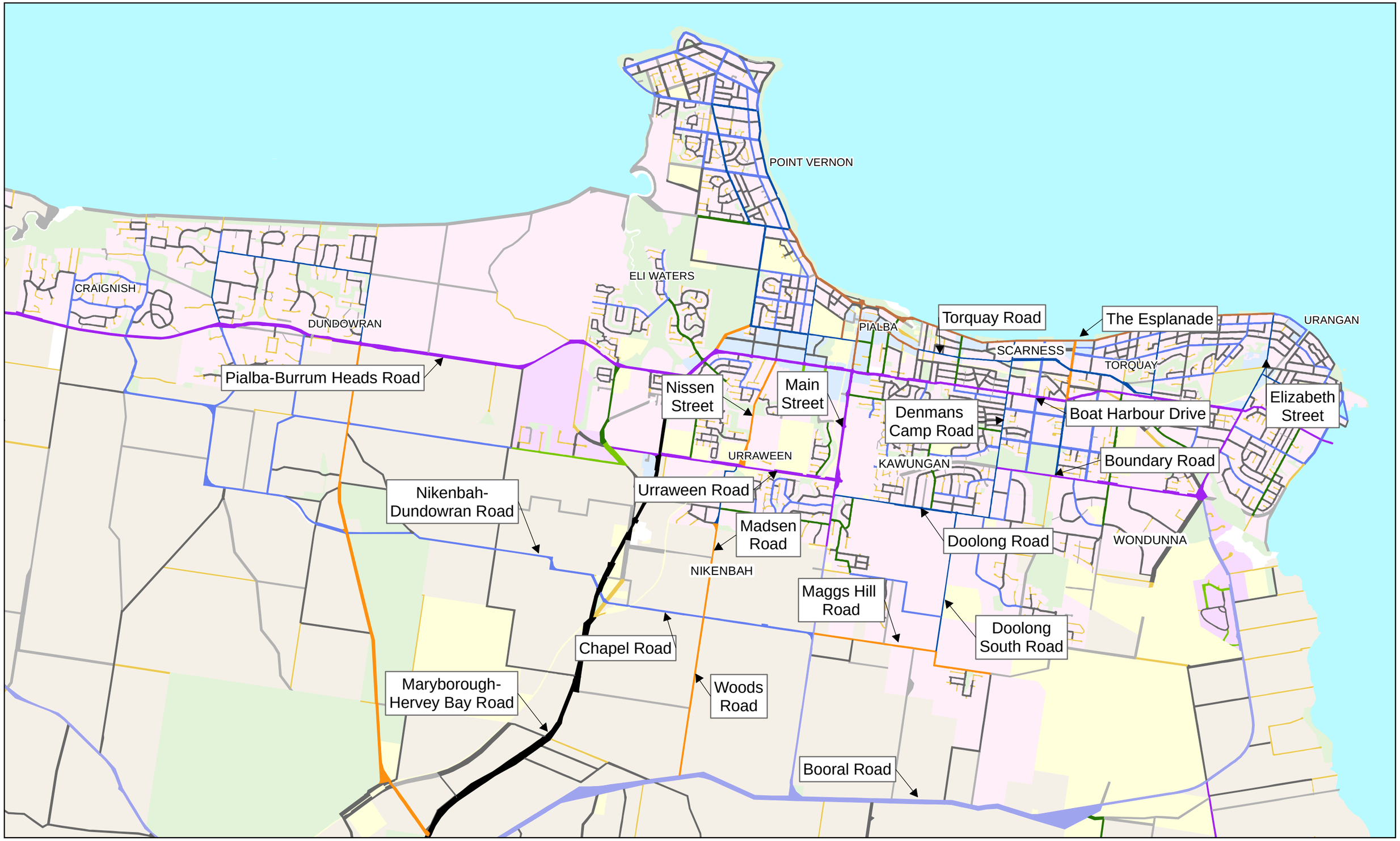
As discussed in Section 5, GHD have consulted with Fraser Coast Regional Council and the Department of Transport and Main Roads to produce an updated list of completed and proposed projects in the Fraser Coast (Appendix C). This has shown that in recent years, good attempts have been made to improve the road network in Hervey Bay as summarised in Table 6.

There are eight major road infrastructure projects proposed for Hervey Bay that seek to provide a more integrated and flexible road network by extending roads to connect neighbouring residential areas. A more connected road network has the potential to significantly influence travel patterns and route selection. Extracted from the summarised proposed roads improvements in Table 6, these major projects are listed below and discussed in Section 5.2.1:

- Boat Harbour Drive Upgrade
- Main Street Upgrade
- Urraween Extensions (west & east)
- Urraween Distributor
- Boundary Road Upgrade
- Kawungan Distributor
- Raward Road Extension
- Pialba-Burrum Heads Road
- Bay Drive Connector

Table 6 Recently completed and proposed road infrastructure improvements – Hervey Bay

Recently Completed	Proposed
• Road upgrades to Old Maryborough Road, Boat Harbour Drive, Main Street, Pialba-Burrum Heads Road and Bideford Street • Intersection improvements along Tavistock Street • The connection of Torquay Road to Charles Street to relieve the pressure on Boat Harbour Drive and the Esplanade • Temporary upgrade works along Madsen Road • Pavement reconstruction, road widening and line marking on Nikenbah-Dundowran Road, Old Toogoom Road, Oleander Avenue and Rohan Way • Maggs Hill Road	• Urraween Distributor • Urraween Road Extension (west) to Sorrensons Road to provide new access between Pialba-Burrum Heads Road and Maryborough-Hervey Bay Road • Urraween Road Extension (east) from Main Street to Boundary Road • Boundary Road upgrade • Further road upgrades and intersection improvements to Boat Harbour Drive, Main Street, Bideford Street and Booral Road • The Kawungan Distributor including extension and upgrade of Doolong Road and Doolong South Road • Raward Road extension • Madsen Road / Urraween Road / Nissen Street intersection upgrade • New road links in association with new development



1:50,000 (at A3)

0 0.4 0.8 1.6 2.4

Kilometres

Map Projection: Universal Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

- Highway
- Main Road
- Major Collector
- Collector
- Minor Collector
- Controlled Distributor
- Urban Arterial
- Rural Arterial
- Sub Arterial Main Street
- Traffic Distributor
- Access Place
- Access Street
- Other

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Fraser Coast Regional Council
Sustainable Growth Strategy – Integrated Transport Study

Road Hierarchy Hervey Bay

Job Number 41-22108
Revision C
Date 05 APR 2011

Figure 5

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Data source: FCRC (Roads 2009), Geoscience Aust. (Built Up Areas - year unknown), DIP (Road Heirarchy - year unknown). Created by: M.Brooks. Modified by S.Cross

5.2.1 Proposed major road infrastructure projects

Boat Harbour Drive (upgrade)

Boat Harbour Drive provides the anchor for commercial development in Hervey Bay with strip style development between the two major centres of Pialba and Urangan, mostly concentrated at the Pialba end. Boat Harbour Drive also provides the only continuous east-west connection through Hervey Bay and subsequently experiences high levels of trip demand.

The need to widen and signalise Boat Harbour Drive was initially identified in the Hervey Bay Road Network Study. Significant recent upgrades have been implemented through TMRs Roads Implementation Program funding to cater to demand, improve traffic flow and safety for motorists and pedestrians including:

- Duplication to 4-lanes between Hunter Street and McNally Street
- Intersection upgrades and signalisation along the length of Boat Harbour Drive

PSP4 notes that further improvements to traffic signals, profile correction and resurfacing may be required in association with road works and increased demands on adjacent roads.

Main Street (upgrade)

Currently, Main Street provides the only continuous north-south connection between the Esplanade at Pialba and Booral Road at Bunya Creek. It also provides the only north-south alternative to Maryborough-Hervey Bay Road and is the key arterial connection to the Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan Area. The existing route experiences varying qualities of road surface and road reserve width along the length of the corridor. It is also constrained by steep vertical geometry where it crosses the Ghost Hill ridgeline. The Hervey Bay Road Hierarchy Study notes the importance of Main Street as an arterial connection and is expected to be improved over time. This has been reflected in recent upgrades and programmes of works for Main Street to construct the entire route to a new sealed 2-lane standard. PSP4 identifies that the northern section between Boat Harbour Drive and Doolong Road will be upgraded to an urban arterial standard.

Works recently completed or currently under construction include:

- Upgrades between Booral Road and Chapel Road
- Realignment and rehabilitation between McLiver Street and Urraween Road

- Intersection works at Booral Road and McLiver Street
- Signalisation at Urraween Road (to form part of Urraween Extension (west))

Further upgrade works are proposed between Chapel Road and Christiansen Street, including Chapel Road intersection.

Urraween Distributor (new)

This new link is proposed south of the Pialbo Centro Shopping Complex. It would link Nissen Street to Main Street (450m south of McLiver Street). It would also permit the new Bay Drive Connector (discussed below) to access Nissen Street and Main Street.

Urraween Extension (east & west) (new links)

Urraween Road / Doolong Road / Denmans Camp Road / Boundary Road is currently used as a southern alternative to Boat Harbour Drive. This is a circuitous route comprising numerous changes in direction.

The construction of a link road between Urraween Road at Main Street (at the western end) and Boundary Road (at the eastern end) was initially identified in the Hervey Bay Road Hierarchy Study in 2000. The construction of this link road would formalise Urraween Road and Boundary Road as a southern distributor and greatly improve safety and amenity by removing a series of right-angle turns. The new east-west route, referred to as the Urraween Extension (east), would connect the growing residential areas of Urangan, Kawungan and Urraween to Maryborough-Hervey Bay Road. It also provides greatly improved access to Hervey Bay Hospital, Wide Bay Institute of Tafe and a number of primary and secondary schools. The Hervey Bay Road Network Study notes that the new distributor has the potential to reduce volumes on Boat Harbour Drive back to 2000 levels.

Longer term aspirations include the extension of Urraween Road to Pialba-Burrum Heads Road (Urraween Extension (west)) along the general alignment of Sorrensons Road to provide access to Eli Waters, Dundowran, Craignish and Burrum Heads.

PSP4 notes that Urraween Extension works include:

- Boundary Road to Urraween Road (at Main Street) link, the road reserve has been safeguarded from development
- Urraween Road upgrade from Main Street to Citrus Drive, partially complete
- Citrus Drive to Pialba-Burrum Heads Road link, including new road and upgrades to Sorrensons Road
- Signalisation works to improve safety associated with expected increase in demand

Boundary Road (upgrade and new link)

Boundary Road is expected to experience a significant increase in traffic volumes associated with the Urraweeen Distributor, the Kawungan Distributor and the Raward Road extension (discussed below). The Hervey Bay Road Hierarchy Study also notes that Boundary Road needs careful management due to the conflict between the straight, level alignment and the frequent, yet unobtrusive property accesses.

Intersection works have recently been completed at Booral Road and Elizabeth Street.

PSP4 identifies upgrades to Boundary Road between Walkers Road / Booral Road and Denmans Camp Road including intersection improvements. This work has been designed and is scheduled for construction.

PSP4 also includes an extension of Boundary Road to the Esplanade over Pulgul Creek. This project requires further investigation as it will significantly disturb riparian zones through Hervey Bay Park. It is expected to have limited travel benefit to the Urangan community.

Kawungan Distributor (new link)

The Kawungan Distributor was initially identified in the Hervey Bay Road Hierarchy Study. The proposed distributor begins at Main Street opposite the Urraween Distributor and connects to the proposed Urraween Extension (east) approximately 500m east of Main Street, then generally runs on a curved alignment connecting to Rasmussens Road and Doolong South Road.

The Kawungan Distributor will be constructed in association with development and will link to Doolong South Road (discussed below) to provide an alternative north-south link to Hervey Bay from Booral Road. The proposed distributor would service the central portion of the Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan Area and facilitate movements to Pialba centre and Urraween Road with onward connections to Hervey Bay-Maryborough Road.

Doolong South Road Extension (upgrades and new link)

Doolong South Road is expected to experience an increase in demand associated with surrounding development, the Kawungun Distributor and the Raward Road extension (discussed below). The corridor has the potential to provide an additional north-south link to Hervey Bay CBD. However, the Hervey Bay Road Hierarchy Study notes that the lower section of Doolong South Road is inappropriate for an arterial route as it has sharp bends, steep grades and unpaved sections. However, the realignment is still preferred in the longer term.

The alignment of the Kawungun Distributor and Doolong South Road upgrades should be investigated to assess opportunities to improve safety by reducing the number of right-angle turns. The Hervey Bay Road Hierarchy Study recommends that the alignment of Doolong South Road should be improved over time to remove right-angle turns, possibly utilising the existing parallel road reserve to the east. This has been adopted in PSP4, however, will still require three sharp turns at Rasmussens Road, Doolong South Road (south of Maggs Hill Road) and tuning into the lower section of Doolong South Road.

The Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan notes that “the existing section of Doolong South Road south of the Doug Ring Family Trust development approval is required to be upgraded as a condition of that approval. This made a suggested realignment of Doolong South Road south of the Ghost Hill ridgeline to Booral Road less desirable”.

Raward Road Extension (new link)

PSP4 includes an extension of Raward Road to Doolong South Road in Wondunna. This has the potential to create a north-south arterial by linking the Esplanade to Booral Road via Bideford Street, Raward Road and Doolong South Road.

There is the potential to extend Shore Road from Booral Road to Raward Road thus providing an alternative access to Booral Road and the Raward Road extension.

However, advice from Fraser Coast Regional Council indicates that environmental constraints are likely to prohibit this extension from proceeding. Further investigation of potential environmental impacts is needed to justify this extension.

In the absence, of the Raward Road Extension, Doolong South Road and Denmans Camp Road should be promoted as the eastern north-south arterial through the Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan Area.

Pialba-Burrum Heads Road (upgrade)

Pialba-Burrum Heads Road provides the primary access to Burrum Heads. The FCRC submission to the draft WBB Regional Plan 2010 seeks to approximately double the urban footprint in Burrum Heads placing increased pressure on the arterial into the core urban area and Maryborough-Hervey Bay Road. Increased trip demand is also expected to be associated with development at Craignish and Dundowran Beach.

Pialba-Burrum Heads Road has recently been upgraded including road widening. PSP4 identifies intersection works along the corridor length. The Pialba-Burrum Heads Road / Wide Bay Drive / Scrub Hill Road intersection is currently in concept planning. Priority should be given to upgrading the Maryborough-Hervey Bay Road / Pialba-Burrum Heads Road intersection

Bay Drive Connector (new link)

Pialba Centro Shopping Centre is the main shopping centre in Hervey Bay and includes the Hervey Bay Transit Centre – the primary interchange for local and long distance bus services.

Currently, the shopping centre is only accessible from Boat Harbour Drive via Central Avenue and Bay Drive, there is no access from Main Street.

PSP4 identifies a future extension of Bay Drive / Central Avenue to connect to the Urrraween Distributor (discussed above). This has the potential to reduce pressure on the Boat Harbour Drive / Main Street intersection and provide increased public transport and walking and cycling routing opportunities.

It should be noted that this link has been conditioned as part of the Pialba Centro Shopping Centre development approval. Should Stage 2 proceed, the developers are required to construct this link.

5.2.2 Potential network of key road corridors in Hervey Bay

The implementation of the aforementioned major road infrastructure projects has the potential to significantly improve the connectivity of the Hervey Bay road network, and consequently the public transport and walking and cycle networks, by providing greater opportunities for continuous through routes and route choice.

Potential key road corridors are listed in Table 7 and shown in Figure 6.

The Hervey Bay Area Transport Strategy (ATS) is currently being development by GHD for the Department of Transport and Main Roads. The ATS seeks to build upon the outcomes of the Fraser Coast Integrated Transport Study and undertake a more refined strategic assessment of the transport network in Hervey Bay (and its surrounding area) using a strategic EMME transport model. The ATS outcomes will include a set of infrastructure and non-infrastructure strategic priorities and a robust road hierarchy. The Hervey Bay Area Transport Strategy will provide opportunities to test the

proposed potential road upgrades and new connections and to investigate other opportunities generated by the traffic modelling.

The impact of poor flood immunity of Booral Road on the network will be tested.

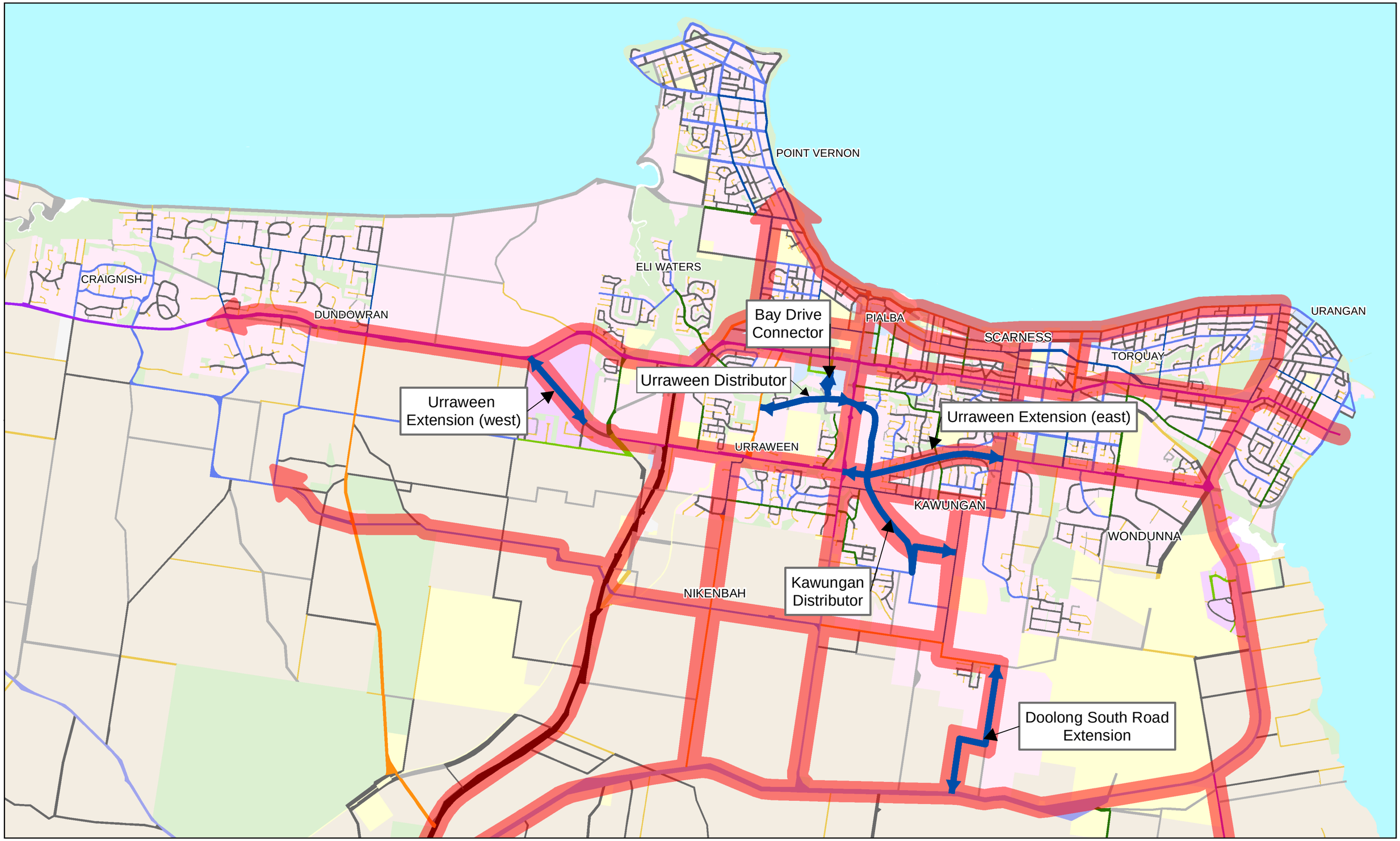
Proposed strategy / action

3. Progress proposed new road links
4. Progress proposed road upgrades and intersection works noted in Planning Scheme Policy No. 4 in association with available funding sources and development.
5. Investigate the implications of the poor flood immunity of Booral Road on the road network.
6. Investigate the need for and implications of the Boundary Road extension to the Esplanade.
7. Investigate the alignment of the new Kawangun Distributor and Doolong South Road upgrades to reduce the number of right-angled turns.

Table 7 Potential key road corridors – Hervey Bay

Status	Potential future corridor	Description
Existing	The Esplanade	East-west along the foreshore between Point Vernon and Urangan. As a tourist drive primarily with nodal points, pedestrian crossings and refuges.
Existing	Boat Harbour Drive	The primary east-west arterial through the centre of the Hervey Bay urban area. Scheduled upgrades include road widening and intersection improvements.
Existing	Booral Road / Elizabeth Street	Passes around the outskirts of the Hervey Bay urban area from Maryborough-Hervey Bay Road in the south-west to Urangan in the north-east. Provides access to Hervey Bay Airport, River Heads Road and Urangan. No upgrades required for capacity, however, improvements for flood immunity should be undertaken.
Existing	Pialba-Burrum Heads Road	Primary east-west arterial serving Dundowran, Toogoom and Burrum Heads. Provides access to the emerging community at Dundowran Beach and two schools. It is also the main access onto Maryborough-Hervey Bay Road
Existing	Torquay Road	East-west from Charles Street to Denmans Camp Road. Provides a secondary east-west alternative to support the Esplanade as a tourist route only.
Existing / New	Urraween Road / Boundary Road (Urraween	West-east route extending from Pialba-Burrum Heads Road to Maryborough-Hervey Bay Road to Booral Road. Dependent on new links from Pialba-Burrum Heads Road and Main Street to Boundary Road. Provides access to community facilities and established and emerging residential areas. Its main function will be as a parallel

Status	Potential future corridor	Description
	Extensions(east & west))	route to Boat Harbour Drive, to relieve pressure.
Existing	Doolong Road	Passes east-west along the northern boundary of the Doolong Flats Structure Plan area with connections to Denmans Camp Road, Kawungan Distributor and Main Street.
Existing / New	Nikenbah-Dundowran Road / Chapel Road / Maggs Hill Road	Sealing of Maggs Hill Road. Provides alternative east-west arterial to Nikenbah Local Development Area, Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan Area, Main Street, thefuture Kawungan Distributor and Denmans Camp Road. Upgrade of Chapel Road / Maggs Hill Road / Main Street required. There is longer term potential to extend Doolong South Road to Shore Road to provide access to Booral Road.
Existing	Maryborough-Hervey Bay Road	The primary north-south arterial connecting Hervey Bay to Maryborough and the Bruce Highway.
Existing	Woods Road / Madsen Road / Nissen Street	North-south arterial connecting Booral Road to Boat Harbour Drive with connections to Chapel Road and Urraween Road. Provides access to the Nikenbah Local Development Area and Hervey Bay Hospital. Realignment of Urraween Road / Madsen Road / Nissen Street intersection is being designed.
Existing	Main Street	Continuous north-south connection from the Esplanade to Booral Road. Provides access to Pialba centre, Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan Area and Nikenbah Local Development Area. Scheduled works to construct intersection with future Kawungan Distributor / Urraween Extension (east) and upgrade south of Ghost Hill.
New	Kawungan Distributor	The proposed new bypass road would pass through the Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan Area linking Doolong South Road to Urraween Road, with onward connections to Main Street.
Existing	Denmans Camp Road	Provides north-south access from the Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan Area to the Esplanade with connections to Boat Harbour Drive and Torquay Road.
Existing / New	Doolong South Road	North-south connection passing through the Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan Area between Doolong Road and Booral Road. Depends on upgrades at the southern connection to Booral Road.



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0 0.4 0.8 1.6 2.4

Kilometres

Map Projection: Universal Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

- Highway
- Main Road
- Major Collector
- Collector
- Minor Collector
- Controlled Distributor
- Urban Arterial
- Rural Arterial
- Sub Arterial Main Street
- Traffic Distributor
- Access Place
- Access Street
- Other
- Key Corridor
- Proposed New Link

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Sustainable Growth Strategy – Integrated Transport Study

Job Number 41-22108
Revision B
Date 7 APR 2011

Potential Key Road Corridors Hervey Bay

Figure 6

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Level 4, 201 Charlotte St Brisbane QLD 4000 **T** 61 7 3316 3000 **F** 61 7 3316 3333 **E** bnemail@ghd.com **W** www.ghd.com

Data source: FCRC (Roads 2009), Geoscience Aust. (Built Up Areas - year unknown), DIP (Road Heirarchy - year unknown). Created by: M.Brooks. Modified by: S.Cross

5.3 Maryborough road network

Unlike Hervey Bay, there has been no formal policy adopted by Fraser Coast Regional Council detailing the future road upgrade requirements in Maryborough.

The Maryborough CBD Traffic Study was commissioned by the former Maryborough City Council and the former Department of Main Roads in 2007. The study investigated road hierarchy designations, intersection functionality, crash data, pedestrian movements and traffic management in the Maryborough Central Business District bound by Woodstock Street, Pallas Street, Cheapside Street, Queen Street, Zante Street, Guava Street and the Mary River. There have been no further studies into road infrastructure requirements in Maryborough to cater to the existing and future demand.

Maryborough CBD Road Network is structured around State Controlled Roads that bisect the city:

- Alice Street
- March Street (between Alice Street and Kent Street)
- Kent Street (between March Street and Tiger Street)
- Ferry Street (southwest of Walker Street)
- Walker Street (between Ferry Street and John Street)
- John Street (northeast of Walker Street)

The Maryborough CBD is bound on the east and south by the Mary River with two river crossings: one to Granville to the east, the other to Tinana to the south. There is a further river crossing at Maryborough West along the Bruce Highway.

Figure 7 presents the existing road network in Maryborough.

The Maryborough CBD Traffic Study identified that a successful transport network must address three key issues:

- The impact of heavy vehicle and other traffic movements through the central city
- The limitations imposed by the lack of river crossings, and the limited capacity of those bridges
- The need for intersection upgrades at:
  - Kent Street / Lennox Street
  - Kent Street / Adelaide Street
  - Alice Street / Ferry Street
  - Kent Street / Tiger Street
  - Sussex Street / Lennox Street
  - Ann Street / Ferry Street
  - Lennox Street / Walker Street
  - Walker Street / Ferry Street
  - Kent Street / Bazaar Street
  - Kent Street / Ferry Street
  - John Street / Walker Street
  - Lennox Street / Ellena Street
  - Kent Street / Richmond Street

As discussed in Section 0, GHD have consulted with FCRC and TMR to produce an updated list of completed and proposed projects in the Fraser Coast. The full table can be found in Appendix C.

In recent years there has been a focus on investment in transport improvements in the Maryborough CBD. Known works that have been completed in Maryborough include:

- Upgrades to Alice Street intersections to improve safety and traffic flow
- Improved signage, lighting and linemarking at Fort Street / Albert Street intersection
- Iindah Road intersection upgrade to improve traffic flow along the Bruce Highway including new slip lane, lighting and asphalt overlay
- Intersection improvements on John Street / Albert Street, Kent Street / Richmond Street and along Alice Street, Adelaide Street and Ferry Street
- Traffic signals on Lennox Street / Ellena Street and Woodstock Street and Walker Street
- Pavement widening on Maryborough-Biggenden Road

Previous studies have identified four key road infrastructure projects for Maryborough that seek to provide a more amenable CBD environment and reduce the impact of heavy vehicles on residential areas by providing bypass opportunities. It is understood that these recommendations have not been formally adopted by Council. The proposed projects are listed below and discussed in Section 5.3.1:

- Additional river crossings
- Proposed Maryborough Northern Bypass
- Proposed Maryborough Eastern Bypass
- Freight route amendments

The Draft Wide Bay Burnett Regional Plan (2010) promotes St Helens Local Development Area for medium to long term residential growth. FCRC are currently in discussions with DIP to focus development in St Helens on employment uses. Under both development scenarios, access to and impacts on Saltwater Creek Road (Maryborough-Hervey Bay Road) will require resolution prior to development occurring.

Granville is highlighted as an identified growth area for future residential and employment outside the Urban Footprint. Section 6.3.4 of the Draft WBB Regional Plan 2010 notes that “development within an identified growth area before 2031 will only occur in exceptional circumstances”. As discussed in Section 5.3.1, Granville currently experiences accessibility constraints. Structure planning, including infrastructure planning, will be required to ensure development proceeds in a logical sequence and with appropriate infrastructure in place. The proposed Marine Industry Precinct on the banks of Mary River at Granville will also require resolution of accessibility constraints.

Coal exploration is currently being undertaken near Maryborough. Following a short exploration program partly funded by the Japanese Government organisation NEDO, Northern Energy confirmed the presence of coal with good coking properties within the Cretaceous Burrum Coal Measures on the western limb of the Burrum syncline north of Maryborough within EPC923. This area had previously been the subject of small scale mining for many years. Should mining activities commence, the impact on the road network will need to be considered including a potential increase in traffic and a higher proportion in heavy vehicles.

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Kilometres

Map Projection: Universal Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

- Highway
- Main Road
- Major Collector
- Collector
- Minor Collector
- Controlled Distributor
- Urban Arterial
- Rural Arterial
- Sub Arterial Main Street
- Traffic Distributor
- Access Place
- Access Street
- Other

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Road Hierarchy Maryborough

Figure 7

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Level 4, 201 Charlotte St Brisbane QLD 4000 **T** 61 7 3316 3000 **F** 61 7 3316 3333 **E** bnemail@ghd.com **W** www.ghd.com

Data source: FCRC (Roads 2009), Geoscience Aust. (Built Up Areas - year unknown), DIP (Road Heirarchy - year unknown). Created by: M.Brooks. Modified by S.Cross

5.3.1 Proposed major road infrastructure projects

Additional river crossings

Granville has been listed as an identified growth area outside the Urban Footprint in the Draft WBB Regional Plan 2010 with the potential to accommodate residential and employment activities post 2031. There is only one connection to Granville via the Granville Bridge at Tiger Street. The bridge is considered to be inappropriate to accommodate further growth at Granville. The low-level bridge is subject to flooding, is narrow and has traffic controlled intersections on either side thus has limited capacity. There are no alternative routes to Granville for emergency services. There is no connection on the south side of the Mary River between Granville and Tinana which means that the only alternative route to the Maryborough CBD for logging trucks is to use the Cooloola Coast Road, Tin Can Bay road via Gympie to the Bruce Highway, a round trip in excess of 150km. The Holland Transport Consultancy to the Granville and Maryborough North Further Investigation Areas (2009) noted:

"...encouragement of significant residential development in the Granville area could not be said to represent sound or appropriate planning unless an additional crossing of the Mary River, or a new road link across Tinana Creek (such as could be achieved by linking Bidwell Road with Woongool Road) is contemplated."

The need for a second river crossing to Granville was reiterated in the floods of January 2011. There are concerns regarding the age and flood immunity of the Granville Bridge. The closure of the river crossing meant that Granville was cut off from Maryborough for one week and completely inaccessible for five days. The closure of Granville Bridge also has implications for outlying communities. In a newspaper article (Fraser Coast Chronicle, 19 January 2011), Councillor David Dalgliesh noted: "A key question from the people at Poona and Boonaroo for the disaster management group was whether they should evacuate to Gympie, which goes under at the first sight of rain, or go to Granville when so many people are trying to get across that narrow little bridge".

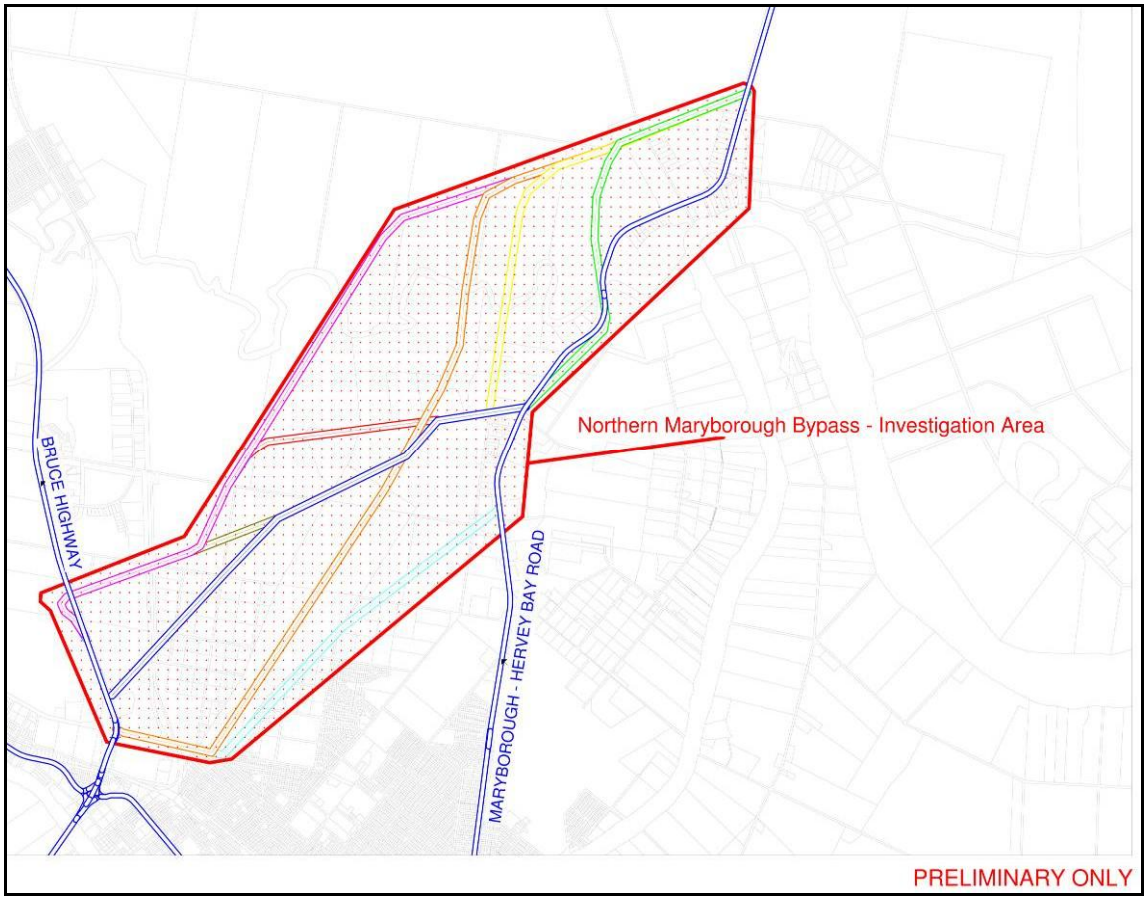
A new river crossing linking to the north of Granville also has the potential to significantly reduce the number of through trips (including heavy goods vehicles) traversing the CBD by establishing opportunities to link Maryborough-Hervey Bay Road and the Bruce Highway via a proposed Maryborough Northern Bypass.

Proposed Maryborough Northern Bypass

The Wide Bay Burnett Integrated Transport Plan (2007) recommended a bypass from the Bruce Highway (north of Maryborough) to the Maryborough-Hervey Bay Road in order to help manage traffic through Maryborough.

TMR have considered a number of alignments for the Northern Bypass, but to date have not identified a preferred alignment (refer Figure 8). However, the currently favoured route is considering a grade-separated interchange at the Bruce Highway in the vicinity of Walker Street, skirting the western boundary of the rifle range and linking to the Maryborough-Hervey Bay Road.

Figure 8 Northern Bypass Investigation Area



Source: TMR, Discussion Document – Preliminary Only, 2010
Note: Different colours indicate different possible alignments

Proposed Maryborough Eastern Bypass

High level planning by the Department of Transport and Main Roads has identified a potential Eastern Bypass on a curved alignment from Maryborough-Cooloola Road, crossing the Mary River just south of Maryborough Airport. The Eastern Bypass would require the construction of a new river crossing (as discussed below).

The proposed Eastern Bypass, in association with the proposed Northern Bypass, has the potential to significantly reduce travel times from Maroom, Boonaroo and Cooloola to Hervey Bay and further north to Bundaberg and to improve amenity in Maryborough CBD by reducing the number of automobiles and heavy vehicles passing through.

Freight route amendments

Currently, freight routes run through the centre of Maryborough, crossing the Mary River at Granville Bridge, running along Kent Street, Guava Street, March Street, Alice Street and Ferry Street. This creates safety and amenity issues for both residential areas and the central business district.

There have been initial discussions about providing feeder connections from Tiger Street through to Ann Street which would reduce freight movements through the central business district along Alice Street (refer to Section 8 – Freight Network).

5.3.2 Potential network of key road corridors in Maryborough

The proposed Maryborough Northern Bypass has the potential to reduce the number of through trips in the Maryborough CBD by creating an alternative corridor from the Bruce Highway to Maryborough-Hervey Bay Road. The proposed bypass would also provide a connection between the Maryborough North Industrial Precent and proposed growth in the St Helens Local Development Area.

The proposed Maryborough Eastern Bypass, in association with a new bridge from north Granville to Aubinville, in the vicinity of Maryborough Airport, would create an alternative corridor from communities and forestry areas to the south-east of Maryborough to Hervey Bay and north to Bundaberg as shown in Figure 9.

TMR has indicated that they intend to undertake an Area Transport Study (ATS) in Maryborough. Under the Hervey Bay ATS development, the EMME model is being extended to include Maryborough. This transport model will aid in the decision making regarding the need and alignment of the proposed Northern and Eastern Maryborough Bypasses and identify any further infrastructure requirements.

Alice Street, Walker Street, Kent Street, March Street and Ferry Street will continue to facilitate the majority of through movements within Maryborough CBD.

Potential strategy / action

8. Expand Planning Scheme Policy No. 4 throughout the Fraser Coast region to identify future road infrastructure requirements and development contributions.
9. Investigate the need for and potential route alignments for the proposed Northern and Eastern Maryborough Bypasses.
10. Investigate locations for an alternative river crossing (possibly to the north of Granville).

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Kilometres

Map Projection: Universal Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

- Highway
- Main Road
- Major Collector
- Collector
- Minor Collector
- Controlled Distributor
- Urban Arterial
- Rural Arterial
- Sub Arterial Main Street
- Traffic Distributor
- Access Place
- Access Street
- Other
- Key Corridor
- Proposed New Link

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Sustainable Growth Strategy - Integrated Transport Strategy

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Date	7 APR 2011

Potential Key Road Corridors Maryborough

Figure 9

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Level 4, 201 Charlotte St Brisbane QLD 4000 **T** 61 7 3316 3000 **F** 61 7 3316 3333 **E** bnemail@ghd.com **W** www.ghd.com

Data source: FCRC (Roads 2009), Geoscience Aust. (Built Up Areas - year unknown), DIP (Road Heirarchy - year unknown). Created by: M.Brooks. Modified by: S.Cross

6. Public transport network

6.1 Introduction

Policy 8.2.2(3) of the Draft Wide Bay Burnett Regional Plan (2010) is to "facilitate the development of connected, legible and convenient public transport networks and services within centres and to connect significant trip generators". In particular, public transport should provide for those members of the community who are transport disadvantaged and meet the needs of the education, training and employment sectors.

This section outlines the public transport network in the Fraser Coast Regional Council area. The existing public transport network includes a variety of service types:

- Bus services including urban routes, school services, and long distance services from Brisbane to Cairns
- The north-coast rail line runs through the west of the Fraser Coast Regional Council area serving primarily long distance travel needs
- Taxi services operate in the urban areas of Maryborough and Hervey Bay
- A flexible transport service, the Kan-go roaming bus is being trialled in Point Vernon
- A variety of community transport services cater primarily to the large aged and disabled population

6.2 Bus network

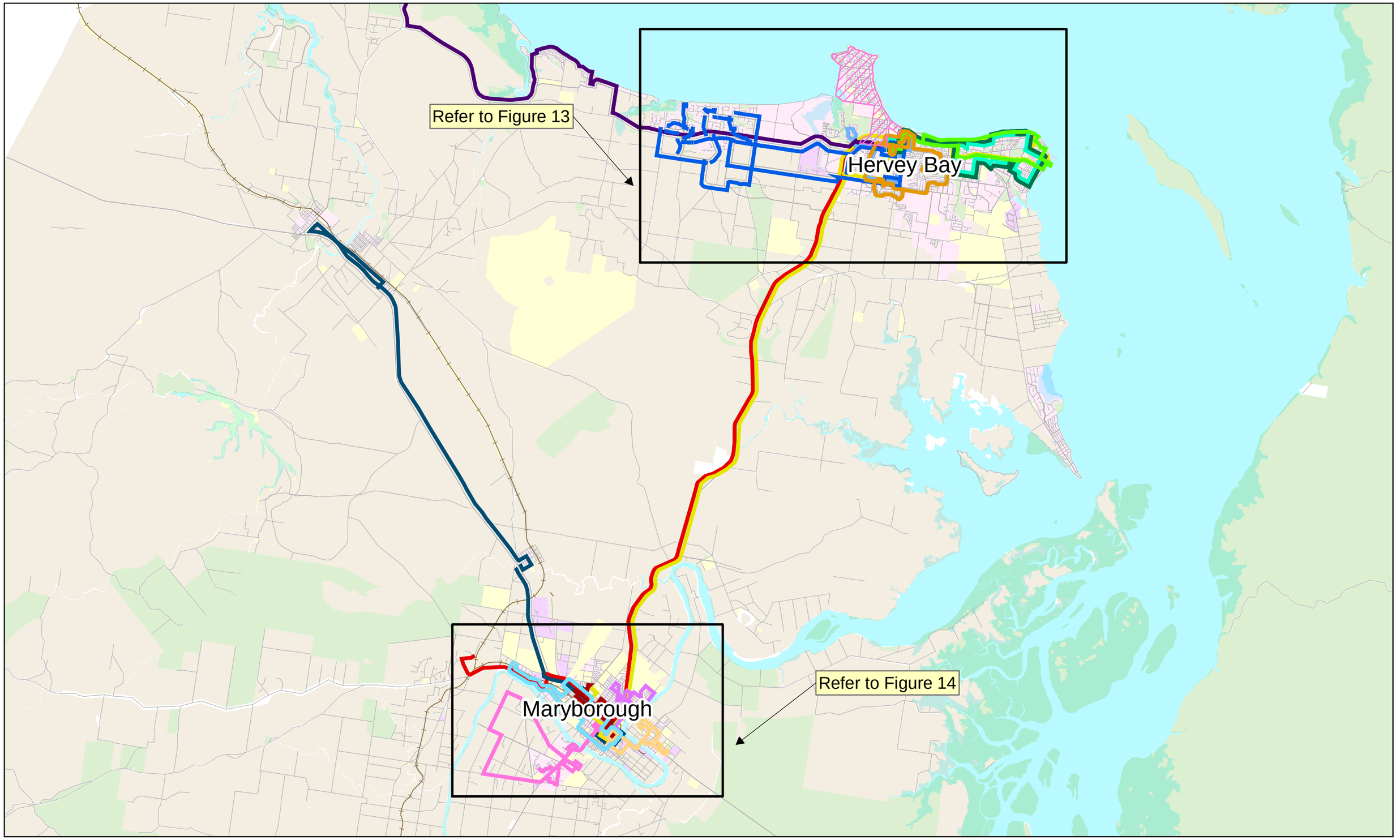
All urban bus services in the Fraser Coast are operated by Wide Bay Transit under contract to *qconnect*. Wide Bay Transit has been operating in and between the cities of Hervey Bay and Maryborough in the Fraser Coast since 1960. *qconnect* is a Queensland Government initiative providing improved public transport and greater connectivity and accessibility of services throughout regional, rural and remote Queensland. In June 2008 a standardised zonal fare system was established with regular and concession fares, ticket types with improved bus routes and timetables in an attempt to provide equitable public transport for the region.

qconnect facilitates a variety of bus servicing types in the region as summarised below and shown in Figure 10:

- 13 urban bus routes with a fleet of over 20 air conditioned and low floor entry buses
- The Kan-go flexible service operating in three "roam zones"
- The TrainLink service from Maryborough West Railway Station to Pialba
- School bus services

Wide Bay Transit services have been incrementally improved over the last 5 years in line with *qconnect* election promises, however, most services still do not meet *qconnect* servicing standards and service discrepancies continue to hinder equitable access to the public transport network. There has been limited formalised future network planning, however, liaison with *qconnect* officers has identified that there is a general strategy to consolidate the existing network, whilst seeking to achieve eight services per day on all routes.

Section 6.2.2 and 6.2.3 provide more detail on existing urban bus services in Hervey Bay and Maryborough respectively.



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Kilometres

Map Projection: Universal Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

- Route 1
- Route 1A
- Route 1B
- Route 2
- Route 3
- Route 4
- Route 5
- Route 6
- Route 7
- Route 13
- Route 16
- Route 17
- Route 18
- Route 20
- TrainLink
- Kango Bus Zone

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Existing Bus Routes Fraser Coast

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Figure 10

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Level 4, 201 Charlotte St Brisbane QLD 4000 **T** 61 7 3316 3000 **F** 61 7 3316 3333 **E** bnemail@ghd.com **W** www.ghd.com

Data source: FCRC (Boundary - 2009), DERM (Main Roads - 2005, Railways - year unknown, Built Up Areas - year unknown), Geoscience Aust. (Towns - 2008), TMR (Bus Route - 2010). Created by: B. Marchand. Modified by M.Brooks & S.Cross

6.2.1 Patronage

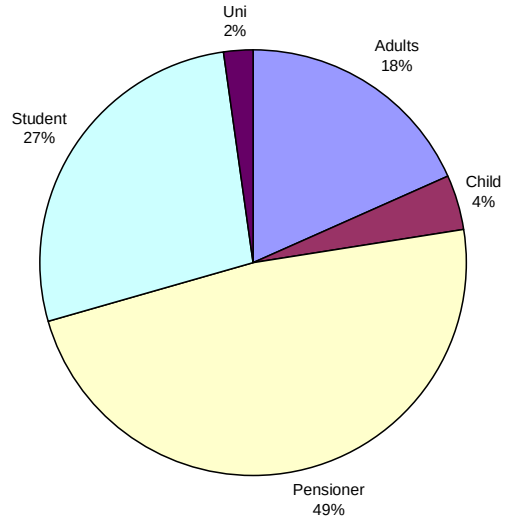
Patronage data for Wide Bay Transit services was attained through the Passenger Transport Division of the Department of Transport and Main Roads. TMR cannot verify the accuracy of the data as there is a variance of approximately 30% between ticketing machine and banking data.

Hourly specific ticketing data to demonstrate peak movements was not available.

Although patronage data cannot be verified, some broad generalisations of bus passengers in Fraser Coast are shown in Figure 11 and Figure 12 and summarised below:

- Almost half of passengers were travelling on pensioner tickets.
- Over 80% of passengers were travelling on concession ticket types – pensioner, student, university or child. This significantly affects the revenue stream and financial viability of services.
- Route 5 (Maryborough to Hervey Bay) carries approximately three times as many passengers as other routes.

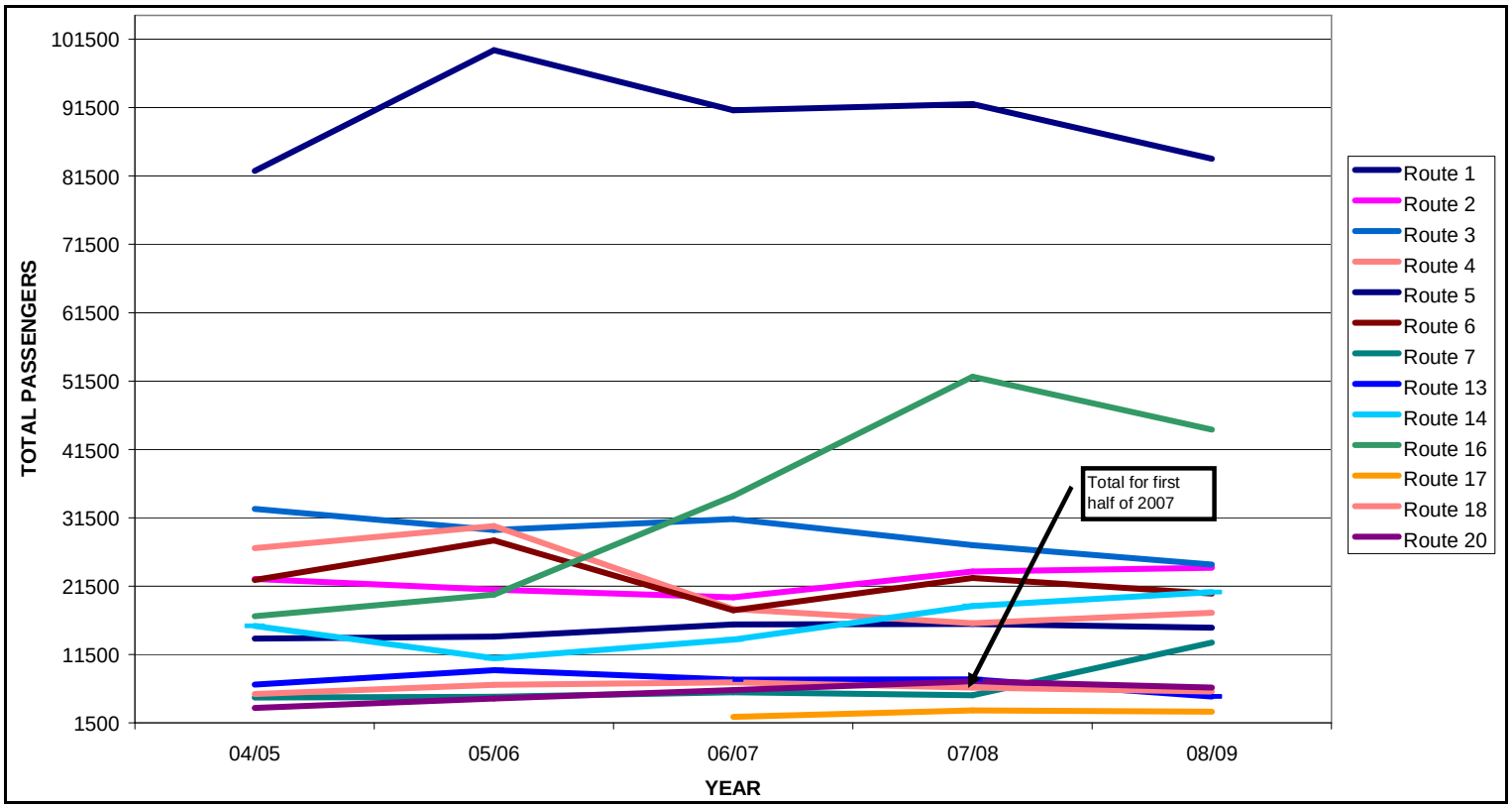
Figure 11 Bus passenger type for financial year 2008-09



Source: Data supplied by TMR, April 2010

- Route 16 (Pialba to Urangan Boat Harbour) is the only route to show any significant growth in patronage in the four years from 2004-05 to 2008-09. Route 14 (Kan-go) and Route 7 (Maryborough-Aldershot-Torbanlea-Howard) also experienced some growth.
- Most routes have experienced very little growth, and in some cases, a decline in passenger numbers. Anecdotal evidence suggests that the routes are long and circuitous with low frequency which does not make bus an attractive alternative to using a private vehicle.

Figure 12 Total bus passengers 2004-05 to 2008-09



Source: Data supplied by TMR, April 2010

6.2.2 Hervey Bay bus network

The Hervey Bay bus network consists of nine local routes including Route 5 connecting Hervey Bay to Maryborough and the Kan-go Flexible Bus Service operating in Point Vernon and Pialba as shown in Figure 13. Operating hours and daily frequencies for each route are detailed in Table 8.

All routes, except for Route 5, operate a hail 'n' ride as well as designated stops service, however, it is at the driver's discretion to pick-up and drop-off passengers at a safe boarding point along the road or street. All routes stop at the Hervey Bay Transit Centre at Pialba Centro and the Hervey Bay Returned and Services League (RSL) on Torquay Road. The Hervey Bay Transit Centre is discussed further in Section 6.2.7.

The Hervey Bay bus network generally follows an east to west servicing pattern anchored around two key routes – Route 5 (Hervey Bay to Maryborough) and Route 16 (Pialba to Urangan Boat Harbour). Routes are often circuitous and frequencies vary significantly across the day and throughout the week.

A number of residential areas suffer from very poor access to bus services, namely Wondunna, Urangan South, Kawangun East and Eli Waters. There are currently no bus services to Hervey Bay Airport and the surrounding growth industrial areas.

Existing bus services do not cater to commuter needs with the majority of services terminating before 5:00pm. Service frequencies and hours of operation worsen on the weekend with only one service operating on Sundays and public holidays (Route 5).

There are no formalised bus services to Point Vernon. TMR has been trialling the Kan-go roaming bus service in the residential area for the past 3 years. There are eleven services per day operating between 8:00 am and 6:00 pm. Service frequencies vary from 1 to 1.5 hour frequencies.

The Kan-go Bus Service is operated by Wide Bay Transit within three "roam zones" on a demand responsive basis providing door-to-door servicing. Passengers are required to book their trip at least 30 minutes prior to departure time. The service spends approximately 10 minutes roaming point Vernon and Pialba before making its way into Pialba Centro. Upon return, the bus picks up in allocated pick up zones near the Woolworths on Torquay Road and Pialba Centro before travelling back via Pialba to Point Vernon. The existing Point Vernon service area is experiencing timetable stretch due to popularity of the service. Wide Bay Transit has been in discussions with *qconnect* to increase the service to half hour frequencies. The requirements of purchasing new vehicles means that an hourly service throughout the day is more likely, as this can be accommodated with the existing fleet.

The Kan-go service area was originally intended to include Eli Waters, however, the lack of connecting streets in the existing street network meant that the wider service area created difficulties for timetabling and routing options. Liaison with *qconnect* has revealed an unadopted future strategy to distribute Kan-go services across Hervey Bay with overlapping service areas.

The introduction of new bus routes will be required to service the emerging community areas of Nikenbah, Doolong Flats, Kawungan North and Dundowran Beach. The Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan notes "in order to support further development within the structure plan area, potential new bus routes will require coordination with existing routes to provide suitable access to the wider Hervey Bay community". Two routes have been suggested: The first commences from Pialba Centro to the proposed district activity centre via the Kawungan Distributor completing its loop northbound along Doolong South Road and continuing onto Boat Harbour Drive. The second suggested route travels northbound from Booral Road to the District Activity Centre via Doolong South Road and continues along the Kawungan Distributor to Pialba Centre. It is the intention of the Structure Plan to provide a major bus stop/small interchange along Rasmussens Road in the vicinity of the District Activity Centre as well as in the Urban Village Opportunity Area in the vicinity of Main Street to facilitate interchange.

The following recommendations can be made to improve the service coverage and frequency of the existing Hervey Bay bus network:

- Provide later services to at least 6 pm to capture commuter travel
- Increase the number of weekend and after-hours services
- Increase the coverage of the Kan-go services across Hervey Bay
- Construct future linking roads in network in accordance with PSP4 to offer reduced trip times and circular routes
- Provide formalised stops at key trip generators and special interest locations to improve pedestrian/passenger safety and awareness of the bus network including at shopping centres, retirement villages, schools, recreational venues and hospitals
- Provide better signage and branding along hail 'n' ride routes – for example, colour banding on lamp posts and designation of safe pick-up points

Proposed bus network improvements are indicative only and subject to further feasibility assessments considering economic, journey time, road reserve allowances and patronage implications. Improving the bus operations could benefit from the use of HASTUS, an integrated and modular software solution for transit scheduling, operations and customer information.

Table 8 Existing bus services – Hervey Bay

Route	Weekday		Saturday		Sunday	
	Operating hours	Frequency (services)	Operating hours	Frequency (services)	Operating hours	Frequency (services)
1A (Hail 'n' ride) – CRAIGNISH - HERVEY BAY servicing Hospital/ College City Centre	6:32 am - 5:02 pm	4/day	8:42 am - 5:02 pm	3/day	None	None
1B (Hail 'n' ride) – HERVEY BAY - BURRUM HEADS, return servicing Toogoom	8:47 am - 1:32 pm	2/day	7:17 am - 1:42 pm	2/day	None	None
5 – MARYBOROUGH- HERVEY BAY- MARYBOROUGH, servicing Maryborough Hospital, Hervey Bay Hospital	5:20 am - 5:15 pm	13/day	7:00 am - 3: 50 pm	5/day	7:00 am - 3:50 pm	3/day
13 (Hail 'n' ride) – SCARNESS HEIGHTS- KAWUNGAN URRAWEEN servicing Hospital, Senior College	9:10 am - 4:45 pm	6/day	None	None	None	None
16 (Hail 'n' ride) – PIALBA- BOAT HARBOUR- PIALBA	7:30 am - 5:45 pm	11/day	7:30 am - 5:45 pm	11/day	None	None
17 (Hail 'n' ride) – PIALBA – URANGAN CENTRAL	9:50 am - 2:00 pm	3/day	9:50 am - 2:00 pm	3/day	None	None
18 (Hail 'n' ride) – PIALBA – OPPOSITE URANGAN CENTRAL	7:40 am - 1:50 pm	5/day	7:40 am - 1:50 pm	5/day	None	None
20 (Hail 'n' ride) – PIALBA - ELI WATERS – PIALBA	7:27 am - 3:55 pm	9/day	7:27 am - 3:55 pm	9/day	None	None
KAN-GO Bus Service	8:00 am - 5:50 pm	11/day	8:00 am - 5:50 pm	11/day	None	None

Source: Wide Bay Transit, effective June 2008

POINT VERNON
ELI WATERS
CRAIGNISH
DUNDOWRAN
RSL
Pialba Centro Shopping Centre and Hervey Bay Transit Centre
PIALBA
SCARNESS
TORQUAY
URANGAN
Hervey Bay Hospital
TAFE
URRAWEEN
KAWUNGAN
WONDUNNA
Urangan Boat Harbour
To Burrum Heads
NIKENBAH
Hervey Bay Airport
To Maryborough

1:50,000 (at A3)

0 0.4 0.8 1.6 2.4

Kilometres

Map Projection: Universal Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

- Kango Bus Zone
- Route 1A
- Route 1B
- Route 5
- Route 13
- Route 16
- Route 17
- Route 18
- Route 20
- TrainLink

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Fraser Coast Regional Council
Sustainable Growth Strategy – Integrated Transport Study

Existing Bus Routes Hervey Bay

Job Number 41-22108
Revision C
Date 7 APR 2011

Figure 13

G:\41\22108\GIS\Projects_Work_Component\TransportGroupSeries_20100323\122108_BusRoutes_HerveyBay_Rev C.mxd

Level 4, 201 Charlotte St Brisbane QLD 4000 **T** 61 7 3316 3000 **F** 61 7 3316 3333 **E** bnemail@ghd.com **W** www.ghd.com

Data source: FCRC (Roads 2009), DERM (Railways - year unknown), Geoscience Aust. (Built Up Areas - year unknown), TMR (Bus Route - 2010). Created by: A. Dosani. Modified by: M.Brooks & S.Cross

6.2.3 Maryborough bus network

The Maryborough bus network consists of four local town bus routes, two routes serving rural townships and Route 5 between Maryborough and Hervey Bay as shown in Figure 14. Operating hours and daily frequencies for each route are detailed in Table 9. City Hall acts as the key interchange for all bus services in Maryborough.

Unlike Hervey Bay, only two of seven bus routes operate as combination designated stops and hail 'n' ride routes – these serve the outer communities of Tinana, Howard, Torbanlea and Aldershot.

The Maryborough bus service generally has good service coverage but low frequency of services. Service frequencies vary significantly both between routes and between services for individual routes. In some cases frequencies vary between 30 minutes, 1 hour, 1 hour 10 minutes and 3 hours along the same route within an individual day. This lack of service integration and consistency is extremely confusing and means that:

- Residents are reliant on forward timetable planning
- There are limited opportunities for service interchange / multi-service journeys
- Passengers may be left stranded if they miss a service or a service is cancelled at the last minute

Operating hours are extremely limited. The latest weekday service from any route departs City Hall at 5.25 pm. Three of the seven services terminate before 3.30 pm thus do not cater to commuter demand. There are only five services operating on Saturday, four of which terminate before 1.00 pm. Only Route 5 between Maryborough and Hervey Bay operates on Sundays with three services only. All these factors severely limit the uptake of bus patronage in Maryborough and surrounding communities.

Incremental improvements have been made to *qconnect* services in Maryborough over the last 5 years to meet election commitments, however, services are still not provided to an appropriate standard to encourage modal shift. By analysing the deficiencies in the existing bus network the following recommendations can be made to improve bus network service coverage and frequency in the Maryborough local area:

- Consider new routes or extensions to existing routes to provide better service coverage to emerging residential and commercial areas or to cater for tourist accommodation and attractors
- Provide consistent service frequencies throughout the day and throughout the week to make timetables easier to understand
- Introduce weekend services and increase the operating hours of weekday services to cater to the commuter market
- Improve the provision of bus facilities including branding and distribution. Formalised stops should be provided at key trip generators and special interest locations to improve pedestrian/passenger safety and awareness of the bus network
- TrainLink provides the only service from Maryborough West Railway Station to

Hervey Bay. Recent newspaper reports have noted that the TrainLink service is often late and does not sufficiently cater for inter-regional travel. This service should be integrated into the public bus network potentially incorporating the Maryborough TAFE campus

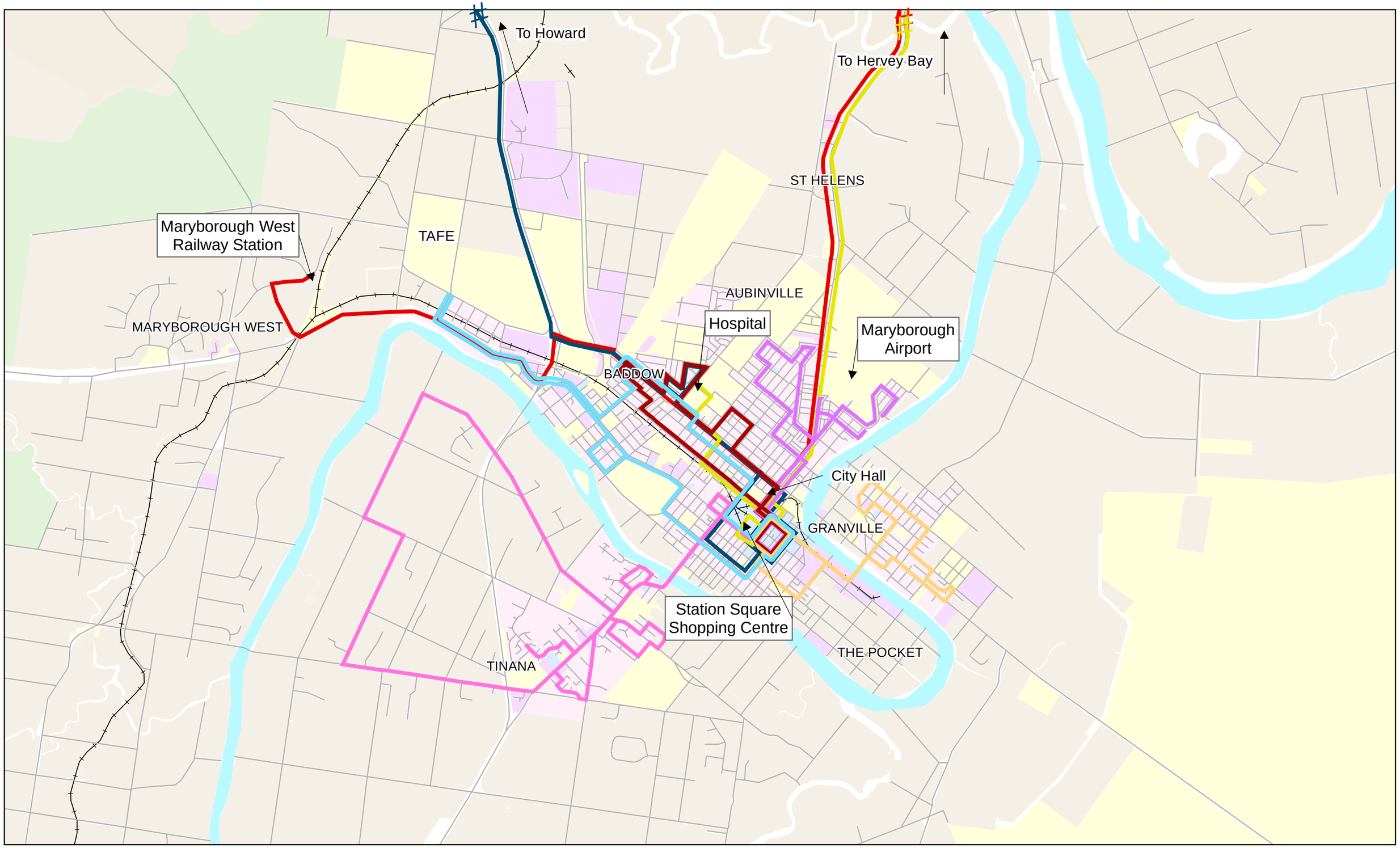
- Increase service frequency between Maryborough and Hervey Bay to cater to commuter and intra-regional trips
- Consider a direct connection from Hervey Bay Airport to Maryborough

Proposed bus network improvements are indicative only and subject to further feasibility assessments considering economic, journey time, road reserve allowances and patronage implications. Improving the bus operations could benefit from the use of HASTUS, an integrated and modular software solution for transit scheduling, operations and customer information.

Table 9 Existing bus services – Maryborough

Route	Weekday		Saturday		Sunday	
	Operating hours	Frequency (services)	Operating hours	Frequency (services)	Operating hours	Frequency (services)
Route 1 – FAIRFILD servicing Maryborough Base Hospital, Saint Stephens Hospital	8:32 am - 5:15 pm	7/day	8:00 am - 12:03 pm	5/day	None	None
Route 2 – NEWTOWN servicing Aubinville, Saint Stephens Hospital	7:28 am - 5:15 pm	9/day	8:03 am - 1:00 pm	5/day	None	None
Route 3 – ULULAH HOSPITAL, servicing Fairhaven Retirement Village, Maryborough Base Hospital	7:27 am - 4:28 pm	8/day	8:21 am - 12:56 pm	5/day	None	None
Route 4 – GRANVILLE, servicing City	7:03 am - 3:02 pm	7/day	8:00 am - 12:24 pm	5/day	None	None
Route 5 – MARYBOROUGH- HERVEY BAY- MARYBOROUGH, servicing Maryborough Hospital, Hervey Bay Hospital	5:20 am - 5:15 pm	13/day	7:00 am - 3: 50 pm	5/day	7:00 am - 3:50 pm	3/day
Route 6 (Hail 'n' ride) – TINANA, servicing Tinana Greens, Chelsea	7:37 am - 3:30 pm	5/day	None	None	None	None
Route 7 (Hail 'n' ride) – MARYBOROUGH- ALDERSHOT- TORBANLEA- HOWARD	7:25 am - 3:05 pm	3/day	None	None	None	None

Source: Wide Bay Transit, effective June 2008



1:50,000 (at A3)

0 0.25 0.5 1 1.5 2

Kilometres

Map Projection: Universal Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

LEGEND

Route 1 Route 3 Route 5 Route 7
Route 2 Route 4 Route 6 TrainLink

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Fraser Coast Regional Council
Sustainable Growth Strategy -
Integrated Transport Study

Existing Bus Routes Maryborough

Job Number 41-22108
Revision C
Date 7 APR 2011

Figure 14

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Level 4, 201 Charlotte St Brisbane QLD 4000 **T** 61 7 3316 3000 **F** 61 7 3316 3333 **E** bnemail@ghd.com **W** www.ghd.com

Data source: FCRC (Roads 2009), DERM (Railways - year unknown), Geoscience Aust. TMR (Bus Route - 2010). Created by: A.Dosani. Modified by: M.Brooks & S.Cross

6.2.4 Bus services to regional townships

There are currently three bus services providing access to regional townships:

- Route 7 operates from Maryborough to Howard via Aldershot and Torbanlea. The service operates twice daily catering primarily to school travel with an additional mid-day service on Tuesdays and Thursdays. Route 7 is a hail 'n' ride service outside of the Maryborough urban area.
- Route 1A operates from Craignish to Hervey Bay servicing Hervey Bay Hospital and Pialba. The service operates four times daily from Monday to Friday and three times on Saturdays with varied headways.
- Route 1B is a variation of route 1A providing access to Burrum Heads and Toogoom. There are two services per day from Monday to Saturday. Timetabling does not cater to school travel.

There are no services to regional townships on Sundays or public holidays.

qconnect undertook a travel needs analysis in Tiaro approximately six years ago looking at the need for buses, pricing, taxis etc. 100 surveys were distributed of which only eight responses were received indicating a lack of desire for public transport in the area.

Small population catchments and large distances between centres mean that standard urban bus network operations may not necessarily provide the most appropriate public transport servicing type for regional townships. Smaller community transport style services have the potential to provide greater flexibility and increase fare box revenue.

Potential strategy / action

11. Liaise with the Department of Transport and Main Roads to undertake a detailed bus network planning exercise to support Fraser Coast 2031 and cater to existing demand. Consider bus network scheduling and operations, possibly utilising HASTUS or similar software. Audit existing routes, facilities, and route and frequency optimisation. The study should also address the coordination between standard bus servicing patterns, flexible transport and community transport options.
12. Increase existing bus timetables to 6pm to encourage commuter use.
13. Increase awareness of the existing and any future bus network. Initiatives could include transport expos, a journey planner available on the Fraser Coast Regional Council website, promotion of public transport options to Council run activities, branding all services and facilities consistently.
14. Encourage more people to travel by bus by implementing travel demand management measures.

6.2.5 School bus services

School bus services to state schools are provided by Wide Bay Transit and Goddards Buses. Goddards Buses currently operate all school services in the Booral and River Heads area, with the remaining area serviced by Wide Bay Transit. Private schools have their own buses. Scheduled school bus services are amended annually depending on student catchments.

Due to the popularity of the various state and private schools there is crossover between school bus services and catchments. This has led to the creation of a de facto interchange on Education Queensland land along Urraween Road.

School bus services are well patronised and often not supported by equivalent public transport routes. Subsequently, when there is sufficient capacity, some bus services will also pick up members of the general public. Liaison with *qconnect* and FCRC officers suggest that in the past it was common for residents of regional townships to utilise school bus services for commuter and recreational travel but that increasing

demand for school travel means that there is no longer capacity to accommodate general passenger travel.

The Queensland Government provides financial assistance through the School Transport Assistance Scheme based on the following criteria:

- Distance based assistance – students who live more than 3.2km from the nearest state primary school or 4.8km from the nearest state secondary school
- Safety-net assistance – for financially disadvantaged students who live close to their nearest school with either a Health Care Card, Pensioner Concession Card, Department of Veteran's Affairs Pensioner Concession Card or students under a Care and Protection Order issued by the Department of Communities (Child Safety)

Given the socio-demographic break down of the Fraser Coast Regional Council area there are a large number of students eligible for subsidised school travel. This has implications for the financial viability of school bus services as the Queensland Government does not pass on the full fare to operators.

6.2.6 Long distance bus services

There are two long distance bus operators serving Fraser Coast providing a total of eight services per day to and from Brisbane in each direction (refer to Table 10 and Table 11).

- Greyhound bus services operate four bus services from Brisbane to Cairns, one terminating at Agnes Waters and one terminating at Hervey Bay, with stops at Tiaro, Maryborough, Pialba and Howard.
- Tory's Tours provides a twice daily intercity coach service between Brisbane and Hervey Bay stopping at Brisbane International and Domestic Airports, Caboolture, Forest Glen, Gympie, Tiaro, Maryborough, Urangan and Pialba. The deregulated service is well patronised.

Both Greyhound and Tory's Tours services stop at the Hervey Bay Transit Centre at Pialba Centro in Hervey Bay and the Lennox Street Coach Terminal in Maryborough. A number of hotels and hostels provide free mini-bus connections from Pialba Centro Coach Terminal for tourists. Access to Fraser Island from the coach terminals is via a shuttle service upon request provided by Kingfisher Bay Resort.

As discussed in Section 6.2.6, TMR also funds a long distance service from Biloela to Maryborough providing access to essential services from remote communities.

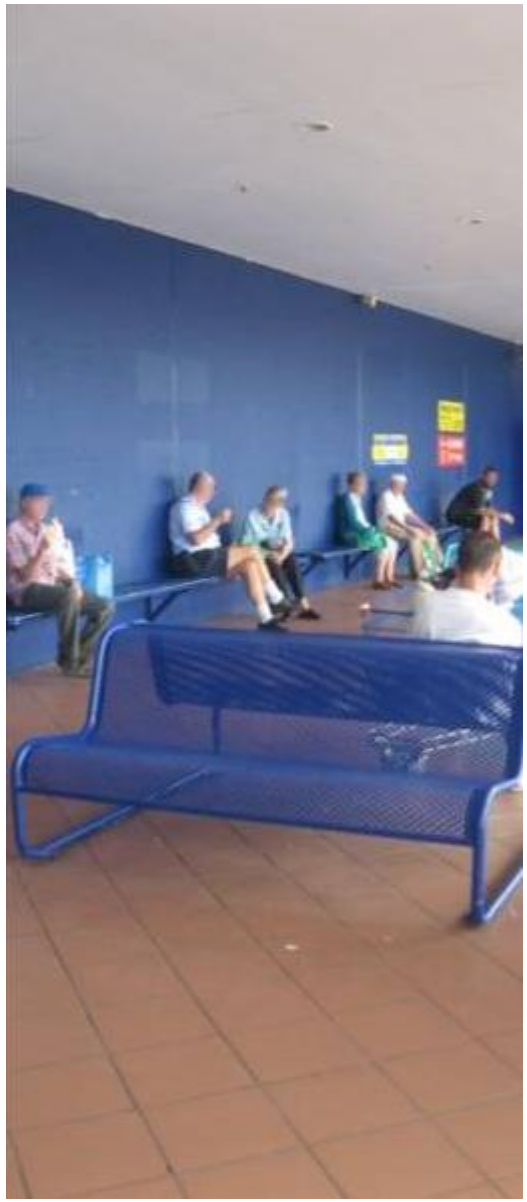


Table 10 Long distance bus services – northbound

Brisbane to…	SVC103	SVC104	GX401	GX440	GX402	GX441	GX443	GX403
	Hervey Bay	Hervey Bay	Cairns	Agnes Waters	Cairns	Hervey Bay	Cairns	Cairns
Gympie	3.15pm	6.15pm.	11:20am	11:15am	3:25pm	-	7:00pm	10:45pm
Tiaro – Opposite Newsagent	3.55pm	6.55pm	12:05pm	-	4:10pm	-	-	11:25pm
Maryborough Coach Terminal, Lennox Street	4.15pm	7.15pm	12:30pm	1:45pm	4:30pm	4:55pm	8:05pm	11:50pm
Hervey Bay Urangan Boat Harbour	5.15pm	8.15pm	-	-	-	-	-	-
Hervey Bay Pialba Centro Coach Terminal	5.00pm	8.00pm	1:10pm	2:25pm	5:15pm	5:30pm	8:55pm	12:30am
Howard – Opposite Howard News	-	-	1:40pm	2:55pm	5:45pm	-	-	-
Childers	-	-	2:00pm	3:15pm	6:05pm	-	-	1:20am

Source: www.greyhound.com.au, effective 21 April 2010 & www.torystours.com.au, effective 1 April 2009

Table 11 Long distance bus services - southbound

… to Brisbane:	SVC101	GX411	GX445	SVC102	GX413	GX446	GX412	GX410
	Hervey Bay	Cairns	Hervey Bay	Hervey Bay	Cairns	Agnes Waters	Cairns	Cairns
Childers	-	5:50am	-	-	8:15am	9:30am	12:40pm	12:25am
Howard – Opposite Howard News	-	6:10am	-	-	8:35am	9:50am	1:00pm	12:45am
Hervey Bay Pialba Centro Coach Terminal	6:30am	6:50am	8:00am	9:10am	9:25am	10:30am	1:45pm	1:25am
Hervey Bay Urangan Boat Harbour	BYPASS	-	-	9:30am	-	-	-	-
Maryborough Coach Terminal, Lennox Street	7:00am	6:50am	8:35am	10:10am	10:00am	11:05am	2:20pm	2:00am
Tiaro – Tourist Info Centre	7:20am	7:25am	-	10:30am	10:20am	-	2:40pm	2:20am
Gympie	8:05am	8:30am	11:10am	11:15am	11:05am	1:30pm	3:25pm	3:05am

Source: www.greyhound.com.au, effective 21 April 2010 & www.torystours.com.au, effective 1 April 2009

6.2.7 Vehicles and infrastructure

Vehicles

Wide Bay Transit currently has a fleet of coaches ranging in size from 53 seat maxi coaches to small mini coaches. Buses are used for both urban and school travel purposes, thus generally consist of larger coaches to cater to peak school services.

The diversity in vehicle type of the existing fleet, along with inconsistent branding and poor bus numbering makes it difficult to easily recognise urban bus services. There is a mix of low floor and non disability compliant buses.

TMR provides financial assistance to urban regional bus operators to purchase accessible vehicles through the Accessible Bus Program. These buses have low floor design, quieter travel and improved safety and comfort.

Funding is also available through the Queensland Government's School Bus Upgrade Scheme (SchoolBUS) to replace older school buses in regional centres with new and safer models.

Bus stops

The existing bus stops across the Fraser Coast bus network include j-poles and bus shelters. Bus stop and shelter design is inconsistent across the network with a lack of identifiable branding and passenger information. Not all bus stops are accessible for persons with a disability.

In the majority of cases, bus stops are owned by FCRC; some bus stops within the region (e.g. Urangan Shopping Centre Bus Stop and the TAFE interchange) are on private land and not owned by FCRC. FCRC and TMR, through *qconnect*, are currently rolling out disability compliant infrastructure in accordance with the Disability Discrimination Act (DDA) 1992 and the Disability Standards for Public Transport 2002. Bus stops built since 2002 must comply with the standards.

DDA compliance requires higher investment for permanent bus stop infrastructure than in the past. This reduces network flexibility in terms of stop location, service routing and provision of hail 'n' ride style services. TMR provides local governments with a 50 per cent subsidy of the cost of making bus stops compliant with the standards.

Bus stop upgrades include the provision of consistent *qconnect* branding and timetabling information.

Bus station

There is only one designated bus station, the Hervey Bay Transit Centre, in the Fraser Coast located at the Pialba Centro Shopping Centre, Hervey Bay. The existing bus station is functional but not aesthetically pleasing and requires upgrading to address safety and amenity concerns. TMR has identified a desire to upgrade the bus station in line with Pialba Centro Stage 2. The upgrade would include improved layover facilities and passenger facilities. Bus drivers would utilise the shopping centre for rest facilities. It should be noted that as part of the Pialba Centro Shopping Centre Stage 2 development approval a new updated and improved transit facility is conditioned.

As previously discussed, there is also an informal school bus interchange along Urraween Road behind Hervey Bay TAFE, located on Education Queensland land, thus future expansion of the TAFE campus may restrict the longevity of an interchange at this location.

Potential strategy / action

15. Liaise with the Department of Transport and Main Roads to ensure that all new fleet vehicles are disability compliant.
16. Continue to roll out disability compliant infrastructure in accordance with the Disability Standards for Public Transport 2002.

17. Liaise with the Department of Transport and Main Roads to conduct an assessment of the Hervey Bay Transit Centre to identify existing and future upgrade needs to be implemented with Stage 2 of the Pialba Centro Shopping Centre development.

6.3 Rail

The Northern Rail Line runs north-south in the west of the FCRC area, passing through the towns of Gundiah, Tiaro, Oakhurst, Maryborough, Aldershot, Torbanlea and Howard. There are two railway stations in Fraser Coast at Maryborough West and Howard, other nearby stations are located at Gympie North (to the south) and Bundaberg (to the north).

There are a variety of long distance rail services passing through Maryborough West Railway Station:

- The Sunlander – Brisbane to Cairns
- Spirit of the Outback – Brisbane to Longreach
- Tilt Train – Brisbane to Cairns
- Tilt Train – Brisbane to Rockhampton

Nineteen services pass through the Maryborough West Railway Station per week, one to four services per day. Only the Tilt Train to Rockhampton stops at Howard with a maximum of two services per day in either direction.

While the Northern Rail Line provides good north-south inter-regional connections, the route does not provide for local transport needs within the Fraser Coast area, serving a tourist rather than commuter market. The journey time between Howard and Maryborough takes approximately 18 minutes to travel, however, as can be seen in Table 12 departure times to and from Maryborough are not conducive to travel for commuter or recreational purposes. The Wide Bay Burnett Integrated Transport Plan (2007) recommends an assessment of the demand for same day north-south travel by rail. Same day travel on the north-south railway line could encourage regional commuters to use public transport rather than private vehicles.

Table 12 Existing train services at Maryborough West Railway Station (effective 5 April 2009)

	Mon	Tue	Wed	Thur	Fri	Sat	Sun
Northbound							
The Sunlander	-	2.05 pm	-	6.20 pm	-	-	2.05 pm
Spirit of the Outback	-	11.05 pm	-	-	-	5.50 pm	-
Tilt Train – Cairns	10.12 pm	-	-	-	10.12 pm	-	-
Tilt Train – Rockhampton	2.35 pm 8.30 pm	2.35 pm 8.30 pm	2.35 pm 8.30 pm	2.35 pm 8.30 pm	2.35 pm 8.30 pm	- -	2.35 pm 8.30 pm
Services per day	**3**	**4**	**2**	**3**	**3**	**1**	**3**
Stopping at Howard	2	2	2	2	2	-	2
Southbound							
The Sunlander	-	10.20 am	-	10.20 am	-	10.20 am	-
Spirit of the Outback	-	2.15 am	-	-	2.15 am	-	-
Tilt Train – Cairns	-	-	5.20 am	-	-	-	5.20 am
Tilt Train – Rockhampton	6.05 am 11.05 am	6.05 am 11.05 am	6.05 am 11.05 am	6.05 am 11.05 am	6.05 am 11.05 am	- 11.05 am	- 11.05 am
Services per day	**2**	**4**	**3**	**3**	**3**	**2**	**2**
Stopping at Howard	2	2	2	2	2	1	1

Source: Queensland Rail, 2010

6.3.1 Connecting bus / shuttle services

Wide Bay Transit operates a Queensland Rail TrainLink service from Hervey Bay and Maryborough to Maryborough West Railway Station. Some TrainLink services will pick up and set down at accommodation houses along the Hervey Bay Esplanade upon request. The TrainLink service is coordinated with Tilt Train services to and from Rockhampton.

TrainLink does not provide any connecting bus services to The Sunlander, Spirit of the Outback nor Cairns Tilt Train services, thus limiting connections for the tourist market. There are also safety implications as many services arrive late at night or early in the morning. The Destination Management Plan for Tourism in the Fraser Coast (Tourism Queensland, 2007) identified the opportunity to develop product packages with Queensland Rail to make the service more accessible to travellers.

The Maryborough City Plan (2007) recommended the provision of feeder buses between Maryborough West Railway Station and the CBD. Queensland Rail has since introduced a courtesy bus to Maryborough centre for rail services that do not have connecting TrainLink services. This allows connection with the urban bus network and to some extent alleviates safety issues for passengers arriving late at night or early in the morning; however, it is dependent on the provision of suitable connecting bus

services. As discussed in the previous sections, the low frequency and inconsistent servicing patterns of the existing urban bus network may result in passengers loitering in Maryborough CBD for many hours or possibly over night.

The Maryborough City Plan (2007) recommends that proposals to redevelop Maryborough West Railway Station should provide an intermodal centre at the railway station which would link trains and buses to common destinations in Fraser Coast.

Access to Fraser Island from Maryborough West Railway Station is via a shuttle service upon request provided by Kingfisher Bay Resort.

Potential strategy / action

18. Investigate opportunities to extend regular bus services to include Maryborough West Railway Station to connect to some of the rail services and provide feeder services to Maryborough CBD.

6.3.2 Maryborough West Railway Station

The Maryborough City Plan (2007) recommends the upgrade of facilities at Maryborough West Railway Station through the development of a master plan. The master plan would provide an intermodal centre at the railway station which could offer better facility interchange between modes and accommodate an increase in bus services.

Design considerations would also consider principles of crime prevention through environmental design, accessibility for disabled and less mobile persons and improvements to environmental amenity.

Potential strategy / action

19. Request that Queensland Rail and the Department of Transport and Main Roads upgrade the Maryborough West Railway Station to improve passenger facilities and provide better interchange between modes.

Table 13 Existing TrainLink services (effective April 2009)

	Mon	Tue	Wed	Thur	Fri	Sat	Sun
Connecting to Northbound Services							
Arrive	2.12 pm 8.10 pm	2.12 pm 8.10 pm	2.12 pm 8.10 pm	2.12 pm 8.10 pm	2.12 pm 8.10 pm	 5.25 pm	2.12 pm 8.10 pm
Depart	2.38 pm	2.38 pm	2.38 pm	2.38 pm	2.38 pm	11.08 pm	2.38 pm
Connecting to Southbound Services							
Arrive	5.43 am 10.45 am	5.43 am 10.45 am	5.43 am 10.45 am	5.43 am 10.45 am	5.43 am 10.45 am	 10.45 am	 10.45 am
Depart	6.08 am 11.08 am	6.08 am 11.08 am	6.08 am 11.08 am	6.08 am 11.08 am	6.08 am 11.08 am	 11.08 am	 11.08 am

Source: Queensland Rail, 2010

6.4 Taxis

Taxis provide an important alternative for people unable to walk or cycle, or who live in an area not directly served by bus, and have no car available.

According to TMR a taxi service is “a demand-responsive passenger service in a vehicle of no more than 11 seats (excluding the driver) and supported by electronic communication through a radio network. A taxi service can be hailed by members of the public and may stand for hire on a road.”

There are two metered taxi service areas in the Fraser Coast as summarised in Table 14 and shown in Figure 15 and Figure 16.

Exempted taxi service licenses are issued in areas with small populations which would be unlikely to support a full metered taxi service, therefore they are not required to fit a taxi fare meter.

The fares for metered areas are less than for exempted taxi service areas, reflecting the increased viability of taxi services in these areas.

TMR has introduced a number of programs to improve the safety and amenity of taxi services across Queensland:

- **Taxi Subsidy Scheme** aims to improve the mobility of persons with severe disabilities and temporary disabilities.
- **Regional FlatFare Taxi Services** are operated by taxi companies in regional centres and supported by TMR. Passengers can pay a flat fare rate to share the ride home with other people going in the same direction. FlatFare taxi services are 'share ride' and not a personalised taxi service. FlatFare Taxi Services have been implemented on the Gold Coast (Cavil Avenue Flatfare Rank), Sunshine Coast (Esplanade Flatfare Rank, Mooloolaba) and in Townsville (Flinders Street Flatfare Rank); these only operate Friday and Saturday night.
- **Secure Taxi Ranks** are staffed by experienced taxi rank marshals and security guards, and in some locations CCTV surveillance is in place. Over time, the Department of Transport and Main Roads could work with local councils to implement a range of security upgrades at secure taxi ranks, including installation of improved lighting, better signs and street furniture.
- **Accessible Taxis for Queensland**, *qconnect* has introduced and funded wheelchair accessible taxis in rural and regional areas that currently have a taxi service but not a wheelchair accessible one.

Taxi services in Fraser Coast are currently operated by Black and White Cabs and Hervey Bay Taxi Service. However, the Fraser Coast Regional Council website does not provide any information on the services and there are only a few poorly identified taxi ranks.

Potential strategy / action

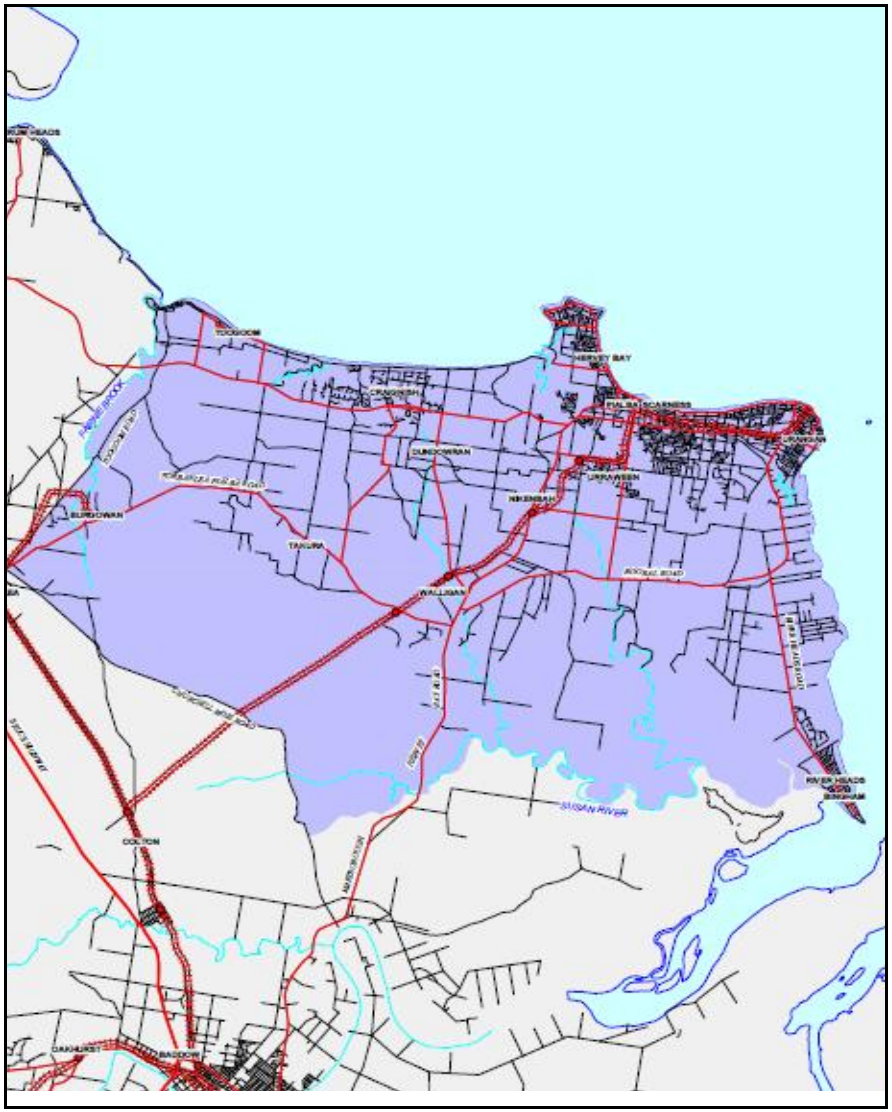
20. Investigate locations to provide easily located secure taxi ranks.
21. Ensure greater awareness of taxi services by providing information on Council’s website and at shopping and community centres.
22. Engage with the Department of Transport and Main Roads and taxi operators to investigate appropriate programs to enhance the taxi service to all population centres in the Fraser Coast Regional Council area.

Table 14 Metered taxi service areas

Area	Description
Hervey Bay Taxi Service Area	The area contained within a boundary commencing at the mouth of the Susan River and then west via the Susan River to its intersection with Churchill Mines Road and then in a north westerly direction along the Churchill Mines Road to its junction with Old Toogoom Road then north easterly along Old Toogoom Road to the intersection with Beelbi Creek then via Beelbi Creek to the shore line of Hervey Bay. Operated by Hervey Bay Taxi Service
Maryborough Taxi Service Area	Commencing from the Maryborough West Railway Station travel north along the North Coast Railway Line to The Colton Siding, then a direct line east to Maryborough Hervey Bay Road where it meets the Susan River, then east downstream of the Susan River to the mouth situated at River Heads and then upstream along the Mary River to a point opposite the Mary River Irrigation Channel then south along the Mary River Irrigation Channel, East of Eden Street to the Boonooroo Road, then north along the Maryborough Tuan Forest Road to its junction with Bidwell Road, then south along Bidwell Road to its junction with Weir Road, then west along Weir Road to Teddington Weir on Tinana Creek, then west in a direct line from Teddington Weir to Owanyilla Irrigation Pump Station on the Mary River, then west in a direct line from the Owanyilla Irrigation Pump Station to a point where it meets the North Coast Railway Line, then north along the North Coast Railway Line to the Maryborough West Railway Station. Operated by Black and White Taxis

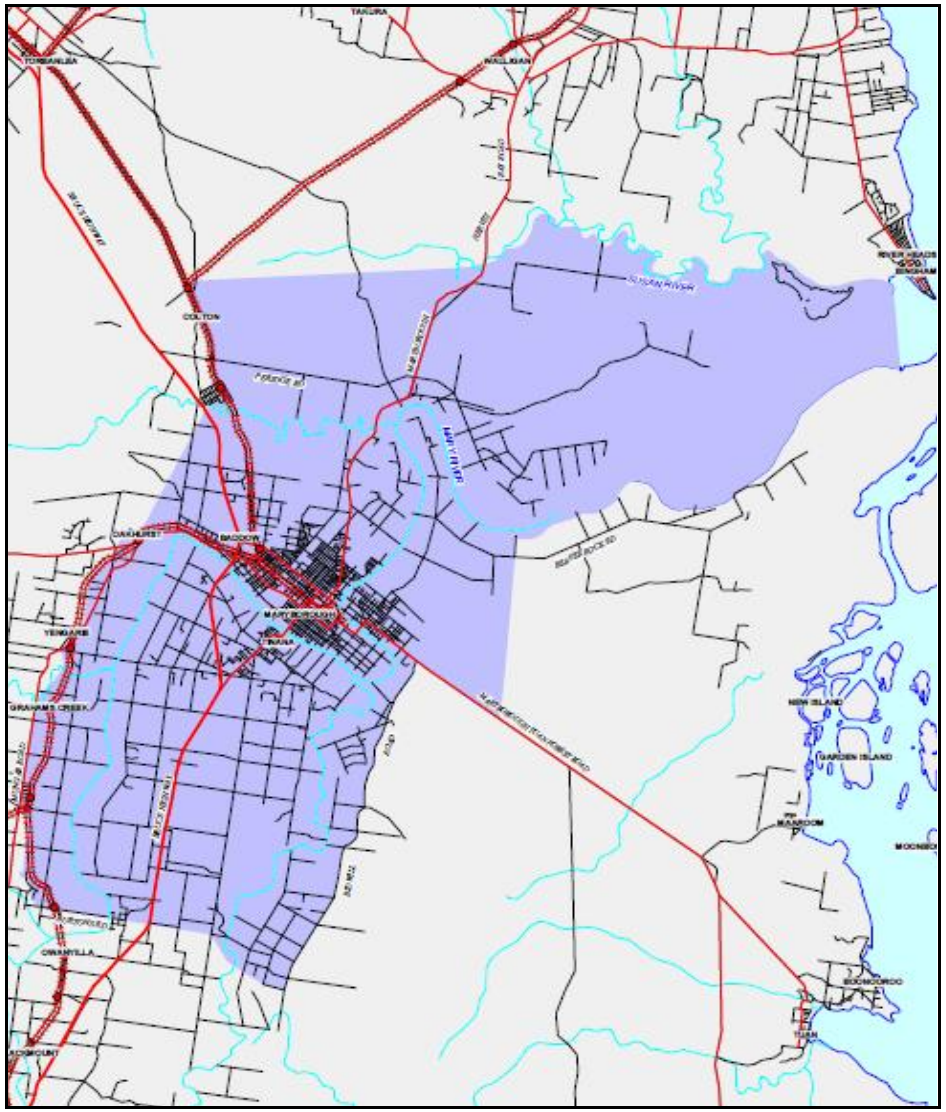
Source: http://www.transport.qld.gov.au/Home/Industry/Taxi_and_limousine/

Figure 15 Hervey bay taxi service area



Source:
http://www.transport.qld.gov.au/Home/Industry/Taxi_and_limousine/Service_area_maps/Southern_queensland/

Figure 16 Maryborough taxi service area



Source:
http://www.transport.qld.gov.au/Home/Industry/Taxi_and_limousine/Service_area_maps/Southern_queensland/

6.5 Flexible transport options

The dispersed nature of Fraser Coast's settlement pattern, and the long distances from Maryborough and Hervey Bay to the coastal communities and rural townships makes it difficult to implement a standard public bus network structure across the local government area. Small patronage numbers, long journey times, dispersed origins and destinations and unconventional peak movements often results in traditional bus services running at or near empty, resulting in financial losses.

Liaison with Council officers has identified that residents in the regional townships, such as Howard and Tiaro, complain about the lack of bus services. In the past, residents could utilise the school bus to access the urban areas, however, these services are now at capacity and not available to general residents. Metered Taxi Service Areas do not cover the whole of the FCRC areas. The long distances also mean that fares are often too expensive for disadvantaged communities.

Flexible service options, such as demand-responsive services, can help fill the gap between existing scheduled services and taxis. Where demand is low, flexible-route services may allow more cost-effective extension of hours of operation and service coverage. Customers are often willing to sacrifice high service frequencies and pay a higher fare if the service provided offers greater flexibility and a door-to-door service.

Examples of flexible service options include:

- Dial-a-ride
- Share-ride
- Multi-hire taxis
- Buses with flexible routes

6.5.1 Demand responsive transport – Kan-go

According to Queensland Government's Shaping Up, demand responsive public transport is "characterised by flexible routes and schedules responding partially or fully to the requests of individual passengers".

As discussed in Section 6.2.2, TMR is currently conducting the Kan-go roaming bus service trial in Point Vernon and Pialba, Hervey Bay. The demand responsive service allows passengers to be picked up and dropped off at requested destinations in three "roam zones". The trial is considered to be a success with Wide Bay Transit currently seeking to increase service frequencies.

qconnect is currently working with Home and Community Care providers (refer to Section 6.6.3) to encourage clients who don't need specialised transport to utilise the Kan-go service.

6.5.2 Taxis

Some community transport services, church based agencies or service clubs will sponsor taxi vouchers to the transport disadvantaged.

6.5.3 Share-ride

Shared-ride programs can substantially cut the cost of individuals travelling together in the same direction. It provides door-to-door services that are adaptable to unpredictable trips away from peak periods.

As discussed in Section 6.4 TMR have introduced Regional FlatFare Taxi Services in a number of urban centres across Queensland to cater to peak demands on Friday and Saturday nights. Currently, it is not anticipated that there is a demand for this type of late-night service in the Fraser Coast area, however, the program could be amended to cater to other peak demands.

Flexible transport may also be provided through scheduled or timetabled shared ride taxis. An example of this is Brisbane City Council's, Council Cab program provides transport for seniors to get to and from shopping centres on set days of the week utilising commercial taxi operators. Outsourcing of health and aged-care related transport to local taxi services helps to keep this essential service in the community.

As demand increases with population growth, there may be the potential to

introduce similar share-ride services in the Fraser Coast.

Potential strategy / action

23. Engage with the Department of Transport and Main Roads and key stakeholders to investigate the potential for flexible transport services as part of the scheduled urban public transport network.

6.6 Community transport

Community transport services provide one of the best opportunities to provide access from isolated communities to essential services, higher order goods, health and social needs as recognised in the Wide Bay Burnett Integrated Transport Plan Background Paper (2007) and reiterated in Program 8.2.2(9) of the Draft Wide Bay Burnett Regional Plan (2010). Community transport services are an important element in maintaining an individual's independence and links with their local community and can include home and community care funded transport services, courtesy buses (run by churches or clubs) and regional community transport.

Community transport is already an important element of the transport network in the Fraser Coast and greater Wide Bay Burnett Region.

Community Transport services may be funded and facilitated through a variety of sources as discussed below. There is much variance in the interpretation and the setting of criteria for use of community transport services. Most Community Transport services are aimed at providing access to the elderly and disabled. The Queensland Government's Community Transport Toolbox notes that "the problem arises when there are other transport disadvantaged people living in the same area with the same unmet transport difficulty need who do not have access to an equivalent transport service. This can create a division in the community when one group has access over another group with equal need." Fraser Coast Regional Council officers noted that often residents can access medical and essential services when necessary, but that the problem is in accessing shopping and social activities.

6.6.1 Aged and respite services

Aged, health and respite services are increasingly significant with the ageing

population and incentives for people to stay living in the community longer.

Funding is provided through the Home and Community Care Program (HACC), Disability Services Queensland and Department of Veterans Affairs. Services may also be delivered by not-for-profit organisations and are often affiliated with respite and aged care residential facilities that have their own bus for group outings, shopping trips and the like. For example:

- CentreCare
- Town and Country Community Options
- Escorted Transport Service
- Burrum & District Community Centre and Respite Care

6.6.2 Health transport

Queensland Ambulance Service (QAS) provides non-urgent patient transport services to hospitals and other medical facilities for people who meet certain criteria and have been authorised by a medical practitioner. Eligibility is limited to people who need stretcher transport, active management or monitoring in transit, or whose disability, behaviour or condition is such that it would be inappropriate for them to travel on more public forms of transport. In some parts of the State, QAS are outsourcing some of their non-urgent patient transports to other transport providers such as community transport operators.

A significant issue raised in the Wide Bay Burnett Integrated Transport Plan (2007) and consultation with Council officers is the lack of transport from hospitals upon patient discharge. Patients may have been brought in by the QAS and have no immediate support from family or friends, or no financial means for a taxi. Other factors identified included a lack of coordination with regular transport services, a lack of promotion of available subsidies and health transport entitlements and under utilisation of ambulances in WBB for non-medical transport.

6.6.3 Home and Community Care

Community Transport is often funded or partly funded by the Home and Community Care Program. The HACC is a joint Australian Government and State/Territory government initiative that commenced in 1985. The program's primary purpose is to provide basic support and maintenance services to assist frail older people and younger people with moderate, severe or profound disabilities and their carers (Home and Community Care Queensland – Triennial Plan 2008-2011, DSQ).

Liaison with government agencies has highlighted that there is an overlap between HACC funded transport and other government transport initiatives such as those provided through TMR. The HACC Queensland Triennial Plan 2008-2011 notes that the program will "focus additional funds on transport delivery approaches that demonstrate collaborative service delivery that link with and add value to other government and community initiatives in transport and community access such as the Accessible Taxis Queensland Program operated by TMR."

There are currently three HACC funded programs in the Fraser Coast:

- Maryborough Escorted Transport Services (BlueCare)
- TransComCare (operated through Hervey Bay Neighbourhood Centre)
- St Johns Ambulance

6.6.4 Sports and services clubs courtesy buses

A number of clubs offer courtesy buses for members (e.g. RSL, Sports Club) which offer a community transport service by default. The lack of available public transport throughout the region has caused the residents of Hervey Bay and Maryborough to be heavily dependant upon the use of the RSL free buses and Boat Club buses. The cost of using public transport in the Fraser Coast is often not cheaper than using a private vehicle. In contrast the service buses

are very cost effective to the user. The Boat Club buses provide a door-to-door service with a frequency of 15 minutes. Members will often catch the courtesy bus for lunch at the RSL for example, then do their shopping in town and catch the courtesy bus home. The service is so well used that shopping bag limits have been proposed on the buses to curb the use of the service for shopping activities and improve amenity.

6.6.5 Blueprint for the Bush

Blueprint for the Bush is a "10 year whole-of-Government strategy for building a sustainable, liveable and prosperous future for rural and regional communities in Queensland". The program started in 2006 and is a partnership between the Queensland Government and the peak agricultural group AgForce. Amongst the programs remit to build strong and economically sustainable communities in rural and regional Queensland is a desire to improve transport accessibility.

The Rural Service Access Initiative funding aims to help rural communities put local transport schemes in place. Like many community transport initiatives, the Rural Service Access Initiative is designed to improve accessibility to local services by people with special needs, such as people with a disability, elderly people, young people or people with limited transport options.

Blueprint for the Bush's Passenger Transport Program is delivered through TMR which regulates and/or subsidises air, long distance bus and passenger rail services in regional, rural and remote communities throughout Queensland.

6.6.6 Department of Transport and Main Roads - *qconnect*

TMR, through *qconnect* operates one long distance bus service to Fraser Coast – from Biloela to Maryborough. The service provides access to essential medical, educational and business services in Maryborough from more remote communities to the west. The service operates on Wednesday and Friday of each week departing Biloela at 4.30am and returning from Maryborough at 2.35pm on the same day.

TMR funds community transport services in the North, Central and Southern Burnett communities. These currently do not extend in the Fraser Coast Regional Council area, however, a similar program would benefit some of the smaller coast and rural communities such as Tiaro, Woocoo, Tinnanbar, Poona etc.

Potential strategy / action

24. Support the implementation of transport actions detailed in Positively Ageless – Queensland Seniors Strategy 2010-20 such as community transport, specific road safety campaigns, and providing information and advice on the safe use of mobility scooters.

6.7 Awareness and promotion

The Draft WBB Regional Plan (2010) advocates the provision of improved information on sustainable travel modes (Program 8.2.2(8)&(10)) and education programs that target and foster sensible and safe travel behaviour and greater uptake of public and active transport (Program 8.2.3(9)).

There is an identifiable lack of easily accessible information about public and community transport options in the Fraser Coast and as noted in Section 6.2.7 existing infrastructure and vehicles have inconsistent or non-existent branding and passenger information.

Timetables and routes are difficult to understand. Most of the local bus routes in Hervey Bay or Maryborough are loop routes which do not provide a legible, easy-to-understand route network. Liaison with *qconnect* highlighted that approximately three years ago there there were community complaints about a perceived lack of services along the Esplanade. In response, *qconnect* created a timetable for Esplanade services. The timetable featured existing routes, but no new routes were added. The improved publications appear to have alleviated concerns. However, the authors of this report, with capabilities in transport planning note that existing timetables across the network are difficult to understand, this would be exacerbated for members of the general public.

Consistent branding, signage and route numbering provides an identifiable and easy to understand public transport network. This is particularly important for tourists and occasional or new users. Clear service information needs to be available from homes and offices (for example, via the internet, telephone and timetables) at stations and stops, on vehicles and at major destinations. As mentioned in Section 6.2.7 bus stop upgrades include the provision of consistent *qconnect* branding and timetabling information.

Promotion of the urban and community transport program is necessary. The South Burnett and North and Central Burnett community transport programs use the distribution of leaflets (placed in doctors surgeries, public noticeboards etc.), referrals from other services and advertising through local councils to promote the community transport program. Community transport awareness would also benefit from an accessible transport information system similar to the TransLink web-based interactive route and timetable information for all modes.

Potential strategy / action

25. Liaise with the Department of Transport and Main Roads and key stakeholders to provide an accessible directory of community transport services in the Fraser Coast Regional Council area.
26. Investigate the potential to better integrate and utilise existing community transport services and vehicles including for non Home and Community Care (HACC) eligible residents.
27. Investigate particularly the provision of transport for discharged patients from hospital.

7. Active transport network

7.1 Introduction

GHD has recently completed the Fraser Coast Walk and Cycle Strategy on behalf of Fraser Coast Regional Council, the outcomes of which are summarised below. The Walk and Cycle Strategy is currently being considered for adoption (refer Figure 17).

The Walk and Cycle Strategy will draw together the findings of the Hervey Bay City Council Access and Equity Plan (Hervey Bay City Council, 2006), Maryborough Walk and Cycle Strategy (Arup, 2003) and the Hervey Bay Living Streets Strategy: Walk and Cycle Plan (Eppel Olsen, 2003).

The vision for the walk and cycle network in the Fraser Coast is:

- "The streets and parks of the Fraser Coast will be vibrant with pedestrian and cycle activity as people enthusiastically use walk and cycle facilities for social, recreational and transport purposes."

The vision is supported by the following guiding principles:

- **Safety** – walking and cycling is encouraged by an environment where people feel secure and all facilities provide safe and consistent walking and cycling conditions
- **Connectivity** – the pedestrian and cycle network will connect people to where they want to go
- **Accessibility** – the pedestrian and cycle network and environment provide equity and mobility for all users
- **Amenity and vitality** – streets and parks are an attractive environment for all activities and promote social interaction
- **Cost effectiveness** – pedestrian and cycle improvements and facilities will assist in improving the economic development of the city in which they are implemented

7.2 Walk and cycle network

The active transport network on the Fraser Coast is comprised of both on and off road links catering for dedicated walking and cycling activities and shared use. At some locations it is supported by facilities including cycle parking, lighting, seating, shade, drinking fountains and limited wayfinding, directional and information signage is provided.

7.2.1 Existing network

80% of the existing identified walk and cycle network is on-road. The total existing walk and cycle network has a physical length of 231km. The on-street network is guided by the existing

road hierarchy. In general, 'Local' and 'District' links are on local government controlled roads and the 'Regional' links are on State Controlled Roads (including local roads of regional significance).

The walk and cycle networks for Hervey Bay and Maryborough were recently reviewed and updated for the Fraser Coast Regional Council Walk and Cycle Strategy (refer Figure 18 and Figure 19 provided by FCRC).

A relatively flat topography, especially within urban areas, coupled with high scenic amenity makes the Fraser Coast an ideal place to walk and cycle and demand for these activities are high.

The backbone of the existing network in Hervey Bay primarily consists of a shared footpath along the foreshore connecting Urangan and Point Vernon and a Mobility Corridor running parallel to the foreshore path near Boat Harbour Drive. There are some north-south links between these, however, within most of the urban area the network consists of a series of ad hoc of footpaths and shared paths primarily serving the local schools.

The network in Maryborough has physical constraints such as the Mary River, the Bruce Highway and the rail line through the town centre. Considerable effort has been made to create pedestrian and cycle links at these locations including a newly constructed two span pedestrian bridge over the Bruce Highway at Baddow on Gayndah Road, linking the commercial precincts on either side of the highway, and provision of cyclist facilities on the Granville Bridge and Lamington Bridge.

Recreational cycle paths are also provided in the major parks such as Queens Park and Anzac Park/ Baddow Golf Links.

Walk and cycle links should form a cohesive network that is legible, safe, easy to use and connects people to where they want to go. Common to most walk and cycle networks, the current infrastructure in Fraser Coast is fragmented due to the way it has been implemented historically. Whilst it is appreciated that it will continue to develop at a local level incrementally due to financial and developmental drivers, it is important for the strategic network planning to remain holistic.

The following key issues regarding the existing network have been identified:

- **Varied quality** of walk and cycle infrastructure across the network. Substandard widths and surface materials mean that not all existing infrastructure conforms to standards.
- **Lack of connectivity** reflecting the disjointed street and open space network. In particular, there is a lack of inter-connectivity between centres and intra-connectivity between neighbourhoods (particularly in newer subdivisions) in the larger centres of Maryborough and Hervey Bay. The good penetration of state controlled roads linking major and regional townships and coastal communities provides opportunities for improved active transport connectivity; particularly if the Austroad guidelines to provide sealed shoulders within 20km of town centres is adopted when upgrading roads.
- **Piecemeal approach to infrastructure development** i.e. infrastructure for walkers and cyclists is built in conjunction with other road projects and new developments and not as stand alone network initiatives.
- **Focus on recreational routes** rather than the broader transport context. Given the relatively wide road widths in many urban areas, there is an opportunity for more on-road cycling facilities and to ensure that new roads cater for cyclists.
- There are **no discernable walk and cycle district links identified in rural areas**. However, sealed or grassed verges on main roads may be used as informal walking and cycling routes. Some existing footpaths are soft grass or dirt paths and not always kept clear and maintained and can be vulnerable to flooding.
- **Shared paths are often too narrow** to be used comfortably by both walkers and cyclists together. This situation is exacerbated when accommodating mobility scooters. In particular, community groups have raised concerns regarding the width of the

Esplanade path in Hervey Bay, an important recreational and tourism path.

- **Poor or missing pedestrian and cyclist crossing facilities** on heavily trafficked streets. Roundabouts, such as those along Boat Harbour Drive, are identified as being particularly difficult to navigate for cyclists and walkers.
- **Lack of signage** warning motorists of the presence of walkers and cyclists at terminal points of off-road paths and wayfinding for pedestrians and cyclists. There is little consistency across each city network or the region as a whole.
- There are few public parking and **end of trip facilities** provided in Fraser Coast, with some private facilities provided at shopping centres, schools and major employers. However, bicycle parking facilities tend to be in less visible locations making them less conspicuous and safe. Other end of trip facilities such as showers, change and locker facilities for cyclists are required at key attractors on the network.
- **Comfort facilities** such as drinking fountains, toilets, seating, lighting, shade and shelter are required on higher order routes, particularly given the elderly demographic of Hervey Bay. 'Special links' such as the formal foreshore path in Hervey Bay have supporting facilities along their length, but there are few facilities observed on local and district links.

7.2.2 Future network

The draft WBB Regional Plan (2010) (Section 8.2.2) notes that in smaller low-density centres with dispersed employment the opportunities for walking and cycling are greater than public transport, and should be facilitated where possible. Policy 8.2.2(2) is to "plan a safe, convenient, connected and legible walk and cycle network, including on-road and off-road routes in all towns and centres, and between centres where appropriate".

The proposed walk and cycle network as detailed in the draft Fraser Coast Regional Council Walk and Cycle Strategy (October 2010) increases the physical length by an additional 276 km.

The approach taken was to order the links into different categories reflecting their hierarchy in the network (refer Figure 17):

- Local Links – routes which service local neighbourhoods
- District Links – routes which link several neighbourhoods
- Regional Links – routes which link several districts
- Special Links – high profile, generally off-road links for recreational and tourist purposes. This category would include the Mobility Corridor in Hervey Bay and the proposed Rail Trail Corridor between Hervey Bay and Maryborough.

The key areas of expansion of the network are links of all types in residential areas; and regional links in rural and community use areas which will address the gaps in inter-regional connectivity. The longest physical links proposed are Special Links in Parks and Open Spaces, such as the Rail Trail link between Hervey Bay and Maryborough.

Support facilities will also be provided including toilets, drinking water, bicycle parking facilities, information and maps, seating, shade and

lighting. Policy 8.2.2(5) of the draft WBB Regional Plan (2010) seeks to 'ensure appropriate end-of-trip facilities for active transport users are incorporated into developments that are likely to attract or generate significant numbers of trips".

Integration of the walk and cycle network into the land use planning scheme is essential to influence the urban design of properties abutting the network at all scales of development - from master planning of new subdivisions to the individual design of single properties. This can be achieved through appropriate urban design that encourages streets and open spaces to be fronted and overlooked by actively used facilities and consideration of the following principles (as set out in the Queensland Cycle Notes):

- Orientation of buildings to front cycle routes
- Minimum setbacks to enhance casual surveillance
- Higher-density residential living to support public transport, cycling and walking
- Off-street car parking located at the rear or side of a dwelling with driveway access from rear Service lanes
- High quality walking, cycling, public transport and disability access
- Kerb ramps on all footpaths and shared paths

The above list is equally applicable to achieving good design outcomes for pedestrians as well as cyclists and is consistent with the fundamental concepts of Crime Prevention Through Environmental Design (CPTED) (direct presence, passive and natural surveillance, and legibility).

The forthcoming Wide Bay Burnett Regional Transport Strategy will detail the Principal Cycle Network for the region (Section 8.2.2 of the Draft WBB Regional Plan (2010)). Currently the provision of, and design guidelines for pathways in Hervey Bay, is detailed in Section 3.2.11 of the Hervey Bay City Planning Scheme Policy No. 2 and Section 3.1.4 of the draft Fraser Coast Regional Council Planning Scheme Policy 16 Development Manual (January 2011).

The Queensland Cycle Notes provide advice on when paths should be on- or off-road. Off-road facilities should generally be provided when there is a high speed (<=70km/h) with high volumes (>3,000 vehicles per day) on a link.

A number of wider masterplanning projects within the Fraser Coast will assist in the development of a comprehensive, attractive walk and cycle network including:

- The "Brolga to Bridge" urban renewal project at Maryborough (Planning Policy 6 of the Maryborough City Plan)
- A proposed coastal walk linking the region to the Bundaberg Tourism Region (Objective 1.4.2 of the Fraser Coast Economic Development Strategy)
- The Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan

7.3 Mobility scooters

Hervey Bay is well suited to mobility scooter use due to its flat topography and good weather. In July 2010, there were over 1000 mobility scooters registered in Hervey Bay, which is a reflection of the high proportion of elderly living in the area. All scooters that are used outside the home should be registered with the Department of Transport and Main Roads

Scooter riders are subject to similar rules to those for a car, yet scooter riders are classed as pedestrians. Electric mobility scooters have a speed limit of 10 kilometres per hour, but some are designed to travel up to speeds of 20-30 kilometres per hour. FCRC has received complaints about 'irresponsible' scooter driving causing accidents and injury to pedestrians and suggestions to reduce the speed limit to 5 kilometres per hour. This has not been pursued.

The Hervey Bay Safe Scooter Committee is a community group consisting of local retailers, government officers and mobility scooter users responsible for organising the Scooter Education Programme, Safe Scooter booklet and annual Scooter Convoy. They also raise issues regarding local infrastructure provision.

Key issues for mobility scooters include:

- Access to public transport stops
- Access to off road paths – lack of drop kerbs at entrance to paths
- Path width – mobility scooters require wider paths to allow safe passing with pedestrians, cyclists and other mobility scooters
- Recharge points – the distance travelled by a scooter is restricted by the battery life. Anecdotally, scooters can travel from Urangan to Point Vernon and back on one recharge. Recharge points are currently provided at the RSL, Older Men Unlimited Club in Urangan, the Boat Club in Urangan and some shopping centres (e.g. Pialba Place)

7.4 Education and encouragement programs

7.4.1 Education

Education is an important factor in ensuring the safe use of facilities by pedestrians, cyclists and other groups, including drivers. User behaviour can be affected by programmes which target enforcement and public education. Education and information is also vital to encouraging the community to walk and cycle. Education programmes can include:

- Driver awareness of pedestrian and cyclist needs and behaviours
- Pedestrian and cyclist awareness of vehicles and encouraging them to be more 'defensive in their actions'
- Pedestrian and cyclist safety issues, particularly related to safe road crossings
- Target schools programmes (parents, teachers and students) on safe walking and cycling practices and the benefits of walking and cycling to school
- Users of shared bicycle and walking facilities

There are a number of existing programmes run by State Government which address the above such as promotional and media campaigns targeting pedestrian and cyclist safety. Council developed an Active Transport Schools Program in 2007/08 and this program should be implemented once again. At a local level, active public user groups provide strong linkages with the community. The Fraser Coast Bicycle User Group (BUG) has offered its ongoing support to promote the routes and initiatives proposed as a result of the Safe Routes to School programme which has started in Pialba and could be expanded to other schools, the university, TAFE and hospitals in the area. They have also proposed the provision of a practical cyclist education site in Hervey Bay to supplement the Maryborough Special School training site.

Funding is required for resources to support and expand existing education and encouragement strategies.

7.4.2 Encouragement

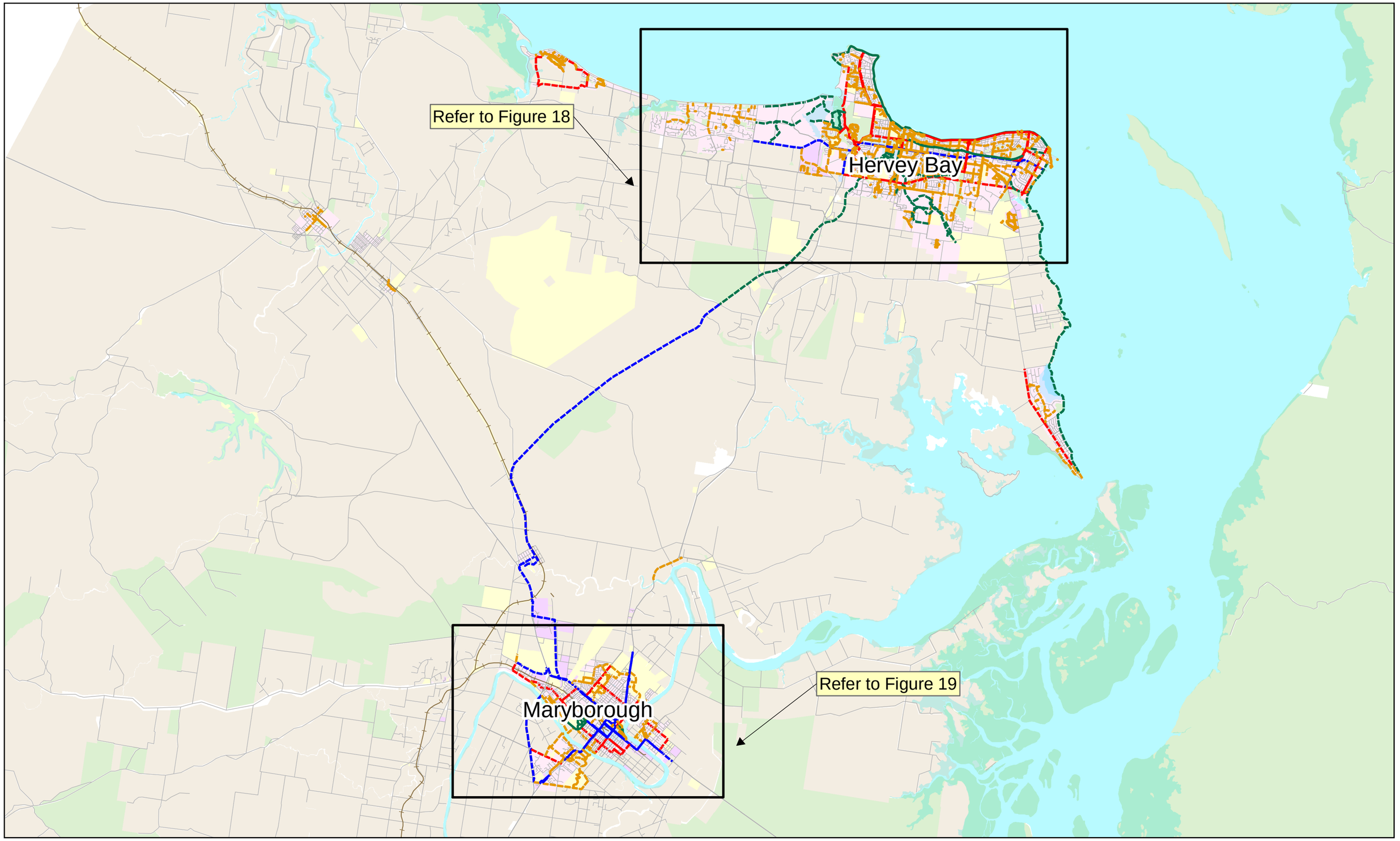
Encouragement strategies can make a significant difference to increasing walking and cycling in the region. Promotion of Council walk and cycle facilities and encouraging their use is vital to promoting the range of services and liveability of the region. It can also improve the tourist experience and increase opportunities for tourism promotion. Encouragement strategies can include:

- Promoting the health, environmental, social and economic benefits of walking and cycling
- Disseminating information on walk and cycle facilities e.g. network plan maps
- Marketing and promotion campaigns integrated with health and community campaigns
- Community events which encourage people to walk and/or cycle e.g. charity fun walks
- Behavioural change programmes
- Encouraging community involvement in planning stages e.g. community led pedestrian and cycle safety and accessibility audits

Ongoing support and coordination between Council and community groups will be invaluable in organising some or all of the above strategies.

Potential strategy / action

28. Implement the Action Plan of the Fraser Coast Walk and Cycle Strategy.



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Kilometres

Map Projection: Universal Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

- Existing Local
- Existing District
- Existing Regional
- Existing Special
- Future Local
- Future District
- Future Regional
- Future Special

GHD

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Fraser Coast Regional Council
Sustainable Growth Strategy – Integrated Transport Study

Job Number	41-22108
Revision	A
Date	27 JAN 2011

Walk and Cycle Network Fraser Coast

Figure 17

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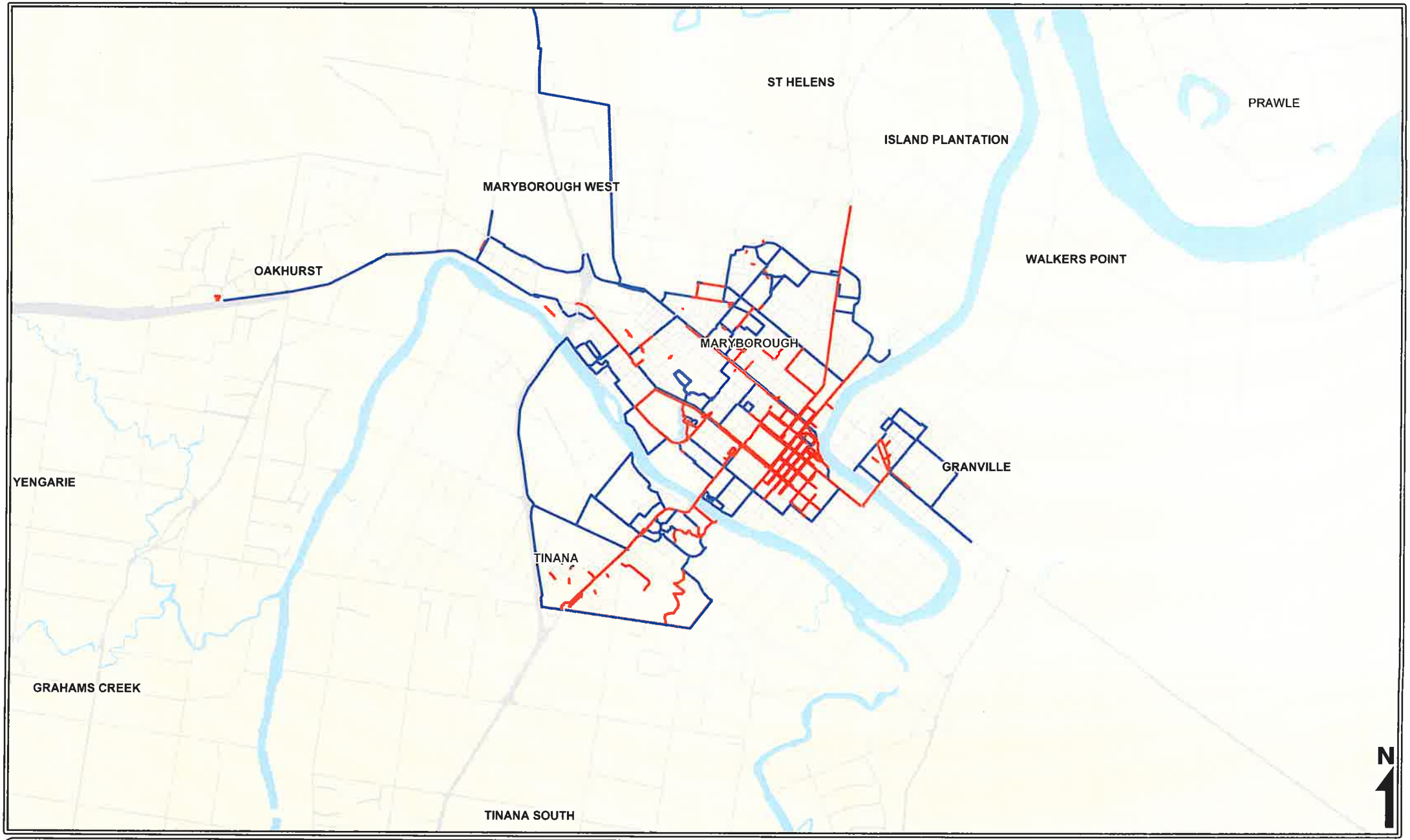
Level 4, 201 Charlotte St Brisbane QLD 4000 **T** 61 7 3316 3000 **F** 61 7 3316 3333 **E** bnemail@ghd.com **W** www.ghd.com

Data source: FCRC (Boundary - 2009), DERM (Main Roads - 2005, Railways - year unknown, Built Up Areas - year unknown), Geoscience Aust. (Towns - 2008), TMR (Bus Route - 2010). Created by: B. Marchand. Modified by M.Brooks & S.Cross



Fraser Coast REGIONAL COUNCIL

Legend

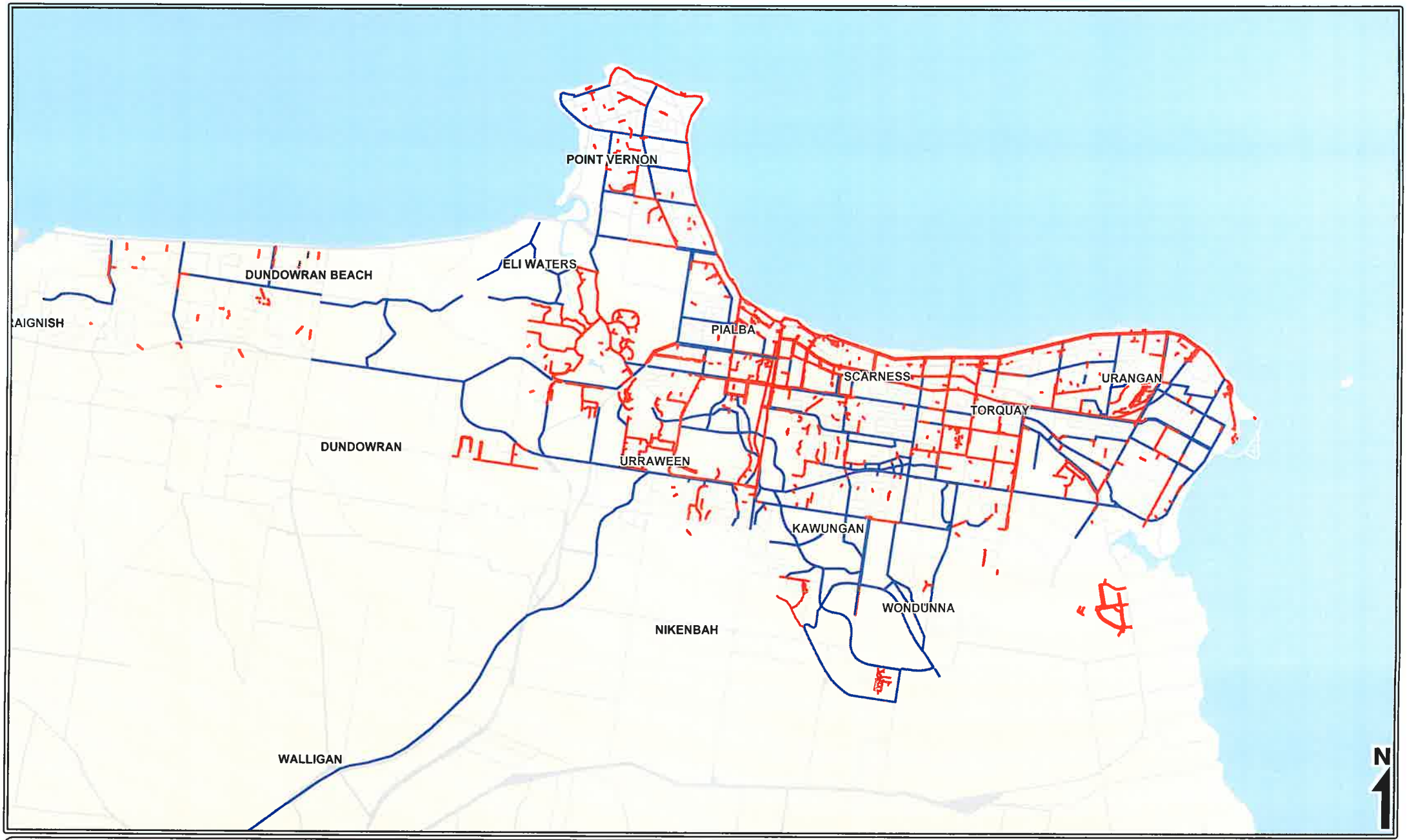
- Future Paths and Cycleways
- Existing Paths and Cycleways

Walk and Cycle Network Maryborough

Figure 19

Scale 1:75,000

01/04/2011



Fraser Coast REGIONAL COUNCIL

Legend

- Future Paths and Cycleways
- Existing Paths and Cycleways

Walk and Cycle Network Hervey Bay

Figure 18

Scale 1:75,000

01/04/2011

8. Freight network

8.1 Introduction

Freight intensive industries are expected to increase in the Fraser Coast Regional Council Area. Table 15 lists existing and proposed key industrial areas in Fraser Coast. According to existing land use zoning, the majority of industrial growth is expected in and around Maryborough. There is also a considerable movement of goods through the region along the Bruce Highway and North Coast Rail Line. A significant challenge for the FCRC, TMR and industry bodies will be the delivery and maintenance of a multi-modal freight network to accommodate industrial and associated freight growth whilst being sensitive to residential and commercial environments.

As noted in Section 5.3, coal exploration is currently being undertaken near Maryborough. Should mining activities commence it can be anticipated that there will be a significant increase in the proportion of heavy vehicles on Maryborough roads both during construction and operation which must be considered in freight network planning.

A key principle of the Draft Wide Bay Burnett Regional Plan (2010) is to support economic growth. It states the following regarding freight operations:

- Policy 8.2.1(2) Minimise impacts from freight movement on land uses along freight corridors
- Principle 8.2.4(1) Support economic growth in the region by prioritising transport infrastructure development that supports employment activities and provides an efficient, responsive and integrated transport system for domestic and international markets
- Policy 8.2.4(2) Protect and manage key existing and future freight corridors and networks
- Policy 8.2.4(7) Identify industry needs and align these needs with the provision and protection of transport infrastructure and services
- Policy 8.2.4(9) Facilitate priority allocation of space at marinas, boat harbours and ports to commercial fishers and supporting businesses within the fisheries supply chains
- Policy 8.2.4(10) Retain and enhance port facilities, airports and other economic infrastructure that facilitate trade and expand export capacity in the region
- Program 8.2.4(16) Develop and implement regional freight and road network strategies as part of the WBB Integrated Regional Transport Plan for the region
- Principle 8.2.3 It is important to identify key freight routes as part of a road hierarchy. Freight vehicles have specific needs and operate more efficiently on roads that function to support such vehicles

Table 15 Fraser Coast industrial areas

Location	Description	Status
Bay Central Industrial Estate - Urraween Road & Lower Mountain Road, Dundowran, Hervey Bay	26 ha. Heavy machinery construction, car seat manufacturing, civil engineering, welding works	Established
Bruce Highway Industrial Estate - Maryborough West	South of Moonaboola Industrial Estate	Pre-Feasibility
Canterwood Mill Site Redevelopment - Owanyilla, south of Maryborough	50 ha. Being developed privately as an industrial park and intermodal rail road freight exchange with connection to Queensland Rail network.	Expansion currently progressing
Dale and Meyers Timber Company - Tiaro and Woocoo	Telegraph poles and cross arms. Largest timber trade exporter in Queensland. Employs 570 workers.	Established
Downer EDI Rail/Bombardier Transportation - Bowen Street, Maryborough	Manufacture locomotives and related machinery. Employs 275 manufacturing staff.	Established
Hervey Bay Airport Industrial Park - Booral Road, Wondunna, Hervey Bay	40 ha. Direct access to air freight services	Currently being developed
Hyne Timber Mill - Activity Street, Moonaboola Industrial Estate, Maryborough	Largest soft wood sawmiller in Australia. 1,250 direct and contracted employees	Established
Moonaboola Industrial Estate - Industrial Avenue, Maryborough	Timber processing, manufacturing, engineering, medical equipment and manufacturing	Established
Port of Maryborough Marine Industrial Park - Beaver Rock Road & Nickols Steet, Granville, Maryborough	200 ha. Manufacture boats and light ships, marine components, vessel repairs and other marine services. The site is located within a total precinct in excess of 200 ha.	Currently in development approval process
Tourism Food Precinct - Urraween Road & Maryborough-Hervey Bay Road, Urraween, Hervey Bay	6 ha. Manufacture of gourmet foods	Expansion currently progressing
Wide Bay Business Park - Enterprise Circuit, Maryborough West	50 allotments ranging in size from 1,000 to 10,000 sqm. Engineering, manufacturing, construction and transport hub	Stage 1 & 2 recently opened

Source: Fraser Coast Economic Profile, 2009 & Fraser Coast Enterprise Zone website, 2010

8.2 Road freight

Road freight is expected to continue to dominate local and intra-regional freight transport. The large agricultural and industrial economy requires “fast transit to disparate market locations and reliable transport from farms to processing plants. These transport tasks tend to be serviced by road” (WBB ITP Background, 2007). Irrespective of industry arguments regarding the cost and travel time savings of road freight against rail freight, the Fraser Coast will continue to rely on road freight to transport goods from the North Coast Rail Line in the west to Maryborough, Hervey Bay and smaller townships. Growth in the service sector and niche markets is resulting in the

increasing use of local and sub-regional roads for freight transport.

The Wide Bay Burnett Background Paper (2007) notes that rail limitations will result in increased road freight for inter-regional goods transport – the movement of heavy vehicles on the Bruce Highway is expected to increase by 3.4% per annum. Increased movement of heavy vehicles on the road network will exacerbate existing pressures including:

- Damage to weak pavement
- Reduce overtaking opportunities
- Stress aged infrastructure such as timber bridges
- Deteriorate road surfaces and increase road safety risk
- Impact on residents e.g. noise, safety, air pollution
- Increase conflict between local and through traffic

These limitations could result in the need for infrastructure interventions and/ or an increase in road maintenance costs. Permissible load limits are expected to increase over time, further impacting on roads.

The WBB IPP Background Paper (2007) notes some concern in the region about the capacity of current transport planning systems to respond to changes in freight production, processing and industry. The WBB ITP Discussion Paper (2007) notes a need to investigate mechanisms for industry, Council and TMR to share the costs of road upgrades and maintenance for those roads impacted by freight. In particular, it notes a need to review the Memorandum of Understanding (MOU) between the Department of Primary Industries (Forestry), TMR and the Local Government Association of Queensland to ensure a fair contribution to road maintenance for road deterioration from current forestry activities.

There are currently no road train routes within Fraser Coast, however, a number of routes are designated for 23 metre and 25 metre B-doubles and Higher Mass Limits (HML). These are listed in Table 16 and shown in Figure 20.

The movement of small items of freight supplements income for some of the long distance buses in the region and contributes to their viability. Without the revenue from this freight some long distance buses may not continue to operate (WBB ITP Background, 2007).

B-double routes within Fraser Coast mainly service the links between the major population centres of Hervey Bay and Maryborough (along Maryborough-Hervey Bay Road) and inter-regional links along the Bruce Highway.

8.2.1 Hervey Bay

Within Hervey Bay, B-double routes are provided north-south along Dundowran Road providing access to Bay Central Industrial Estate and east-west along Booral Road providing access to Hervey Bay Airport Industrial Park and Urangan Harbour. The limited number of routes and distribution of land uses may cause significant double-handling of goods for the pick-up and delivery of goods. There is an opportunity to extend the B-double route along Lower Mountain Road to serve Bay

Centre Industrial Estate and the emerging Tourism Food Precinct.

The freight network in Hervey Bay, as provided by TMR (accuracy not guaranteed), is shown in Figure 21.

8.2.2 Maryborough

The industrial tradition within Maryborough has resulted in an extensive network of B-double routes throughout the town centre. Freight routes run through the centre of Maryborough, to Granville, Tinana and Aldershot. Although this extensive network provides good access to industrial areas, such as those along Alice and Kent Streets there are significant safety and amenity issues for both the central business district and residential areas. There have been initial discussions about providing feeder connections from Tiger Street through to Ann Street which would reduce freight movements through the Central Business District along Alice Street. To date, this work has not progressed.

Conflict between freight and residential vehicles has been noted throughout Maryborough, particularly in Baddow.

The Wide Bay Burnett Integrated Transport Plan Discussion Paper (2007) acknowledges the need to undertake forward planning for freight movement and distribution in the Wide Bay Burnett Region with designated routes for heavy road freight.

The freight network in Maryborough, as provided by TMR (accuracy not guaranteed), is shown in Figure 22.

Potential strategy / action

29. Review the appropriateness of existing B-double routes throughout Fraser Coast including conflict with residential areas and access to emerging industrial estates.

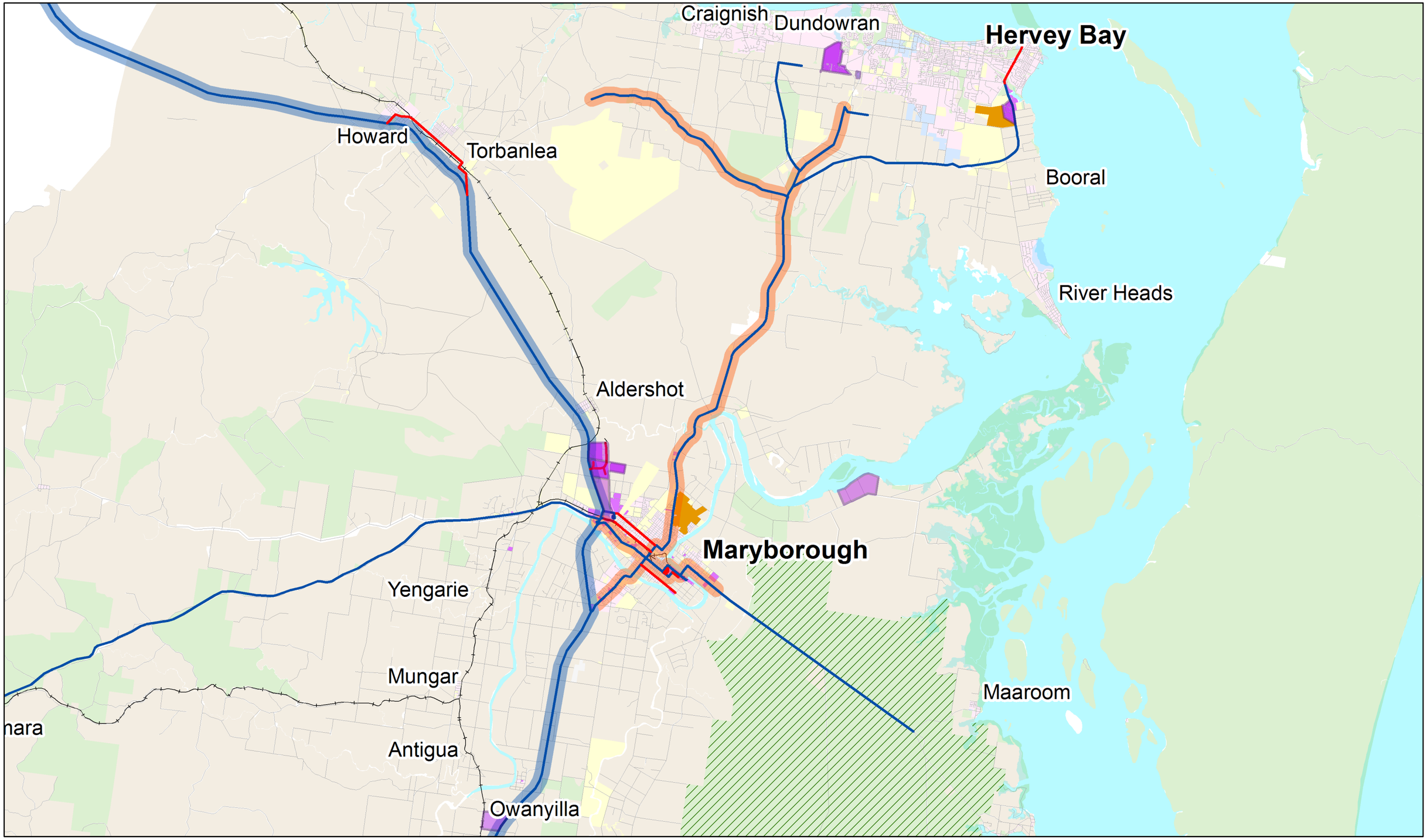
Table 16 B-double and Higher Mass Limit Routes

Route	Start	Finish	B-double Length / HML	Location
Bruce Highway	southern border with Gympie Regional Council-	northern border with Bundaberg Regional Council	23 & 25 m / HML	Passes through Tiaro,
Maryborough-Urangan Road	-	Maryborough-Hervey Bay Road	23 & 25 m / HML	Hervey Bay
Maryborough-Hervey Bay Road	Maryborough-Urangan Road	Dundowran Road	23 & 25 m / HML	Hervey Bay
Torbanlea-Pialba Road	Maryborough-Hervey Bay Road	-	23 & 25 m / HML terminates 700m past Old Toogoom Rd intersection	Hervey Bay
Dundowran Road	Maryborough-Hervey Bay Rd	Lower Mountain Road	23 & 25 m	Hervey Bay
Lower Mountain Road	Dundowran Road	Boral Quarry	23 & 25 m	Hervey Bay
Booral Road	Maryborough-Hervey Bay Road	Elizabeth Street	23 & 25 m	Hervey Bay
Elizabeth Street	Booral Road	-	23 m only	Hervey Bay
Chapel Street	Maryborough-Hervey Bay Rd	No. 37 Chapel Street	23 & 25 m / HML	Hervey Bay

Route	Start	Finish	B-double Length / HML	Location
Saltwater Creek Road	Maryborough-Urangan Road	Walker Street	23 & 25 m / HML	Maryborough
John Street	Saltwater Creek Road	Walker Street	23 & 25 m / HML	Maryborough Central
Walker Street	Bruce Highway	St Johns Street	23 & 25 m	Maryborough
Kent Street	Bruce Highway	March Street	23 & 25 m	Maryborough
Bright Street	Walker Street	QT Inspection Centre	23 & 25 m	Maryborough
Alice Street	Bruce Highway	Guava Street	23 & 25 m	Maryborough
Walker Street	John Street	Ferry Street	23 & 25 m	Maryborough
Ferry Street	Walker Street	Gympie Road	23 & 25 m	Maryborough
Gympie Road	Ferry Street	-	23 & 25 m	Maryborough
Walker Street	Kent Street	Ferry Street	23 m only	Maryborough
Industrial Avenue	Bruce Highway	-	23 m only	Maryborough
Industry Street	Industrial Avenue	End	23 m only	Maryborough
Production Street	Industrial Avenue	End	23 m only	Maryborough
March Street	Alice Street	Kent Street	23 & 25 m / HML	Maryborough Central
Kent Street	March Street	Sugar Mill	23 & 25 m / HML to Tiger St	Maryborough Central
Guava Street	Alice Street	Kent Street	23 & 25 m	Maryborough Central
Tiger Street/Granville Bridge/Odessa Street	Kent Street	Cambridge Street	23 & 25 m / HML	Maryborough Central
Cambridge Street	Odessa Street	-	23 & 25 m / HML	Maryborough Central
Ann Street	Ferry Street	Morex Depot	23 m only	Maryborough Central
Mary Street	Guava Street	Tiger Street	23 m only	Maryborough Central
March Lane	Alice Street	Bowen Street	23 m only	Maryborough Central
Ellena Street	March Lane	Zante Street	23 m only / HML to NQX depot	Maryborough Central
Zante Street	Alice Street	Bowen Street	23 m only	Maryborough Central
Bowen Street	Zante Street	March Lane	23 m only	Maryborough Central
Maryborough-Tuan Forest Road	Maryborough-Tuan Forest Road	Boonooroo Road intersection	23 & 25 m	Maryborough

Source: Department of Transport and Main Roads, 2011

Note: This list is not exhaustive, as special permits are issued from time to time



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0 1 2 4 6 8 10

Kilometres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

- 23 & 25 m B-doubles only
- 23 m B-doubles only
- Roads
- HML Route - National Highway
- HML Route - Other
- Railway
- Forestry
- Airports
- Industrial Areas
- Areas Zoned Industrial

CLIENTS | PEOPLE | PERFORMANCE

Fraser Coast Regional Council
Sustainable Growth Strategy - Integrated Transport Study

Job Number 41-22108
Revision C
Date 7 APR 2011

Freight Network Fraser Coast

Figure 20

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Level 4, 201 Charlotte St Brisbane QLD 4000 **T** 61 7 3316 3000 **F** 61 7 3316 3333 **E** bnemail@ghd.com **W** www.ghd.com

Data source: FCRC (Boundary - 2009), DERM (Main Roads - 2005, Railways - year unknown, Geoscience Aust. (Towns - 2008), TMR Created by: A. Dosani. Modified by: M.Brooks & S.Cross

POINT VERNON
ELI WATERS
CRAIGNISH
DUNDOWRAN
PIALBA
SCARNESS
TORQUAY
URANGAN
URRAWEEN
KAWUNGAN
WONDUNNA
NIKENBAH
Bay Central Industrial estate
Tourism Food Precinct
Hervey Bay Airport Industrial Estate
Hervey Bay Airport

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Kilometres

Map Projection: Universal Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

- 23 & 25 m B-doubles only
- 23 m B-doubles only
- Roads
- HML Route - National Highway
- HML Route - Other
- Airports
- Areas Zoned Industrial

CLIENTS | PEOPLE | PERFORMANCE

Fraser Coast Regional Council
Sustainable Growth Strategy – Integrated Transport Study

Freight Network Hervey Bay

Job Number 41-22108
Revision C
Date 7 APR 2011

Figure 21

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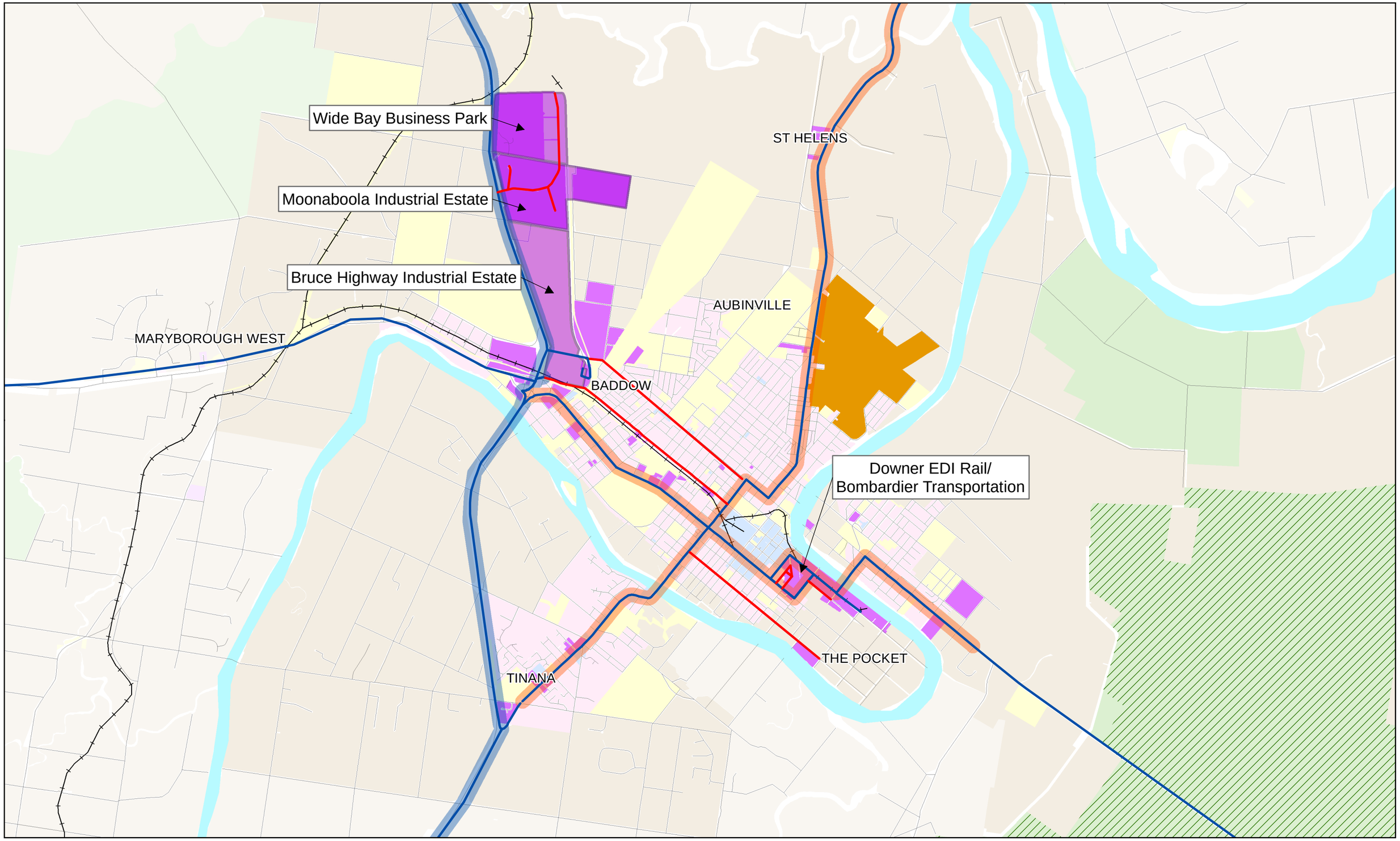
Level 4, 201 Charlotte St Brisbane QLD 4000 **T** 61 7 3316 3000 **F** 61 7 3316 3333 **E** bnemail@ghd.com **W** www.ghd.com

Data source: FCRC (Roads 2009), DERM (Railways - year unknown), Geoscience Aust. Created by: A. Dosani. Modified by: M.Brooks & S.Cross



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Kilometres

Map Projection: Universal Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

- 23 & 25 m B-doubles only
- 23 m B-doubles only
- Roads
- HML Route - National Highway
- HML Route - Other
- Railways
- Forestry
- Airports
- Industrial Areas
- Areas Zoned Industrial

GHD

CLIENTS | PEOPLE | PERFORMANCE

Fraser Coast REGIONAL COUNCIL

Fraser Coast Regional Council
Sustainable Growth Strategy – Integrated Transport Study

Freight Network Maryborough

Job Number	41-22108
Revision	C
Date	7 APR 2011

Figure 22

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Level 4, 201 Charlotte St Brisbane QLD 4000 **T** 61 7 3316 3000 **F** 61 7 3316 3333 **E** bnemail@ghd.com **W** www.ghd.com

Data source: FCRC (Boundary - 2009), DERM (Main Roads - 2005, Railways - year unknown, Geoscience Aust. (Towns - 2008), TMR Created by: A. Dosani. Modified by: M.Brooks & S.Cross

8.3 Rail freight

Rail freight in the Wide Bay Burnett Region (therefore assumed Fraser Coast) is mostly inter-regional (90%) and mainly travelling south to north (70%) (WBB ITP Background Paper, 2007). There are three rail lines in Fraser Coast as summarised below. Track details are as provided in the Maryborough and North Coast South System Information Packs (Queensland Rail, March 2003):

- North Coast Line running from Brisbane to Cairns
- Maryborough West to Maryborough Yard and Wharf Branch Line (10.7km)
- Mungar to Monto Branch Line (267.8km)

The North Coast Line runs between Brisbane and Cairns passing through Theebine, Mungar, Maryborough West and Colton. Passing loops are located at Theebine, Paterson, Gundiah, Netherby, Tiaro, Owanyilla, Mungar, Maryborough West, Colton, Torbanlea, and Wokka. The system caters for all traffic tasks from heavy haul block trains to high speed tilt trains and commuter services.

Maryborough is linked to the North Coast Line at Maryborough West. A 3.2km branch connects Maryborough Yard with private sidings of the Wharf Branch on the banks of the Mary River. The Maryborough Central rail spur is not used for passenger transport. The rail spur connects the Downer EDI/Bombardier Transportation rail stock yards in Bowen Street to the North Coast Rail Line and is used for the movement and storage of new and refurbished rail carriages. The rail industry is vital to the Maryborough economy, thus, without the relocation of the Downer EDI/Bombardier factory , it is highly unlikely that the Maryborough Central rail line would fall into disuse. This was acknowledged in the Maryborough City Plan (2007) which states: "The key role played by the rail spur at Walkers Limited in the movement of manufactured rail vehicles within Maryborough is recognised. The protection of this corridor will be sought and development applications adjoining this corridor will be assessed with this principle in mind." The maintenance of this rail spur is costly considering the limitations imposed by the CBD location and the low usage - Queensland Rail is currently in negotiations with Downer EDI/Bombardier to take ownership of the rail spur.

The North Coast Rail Line and Monto Branch Line accommodate freight transport in Fraser Coast. The Monto Branch Line junctions with the North Coast Line at Mungar serving Gayndah, Monto, Graham and intermediate communities. The system caters for general freight traffic.

The Monto Branch Line is a single track with a maximum allowable load limit of 15.75 tal. The maximum allowable speed is 50 km/h to Gayndah then 60 km/h to Monto.

There are a number of disused rail corridors in Fraser Coast including a north-south corridor to the east of the Bruce Highway and a connection from Hervey Bay to Maryborough. There are proposals to utilise the Hervey Bay Rail Corridor as a 'rail trail' for recreational equestrian, pedestrian and cycle usage.

There is a rail corridor running to the east of the Bruce Highway from south of Walker Street to north of Moonaboola Industrial Estate. The rail corridor, including an active line to the maintenance shed north of Walker Street, is owned by Queensland Rail. The disused rail corridor to the north of the maintenance shed is owned by TMR. There may be an opportunity to reinstate this rail corridor with the possible development of the Bruce Highway Industrial Estate. This would provide much improved access for goods from the Bruce Highway and Moonaboola Industrial Estates to the North Coast Rail Line and Bundaberg deep water port.

Existing infrastructure limits the competitiveness of rail freight compared to road freight:

- Maximum allowable speeds are between 50 and 100 km/h compared to 100 km/h on road. Speeds are further impacted where passenger and freight trains conflict. Also, during the summer months of high temperatures, hot weather precautions for track stability are observed, to reduce the risk of incident (Maryborough System Information Pack, March 2003).

- The North Coast Rail Line is a single track from Nambour northwards. This limits opportunities for increased frequency and speeds due to conflict between passenger and rail services.
- Poor track alignment, steep vertical grades, crossing loop lengths and level crossings limit transit times and train lengths beyond 650m.
- Rail capacity issues through metropolitan Brisbane limit overall rail network efficiency and opportunities for increased frequencies.
- Level crossings have minimum requirements to be left open for road vehicles and require speed restrictions to ensure safety.
- Aged infrastructure restricts usage opportunities e.g. timber bridges, poor track quality.
- High cost of rail infrastructure upgrades and complex governance arrangements.

State Government is committed to straightening and duplicating the North Coast Line between Caboolture and Nambour. This has the potential to reduce journey times south to Brisbane by increasing operating speeds and reducing journey length. Thus, there may also be opportunities to increase freight service frequencies.

The Monto Branch Line is funded by QLD Transport, Transport Services Contract (Rail Infrastructure), and Transport Services Contract (Regional Freight) to ensure that rail freight continues to be available to North Burnett. However, the WBB ITP Background Paper (2007) notes community concern that Queensland Rail is increasingly using road transport for freight movement. The continued support of State Government is needed to ensure the provision of rail freight services on the Monto Branch line, unless major tonnages are introduced.

Rail depots are located at Bundaberg, Gayndah, Gympie, Maryborough West, Monto, Mundaberra and Pialba. Regional freight distributions centres at key centres such as Gympie, Maryborough and Bundaberg have the potential to assist the efficient movement of freight in the region and could rationalise rail and road freight movements. A proposed action of the WBB ITP Background Paper (2007) is to investigate the feasibility and location of these distribution centres. This is reiterated in Policy 8.2.4(3) of the Draft WBB Regional Plan 2010: "Facilitate improved efficiency of existing transport terminals and develop new terminals at key locations to support a range of business, industry and tourism and recreation purposes".

Potential strategy / action

30. Consider the use of freight rail for freight movements to emerging industrial estates.
31. Request the Department of Transport and Main Roads to upgrade the rail network to accommodate heavy freight traffic and potential rolling mining stock.
32. Protect the rail corridor to the Downer EDI/Bombardier Transportation rail stock yards.
33. Consider disused rail corridors for recreational active transport use.

8.4 Sea freight

Port of Hervey Bay (also known as Port of Maryborough) is a non-trading port that is mainly used for tourism, education and recreation. It is unlikely that the Port of Hervey Bay will develop to accommodate sea freight. However, discussions with Fraser Coast Regional Council officers suggest that there may be increased sea freight opportunities (accessed via rail or road) with the expansion of Bundaberg as a deep water trade port. This has the potential to positively benefit the Fraser Coast with opportunities to expand the export industry.

8.5 Air freight

Air freight does not currently play a significant role in the import and export of goods from the Fraser Coast Regional Council area. However, the introduction of passenger jets to Hervey Bay airport has increased the quantity of freight on flights to Hervey Bay and the WBB ITP Background Paper (2007) notes that there may be potential to increase air freight quantities with the possible development of a new regional airport (refer to Section 9 Airports).

9. Airports

9.1 Introduction

A comprehensive analysis of airports in the Wide Bay Burnett Region was conducted by Aurecon for the Department of Employment, Industry, Development and Innovation in August 2009 – the Wide Bay Burnett Aviation Infrastructure Requirements Study. The Study builds upon the Wide Bay Burnett Aviation Industry Investment and Reinvestment Action Plan and describes:

- Policy and strategic framework
- Existing aviation infrastructure
- Future drivers and opportunities
- An aviation infrastructure action plan to 2027

Following the Wide Bay Burnett Study, the Fraser Coast Regional Council 2031 Aviation Strategy was adopted on 25 August 2010 which provides a vision for airports in the local government area:

> *"To provide safe, secure and efficient airports which support the quality of life, sustainability and economic development of our region"*

Given the recent completion of both the Infrastructure Requirements Study and the 2031 Aviation Strategy it was deemed appropriate to utilise both report's outcomes and recommendations to inform the Fraser Coast Integrated Transport Study. Thus, the following section comprises a summary of the findings of the Department of Employment, Industry, Development and Innovation's 2009 study and Fraser Coast Regional Council's 2010 vision.

The Fraser Coast region is serviced by airports at Hervey Bay and Maryborough. An assessment of the north coast transport corridor by AusLink found that air transport in the region is expected to grow at an average of above 5% per annum (WBB ITP Background Paper, 2007). Under the Hierarchy of Aviation Infrastructure in the Wide Bay Burnett Region, Hervey Bay is designated as a Secondary Facility and Maryborough as a Tertiary Facility as detailed in Table 17.

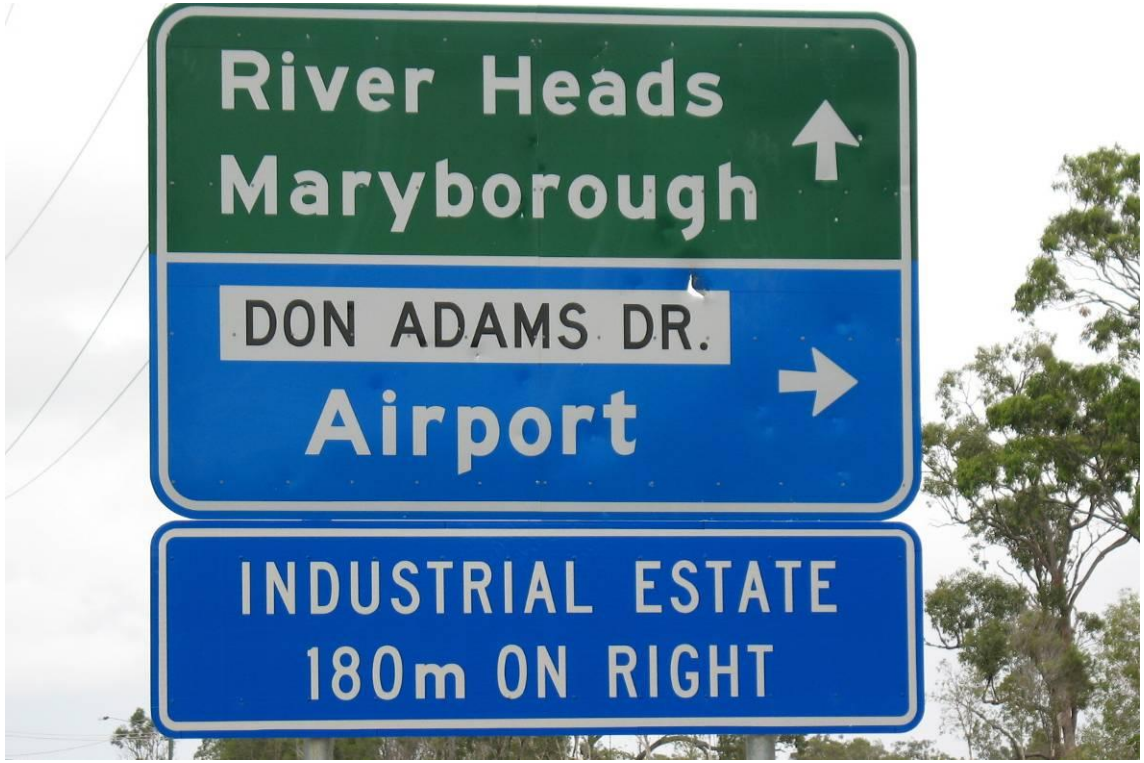

Table 17 Hierarchy of aviation infrastructure in the Wide Bay Burnett Region

Airport	Facility Type	Key Features
Hervey Bay Bundaberg	Secondary	Dedicated or near-dedicated general aviation (GA) facility capable of handling turbo-prop and small jet operations, or multi-purpose facility accommodating a combination of regular passenger transport (RPT) and GA. Dedicated GA facilities likely to be underpinned commercially by a major airline pilot training academy. Will attract complementary activity such as business, charter and private flying, and GA aircraft maintenance activities.
Maryborough Kingaroy Gympie	Tertiary	Smaller facilities to accommodate recreational flying and private pilot training activities not compatible with larger facilities. Might include some smaller commercial activities which major GA aerodromes are not attractive.
Childers Wondai Nanango	Helicopter Landing Sites and Aeroplane Landing Areas	Can accommodate light aircraft in an emergency situation

Source: Table 4 - Wide Bay Burnett Aviation Infrastructure Requirements Study, 2009

1:30,000 (at A3)

0 0.15 0.3 0.6 0.9 1.2 1.5

Kilometres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia
Grid: Map Grid of Australia 1994, Zone 56

N

LEGEND

Airports
Railway
Roads

Fraser Coast Regional Council
Sustainable Growth Strategy - Integrated Transport Study

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Date 3 FEB 2011

Existing Hervey Bay and Maryborough Airports

Figure 23

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Data source: Data Custodian, Data Set Name/Title, Version/Date. Created by: M.Brooks. Modified by: S.Cross

9.2 Hervey Bay Airport

Hervey Bay Airport is the dominant airport in the Wide Bay Burnett Region and is likely to remain so given tourist attractions and population growth. The airport is owned by Fraser Coast Regional Council and is classified as an airport of State Significance under State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities. The Hervey Bay Airport services business, tourist, and general passenger travel. It has air services to Brisbane provided by QantasLink, Sydney provided by Virgin Blue and Lady Elliot Island (refer to Table 18). JetStar ceased flights between Hervey Bay and Sydney in June 2009 due to economic conditions.

Charter flights are also conducted out of the airport to Fraser Island (refer to Table 19).

The number of seats available per week for flights departing from Hervey Bay Airport has increased from over 1,532 in 2009 to over 2,188 in 2010. There was no increase in the number of flights over the same period suggesting an increase in the size of aircraft servicing the airport.

The 2031 Aviation Strategy seeks to attract additional services / carriers on existing and new targeted routes to exploit inbound tourism markets, improve freight capacity and competitiveness and improve accessibility for business and investment.

Table 18 Hervey Bay Airport flight frequencies and destinations (effective December 2010)

Airline	Destination	2009		2010	
		Frequency per Week (one way)	Seats per Week (one way)	Frequency per Week (one way)	Seats per Week (one way)
Virgin Blue	Sydney	7	742	7	1,188
QantasLink	Brisbane	20	804	20	1,000
Lady Elliot Eco-Resort	Lady Elliot Island	21	?	21	?
	Total Hervey Bay	48	1,532 (+)	27	2,188 (+)

Source: Tourism Queensland, Domestic Capacity into Fraser Coast/Hervey Bay – December 2009 & December 2010 & www.frasercoastairport.com.au (flight schedules) – effective 3 October 2010

Table 19 Hervey Bay aeronautical charter activities

Other aeronautical activities (training, manufacturers, recreational)	Charter
Seabird	Orchid Air Charter
Hervey Bay Aero Club	Air Fraser Island
Fraser Coast Microlites	Seaair
Hervey Bay Sky Divers	Hervey Bay Air Adventures
Aero Dynamic Flying School	Mi Helicopter Scenic Tours
Air League	

Source: Wide Bay Burnett Aviation Infrastructure Requirements Study, 2009

There is one existing runway at the airport. The former Hervey Bay City Council undertook a $14 million redevelopment and upgrade of the Hervey Bay Airport in 2005, including an extension of the runway to accommodate jet aircraft. FCRC is continuing with upgrades including a $2 million extension to the terminal and a further $7 million over the next four years from 2009 (WBB Aviation Infrastructure Requirements Study, 2009).

As can be seen in Table 20 and Figure 24, the introduction of jet services to Sydney in 2005, and the curtailment of Brisbane to Maryborough services in favour of Hervey Bay, resulted in a dramatic increase in passenger movements from 35,470 in 2004/05 to 210,740 in 2007/08 (The inter-year variability between 1997/98 and 2004/05 can be attributed to carriers also servicing Maryborough Airport). Passenger demand and aircraft movements have since stabilised. Visitor numbers are expected to decline slightly for the 2009 period due to global financial constraints, but are expected to see continued steady growth in 2010.

The Fraser Coast 2031 Aviation Strategy highlights the potential for the region to service the growing fly-in fly-out workforce employed in the resources sector and the opportunity to increase resident population and economic growth as a result.

Table 20 Hervey Bay airport – RPT passenger movements 1997/98 to 2007/08

Year	RPT Passengers	Average Annual % Change	RPT Aircraft Movements	Average passengers per aircraft movement
1997/98	42,095	-	3,462	12.16
1998/99	40,395	-4.7	3,557	11.36
1999/00	43,404	7.4	3,555	12.20
2000/01	39,809	-8.2	4,011	9.92
2001/02	30,000	-24.6	2,906	10.32
2002/03	27,805	-7.3	2,108	13.19
2003/04	31,119	11.9	2,140	14.54
2004/05	34,418	10.6	2,584	13.31
2005/06	149,448	334.2	3,818	39.14
2006/07	201,040	34.5	3,228	62.28
2007/08	223,659	11.3	3,270	68.39

Source: Executive Manager of Corporate Business, Fraser Coast Regional Council, email 23/03/2011

9.2.1 Airport access

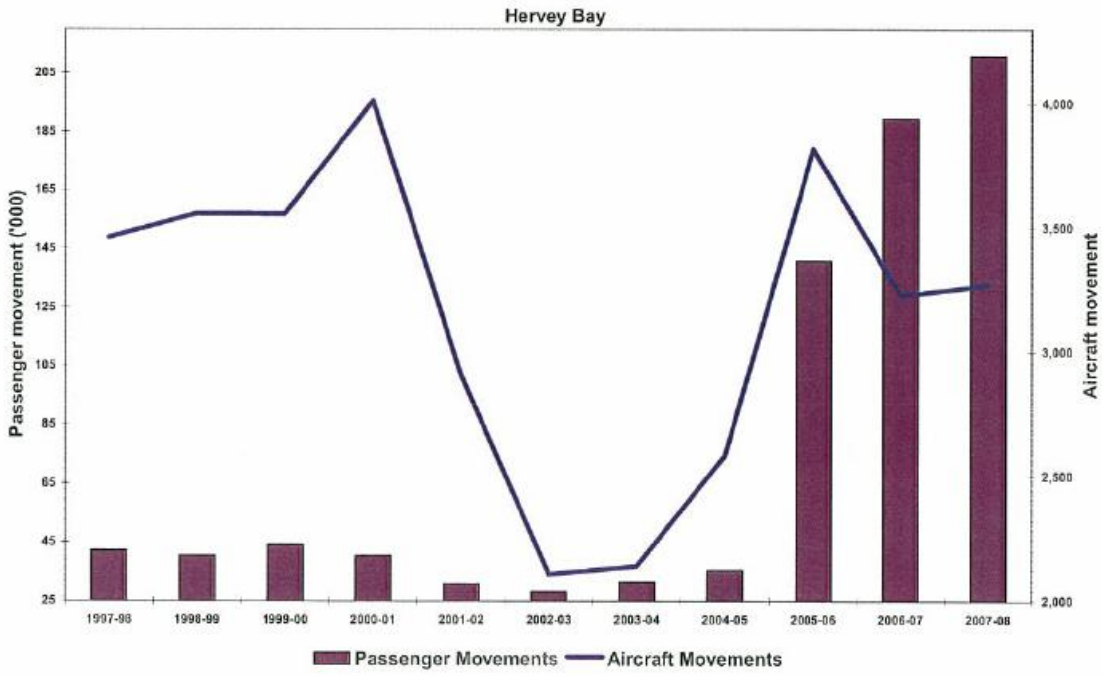
The airport provides for carparking (both paid and secure) and car / coach / taxi set down areas adequate for the business and tourist market segments. There is sufficient general paid parking but insufficient premium paid parking (WBB Aviation Infrastructure Requirements Study, 2009). The secure carpark has recently been relocated and expanded to provide more options for carpark users.

Bundaberg & Wide Bay Shuttle Service provides Hervey Bay Airport transfers to and from Bundaberg, Childers, Maryborough, Hervey Bay and surrounding areas. Rainbow Beach Taxi provides transfers to and from Rainbow Beach, Tin Can Bay, Cooloola Cove and surrounding areas. These services must be pre-booked.

There are no existing public bus routes to Hervey Bay Airport meaning that residents and visitors must either pre-book the aforementioned mini-bus services or rely on private vehicles or taxis; however, it is unlikely that a public bus service would be viable with so few flights per day.

Access to Fraser Island is via a shuttle service provided by Kingfisher Bay Resort. Guests are met and transferred to the mainland reception at River Heads for check in, then to the ferry departure point. Luggage is transported direct to guests' accommodation on the island.

Figure 24 Hervey Bay airport – RPT passenger and aircraft movements 1997/98 to 2007/08



Source: Wide Bay Aviation Infrastructure Requirements Study, 2009 – Figure 1

Potential strategy / action

34. Improve public transport connections to Hervey Bay Airport to improve connections for those without access to a private vehicle and decrease the demand for parking.
35. Implement the outcomes and recommendations of the Fraser Coast Regional Council 2031 Aviation Strategy.

9.2.2 Services

It is currently not possible to travel from Hervey Bay Airport north without first flying south to Brisbane or Sydney. The Wide Bay Burnett Integrated Transport Plan (2007) recommends assessing the passenger demand from Hervey Bay to northern centres.

Since 2005, with the opening of direct flights from Hervey Bay to Sydney, there has been consistent growth in the number of visitors travelling to Hervey Bay by air. Tourist numbers have been greater at Hervey Bay than Bundaberg in the last 5 years, therefore greater growth is expected. Based on this trend, the addition of the flights to other capital cities would be beneficial for the region's tourism industry. The Fraser Coast Destination Management Plan 2007-2010 noted that the expansion of air services into Victoria / Melbourne and possible northern ports of Queensland could bring similar benefits as the increase in the New South Wales / Sydney market. Plans are underway to further upgrade the airport to handle more jet services from Sydney and possibly Melbourne. Additional capacity has become available since the cessation of JetStar flights to Sydney.

There is a large maintenance service at both Hervey Bay and Maryborough airports.

9.2.3 Infrastructure

The Wide Bay Aviation Infrastructure Study suggests that Hervey Bay Airport has the necessary aviation infrastructure and operational capacity to accommodate new RPT services to both intrastate (for example to northern centres) and interstate markets. Expansion plans set out in the Airport Master Plan (as summarised in the WBB Aviation Infrastructure Requirements Study, 2009) (refer Appendix D) for the next 10-20 years include a doubling in size of the airport terminal car parks and a cross runway for light aircraft. However, consultation with Fraser Coast Regional Council officers have indicated that initial investigations identify significant barriers to a cross runway caused by adjacent land uses. Both the Hervey Bay Airport and Maryborough Airport Master Plans are currently under review.

The WBB Aviation Infrastructure Requirements Study notes that Hervey Bay Airport will be constrained in the future from moving from small jets, now using the airport, to large jets because of airside limitations of the airport. There is no available land for runway extensions to support the ultimate development to support B747 or equivalent aircraft.

Hervey Bay has established aviation industries including Seabird, as an anchor aircraft manufacturer, as well as a pilot training facility and charter and tourism aviation activity. The strong general aviation and aviation industry sector at Hervey Bay Airport is likely to expand in the future if land is available. FCRC has commenced development of the $75 million, 42 hectare Hervey Bay Airport Industrial Park in a joint venture with private industry. This is further discussed in Section 8 Freight Network.

The Wide Bay Aviation Infrastructure Study suggests the following possible future initiatives at Hervey Bay Airport:

- Airside access to Airport Industrial Park
- Aviation commercial precinct
- Hangar and helicopter precinct on vacant land to the south
- Relocation of non commercial general aviation activity
- Expansion of RPT services to new markets including Melbourne
- Rationalisation of recreational general aviation activity possibly to Maryborough as Hervey Bay Airport becomes busier

Potential strategy / action

36. Request an investigation for the expansion of air services into Victoria / Melbourne and possible northern ports of Queensland.
37. Any future planning into the Hervey Bay Airport expansion should include a Transport Impact Assessment addressing the impact on the local transport network, parking and access by public transport.

9.3 Maryborough Airport

Maryborough Airport is located approximately 3 km north of the Maryborough town centre in Aubinville. It is a small regional airport serving Maryborough and Rainbow Beach. The airport is owned by Fraser Coast Regional Council and is classified as an airport of State Significance under State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities. There are two runways, one sealed (17/32 – 1,587m) and one unsealed (12/30 – 885m). The sealed runway can support aircraft up to Code 3C size.

Increasing competition with Hervey Bay Airport has led to the cessation of all regular passenger transport flights from Maryborough Airport. Currently, the airport is primarily used by the Maryborough Aero Club. The airport has a well established pilot training and aircraft maintenance business and also provides aviation infrastructure for medical emergency, policing and military aircraft. Table 21 presents the aeronautical and charter activities at the airport.

FCRC has indicated that Maryborough Airport is likely to remain open for another 20 years.

Maryborough has sufficient airside infrastructure to handle an increase in GA demand. The most likely source of any increase in GA demand will be from South East Queensland, as primary airports, and their high leasing fees/rent continue to place financial pressure on smaller GA operators in that region – Caloundra aerodrome is likely to close in the next 5 years; a lack of suitable hangar space at Redcliffe and Caboolture Aerodromes means there is continuing demand for private and commercial hanger space at Maryborough Airport.

The former Maryborough City Council undertook a Future Directions Study for Maryborough Airport and commissioned an Airport Master Plan. The Master Plan sought to capitalise on smaller general aviation activities being pushed out from larger airports by urban encroachment and economic development pressures. The opportunities identified to be developed in accordance with the publically notified Draft Master Plan (refer Appendix D) are:

- Maintenance cluster for regional and general aviation aircraft
- Airpark Precinct
- Aviation Business Precinct
- Non-aviation Business precinct
- Freight & aero-medical transfers

Fraser Coast Regional Council airport will soon be leasing land for aviation purposes at Maryborough and Hervey Bay Airports with 10+ year leases.

$4 million was earmarked for airport infrastructure by the former Maryborough City Council, however, since amalgamation the FCRC's focus has centred on the Hervey Bay Airport and Industrial Park.

Table 21 Maryborough aeronautical and charter activities

Other aeronautical activities (training, manufacturers, recreational)	Charter
Maryborough Aviation Services	Maryborough Aero Club
RAAF 38th Squadron	
Police Air Wing	

Source: Wide Bay Burnett Aviation Infrastructure Requirements Study, 2009

The further growth of Hervey Bay Airport is likely to negate any possibility of the re-establishment of regular passenger transport services at Maryborough Airport. However, there is an opportunity for Maryborough Airport to capitalise on the possible rationalisation and relocation of recreational general aviation as Hervey Bay Airport becomes busier with regular passenger transport and commercial aviation operations.

Potential strategy / action

38. Give due consideration to the progressive relocation of non commercial general aviation activity at Hervey Bay to Maryborough to increase the utilisation of Maryborough Airport and free up Hervey Bay Airport for further regular passenger transport services as passenger demand expands (Recommendation 7 of the Wide Bay Burnett Aviation Infrastructure Study).

9.4 Potential new regional airport

The Economic Development Strategy 2009-2013 seeks to retain Hervey Bay as the primary hub for regional air services. However, FCRC has identified the need to undertake planning for a new airport now, as the region's continued rapid growth is expected to necessitate a larger facility within 8 to 15 years. Both of the regular passenger transport airports in the Wide Bay Burnett Region, namely Bundaberg Airport and Hervey Bay Airport, are limited from expanding to accommodate aircraft beyond the B737 range, in the longer term, by adjacent land use restrictions. This, along with community and related legal planning and environmental issues could be considered the primary catalyst for the notion of a new major regional airport in Wide Bay Burnett.

Previous studies have identified that a new regional airport would be needed within the next 25 years, but that high demand and legal challenges to the expansion of existing airports could shorten this timeframe to 15 years.

The need for establishing a regional airport was noted in the WBB Regional Plan 2007-2026 which identifies the following action:

- Agree on objectives for establishing a regional airport, determine feasibility and timeframes of potential solutions and ensure development proposals do not restrict future options

The more recent Draft Wide Bay Burnett Regional Plan (2010) notes the following:

- Policy 8.2.4(6) Facilitate the further development of airport infrastructure in the region
- The future of the airports [Hervey Bay and Maryborough] should be investigated, and the potential impacts from development should be mitigated to ensure ongoing viability of both airport sites.

The WBB Aviation Requirements Study identifies a land area footprint of 1,000 to 2,000 hectares, as required to support any future regional airport, whilst reducing community and legal issues and providing greater commercial and industrial development opportunities. Given the cost of acquiring suitable freehold land for the airport, the availability of unallocated State land[1] was seen as an indicator of State Land that could be considered for the regional airport site. The evaluation of a suitable site will not preclude the possible identification and acquisition of freehold land that would be better suited both operationally and location wise. The 2031 Aviation Strategy identifies the Churchill Mines Road area as a pivotal land parcel that may be utilised for a variety of uses including as a potential regional airport site alongside preservation and conservation of the area's natural attributes.

Suitable sites could be shortlisted based on a set of evaluation factors as demonstrated in Table 22.

[1] Under the Land Act 1994 Section 6 Dictionary, "unallocated State land means all land that is not (a) freehold land or land contracted to be granted in fee simple by the State; or (b) a road or reserve including a national park, conservation park, state forest or timber reserve; or (c) subject to a lease, licence or permit issued by or for the State, other than a permit to occupy under the Land Act."

5 sites have been identified

The WBB Aviation Requirements Study makes the following key recommendations for aviation in the FCRC area:

- Recommendation 1: Initiate a formal process to consider the long term options for the planning and provision of appropriately staged aviation infrastructure to meet RPT air services requirements in the region including a potential new regional airport on a Greenfield site, replacement RPT airports in both Bundaberg Regional Council and Fraser Coast Regional Council areas and other pragmatic options.
- Recommendation 2: Preliminary work to identify suitable land of between 1,000 to 2,000 hectares that can readily accommodate aviation operations.

Potential strategy / action

39. Pursue the recommendations of the Wide Bay Burnett Aviation Requirements Study for aviation in the Fraser Coast Regional Council.
40. Any future planning into a proposed regional airport should include a Transport Impact Assessment addressing the impact on the local transport network, parking and access by public transport.

Table 22 Future regional airport proposed site evaluation factors

Evaluation Factor	Commentary
Land	Estimated between 1,000 to 2,000 hectares would be required; private or State land to be acquired; consider surrounding activities; upgrade/redevelopment potential to provide for long-term requirements
Topographical	Relatively flat or slightly undulating and be free from obstructions
Climatic Conditions	Runway orientation and potential level of closure due to adverse events
Facilities requirements	Utilities, runway design, maintenance levels, hangar and terminal requirements
Engineering and construction factors	Soil and foundation conditions, types of soil for foundations and drainage and clearing requirements
Expansion potential	Should a lesser planning approach to Code 3C be adopted, there should be potential of the site to eventually include catering for larger aircraft and landside extensions
Environmental considerations	Noise, air, water quality impacts. Floodplains and wetlands, endangered and threatened species, biotic communities, parklands and recreational areas, historic, architectural, archaeological and cultural resources, and prime and unique farmland
Planning conformity issues	Conformity to other regional and local long term planning and support of local and state government
Demand analysis	Including population forecasts
Transport Network Access	Close to dominant commercial centres and other transport connections
Economic and financial evaluation	Project financing

Source: Wide Bay Burnett Aviation Requirements Study, 2009

10. Boating and shipping

10.1 Background

The Port of Maryborough is a non-trading port that covers the Great Sandy Strait region from Hervey Bay to Tin Can Bay including the Mary River. The Port of Maryborough is currently gazetted as a Queensland Port and is administered by North Queensland Bulk Ports Corporation (www.nqbp.com.au)[2]. The Wide Bay Marine Infrastructure Study refers to the same area as the Port of Hervey Bay – including Urangan, Maryborough, Rainbow Beach and Tin Can Bay. For the purposes of consistency in the Fraser Coast Integrated Transport Study the port will be referred to as the Port of Hervey Bay (refer to Figure 25).

In 2008 GHD, for the Department of Tourism, Regional Development and Industry (DTRDI), completed the Wide Bay Marine Infrastructure Study. The study identified the provision of current marine infrastructure in the region and identified potential areas for the future development of further infrastructure to cater for demand in the region as required under Action Plan 4 of the Wide Bay Integrated Transport Plan 2002-2020. The study was prepared to inform planning of marine infrastructure by the Queensland Government, relevant Local Government Authorities (LGAs) and commercial boating development investors. The Wide Bay study area was split into catchment areas based on the former Local Government Area. There are two catchment areas within, or partially within the Fraser Coast Regional Council area:

- Snapper Creek Catchment – Cooloola LGA and Tiaro LGA
- Urangan and Mary River Catchment – Hervey Bay LGA, Maryborough LGA and Isis LGA

The Community Boating Programme Unit of the Department of Transport and Main Roads is responsible for the funding of recreational boating facilities and determining priorities throughout Queensland. In 2009, GHD, in conjunction with Economic Associates, was commissioned by TMR to undertake a Recreational Boating Facilities Demand Forecasting Project. This report will identify needs and priorities for recreational boating facilities across Queensland and is expected to be released in the first half of 2011.

Given the expected imminent completion of the Recreational Boating Facilities Demand Forecasting Project it was deemed inappropriate to conduct a simultaneous study into boating and shipping in Fraser Coast. Thus, the following section will reflect the findings of the Wide Bay Marine Infrastructure Study, the Fraser Coast Economic Profile and other available information.

[2] North Queensland Bulk Ports Corporation was formed as a result of the 2008 Queensland Government Review of the Queensland Port Network Structure. The outcomes of the review included the directive to divest certain ports under the management of Ports Corporation Queensland, with the remaining to merge with the Port of Mackay. On the 1 July 2009, the ports of Hay Point, Abbot Point, Weipa and Maryborough merged with Mackay to become part of the new port authority of North Queensland Bulk Ports Corporation Limited (NQBP). (Source: www.nqbp.com.au)

The outcomes and recommendations of the Recreational Boating Facilities Demand Forecasting Project will be integrated into the Fraser Coast Integrated Transport Plan upon completion, if the time frames coincide.

10.2 Recreational

Demand for recreational boating has been increasing throughout Queensland in response to population growth and high levels of participation in maritime recreational activities. This is exacerbating demand on recreational boating facilities, particularly in the more popular and populous locations.

Access to Fraser Island and the protected waters of the Great Sandy Strait Marine Park is a major draw card for residents and visitors to Fraser Coast. Subsequently there is a high demand for recreational boating facilities in the region.

Recreational boating in the FCRC area is primarily focussed on Hervey Bay and surrounding coastal communities with estuarine facilities along the Mary River. As at 31 December 2008 there were a total of 9,263 recreational vessels registered in the Fraser Coast, 66.9% in Hervey Bay, 27.5% in Maryborough. Over the last 4 years, recreational vessel registrations have grown at an average annual rate of 5.4% in Fraser Coast (Fraser Coast Economic Profile, 2009).

Boat ownership is the most significant demand driver for marine infrastructure. Historically, boat ownership has experienced consistently greater growth than population over an extended 20 year period. However, the Wide Bay Marine Infrastructure Study is based on a conservative growth rate assuming the current trend will decline from the current 6.1% to 1.4% over the planning period. The Study acknowledges that demand estimates may underestimate future demand and that demand aspects should be reviewed as part of future development applications.

The Urangan and Mary River Catchment is anticipated to remain the major centre for boat registrations with an average annual increase rate of 1.6% between 2006 and 2026.

Safe and equitable access to recreational boating requires the provision of a variety of infrastructure including:

- Boat ramps and associated trailer parking
- Marinas/harbours
- Moorings

The continual challenge is to maximise opportunities for recreational boating, within the constraints of the region's sensitive coastal and marine environments, and to minimise impact on the local communities within the vicinity of marine infrastructure.

10.2.1 Boat ramps

In 2008, the Urangan and Mary River Catchment (including the former Local Government Areas of Hervey Bay, Tiaro and Isis) contained 50% of all boat ramps within the Wide Bay Burnett Region (Wide Bay Marine Infrastructure Study, 2008). The existing boat ramps in FCRC area are listed in Table 23 and shown in Figure 25.

Analysis of boat registrations suggests that there is a strong demand for boat ramps in the Urangan and Mary River Catchment.

The Recreational Boating Facilities Demand Forecasting Project will identify the location of any new or upgraded boat ramps, jetties and pontoons required to meet demand. Proposed sites will need to be assessed for their impact on surrounding transport networks including increased trip generation on local roads and parking requirements.

The outcomes and recommendations of the Recreational Boating Facilities Demand Forecasting Project will be integrated into the Fraser Coast Integrated Transport Strategy upon completion, if available.

Potential strategy / action

41. Assess proposed new or upgraded boat ramps for their impact on the surrounding transport network (including trip generation and parking requirements).

Table 23 Boat ramps

Location		Location	
Tiaro	Petrie Park	Point Vernon	Gables
Maryborough	Mary River	Scarness	Scarness Foreshore
Granville	Raglan Street	Torquay	Torquay Foreshore
Granville	Aquatic Centre, Lamington Bridge	River Heads	North Ramp
Beaver Rock	Approx. 17km from Maryborough along Beaver Rock Road	River Heads	South Ramp
Yengarie	Pleasant View Road	Burrum Heads	Caravan Park
Tuan	Big Tuan Creek	Burrum Heads	Burrum Heads Road
Maaroom	Maaroom Creek	Burrum Heads	Ross Street
Boonooroo	Adjacent to Bates Street	Howard	Beelbi Creek
Poona	Owen Cox Street adjacent to the Caravan Park	Howard	Burrum Bridge
Maryborough	A public jetty is located on the Mary River adjacent to Wharf Street near the end of March Street.	Howard	Wals Camp
Point Vernon	Gatakers Bay	Toogoom	Moreton Street

Source: Fraser Coast Regional Council Website 2010

10.2.2 Marinas

Consultation for the Wide Bay Marine Infrastructure Study has indicated that although marina berth prices are rising, demand for marina berths continues to strengthen with berths being sold within days, and sometimes hours, of being listed. The Study estimates a demand for 768 wet berths by 2026, an increase of 323 berths from 2006.

There are currently four marinas in Fraser Coast:

- Fisherman's Wharf Marina, located within Urangan State Boat Harbour
- Great Sandy Strait Marina, located within Urangan State Boat Harbour
- Hervey Bay Boat Club Marina, located within Urangan State Boat Harbour
- Mary River Marina, located in the centre of Maryborough at Wharf Street

A number of proposals currently in the development assessment cycle include marina developments:

- The 'Brolga to Bridge' Concept Plan, which expands along the riverfront from the Brolga Theatre to Granville Bridge, Maryborough, proposes accessible industrial land for marine orientated industry and identifies potential locations for additional marina berths.

Table 24 Marinas – existing and proposed wet berths [1]

Marina	Existing Berths	Proposed New Berths	Total Berths
Hervey Bay	**405**	**235**	**1045**
Fisherman's Wharf Marina - Boat Harbour Drive, Urangan	136		136
Great Sandy Strait Marina - Buccaneer Drive, Urangan	179		179
Hervey Bay Boat Club Marina - Buccaneer Drive, Urangan	90		90
Urangan Boat Harbour Expansion [2]		235	640
Maryborough	**40**	**820**	**860**
Port of Maryborough Marine Industry Precinct		80	80
Mary River Marina – Wharf Street	40	180	220
Mary Harbour [3]		300	300
Foreshore Marina – Maryborough City Reach [4]		140	140
Susan River Marina		120	120
Fraser Coast	**445**	**1055**	**1905**

[1] Wide Bay Marine Infrastructure Study, 2008 – Urangan & Mary River Catchment

[2] Wide Bay Burnett Regional Infrastructure Profile, 2009 & Fraser Coast Economic Profile, 2009

[3] www.maryharbour.com.au

[4] Wide Bay Burnett Integrated Transport Plan Background Paper, 2007

- The Port of Maryborough Marine Industry Park is a 200 hectare development, including a 2.9 hectare marina, hardstand for dry storage and 2000m2 for marine related industrial activities.
- Mary Harbour is located north of Granville (across from Maryborough Airport) on land owned by Maryborough Sugar Factory Limited. Master plan proposals also include a village centre and residential components.
- The Foreshore Marina located at Maryborough City Reach.
- Susan River Marina.

Existing and proposed wet berth numbers for each marina are detailed in Table 24.

Considering the projected increase in boat registrations and demand for berths in the Wide Bay Burnett Region, it is fair to assume that a greater demand for marine related infrastructure, service, refit of vessels and maintenance facilities and associated slipways and other vessel haul-out facilities will occur.

The Wide Bay Marine Infrastructure Study estimates that there will be an approximate surplus of 257 wet berths by 2026 as shown in Table 25. It is important to note however, that it is not confirmed that all of these proposed berths will be constructed. At the time of writing, each of the proposed marinas were at various stages of the development approvals process, with some only at concept or design stage. The Wide Bay Marine Infrastructure Study recommends that land be allocated for such purposes adjacent to proposed marinas (as previously discussed) to accommodate potential growth.

The study also identifies the following sites for investigation to accommodate marine infrastructure:

- Land to the south of Urangan State Boat Harbour, along Pulgul Creek
- Areas of land in Boonooroo
- Burrum River
- Esplanade, Toogoom to Point Vernon
- Lot 54 River Heads
- Mary River

Potential strategy / action

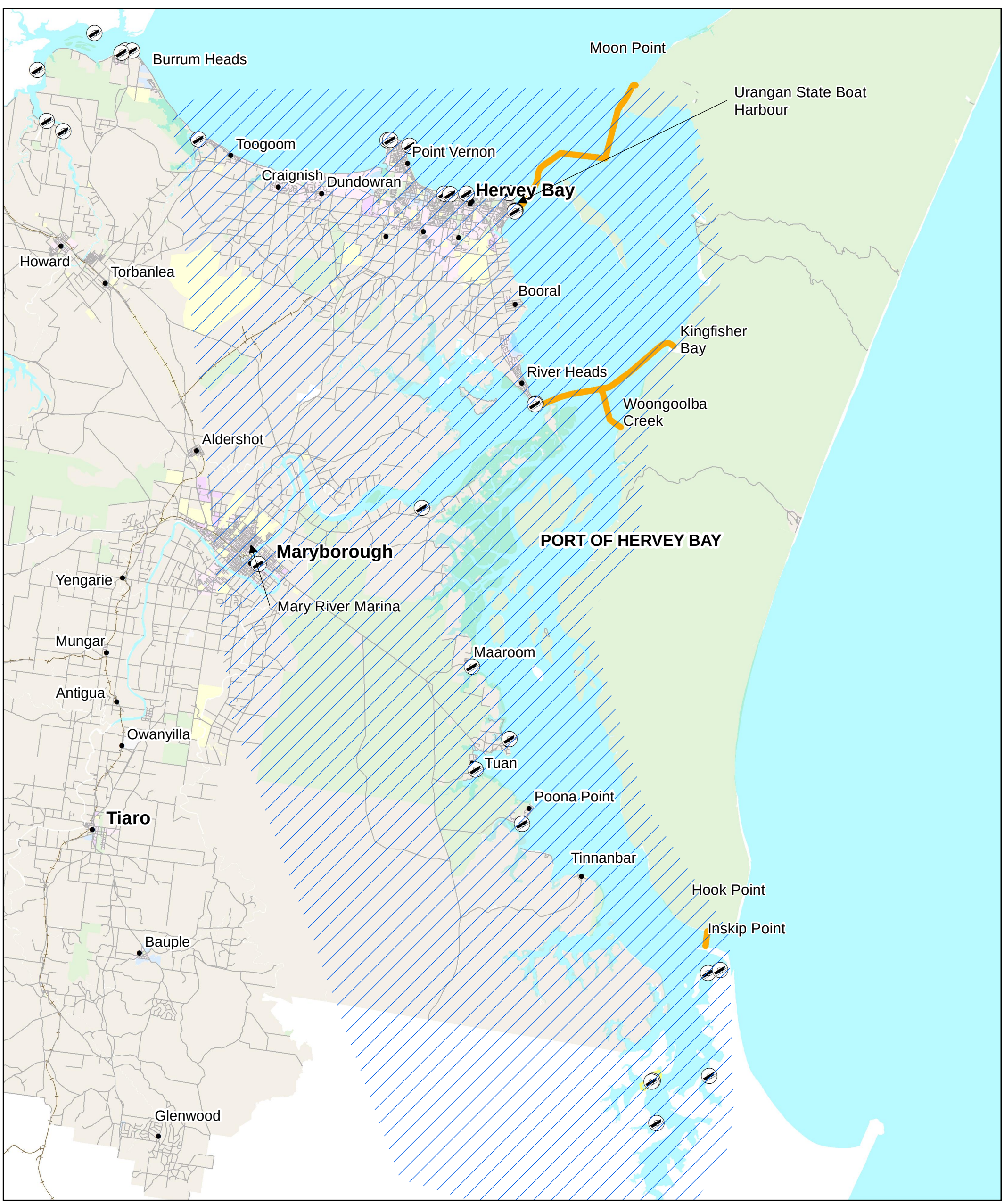
42. Proposed new or upgraded marinas will be assessed through the development application process for its impact on the surrounding road network. Special consideration must be given to the accommodation of vehicles towing trailers for parking, turning movements etc.

Table 25 Supply and demand for wet berths by catchment

Catchment	2006			2026		
	Existing Supply	Estimated Demand	Variation	Proposed Supply	Estimated Demand	Variation
Snapper Creek Catchment [1]	172	491	-319	482	601	-119
Urangan & Mary River Catchment	445	571	-126	1025	768	+257

[1] Partially in Fraser Coast Regional Council Area

Source: Wide Bay Marine Infrastructure Study, 2008



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Metres

Map Projection: Transverse Mercator
Horizontal Datum: Geocentric Datum of Australia (GDA)
Grid: Map Grid of Australia 1994, Zone 56

LEGEND

- Port_of_Hervey_Bay
- Boat Ramps & Jetties
- Vehicle and passenger barge routes

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Frase Coast Regional Council
Sustainable Growth Strategy - Integrated Transport Study

Job Number 41-22108
Revision B
Date 27 JAN 2011

Boating and Shipping Infrastructure

Figure 25

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Data source: FCRC (Boundary - 2009), DERM (Main Roads - 2005, Railways - year unknown), Geoscience Aust (Towns 2008), TMR Created by: M. Brooks. Modified by: S.Cross

10.2.3 Urangan State Boat Harbour

Urangan State Boat Harbour is a Crown Boat Harbour managed by TMR and is located east of Hervey Bay town centre in Urangan. The Harbour offers private, commercial (including fishing) and recreational boating facilities.

Urangan Harbour, the largest recreational boating facility in Queensland, is one of the major points of access to Fraser Island, the Great Sandy Strait and lower Great Barrier Reef via commercial barges, ferry services and recreational boats.

There are approximately 405 berths including Fisherman's Wharf Marina, Great Sandy Strait Marina and Hervey Bay Boat Club Marina. Commercial tour vessels dominate the fleet, specialising in whale watching, house boat hire in the Great Sandy Strait and transport to Fraser Island and the Great Barrier Reef. The Harbour is also serviced by two 4-lane boat ramps and associated car/trailer parking and boat building and repair infrastructure.

Commercial operations out of Urangan Harbour are discussed in Section 1.1.

In April 2006, the Queensland Government announced plans for a major redevelopment of Urangan State Boat Harbour. The redevelopment was to include (Fraser Coast Economic Profile, 2009):

- An expansion of the Harbour to the south of the breakwater to incorporate a 235 additional marina berths
- 200 new dry berths
- A major upgrade of Miller Street to create a boulevard entrance to Urangan State Boat Harbour
- A new tourist terminal utilising existing car park and caravan park lots
- Significantly enhanced public car parking including a 50% increase in trailer parking capacity and additional car parking
- Creation of a green corridor with walking / cycle tracks along Charlton Esplanade connecting the Harbour with the foreshores and Urangan Pier
- A boardwalk around the inner boat Harbour, connecting the new development with existing facilities, including the Hervey Bay boat club, boat ramps and car trailer parks

In 2008, a joint venture between Watpac and Seymour Group was appointed as the preferred developer for the Urangan Boat Harbour redevelopment project. However, further planning of the harbour expansion stalled in 2009 with the onset of the 'Global Financial Crisis'.

The Bundaberg Fraser Coast Tourism Opportunities Plan (2009-2019) anticipated that the Urangan State Boat Harbour expansion would provide an interim supply of wet and dry berths for the next five years and that a further expansion or new marinas would be required in Hervey Bay post 2014. However, with the possible oversupply predicted by the Wide Bay Marine Infrastructure Study by 2026, the provision of new wet berths should be reviewed periodically.

As the Bundaberg Fraser Coast Tourism Opportunities Plan was compiled prior to the onset of the 'Global Financial Crisis' the current demand for wet and dry berths at Hervey Bay is unknown. Discussions with FCRC officers suggest that it is unlikely that the redevelopment will continue at the previously proposed scale.

Potential strategy / action

43. Any future planning into the Urangan State Boat Harbour expansion should include a Transport Impact Assessment addressing the impact on the local transport network, parking and access by public transport, walking and cycling.

10.3 Commercial

The Port of Hervey Bay is presently a non-trading port with no strategic port land. It supports tourism, recreational and industrial activities.

A range of marine industry activities such as boat builders, chandlery, fibre-glassing and marine engine services support the Port. The Mary River provides a significant transport corridor to Maryborough. With good loading access available, there is an opportunity to ship cargo by barge to other eastern seaports (Cairns and Gladstone) or near northern regions.

Data for commercial boating activity was collated by Economic Associates for the Wide Bay Marine Infrastructure Study (refer Table 26) with data obtained from Marine Safety Queensland for the study area:

- The Port of Bundaberg (including the Town of 1770 and Bundaberg)
- The Port of Hervey Bay (including Urangan, Maryborough, Rainbow Beach and Tin Can Bay).

Commercial boat registrations fall under three main categories, these being:

- *Class 1 – Passenger* – Certified to carry more than 12 passengers (not including crew)

Table 26 Share of commercially registered vessels in the Wide Bay Burnett Region

Port	Share of Commercial Registrations	Estimated Commercial Boats (2007)
Port of Bundaberg		
Bundaberg	80%	166
Town of 1770	20%	42
Port of Hervey Bay		
Urangan	55%	160
Tin Can Bay	25%	73
Maryborough	12%	35
Rainbow Beach	8%	23

Source: Table 5.2 Wide Bay Marine Infrastructure Study, Appendix F, Economic Associates, 2007

- *Class 2 – Non-passenger* – Used for commercial purposes like trading, dredges and cargo ships. These boats are registered to carry 12 passengers or less (not including crew)
- *Class 3 – Fishing* – Fishing ships authorised or licensed for fishing purposes and are used or intended to be used for catching fish, whales, seals, walrus or other resources of the sea but excludes ships harvesting or transporting algae or aquatic plants, or that is primarily a carrier or a mother ship

Boat registrations by category indicate:

- The majority of commercial boats in the Study Area are non-passenger boats.
- An upward trend in the number of non-passenger boats and a decline in the number of fishing boats at the Port of Hervey Bay.
- The number of passenger boats in the Study Area has remained relatively stable over time, with an increase in the number of passenger boats registered at the Port of Bundaberg and a corresponding decline in the number of passenger boats at the Port of Hervey Bay.

10.3.1 Commercial tourist boats

Hervey Bay is the departure point for many commercial marine transport and tour operators to Fraser Island, Lady Musgrave Island, Great Sandy Strait Marine Park and the southern Great Barrier Reef.

Based on an independent consultant's report for Queensland Transport (Urangan State Boat Harbour – Economic Impacts on the Hervey Bay Region, June 2001), it was estimated 350,000 to 400,000 tourists passed through the passenger terminal at Urangan State Boat Harbour.

The majority of commercial tour boats operate out of Urangan State Boat Harbour providing whale watching, diving and pleasure cruising services. Whale watching numbers have averaged around 70,000 people for the past 5 years, about 65,000 from Urangan State Boat Harbour and about 5,000 from Kingfisher Bay Resort.

The increase in the number of passenger boats registered at the Port of Bundaberg and a corresponding decline in the number of passenger boats at the Port of Hervey Bay may indicate a shift in the tourist market accessing the southern Great Barrier Reef away from Hervey Bay.

The majority of commercial tourist boat passengers access Urangan State Boat Harbour via private vehicle. Public Bus Route 5 and Route 16 service Buccaneer Drive via tourist accommodation along the Esplanade. Route 17 and Route 18 stop on the corner of Miller Street and Pulgul Street, approximately 600m walking distance from Buccaneer Drive. However, as noted in Section 6 the public bus network is infrequent, especially on the weekends, and it does not provide convenient routing patterns and therefore does not provide an attractive alternative to the private vehicle.

Should tourism numbers increase as expected there will be a corresponding demand for car parking which will be addressed through the redevelopment of Urangan State Boat Harbour discussed in Section 10.2.3. Fraser Coast Regional Council and tourism operators should prepare a plan and engage *qconnect* for improved public transport connections to Urangan Boat Harbour to decrease the demand for car parking.

Proposed strategy / action

44. Public transport connections to Urangan State Boat Harbour should be improved to improve connections for those without access to a private vehicle and decrease the demand for parking.

10.3.2 Vehicle barges and passenger ferry to Fraser Island

Vehicle barge services are focused on transporting tourists to and from Fraser Island. Barge services operate regularly each day from Urangan State Boat Harbour, River Heads and Inskip Point (Rainbow Beach) as shown in Table 27, as at 2008. Vehicle barges are operated by Fraser Island Barges and Ferry (a Kingfisher Bay Resort Group company). Vehicle ferry services operate year round, although service frequencies increase during peak tourist season. Over 50,000 vehicles per annum in total are carried on the four separate ferry services – 18,000 to 20,000 of which depart from Inskip Point.

The vehicle barge departs from the break wall bounding Urangan State Boat Harbour. There is sufficient distance along the break wall to accommodate vehicles waiting to board the vessel.

The River Heads departure point is located on the far southern tip of North Esplanade and South Esplanade. The departure point is accessed via River Heads Road and Booral Road. There is no through traffic that would be affected by vehicular queuing in this location, however, access could be impeded to the public boat ramp or second ferry terminal.

The Kingfisher Bay Ferry also has capacity for 220 passengers on two decks with a fully licensed bar and snack food available. Secure parking facilities are available at River Heads.

Table 27 Vehicle barge services to Fraser Island

Operator	Mainland		Fraser Island	Boat Name	Frequency
Fraser Island Barges	Hervey Bay	Urangan State Boat Harbour	Moon Point	Fraser Dawn Barge	1 barge – 2 times per day (not a scheduled service)
Kingfisher Bay Resort	Hervey Bay	River Heads Road, River Heads	Kingfisher Bay Resort	Kingfisher Bay Ferry	1 barge – 6 times per day (scheduled service)
Fraser Island Barges	Hervey Bay	River Heads Road, River Heads	Woongoolba Creek	Fraser Venture Barge	1 barge – 3 times per day(schedule d service)
Fraser Island Barges	Rainbow Beach	Inskip Point	Hook Point	Rainbow Venture & Fraser Explorer Barges	2 barges operate daily, continuously on demand dawn to dusk
Manta Ray Fraser Island Barges	Rainbow Beach	Inksip Point	Hook Point	Manta Ray	2 barges operate daily (continuously on demand dawn to dusk)

Source: Fraser Island Barges Website (21 Dec 2010), Manta Ray Fraser Island Barges Website (21 Dec 2010)

The vehicular capacity and passenger patronage of Fraser Island Barges and Kingfisher Bay Ferry, utilisation rates, and future planning for Fraser Island Barges and Ferry was not available at the time of publication in the interest of Commercial in Confidence.

Potential strategy / action

45. Future operational planning of Fraser Island Barges and Kingfisher Bay Ferry should consider the local transport network implications of any increase in barge frequency or capacity including queuing and parking needs.

10.3.3 Local ferry services

Burrum Heads to Walkers Point

In November 2001, Aurecon (formerly Connell Wagner) completed the Preliminary Report of the Feasibility of Operating a Vehicular Ferry Service between Burrum Heads and Walkers Point for the former Hervey Bay City Council and Isis Shire Council. This report was not adopted by Council.

The potential ferry service has been a topical issue over the last ten years. However, further significant coastal development is not proposed for Burrum Heads and therefore it is unlikely that a regular ferry service could be sustained.

Also, the service would have to overcome significant legislative hurdles: The Burrum River is designated as Fish Habitat under the Fisheries Act and it is unlikely that the State Government would permit dredging of the Burrum River in the event of a siltation build up.

Toogoom to Hervey Bay

The Good Things Come in Small Communities (2010) consultation identified that the Burrum community has expressed a desire to create a water taxi linking Toogoom and Hervey Bay. It is unlikely there would be a high demand for this service from permanent residents or tourists to sustain a service in this location.

11. Travel demand management

11.1 Introduction

Sustainable travel hinges on providing sufficient options for alternate travel to encourage behavioural change. The previous chapters have considered transport policies that provide improved public transport services and better infrastructure and facilities for pedestrians and cyclists.

This section discusses travel demand management techniques, including promotion of alternative modes, behaviour change policies and parking policies, to encourage residents to choose more sustainable transport options.

However, without sufficient funding for adequate, appropriate infrastructure travel demand management will be ineffective.

The Draft WBB Regional Plan (2010) states the following in support of travel demand management:

- Policy 8.1.3(2) "Implement demand management processes designed to modify consumer behaviour, maximise efficiencies for infrastructure providers and support the transition to a carbon constrained and climate changed future."
- Program 8.2.2(13) "Implement demand management strategies that encourage changes in travel behaviour in favour of public transport and active transport as alternatives to private vehicle travel."

11.2 Awareness and promotion

As discussed in Section 6, there is a lack of easily accessible information on sustainable transport options in the Fraser Coast. This applies not only to public and community transport, but also to options for walking, cycling and mobility scooters.

Effective marketing programs can significantly increase the use of alternative modes and can include activities to:

- Improve knowledge of alternative modes
- Improve the image and acceptance of alternative modes
- Provide easy to understand information and recognisable branding
- Better meet travellers' needs and preferences

Methods to improve awareness of sustainable transport options are discussed in Section 11.2.

11.3 Behaviour change programmes

Policies to improve infrastructure and services are known as 'hard' transport policy measures. There is growing awareness about the need for 'soft' transport policy measures which seek to encourage the use of more sustainable transport modes by providing better information and opportunities and improving the attractiveness of public transport, walking and cycling. These policy measures are also referred to as behaviour change programmes and examples are summarised in Table 28.

TravelSmart Australia is an example of a behaviour change initiative that is currently being implemented around Australia. This program aims to increase the mode share of sustainable transport within the nominated TravelSmart area and achieve a 10% reduction in vehicle kilometres travelled (Queensland Government 2010).

Organised community events such as Bike Week, Ride to School Day, Walk to Work Day and National Ride to Work Day are scheduled at various times of the year to provide an opportunity for people to try sustainable transport modes and encourage behaviour change. TravelSmart works in partnership with Queensland schools and workplaces to become involved in these events to support voluntary change. During 2003, TravelSmart undertook a project in Townsville which resulted in a 26% increase in walking, a 15% increase in cycling and a 13% increase in public transport use (Queensland Government, www.travelsmart.qld.gov.au). Current projects are being implemented at Brisbane South, Gold Coast and the Sunshine Coast. The projects provide information of localised public transport, cycling, walking and carpooling, thus enabling residents to make as many trips as possible using these more sustainable travel modes.

Fraser Coast Regional Council should encourage local participation in these initiatives through promotion of community events. Behaviour change in the area could be further enhanced by council providing information to residents on the local transport options available.

Travel behaviour change programs can also address commercial traffic. The WBB ITP Background Paper (2007) indicates that in the region, there is evidence of commuter vehicles and school buses conflicting with road freight transporters. On Kalpowar and Maryborough-Cooloola Roads "transporters of road freight have agreed to a curfew at school bus times effectively minimising the risk to the safety of school children and driver".

Table 28 Examples of behaviour change programmes

Measure	Description
Public Transport Information and Marketing	Targeted marketing in association with service improvements. Branding to improve the image of public transport and give confidence that different bus services are part of a co-ordinated network.
Travel Awareness Campaigns	Aims to improve general public understanding of the problems caused by traffic growth and to encourage people to think about their own travel behaviour.
School Travel Plans	Aims to cut congestion caused by the school run. May include walking and cycling promotion days, car pooling, and training and 'walking buses' or 'cycle trains'.
Workplace Travel Plans	May include a single or cluster of businesses, individual staff travel planning, end of trip facilities, car parking restrictions or publicity.
Personalised Travel Plans	A targeted marketing technique to provide travel advice and information to people based on an understanding of their personal trip patterns. Incentives may include periodic free public transport and bike loans.
Car Share Schemes	May be formal or informal. Formal schemes will match people who register making the same trip. Mainly targeted at the daily commute.
Financial Incentives	Including travel allowances, employee cash reimbursements in lieu of subsidised parking, and travel reimbursement policies for bicycle and transit mileage.

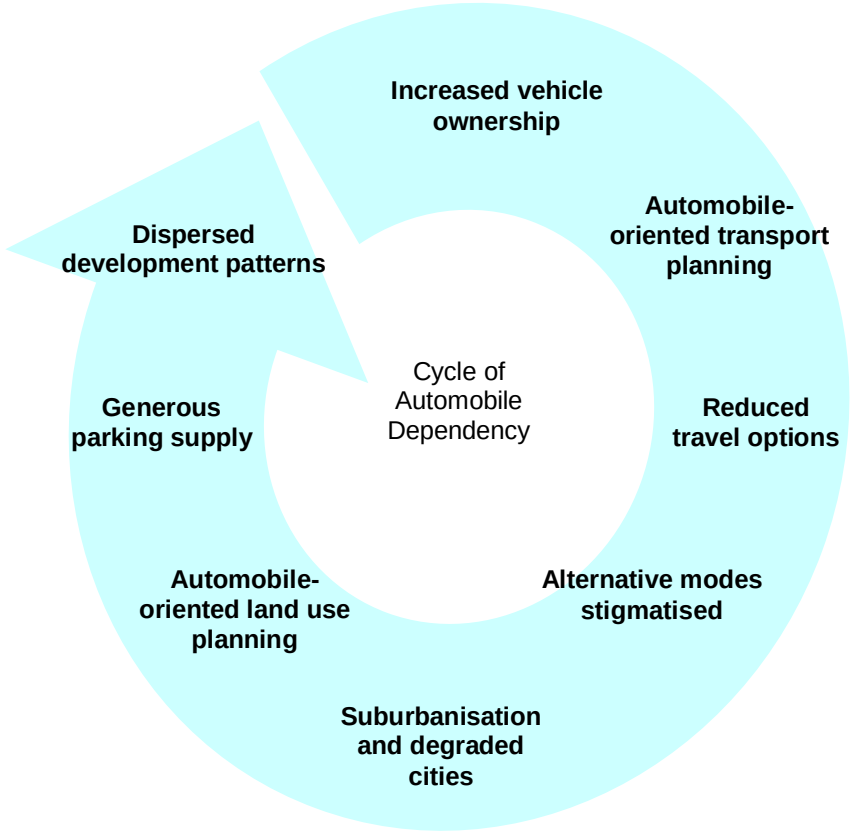
Source: www.dft.gov.uk and Win-Win Transportation Solutions, VTPI, 2008

The background paper also indicates that safe and environmentally responsible movement of vehicles on the beach is a priority for the government and this should also be a priority for the FCRC.

Potential strategy / action

46. Develop a program to lobby State and Federal Government to prioritise the Fraser Coast region for transport and infrastructure funding.
47. Engage the Department of Transport and Main Roads to implement TravelSmart programmes in the Fraser Coast Regional Council area.
48. Investigate the potential to implement programmes of school, workplace and personalised travel plans in the Fraser Coast Regional Council area.
49. Promote all sustainable transport options on the Fraser Coast Regional Council website.
50. Investigate the potential to implement curfews on road freight at school bus times on appropriate Fraser Coast Regional Council roads.

Figure 26 Cycle of automobile dependency



Source: Win-Win Transportation Solutions, VTPI, 2008

11.4 Sustainable urban design

Land use and density distributions play a critical role in influencing transport mode choice. People are more likely to walk and cycle in higher density, mixed use environments that reduce the distance needed to travel to access goods and services. Similarly, viable and cost-effective public transport infrastructure relies on land use patterns that provide for flexible routing and maximum exposure to residential catchments. This interrelationship between land use patterns and travel mode choice is summarised in Figure 26.

Queensland Government's Shaping Up guide recommends that new residential areas should have residential densities of at least 15 dwellings per hectare to support effective public transport services. The guide emphasises that the location of various land uses strongly influences both travel demand and the efficiency of public transport services. Additionally, the utilisation of public transport can be encouraged by ensuring that compact clusters of high-density land uses are positioned along local arterial roads, where the land uses incorporate key business and activity nodes, as well as public transport interchanges.

The Hervey Bay road network can be defined by a major link that runs east to west (Boat Harbour Drive), with north-south connectors that distribute traffic to/from the local street catchments located north and south of Boat Harbour Drive. These catchments are generally low-density housing developments, with local streets that generally have low connectivity. The lack of both north-south and east-west connectivity discourages the use of active transport modes and inhibits route choice for both public transport and private vehicles. The majority of local streets in Maryborough form a grid pattern and provide better connectivity, which is more conducive to walking and cycling.

Future land use layouts in the Fraser Coast Regional Council area should support strategic transport outcomes by providing connected, legible and flexible street networks. Road corridor width specifications should be suitable for passenger transport and multi-modal infrastructure. New road corridors and extensions should aim to provide a continuous road network by connecting urban areas and dead-ends where possible. This may be through the provision of a dedicated road-way, bus-only way or a pedestrian / cycle mid-block link.

The WBB ITP Discussion Paper (2007) indicates that residential development should not be allowed to occur in areas where transport services and infrastructure can not be efficiently provided and/ or utilised. Further to this, future transport corridors should be protected from encroachment by development by declaration of the corridors in planning schemes. Notwithstanding this, sustainable transport options should be improved to existing outlying areas.

Transport implications of new development are considered at the development assessment stage. TMR is a concurrence agency under the IPA which enables them to impose conditions on development applications to ensure that public transport interests are considered within development proposals. They work closely with local governments to ensure that sustainable transport interests are properly reflected in local government planning instruments and addressed in the development assessment process. Queensland Government's Shaping Up guide recommends that "Greenfield" public transport policies ensure that the provision of public transport services is made early in newly developing areas.

It should be a requirement of all major developments to provide a transport impact assessment to support the development application, so that council can fully assess the development's impact on the safety and efficiency of the surrounding transport network. These assessments should include identification of the infrastructure / services that will be provided as part of the development and should consider public transport, walking and cycling needs. Developers should be encouraged to invest in multi-modal facilities, such as walking, cycling and mobility scooter paths in all developments, where feasible.

The impacts of industrial development on the transport network should also be carefully considered. Assessment of options into other modal choices, like sea and rail, should be undertaken, in particular where hazardous materials are being transported. Where industrial developments do generate additional demand on the road network, assessment of pavement impacts, bridges, traffic efficiency and road safety should all be undertaken.

Potential strategy / action

51. Investigate and construct through routes and mid-block connections to create a more connected street and public transport network.
52. Investigate and construct mid-block pedestrian, mobility scooter and cycle connections.
53. Require that all major developments provide a Transport Impact Assessment to support development applications that enhance active travel and public transport usage.
54. Protect future public transport corridors in the planning scheme.

11.5 Parking

Transport in the Fraser Coast is largely car dominant and is expected to remain so into the future. Population growth means that there will be an increase in the number of private vehicles on the road and subsequent increase in demand for car parking for residential, commercial and recreational purposes.

Car parking and bicycle parking requirements are stipulated in both the Maryborough City Plan and the Hervey Bay City Planning Scheme to ensure that parking provided for new developments is sufficient to meet the needs of that land use. Parking requirements include the need to accommodate service vehicles and disability spaces. Both current planning schemes also include policies for the provision of cash contributions in lieu of on-site car parking. In Maryborough, developer contributions are required in the City Centre only at a fixed contribution per parking space. Maryborough Planning Scheme Policy No. 6 – City Centre Local Area Carparking does not stipulate where public car parks will be developed.

Hervey Bay City Planning Scheme Policy No. 6 – Car Parking applies to six defined districts – Scarness, Torquay, Urangan, Pialba, Pialba Frame, and Urangan Frame. The policy noted that a strategy plan for the establishment of public parking premises would be developed. The strategy would aim to achieve in the long term, a spread of public car parks throughout the precinct. Subsequently, the Hervey Bay Commercial Nodes – Parking Concept Report was developed in December 2008 by Lambert and Rehbein. The report was never adopted, however, proposed the following strategies:

- Graduated time limits

- Improved mid-block connectivity to encourage parking away from the Esplanade
- Formalised on-street parking
- New off-street parking areas

The Bundaberg and Fraser Coast Tourism Opportunity Plan encourages the development of major parking stations adjacent to, but off prime waterfront land linked by mid-block connections.

Parking management strategies have the potential to encourage travel behaviour change to more sustainable modes, thus reducing amount of land required for car parking spaces.

A selection of potential parking management strategies are summarised in Table 29.

Potential strategy / action

55. Develop a consistent parking strategy for the whole of the Fraser Coast Regional Council area.

Table 29 Potential parking management strategies

Strategy	Description	Strategy	Description
Shared Parking	Parking spaces serve multiple users and destinations	Unbundle Parking	Rent or sell parking facilities separately from building space
Parking Regulations	Regulations to prioritize use of the most desirable parking spaces	Address Spillover Problems	Use management, enforcement and pricing to address spillover problems
Maximums Standards	Establish maximum parking standards	Bicycle Facilities	Provide bicycle storage and changing facilities
More Accurate and Flexible Standards	Adjust parking standards to more accurately reflect demand in a particular situation	Improve User Information	Provide convenient and accurate information on parking availability and price
Overflow Parking	Establish plans to manage occasional peak parking demands	Improve Enforcement	Insure that parking enforcement is efficient, considerate and fair
Smart Growth	Encourage more compact, mixed, multi-modal development to allow more parking sharing and use of alternative modes	Walking and Cycling Improvements	Improve walking and cycling conditions to expand the range of destinations serviced by a parking facility
Improve Pricing Methods	Use better charging techniques to make pricing more convenient and cost effective	Financial Incentives	Provide financial incentives to shift mode, such as parking cash out

Source: Parking Management, Victoria Transport Planning Institute, 2007

12. Potential strategies / actions

The Fraser Coast Integrated Transport Study is the background paper to inform the Fraser Coast 2031: Integrated Transport Plan, an element of the Fraser Coast 2031: Sustainable Growth Strategy. The Study gains an understanding of the existing transport network situation, identifies gaps within the transport network and recommends potential strategies / actions to ensure the transport network will support the Sustainable Growth Strategy to 2031.

The Integrated Transport Plan is being developed in collaboration with:

- Land use, population and employment distribution from Fraser Coast 2031: Sustainable Growth Strategy (Fraser Coast Regional Council)
- The Wide Bay Burnett Regional Plan (Department of Infrastructure and Planning)
- The Wide Bay Burnett Integrated Regional Transport Plan (Department of Infrastructure and Planning)
- The Fraser Coast Walk and Cycle Strategy (Fraser Coast Regional Council)
- Area Transport Strategy for Hervey Bay (Department of Transport and Main Roads)

A list of potential transport strategies / actions to inform the Fraser Coast 2031: Sustainable Growth Strategy is provided below. Once the future land use settlement pattern is agreed, these potential strategies will be tested for validity in supporting it and the Fraser Coast Integrated Transport Plan developed.

Road network

1. Adopt a consistent road hierarchy for the whole of the Fraser Coast Regional Council area which is consistent with the whole of Queensland.
2. Identify road safety hotspots and investigate mitigation measures.
3. Progress proposed new road links.
4. Progress proposed road upgrades and intersection works noted in Planning Scheme Policy No. 4 in association with available funding sources and development.
5. Investigate the implications of the poor flood immunity of Booral Road on the road network.
6. Investigate the need for and implications of the Boundary Road extension to the Esplanade.
7. Investigate the alignment of the new Kawangun Distributor and Doolong South Road upgrades to reduce the number of right-angled turns.
8. Expand Planning Scheme Policy No. 4 throughout the Fraser Coast region to identify future road infrastructure requirements and development

Road network

contributions.

9. Investigate the need for and potential route alignments for the proposed Northern and Eastern Maryborough Bypasses.
10. Investigate locations for an alternative river crossing (possibly to the north of Granville).

Public transport network

11. Liaise with the Department of Transport and Main Roads to undertake a detailed bus network planning exercise to support Fraser Coast 2031 and cater to existing demand. Consider bus network scheduling and operations, possibly utilising HASTUS or similar software. Audit existing routes, facilities, and route and frequency optimisation. The study should also address the coordination between standard bus servicing patterns, flexible transport and community transport options.
12. Increase existing bus timetables to 6pm to encourage commuter use.
13. Increase awareness of the existing and any future bus network. Initiatives could include transport expos, a journey planner available on the Fraser Coast Regional Council website, promotion of public transport options to Council run activities, branding all services and facilities consistently.

Public transport network

14. Encourage more people to travel by bus by implementing travel demand management measures.
15. Liaise with the Department of Transport and Main Roads to ensure that all new fleet vehicles are disability compliant.
16. Continue to roll out disability compliant infrastructure in accordance with the Disability Standards for Public Transport 2002.
17. Liaise with the Department of Transport and Main Roads to conduct an assessment of the Hervey Bay Transit Centre to identify existing and future upgrade needs to be implemented with Stage 2 of the Pialba Centro Shopping Centre development.
18. Investigate opportunities to extend regular bus services to include Maryborough West Railway Station to connect to some of the rail services and provide feeder services to Maryborough CBD.
19. Request that Queensland Rail and the Department of Transport and Main Roads upgrade the Maryborough West Railway Station to improve passenger facilities and provide better interchange between modes.
20. Investigate locations to provide easily located secure taxi ranks.
21. Ensure greater awareness of taxi services

Public transport network

by providing information on Council's website and at shopping and community centres.

22. Engage with the Department of Transport and Main Roads and taxi operators to investigate appropriate programs to enhance the taxi service to all population centres in the Fraser Coast Regional Council area.
23. Engage with the Department of Transport and Main Roads and key stakeholders to investigate the potential for flexible transport services as part of the scheduled urban public transport network.
24. Support the implementation of transport actions detailed in Positively Ageless – Queensland Seniors Strategy 2010-20 such as community transport, specific road safety campaigns, and providing information and advice on the safe use of mobility scooters.
25. Liaise with the Department of Transport and Main Roads and key stakeholders to provide an accessible directory of community transport services in the Fraser Coast Regional Council area.
26. Investigate the potential to better integrate and utilise existing community transport services and vehicles including for non Home and Community Care (HACC) eligible

Public transport network

residents.

27. Investigate particularly the provision of transport for discharged patients from hospital.

Active transport network

28. Implement the Action Plan of the Fraser Coast Walk and Cycle Strategy

Freight network

29. Review the appropriateness of existing B-double routes throughout Fraser Coast including conflict with residential areas and access to emerging industrial estates.
30. Consider the use of freight rail for freight movements to emerging industrial estates.
31. Request the Department of Transport and Main Roads to upgrade the rail network to accommodate heavy freight traffic and potential rolling mining stock.
32. Protect the rail corridor to the Downer EDI/Bombardier Transportation rail stock yards.
33. Consider disused rail corridors for recreational active transport use.

Airports

34. Improve public transport connections to Hervey Bay Airport to improve connections for those without access to a private vehicle and decrease the demand for parking.
35. Implement the outcomes and recommendations of the Fraser Coast Regional Council 2031 Aviation Strategy.
36. Request an investigation for the expansion of air services into Victoria / Melbourne and possible northern ports of Queensland.
37. Any future planning into the Hervey Bay Airport expansion should include a Transport Impact Assessment addressing the impact on the local transport network, parking and access by public transport.
38. Give due consideration to the progressive relocation of non commercial general aviation activity at Hervey Bay to Maryborough to increase the utilisation of Maryborough Airport and free up Hervey Bay Airport for further regular passenger transport services as passenger demand expands (Recommendation 7 of the Wide Bay Burnett Aviation Infrastructure Study).
39. Pursue the recommendations of the Wide Bay Burnett Aviation Requirements Study for aviation in the Fraser Coast Regional Council.
40. Any future planning into a proposed regional

Airports

airport should include a Transport Impact Assessment addressing the impact on the local transport network, parking and access by public transport.

Boating and shipping

41. Assess proposed new or upgraded boat ramps for their impact on the surrounding transport network (including trip generation and parking requirements)
42. Proposed new or upgraded marinas will be assessed through the development application process for its impact on the surrounding road network. Special consideration must be given to the accommodation of vehicles towing trailers for parking, turning movements etc.
43. Any future planning into the Urangan State Boat Harbour expansion should include a Transport Impact Assessment addressing the impact on the local transport network, parking and access by public transport, walking and cycling.
44. Public transport connections to Urangan State Boat Harbour should be improved to improve connections for those without access to a private vehicle and decrease the demand for parking.
45. Future operational planning of Fraser Island

Boating and shipping

Barges and Kingfisher Bay Ferry should consider the local transport network implications of any increase in barge frequency or capacity including queuing and parking needs.

Travel demand management

46. Develop a program to lobby State and Federal Government to prioritise the Fraser Coast region for transport and infrastructure funding.
47. Engage the Department of Transport and Main Roads to implement TravelSmart programmes in the Fraser Coast Regional Council area.
48. Investigate the potential to implement programmes of school, workplace and personalised travel plans in the Fraser Coast Regional Council area.
49. Promote all sustainable transport options on the Fraser Coast Regional Council website.
50. Investigate the potential to implement curfews on road freight at school bus times on appropriate Fraser Coast Regional Council roads.
51. Investigate and construct through routes and mid-block connections to create a more connected street and public transport network.
52. Investigate and construct mid-block pedestrian, mobility scooter and cycle connections.
53. Require that all major developments provide a Transport Impact Assessment to support development applications that enhance active travel and public transport usage.
54. Protect future public transport corridors in the planning scheme.
55. Develop a consistent parking strategy for the whole of the Fraser Coast Regional Council area.

13. Bibliography

- ABS Key Demographic Indicators, Australian Bureau of Statistics, 2006
- Annual Progress Report Blueprint for the Bush, Queensland Government, 2008
- Blueprint for the Bush, Annual Progress Report 2008, Queensland Government, 2008
- Bundaberg – Fraser Coast Tourism Opportunity Plan 2009-2019, Tourism Queensland, 2009
- Change Driver Report 2008-2009, Department of Education, Training and the Arts, 2008
- Churchill Investigation Area Preliminary Land Use Opportunities and Constraints Study (DRAFT) (CONFIDENTIAL), GHD for Department of Employment, Economic Development and Innovation, 2010
- Community Based Transport Toolbox, Helen Ferrier & Associates Pty Ltd for Local Government Association of Queensland, 2006
- Destination Management Plan for Tourism in the Fraser Coast 2007-2010, Tourism Queensland, 2007
- Domestic Capacity into Fraser Coast Airports – December 2009, Tourism Queensland 2009
- Doolong Flats / Ghost Hill and Kawungan North East (Main Street) Structure Plan, Fraser Coast Regional Council, 2010
- Fact Sheet Boat Ramps, Fraser Coast Regional Council (from website)
- Fraser Coast – Bundaberg Regional Tourism Investment and Infrastructure Plan, Tourism Queensland, 2007
- Fraser Coast Community Services Directory, Fraser Coast Regional Council, 2009
- Fraser Coast Regional Council 2031 Aviation Strategy, Fraser Coast Regional Council, 2010
- Fraser Coast Regional Council Corporate Plan 2009-2013, Fraser Coast Regional Council, 2009
- Fraser Coast Regional Council Economic Development Strategy 2009-2013, Fraser Coast Regional Council, 2009
- Fraser Coast Regional Council Walk and Cycle Strategy (draft), Fraser Coast Regional Council, October 2010
- Fraser Coast Regional Snapshot, Tourism Queensland, 2009
- Fraser Coast Regional Sport, Recreation and Open Space Strategy 2006-2025 Strategy and Action Plan, Tredwell Management Services, Tredwell Management, 2006
- Granville and Maryborough North Further Investigation Areas Strategic Planning Review and Structure Plan Concepts, Humphrey Reynolds Perkins Planning Consultants for Fraser Coast Regional Council, 2009
- Hervey Bay Airport Flights & Schedules, Fraser Coast Regional Council, 2009
- Hervey Bay Area Transport Strategy (draft working), GHD for the Department of Transport and Main Roads, 2010
- Hervey Bay City Council Access and Equity Plan, Hervey Bay City Council, 2007.
- Hervey Bay Commercial Nodes – Parking Concept Report for Stages 1, 2 and 3 (DRAFT), Lambert & Rehbein, 2008
- Hervey Bay Facts & Figures, Hervey Bay City Council, 2007
- Hervey Bay Living Streets Strategy Walk and Cycle Plan, Eppell Olsen & Partners, 2003
- Hervey Bay City Planning Scheme, Hervey Bay City Council, 2006
- Hervey Bay Road Hierarchy, Eppell Olsen & Partners, 2000

- Hervey Bay Road Network Study Amended Final Report, Arup 2001
- Home and Community Care Queensland Triennial Plan 2008-2011, Disability Services Queensland, 2008
- Integrated Transport Planning Framework, Queensland Government, September 2003
- Making Smarter Choices Work, Department of Transport (UK), 2004
- Maryborough Brolga to Bridge Concept Plan, Architectus 2007
- Maryborough CBD Traffic Study, Cardno Eppell Olsen, 2007
- Maryborough City Plan, Maryborough City Council, December 2010
- Maryborough Facts & Figures, Fraser Coast Regional Council, 2008
- Maryborough Northern and Eastern Bypass – Possible Route Alignment, Department of Main Roads, 1997
- Maryborough System Information Pack, Queensland Rail, 2003
- Multi-Combination Routes in Queensland, Queensland Government, 2009
- North Coast Line System South Information Pack, Queensland Rail, 2007
- Our Fraser Coast, Fraser Coast Regional Council, 2010
- Population projections for the Fraser Coast Regional Council Sustainable Growth Strategy (working), Buckly Vann, 2010
- Positively Ageless – Queensland Seniors Strategy 2010-20, Queensland Government, December 2010
- Public Transport Patronage Information for Fraser Coast, Department of Transport and Main Roads, 2009
- Queensland Coastal Plan (draft), Queensland Government, 2009
- Regional Infrastructure Profile 2009 - Wide Bay Burnett Region, Department of Infrastructure and Planning, 2009
- Response to Granville and Maryborough North Further Investigation Areas, Holland Traffic Consulting Pty Ltd, 2009
- Roads Implementation Program 2008-09 to 2012-13, Department of Main Roads, 2008
- Roads Implementation Program 2009-10 to 2013-14, Department of Transport and Main Roads, 2009
- Shaping Up Second Edition, Queensland Transport
- Submission to the Draft Wide Bay Burnett Regional Plan 2010, Fraser Coast Regional Council, 24 December 2010
- Tiaro Shire Council Planning Scheme, Tiaro Shire Council, November 2010
- Wide Bay Burnett Aviation Industry Investment and Re Investment Action Plan, Regional Breakthroughs 2006
- Wide Bay Burnett Aviation Infrastructure Requirement Study Final Report., Aurecon for Department of Employment, Industry Development and Innovation, 2009
- Wide Bay Burnett Integrated Transport Plan Background Paper, Queensland Government Queensland Transport, 2007
- Wide Bay Burnett Integrated Transport Plan Discussion Paper, Queensland Government Queensland Transport, 2007
- Wide Bay Burnett Public Transport Overview Powerpoint, Department of Transport and Main Roads, 2010
- Wide Bay Burnett Regional Plan (draft), Growth Management Queensland, October 2010
- Wide Bay Burnett Regional Plan 2007-2026, Department of Local Government, Planning, Sport and Recreation, 2007
- Wide Bay Burnett Road Facts, Department of Transport and Main Roads, 2009
- Wide Bay Burnett Strategic Modelling Study Workshop Report, Queensland Transport, 2008,
- Wide Bay Integrated Transport Plan 2002-2020, Queensland Transport, 2002

- Wide Bay Marine Infrastructure Study, GHD for Department of Tourism, Regional Development and Industry, 2007
- Win-Win Transportation Solutions, Victoria Transport Policy Institute (Canada), 2008
- Woocoo Shire Planning Scheme, Woocoo Shire Council, June 2010

Websites

- Blueprint for the Bush, viewed 5 May 2010, http://www.regions.qld.gov.au/dsdweb/v4/apps/web/content.cfm?id=13343
- Department of Transport and Main Roads, www.tmr.qld.gov.au
- Fraser Coast Regional Council, www.frasercoast.qld.gov.au
- Hervey Bay Airport, viewed 17 May 2010, www.frasercoastairport.com.au
- *qconnect*, http://www.transport.qld.gov.au/Home/General_information/*Qconnect*/
- Queensland Ports, viewed 4 May 2010, http://www.transport.qld.gov.au/Home/Industry/Ports/Queensland_ports/
- TravelSmart, viewed 18 May 2010, www.travelsmart.qld.gov.au
- Wide Bay Transit, www.widebaytransit.com.au

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Appendix A

Comparison of transport related desired environmental outcomes

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Transport Related Desired Environmental Outcomes (DEO)	Road	Bus	Rail	Other PT	Walk & Cycle	Freight	Airports	Boat. & Ship.	Parking	Sustainability	Land Use
Maryborough City Plan Desired Environmental Outcomes											
DEO 8: Industrial areas are provided with necessary infrastructure being reticulated sewerage, water supply and stormwater drainage, sealed roads and access to existing railways where feasible	■		■			■				■	■
DEO 9: Interference with industrial activities as a result of non-industrial traffic or the proximity of incompatible non-industrial land uses is precluded as far as possible.	■					■					
DEO 12: A high quality, efficient and integrated passenger and freight transport system is provided in the City. In particular, an efficient and safe road network which supports agreed settlement patterns, minimises environmental impact and is appropriate to the needs of urban and rural communities is provided	■	■	■	■	■	■			■	■	■
1. Lot configuration Code and Vehicle Parking and Access Code are the primary measures to achieve this DEO	■	■			■	■			■		
2. the street system of new urban areas should be based on a road hierarchy with the design standards complying with applicable codes and policies	■	■				■					
2. new urban residential areas should include a circulations system which encourages walking and cycling along direct, safe and secure routes (through parks for example) to local facilities such as schools and local shops	■				■						
2. the street system of new urban areas should be designed to separate residential traffic from commercial and industrial vehicles	■					■					
2. new urban residential areas should include a street system which ensures that each allotment is within 400m walking distance of an existing bus route or a technically feasible future bus route which complies with the design standards of applicable codes and policies	■	■			■						
3. non-discriminatory access should be provided within, and to, new uses in a manner which complies with relevant codes and does not cause unreasonable hardship on the provider	■	■	■	■	■		■	■	■		

Transport Related Desired Environmental Outcomes (DEO)	Road	Bus	Rail	Other PT	Walk & Cycle	Freight	Airports	Boat. & Ship.	Parking	Sustainability	Land Use
DEO 13: The future development of the City takes into account the planned system of major by-pass roads and major freight routes											
1. the location of state controlled roads and the known locations of future by-pass roads are indicated on the City Strategy map. The broad land use pattern shown on this map takes into account these existing and proposed roads											
2. detailed neighbourhood design of all proposed urban areas in the vicinity of by-pass routes and major freight routes will be required at an early stage, in order to satisfactorily incorporate pedestrian and vehicles movements across by-pass roads and major freight routes, and to allow for the establishment of suitable buffers											
3. Access to by-pass routes will be limited. A minimum buffer width of 40 metres will be sought along the Bruce Highway and the Bruce Highway/Maryborough-Hervey bay Road. Larger buffers will be obtained in areas where some other use can be made of the land (e.g. recreation). Direct access from rural residential properties to by-pass routes (including the Maryborough-Biggenden Road) may be permitted in some circumstances, depending upon the Department of Main Roads requirements											
DEO 14: The existing and future operations of Maryborough Airport is facilitated											
1. Development proposals in the vicinity of the airport will be assessed for compliance with State Planning Policy 2/92 'Planning for Aerodromes and Other Aeronautical Facilities' and with the Maryborough Airport Code											
2. While the likelihood of needing to extend the present area of Maryborough Airport is not great, in view of projected use of this facility, there is a possibility that the runway could eventually need to be extended northwards. For this reason, and due to flooding constraints and the likely effects of aircraft noise, any intensification of development of this area to the north of the existing runway may compromise the achievement of this DEO											
DEO 15: Transport services and infrastructure are provided and maintained to service the needs of the community and development to foster the economic growth of Maryborough City											

Transport Related Desired Environmental Outcomes (DEO)	Road	Bus	Rail	Other PT	Walk & Cycle	Freight	Airports	Boat. & Ship.	Parking	Sustainability	Land Use
1. the lot reconfiguration code seeks to achieve this DEO by the provision of public transport routes as a part of new subdivisions through consideration in the design of streets and allotments											
2. the city plan provides for the concentration of activity in the CBD which is best able to be serviced by public transport. Higher residential densities are provided for as acceptable solutions in areas close to the CBD											
3. ensure that land use adjacent or in the vicinity of existing or planned transport corridors or facilities is appropriate for the location and does not impact on safety or efficiency of the transport corridor or facility											
4. ensure that land use adjacent or in the vicinity of existing or planned transport corridors has consideration of access corridor connectivity so that communities are not physically divided											
DEO 20: A connected open space system is developed in order to promote opportunities within the urban area for continuous walking and cycling in a park setting											
1. the city strategy map shows a number of existing and future public recreation corridors that are intended to permit unrestricted public access, where possible, in a park setting. The achievement of these corridors will be sought in the assessment of material change of use and lot reconfiguration applications on land traversed by these corridors											

Transport Related Desired Environmental Outcomes (DEO)	Road	Bus	Rail	Other PT	Walk & Cycle	Freight	Airports	Boat. & Ship.	Parking	Sustainability	Land Use
2. Neighbourhood parks, City parks, school playing fields, sporting fields, strategically located pocket parks (for example, with special views), and areas of historical interest should, where possible, be incorporated into a continuous open space system as outlined in the Maryborough Recreation and Open Space Study. This will enhance the quality of the recreational experience obtained when moving through the system, and encourage the use of these corridors for pedestrian and bicycle access to facilities located near the system. Material change of use and reconfiguration proposals near the open space system will be required to contribute positively to the achievement of this DEO											
Hervey Bay Planning Scheme Desired Environmental Outcomes											
DEO 3: Land use and development will be structured around an efficient, sustainable and integrated transport and access system. Promotion of the City as an 'Access City' will continue to be an important strategy of Council. Development will contribute positively toward ensuring the efficient, orderly and integrated use and expansion of the City's movement system (including air, land and water systems), thereby resulting in safe, non-discriminatory and convenient access and movement within and around the City.											
a) consolidating development in and around existing centres;											
b) containing urban expansion and encouraging infill development;											
c) encouraging street connectivity, which supports walking, cycling and the efficient and effective provision of bus services;											
d) identifying the differing land use and transport requirements of rural areas in order to preserve the amenity of those locations;											
e) the function of transport corridors are protected;											
f) transport impacts arising from development and other land use planning initiatives are considered and managed; and											

Transport Related Desired Environmental Outcomes (DEO)	Road	Bus	Rail	Other PT	Walk & Cycle	Freight	Airports	Boat. & Ship.	Parking	Sustainability	Land Use
g) appropriate infrastructure is provided to support and encourage walking & cycling and actively promote these modes of transport.											
DEO 4: Open space areas create the framework for the City's future growth and create pedestrian and bicycle links between conservation areas, parks and major public facilities											
a) open space areas create the framework for the City's future growth and create pedestrian and bicycle links between conservation areas, parks and major public facilities;											
DEO 6: The City's population is provided with engineering, transport and community infrastructure, appropriate to each land use type. Existing infrastructure is utilised and operated in a safe and efficient manner (including roads, water and sewerage systems, energy supplies and protected from inappropriate development. New and future infrastructure is provided in an efficient manner.											
Woocoo Shire Planning Scheme											
DEO M: Road networks adequately service all developments and new developments do not adversely impact on and can be serviced by the existing road network.											
DEO N: Railway corridors through the Shire are preserved, including the protection of these corridors from incompatible land uses											
Tiaro Shire Planning Scheme											
DEO 4: Urban areas provide a high level of infrastructure services and residential amenity											

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Appendix B

TMR (Integrated Transport Planning) Road hierarchy (draft – for discussion purposes only – not government policy)

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TIER 1: FUNCTION									
To provide mobility and carry through traffic						To provide local property access and to collect local traffic			
TIER 2: ROLE									
Arterial Roads			***Sub Arterial Roads***			***Collector Streets***		***Local Streets***	
• routes connecting between higher order centres* • longer distance traffic movements (of any kind) • through traffic movements between or around urban areas • longer distance traffic movements within urban areas • line haul public transport services • primary freight and dangerous goods routes • regional cycle movements			• linkage from lower order centres* and smaller towns/villages to arterial roads or higher order centres* or connections between lower order centres* • link for through traffic between arterial roads • allow access and through movement for public transport • secondary freight routes • regional / district / local cycle movements • low level of pedestrian movements • access to larger developments			• carry traffic having a trip end within a neighbourhood centres or non-designated centres • connection from neighbourhood centres or non-designated centres to arterial and sub arterial roads • direct access to properties • access to public transport • moderate level of pedestrian movements • district / local cycle movements		• direct access to properties • high level of pedestrian movements • high level of local cycle movements	
TIER 3: MANAGEMENT									
Motorway	***Arterial***	***Arterial Main Street***	***Distributor***	***Controlled Distributor***	***Sub Arterial Main Street***	***District Collector***	***Neighbourhood Collector***	***Access Street***	***Access Place***
The aim of management policies for these categories will be to facilitate:									
• longer distance traffic movements • nationally and regionally significant movements • restricted access roads and declared 'limited access road'	• longer distance traffic movements through the region • main connection between suburbs and activity centres • may be declared limited access	• route through the central business district or an activity centre • pedestrian environment with on road parking • frontage to commercial properties through central business district or an activity centre	• link between two arterial roads • linkage of local areas or smaller towns/ villages to arterial roads • access to major developments • generally less accesses preferred	• linking residents with arterial roads • linkage of local areas or smaller towns/ villages to arterial roads • access to properties (certain existing cases) • control of some aspects of traffic operations to ameliorate impacts	• link through the central business district or an activity centre • pedestrian environment with available parking • access to commercial properties through central business district or an activity centre	• connection of neighbourhood centres or non-designated centres to the road network • connection of residential streets with traffic carrying roads • access to grouped properties (new urban only)	• connection of non-designated centres to the road network. • connection of residents to the road network, but with a no traffic through function • connection of residential streets with traffic carrying roads • access to individual adjacent properties	• access to individual adjacent properties • access to local area	• access to individual adjacent properties
Classification Criteria for allocation of State-controlled roads to this hierarchy									
A motorway is either a 1. Auslink national network road 2. state strategic road 3. connection between higher order centres* 4. route between a higher order centre and Auslink national network or state strategic road where access to the road is only via interchanges	An arterial is either a 1. Auslink national network road 2. state strategic road 3. connection between higher order centres* 4. route between a higher order centre and Auslink national network or state strategic road 5. route around higher order centres	An arterial main street is an arterial road that - has predominately attached retail shops with awnings - shops on both sides of the road unless there is rail line, river or beach is on one side - has good pedestrian linkages across the road - has high turn over parking spaces - is at least a block in length - <= 4 running lanes without service roads - generally has a lower speed zone than the road at either end of the main street	A distributor is either a 1. linkage from a lower order centre* or smaller towns/village to a higher order centre* or arterial roads 2. link between arterial roads 3. link between a major development and arterial roads where the majority of traffic is through traffic	A controlled distributor is either a 1. connection from a lower order centre* or smaller towns/village to a higher order centre* or arterial roads 2. connection between arterial roads 3. link between a major development and arterial roads where there is a dual role for through traffic and property access A controlled distributor is to have through traffic volumes greater than property access traffic in the ratio >= 3:2	An sub arterial main street is sub arterial road that - has predominately attached retail shops with awnings - shops on both sides of the road unless there is rail line, river or beach is on one side - has good pedestrian linkages across the road - has high turn over parking spaces - is at least a block in length - <= 4 running lanes without service roads - generally has a lower speed zone than the road at either end of the main street	A district collector is a connection between or from neighbourhood centres and non-designated centres to the road network that generally have lower traffic volumes, lower posted speed environments and residential land use environs	A neighbourhood collector is a connection to non designated centred areas that has lower traffic volumes, lower posted speed environment and residential land use environs A neighbourhood collector has a c connection of residents to the road network without through traffic function	* rarely Applicable to State-controlled roads * Property access	* Not Applicable to State-controlled roads

* Higher and lower order activity centres are defined by the relevant state regional planning or local government planning for the area. Generally, higher order centres include primary, principal, major, principal rural, major regional, major rural or district rural centres. Generally, lower order centres include local village or district, special, rural community or rural specialist. If the ABS centres classification is used urban centres and above are higher order and locality centres are lower order.

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Appendix C
FCRC roads projects list

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Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Alice Street	Ferry Street to Guava Street	Maryborough	DTMR	SR	(Maryborough CBD Traffic Study 2007) Change sugar cane route from Lennox to John, Walker, Ferry and Alice (East of Ferry Street)	September 2008	(Maryborough CBD Traffic Study 2007) Adopt Arterial Main Street status for Alice Ferry and Guava Streets. Heavy traffic movement retained	September 2008	(Maryborough CBD Traffic Study 2007) Consolidation of access points, restrict turning movements, review on-street parking, ped facilities etc. In association with Arterial Main Street Status	September 2008 to 2009			No	Not in RIP	
Alice Street	Lennox to March	Maryborough	DTMR	SR	(Maryborough CBD Traffic Study 2007) Review speed limit	October 2008							Complete	Has been reviewed. No change required	
Alice Street / Adelaide Street	Intersection	Maryborough	DTMR	SR	(Maryborough CBD Traffic Study 2007) Investigate the prohibiting right turn movements from Adelaide at Alice street , removal of crossing and provision or a pedestrian refuge.	June 2008	(RIP 2009-10 to 2011-12) Intersection Improvements	2008/9	(WBB Facts 2009) Intersection upgrade to reduce vehicle crashes and improve safety for pedestrians crossing Alice Street	2008-09 to 2009/10	(RIP 2009-10 to 2011-12) Improve Channelisation	2008/9	Complete		
Alice Street / Ferry Street	Intersection	Maryborough	DTMR	SR	(Maryborough CBD Traffic Study 2007) Intersection upgrade. COMPLETE	December 2007	(WBB Facts 2009) Intersection upgrade. COMPLETE - Work at the Ferry Street and Alice Street intersection has reduced the length of time motorists wait at the traffic signals and improved traffic flow in all four directions	2007-08					Complete		
Alice Street / Guava Street	Intersection	Maryborough	DTMR	SR	(Maryborough CBD Traffic Study 2007) South-east arterial link Alternative alignment from Alice Street/Guava Street to Tiger Street/Kent Street outside the current road corridor and with improved flood immunity could be investigated								No	On hold	
Alice Street / March Street	Intersection	Maryborough	DTMR	SR	(RIP 2008-09 to 2012-13) Intersection Improvements	2010/11 - 2012/13							No	Not in RIP	
Ann Street	(0.655-2.303km)	Hervey Bay	FCRC	LRRS	(RIP 2008-09 to 2012-13) Reseal/resurfacing	2009/10							No	2009/10	
Ann Street	(0.66-1.40km)	Maryborough	DTMR		(RIP 2009-10 to 2013-14) Profile correction and asphalt concrete resurfacing (<75mm)	2012/13							No	2012/13	
Ann Street	Ferry Street to Guava Street	Maryborough	DTMR		(RIP 2009-10 to 2013-14) Install Traffic Signals	2011/12							No	2011/12	
Ann Street / Ferry Street	Intersection	Maryborough	DTMR	LRRS	(Maryborough CBD Traffic Study 2007) Provide interim CHR treatment at Ferry/ Ann sty intersection	2008	(Maryborough CBD Traffic Study 2007) Review need to upgrade Ann/ Ferry street intersection in 2010. Intersection modelled to fail in 2010/11	2011					No	Not in RIP	
Ansons Road		Hervey Bay	FCRC	Local	(PSP4) Culvert	2017							No	2017	
Ansons Road Extension		Hervey Bay	FCRC	Local	(PSP4) Future Road	2020							No	2020	
Ariadne Street		Hervey Bay	FCRC	LRRS	(PSP4) Existing Road								Complete		
Augustus Boulevard Extension		Hervey Bay	FCRC	Local	(PSP4) Future Road	2016							No	2016	
Bauple-Woolooga Road	East of Gutchy Creek (1.8-3.60km)	Woocoo	DTMR	LRRS	(RIP 2008-09 to 2012-13) Widen Pavement	2009/10-2011/12							No	2009/10 - 2011/12	
Bauple-Woolooga Road	Gutchy Creek (3.90km)	Woocoo	DTMR	LRRS	(RIP 2008-09 to 2012-13) Structural Rehabilitation	2009/10 - 2012/13							No	2009/10 - 2012/13	

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Bay Drive Connector	Major collector system between Nissen Street, Main Street & Boat Harbour Drive	Hervey Bay	FCRC	Local	(PSP4) Alternative Access to Bay Central Shopping Centre - in association with new development	2000 – 2005	(PSP4) Future Road	2014	(Hervey Bay Road Hierarchy) Extend Central Avenue				No	2014	
Bazaar Street		Maryborough	FCRC	Local	(Maryborough CBD Traffic Study 2007) Traffic calming	June 2009									
Beach Road		Hervey Bay	FCRC	Local	(PSP4) Existing Road								Complete		
Beaver Rock Road	(5.80-6.50km)	Hervey Bay	FCRC	LRRS	(RIP 2009-10 to 2013-14) Reshape and reseal	2009/10							Part complete	Ongoing as part of DTMR RIP	
Bideford Street		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Increased traffic associated with growth at south Kawungan and Wondunna. Upgrade classification COMPLETE								Complete		
Bideford Street		Hervey Bay	FCRC	Local	(PSP4) Existing Road								No		
Bideford Street		Hervey Bay	FCRC	Local	(PSP4) Existing Road								Complete		
Bideford Street / Boundary Road / Raward Road	Intersection	Hervey Bay	FCRC	Local	(PSP4) Intersection Works	2020							No		
Bideford Street / Torquay Road	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2016							No	2016	
Bidwill Road	(14.853-15.103 km)		FCRC	LRRS	(RIP 2008-09 to 2012-13) Construct to new sealed 2 lane standard	2008/9							Part complete	Ongoing as part of DTMR RIP	
Bidwill Road	(2.05-2.41km)		DTMR		Pavement overlay	2012/13							No		
Bidwill Road	(7.08km-7.48km)		DTMR		Pavement overlay	2012/13							No		
Boat Harbour Drive	Hunter Street to McNally Street (1km)	Hervey Bay	DTMR	SR	(PSP4) Road Duplication - Urban 4 lane duplication	2008	(WBB Facts 2009) Widen and Upgrade. Includes 1km of four-laning, eight intersection upgrades, with two new sets of traffic signals at Taylor Street and Banksia Park Drive and a new road surface	2008-09 to 2009/10	(RIP 2009-10 to 2011-12) Duplicate 2 to 4 lanes	2008/9	(Hervey Bay Road Network Study) Duplication between Hunter Street and Bideford Street	2020 +	Complete		
Boat Harbour Drive	Main Street to Hunter Street	Hervey Bay	DTMR	SR	(Hervey Bay Road Network Study) Duplication - do minimum	2010-2015	(PSP4) Road Duplication - Urban 4 lane duplication for whole of link	2014					Complete		
Boat Harbour Drive / Ann Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Signalised Intersection	2026							Complete		PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Baird Drive	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2008							Complete	Included in Hunter-McNally upgrade.	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Banksia Park Drive	Intersection	Hervey Bay	DTMR	SR	(PSP4) Signalised Intersection	2008	(WBB Facts 2009) New Signals	2008-09 to 2009/10					Complete	Included in Hunter-McNally upgrade.	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Barnstaple Street / Honiton Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2026							Complete	Included in Hunter-McNally upgrade.	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Barry Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2026							No	No	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Beach Road		Hervey Bay	DTMR	SR	(PSP4) Existing Roundabout								Complete		PSP4 Not likely to provide sufficient $ to fund works

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Boat Harbour Drive / Beckwith Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2026							No	No	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Bideford Street	Intersection	Hervey Bay	DTMR	SR	(Hervey Bay Road Network Study) Signalisation - Do minimum	2000	(PSP4) Signalised Intersection	2026					Complete	Existing is signalised	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Boongala Way / Kuluu Crescent	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2014							No	No	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Central Avenue / O'Rourke Street Roundabout	Intersection	Hervey Bay	DTMR	SR	(PSP4) Signalised Intersection	2007	(WBB Facts) Signalisation	2007-08	COMPLETE - Installed new traffic signals at Central Avenue in Hervey Bay to improve traffic flow and safety for motorists and pedestrians				Complete		PSP4 Not likely to provide sufficient $ to fund works
Maryborough-Hervey Bay Road / Churchill Mine Road	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2011							No	No	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Dartmouth Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2026							No	No	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Denmans Camp Road	Intersection	Hervey Bay	DTMR	SR	(Hervey Bay Road Network Study Signalisation - Do minimum	2000	(PSP4) Signalised Intersection	2014					Complete	Existing traffic signals	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Elizabeth Street Roundabout	Intersection	Hervey Bay	DTMR	SR	(PSP4) Signalised Intersection	2021							No	No	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Esplanade	Intersection	Hervey Bay	FCRC	SR	(PSP4) Future Roundabout	2010							No	2010	Funding from IFC
Boat Harbour Drive / Howard Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2026							Complete	Has recently been upgraded	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Hunter Street / Bunnings Hardware	Intersection	Hervey Bay	DTMR	SR	(PSP4) Signalised Intersection	2008	(Hervey Bay Road Network Study) Signalisation	2010 - 2015					Complete	N/A	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Lavell Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2026							Complete	In recent project	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Macbel Court	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2026							No	No	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Maheno Way	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2008							Complete	Included in Hunter-McNally upgrade.	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Main Street Roundabout	Intersection	Hervey Bay	DTMR	SR	(RIP 2009-10 to 2011-12) Profile correction and asphalt concrete resurfacing (175mm)	2008/9	(PSP4) Signalised Intersection	2011	(Hervey Bay Road Network Study) Signalisation	2010 - 2015			No	In RIP	

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Boat Harbour Drive / Maryborough-Hervey Bay Road	Intersection	Hervey Bay	DTMR	SR	(PSP4) Existing Roundabout								Cost recovery only (?)	N/A	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / McNally Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2008							Complete	Included in Hunter-McNally upgrade.	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Neils Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2008							Complete	Included in Hunter-McNally upgrade.	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Nissen Street	Intersection	Hervey Bay	DTMR	SR	(Hervey Bay Road Network Study) Signalisation - Do minimum	2000	(PSP4) Signalised Intersection	2011	(RIP 2009-10 to 2011-12) Improve Traffic Signals	2008/9			Complete		
Boat Harbour Drive / Old Maryborough Road	Intersection	Hervey Bay	DTMR	SR	(Hervey Bay Road Network Study) Roundabout	2000	Do minimum						Complete	Roundabout currently exists	
Boat Harbour Drive / Picnic Street	Intersection	Hervey Bay	DTMR	SR	(Hervey Bay Road Network Study) Roundabout - Do minimum	2000	(PSP4) COMPLETE						Complete	Roundabout currently exists	
Boat Harbour Drive / Prawle Road	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2011							No	(Prawle Road is near Maryborough)	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Pulgul	Intersection	Hervey Bay	FCRC	SR	(PSP4) Future Roundabout	2011							No	Identified in PSP4 to be constructed in 2011	Funding from IFC
Boat Harbour Drive / Queens Road	Intersection	Hervey Bay	DTMR	SR	(PSP4) Signalised Intersection	2014							Cost recovery only (?)		PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Robert Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Signalised Intersection	2026							Complete		PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Robertson Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2026							Complete	In recent project	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Stephenson Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2008							Complete	Included in Hunter-McNally upgrade.	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Tavistock Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Signalised Intersection	2026							No	No	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Taylor Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Signalised Intersection	2008	(WBB Facts 2009) New signals	2008-09 to 2009/10	(Hervey Bay Road Network Study) Signalisation	2015 - 2020			Complete	Included in Hunter-McNally upgrade.	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Toni Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2026							Complete	In recent project	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / Urangan Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2026							Cost recovery only (?)	No	PSP4 Not likely to provide sufficient $ to fund works
Boat Harbour Drive / West Street	Intersection	Hervey Bay	DTMR	SR	(PSP4) Intersection Works	2026							Cost recovery only (?)		PSP4 Not likely to provide sufficient $ to fund works
Booubyjan Road	(2.96-3.95km)				Form and Pave	2010/11									

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Booubyjan Road	(9.00-9.80km)				Construct to new sealed 2 lane standard	2012/13 - 2013/14									
Boompa Road	Eel Creek Bridge	Woocoo	DTMR	LRRS	(RIP 2008-09 to 2012-13) Re-deck Timber Bridge	2008/9 - 2009/10							No		
Boompa Road	Sections: Maryborough-Biggenden Road-Woolooga Road (0-8.90km)	Woocoo	DTMR	LRRS	Widen Pavement	2009/10-2011/12							No		
Booral Road		Hervey Bay	DTMR	LRRS	(PSP4) Install passing lanes. 1km long in each direction.	2011	(PSP4) Install passing lanes. 1km long in each direction.	2013					No	No	PSP4 Not likely to provide sufficient $ to fund works
Booral Road	North of Hervey Bay Airport Access Road	Hervey Bay	DTMR	LRRS	(PSP4) Existing Road								Cost recovery only (?)	No	PSP4 Not likely to provide sufficient $ to fund works
Booral Road	River Heads Road-Boat Harbour Drive (12.00- 17.90 km)	Hervey Bay	DTMR	LRRS	(RIP 2008-09 to 2012-13) Other Planning	2010/11 - 2012/13							No	Planned	
Booral Road / Boundary Road	and curve to north (16.40-16.80km)	Hervey Bay	DTMR	LRRS	(RIP 2009-10 to 2011-12) Intersection Improvements	2008/9 - 2009/10	(WBB Facts 2009) Intersection upgrade. Includes left-turn lane from Booral Road into Boundary Road, turning lanes from Boundary Road into Booral Road and a right-turn lane from Booral Road into Boundary Road	2008-09 to 2009/10					Complete		
Booral Road / Main Street	Intersection	Hervey Bay	DTMR	LRRS	(RIP 2009-10 to 2011-12) Intersection Improvements	2008/9	(PSP4) Intersection Works	2009					Complete		PSP4 Not likely to provide sufficient $ to fund works
Booral Road / Raward Road-Doolong South Road Extension	Intersection	Hervey Bay	DTMR	LRRS	(PSP4) Roundabout	2019							No	Yes	PSP4 Not likely to provide sufficient $ to fund works
Boundary Road		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy) Careful speed management to 60km/h due to conflict between straight, level alignment and the frequent yet unobtrusive property accesses		(PSP4) Culvert Upgrade	2010	(PSP4) New Culverts (No. 6)	2017					
Boundary Road	Walkers Road to Denmans Camp Road	Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2010							No	Part thereof proposed for 2014-15 LRRS	
Boundary Road	Extension to Esplanade	Hervey Bay	FCRC	Local	(PSP4) New Culverts (no. 2)	2019-2017									
Boundary Road	Extension to Esplanade	Hervey Bay	FCRC	Local	(Hervey Bay Road Network Study) New Link - in association with surrounding development	2015 - 2020	(PSP4) Future Road	2016-2017					No	Identified in PSP4 to be constructed in 2017	
Boundary Road / Denmans Camp Road	Intersection	Hervey Bay	FCRC	Local	(FCRC Website) Intersection Improvements								No	Identified in PSP4 to be constructed in 2018	
Boundary Road / Robert Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Signalised Intersection	2010							No	Part thereof proposed for 2014-15 LRRS	
Boundary Road Extension	Denmans Camp Road to Main Street	Hervey Bay	FCRC	Local	(PSP4) Future Road	2017							No	Identified in PSP4 to be constructed in 2017	

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Bruce Highway	Burrum River	Hervey Bay	DTMR	AusLink	(PSP4) Existing Bridge								No	Intersection upgrade being designed	PSP4 Not likely to provide sufficient $ to fund works
Bruce Highway	chainage 12.7km to 13.9km	Hervey Bay	DTMR	AusLink	(PSP4) Install single northbound passing lane 1.2km long	2021							No	No	PSP4 Not likely to provide sufficient $ to fund works
Bruce Highway	chainage 17.9km to 18.9km	Hervey Bay	DTMR	AusLink	(PSP4) Install single northbound passing lane 1km long	2011							No	No	PSP4 Not likely to provide sufficient $ to fund works
Bruce Highway	chainage 21.7km to 22.9km	Hervey Bay	DTMR	AusLink	(PSP4) Install single northbound passing lane 1.2km long	2016							No	No	PSP4 Not likely to provide sufficient $ to fund works
Bruce Highway	chainage 22.9km to 24.1km	Hervey Bay	DTMR	AusLink	(PSP4) Install single southbound passing lane 1.2km long	2016							No	No	PSP4 Not likely to provide sufficient $ to fund works
Bruce Highway	Curra to Sarina Black Spots	Maryborough	DTMR	AusLink	(Nation Building Program) Safety enhancement works at known crash blackspots on the Bruce Highway between Curra and Sarina	Under Construction							No	Designs in progress	
Bruce Highway	Curra to Sarina Overtaking Lanes	Maryborough	DTMR	AusLink	(Nation Building Program) Construction of up to 25 new overtaking lanes between Curra and Sarina	Not Started							No	4 designs completed	
Bruce Highway	Curra to Sarina Rest Areas	Maryborough	DTMR	AusLink	(Nation Building Program) Will involve the construction of new rest areas, vehicle stopping places and audible edge lines between Curra and Sarina	Not Started							No	Planning in progress	
Bruce Highway	Saltwater Creek	Hervey Bay	DTMR	AusLink	(PSP4) Existing Bridge								Cost recovery only (?)	NO	PSP4 Not likely to provide sufficient $ to fund works
Bruce Highway (Gympie-Maryborough)	Gympie to Gin Gin: Various locations	Maryborough	DTMR	AusLink	(RIP 2008-09 to 2012-13) Overtaking Lanes - Concept Planning	2008/9 - 2009/10							Construction in progress	4 locations identified	
Bruce Highway / Howard Heights Road	Intersection	Hervey Bay	DTMR	AusLink	(PSP4) Intersection Works	2016							No	Design in progress, funding not yet available	PSP4 Not likely to provide sufficient $ to fund works
Bruce Street	Bruce Highway Overpass (near Gayndah Road)	Maryborough	FCRC	LRRS	(RIP 2008-09 to 2012-13) Bikeway/ construct footpath(s)	2008/9 - 2009/10									
Burrum Heads Road	Sections: Burgowan Road- Beelbi Creek (1.70-5.60km)		DTMR	LRRS	(RIP 2008-09 to 2012-13) Widen and seal	2008/9							Complete		
Burrum River Road		Hervey Bay	FCRC	Local	(PSP4) Existing Road								No		
Charles Street		Hervey Bay	FCRC	Local	(PSP4) Culvert Upgrade	2008							Complete		
Charles Street	Connection to Main Street	Hervey Bay	FCRC	Local	(Hervey Bay Road Network Study) Closure	2000 – 2005							No	Identified as existing asset in PSP5	
Charles Street / Alice Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2009							No	Construction commencing shortly	
Corser Street / North Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Existing Roundabout								No	Identified as existing asset in PSP5	

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Daniel Road		Tiaro	FCRC	Local	(Nation Building Program) COMPLETE Upgrade of road, reconstruction of 640m road pavement, clearing for widening minor drainage 2 coat seal.								Complete		
Davis Drive		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Extend										
Deephouse Road		Tiaro	FCRC	Local	(Nation Building Program) COMPLETE Pavement upgrade, widening, minor drainage, property access replacement, 6.2m 2 coat bitumen seal								Complete		
Denmans Camp Road		Hervey Bay	FCRC	Local	(PSP4) Culvert Upgrade	2012							No	Not indentified as works to be undertaken in current policy	
Denmans Camp Road		Hervey Bay	FCRC	Local	(PSP4) Existing Road								No	Not indentified as works to be undertaken in current policy	
Doolong Road		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) • Careful speed management to 60km/h due to conflict between straight, level alignment and the frequent yet unobtrusive property accesses • Downgrade status of section to west of North Kawungan Traffic Distributor to favour new route		(FCRC Website) Drainage	Feb - March 2010					No	Not indentified as works to be undertaken in current policy	
Doolong Road	Extension to Main Street	Hervey Bay	FCRC	Local	(PPS4) Road Upgrade	2010							No	Identified in PSP4 to be constructed in 2010	Funding from IFC
Doolong South Road		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Restrict access and maintain appropriate setback to residences		(PPS4) Road Upgrade	2019					No	Identified in PSP4 to be constructed in 2019	
Doolong South Road		Hervey Bay	FCRC	Local	(PSP4) Future Road	2028							No	Identified in PSP4 to be constructed in 2028	
Doolong South Road		Hervey Bay	FCRC	Local	(PSP4) New Culvert	2010									
Doolong South Road		Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2020							No	Identified in PSP4 to be constructed in 2020	Subject to development in Doolong South Structure Plan Area
Doolong South Road	Lower section	Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) • Tight and steep alignment and unpaved sections, and therefore will require traffic management as volumes increase with further urban development • Existing alignment inappropriate for arterial – sharp bends, steep grades - downgrade classification • Use										
Doolong South Road	Southern	Hervey Bay	FCRC	Local	(PSP4) New Culvert	2009									
Doolong South Road / Connecting Distributor	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2020							No	Identified in PSP4 to be constructed in 2020	Subject to development in Doolong South Structure Plan Area

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Doolong South Road / Maggs Hill	Intersection	Hervey Bay	FCRC	Local	(PSP4) \Future Roundabout	2014							No	Identified in PSP4 to be constructed in 2014	Subject to development in Doolong South Structure Plan Area
Dundowran Beach		Hervey Bay	FCRC	LRRS	(PSP4) New Culvert (No. 7)	2018 - 2032									
Dundowran Beach Roundabout		Hervey Bay	FCRC	LRRS	(PSP4) Future Roundabout	2032							No	Identified in PSP4 to be constructed in 2032	
Dundowran Beach Roundabout		Hervey Bay	FCRC	LRRS	(PSP4) Future Roundabout	2030							No	Identified in PSP4 to be constructed in 2030	
Dundowran Beach Roundabout		Hervey Bay	FCRC	LRRS	(PSP4) Future Roundabout	2028							No	Identified in PSP4 to be constructed in 2028	
Dundowran Beach Roundabout		Hervey Bay	FCRC	LRRS	(PSP4) Future Roundabout	2032							No	Identified in PSP4 to be constructed in 2032	
Dundowran Road		Hervey Bay	FCRC	LRRS	(PSP4) Future Road Extension	2018							No	Identified in PSP4 to be constructed in 2018	
Dundowran Road	(3.23-5.54 km)	Hervey Bay	FCRC	LRRS	Widen and overlay	2009/10								FCRC	
East Dundowran Distributor	New	Hervey Bay	FCRC	LRRS	(Hervey Bay Road Network Study) New Distributor - in association with surrounding development	2015 - 2020	Controlled distributor Future Road	2028 - 2030	(PSP4) Traffic Distributor Future Road	2032			No	Identified in PSP4 to be constructed in 2018	Subject to development in East Dundowran Structure Plan Area
Eatonvale Road	(0-4.192km)	Maryborough	FCRC	LRRS	Rehabilitation	2009/10									
Elizabeth Street / Miller Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2012							No	Identified in PSP4 to be constructed in 2012	Land Acquisition requirements
Elizabeth Street		Hervey Bay	DTMR	SCR	(PSP4) Culvert	2009								FCRC	
Elizabeth Street / Boundary Road	Intersection	Hervey Bay	DTMR	SCR	(PSP4) Intersection Works	2008							Complete	n/a	PSP4 Not likely to provide sufficient $ to fund works
Esplanade		Hervey Bay	FCRC	Local	(PSP4) Existing Road								No	Identified as existing asset in PSP5	
Esplanade		Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2017-22							No	Identified in PSP4 to be constructed in 2022	
Esplanade		Hervey Bay	FCRC	Local	(PSP4) Future Road	2017							No	Identified in PSP4 to be constructed in 2017	
Esplanade	Between Main Street and Urangan Pier	Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Desire to develop the waterfront as a series of activity nodes with tourism and commercial functions. Although the Esplanade is not to be promoted as a commuter through route, it is an integral element of the Hervey bay tourist drive								No	Identified as existing asset in PSP4	
Esplanade / Ann Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2013							No	Identified in PSP4 to be constructed in 2013	
Esplanade / Beach Road	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout								No	Identified as existing asset in PSP4	
Esplanade / Main Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout								No	Identified as existing asset in PSP4	

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Esplanade / Martin Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2016							No	Identified in PSP4 to be constructed in 2016	
Esplanade / Tavistock Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2013							Part complete	Currently in concept assessment	
Esplanade / Taylor Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2013							No	Identified in PSP4 to be constructed in 2013	
Fairway Drive		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Extend										
Ferry street	Eastern side of Ferry Street	Maryborough	FCRC	Local	(Nation Building Program) COMPLETE Construction of a 2m wide 600m long concrete path on the eastern side of Ferry Street for Walk/ Cycle								Complete		
Ferry Street	Walker Street to Alice Street	Maryborough	DTMR	Local	(Maryborough CBD Traffic Study 2007) Change sugar cane route from Lennox to John, Walker, Ferry and Alice	September 2008								This section of road is DTMR	
Fort Street / Albert Street	Intersection	Maryborough	FCRC	LRRS	(RIP 2008-09 to 2012-13) Improved signage, lighting and linemarking	2008/9							Complete		
Four Mile Road East		Tiaro	FCRC	Local	(Nation Building Program) COMPLETE Bitumen seal widening from 4m to a 12m wide seal kerb to kerb over a 210m road length with associated storm water drainage works including kerb and channel.								Complete		
General		Hervey Bay	FCRC	Local	(Hervey Bay Road Network Study) 50 km/hr speed limit	2000 – 2005							Complete		
Greensill Road Upgrade		Hervey Bay	FCRC	Local	(PSP4) Future Road	2026							No	Identified in PSP4 to be constructed in 2026	Reliant on Developer interest & Main Roads Intersection works
Grevillea Road		Hervey Bay	FCRC	Local	(PSP4) Culvert Upgrade	2016									
Grinsteads Road		Hervey Bay	FCRC	Local	(PSP4) Future Road	2018							No	Identified in PSP4 to be constructed in 2018 to 2030	Reliant on Developer interest & Main Roads Intersection works
Grinsteads Road		Hervey Bay	FCRC	Local	(PSP4) Future Road	2026-2030									
Guava Street	(0.19-1.09km)	Maryborough	FCRC	LRRS	Rehabilitation	2009/10							Complete		
Guava Street	Alice Street to Kent Street	Maryborough	DTMR	LRRS	(Maryborough CBD Traffic Study 2007) Adopt Arterial Main Street Status	2009							No	Under discussion	
Gympie Road / Woongool Road	Intersection	Maryborough	DTMR	SR	(RIP 2008-09 to 2012-13) Intersection Improvements	2010/11 - 201213							No	Concept planning in progress	
Hunter Street / Torquay Road	Intersection	Hervey Bay	FCRC	LRRS	(Hervey Bay Road Network Study) Signalisation (including opening of Hunter Street to two way flow between Old Maryborough Road and Torquay Road)	2000	Do minimum						No	Identified as existing asset in PSP5	

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Indah Road	Near Tinana State School	Maryborough	DTMR	SCR	(WBB Facts 2009) Intersection upgrade	2007	COMPLETE - Completed a Safer Roads Sooner project to upgrade the Indah Road intersection in August 2007. The upgrade improved safety at the busy intersection located near Tinana State School. The intersection has been widened for traffic to flow along Gym						Complete		
John Street	Kent Street to Walker Street	Maryborough	DTMR	LRRS	(Maryborough CBD Traffic Study 2007) Change sugar cane route from Lennox to John, (north of) Walker, Ferry and Alice	September 2008								FCRC	
John Street / Albert Street	Intersection	Maryborough	FCRC	LRRS	(RIP 2008-09 to 2012-13) Signage and delineation	2008/9							Complete		
John Street / Walker Street	Intersection	Maryborough	DTMR	LRRS	(Maryborough CBD Traffic Study 2007) Review need to upgrade Walker/John street intersection in 2016. Intersection modelled to fail in 2017	2017								This section of road is DTMR	
Kawangun Distributor Culverts		Hervey Bay	FCRC	Local	(PSP4) Culvert	2019									
Kawungan Distributor / Connecting Distributor	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2018							No	Identified in PSP4 to be constructed in 2018	
Kawungan Distributor / Doolong Road	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2018							No	Identified in PSP4 to be constructed in 2018	
Kawungan Distributor / Urraween Road extension to Boundary	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2012							No	Identified in PSP4 to be constructed in 2012	Reliant on Developer progress
Kawungan Distributor-Stage 2		Hervey Bay	FCRC	Local	(PSP4) Future Road	2012							No	Identified in PSP4 to be constructed in 2012	Reliant on Developer progress
Kawungan Distributor-Stage 3		Hervey Bay	FCRC	Local	(PSP4) Future Road	2017							No	Identified in PSP4 to be constructed in 2017	
Kawungan Distributor-Stage 4		Hervey Bay	FCRC	Local	(PSP4) Future Road	2018							No	Identified in PSP4 to be constructed in 2018	
Kawungan Distributor-Stage 5		Hervey Bay	FCRC	Local	(PSP4) Future Road	2019							No	Identified in PSP4 to be constructed in 2019	
Kawungan Distributor-Stage 6		Hervey Bay	FCRC	Local	(PSP4) Future Road	2019							No	Identified in PSP4 to be constructed in 2019	
Kawungan Distributor-Stage 6		Hervey Bay	FCRC	Local	(PSP4) Future Road	2019							No	Identified in PSP4 to be constructed in 2019	
Kawungan Distributor-Stage 6		Hervey Bay	FCRC	Local	(PSP4) Future Road	2019							No	Identified in PSP4 to be constructed in 2019	
Kent Street	March Street to Ferry Street	Maryborough	FCRC	LRRS	(Maryborough CBD Traffic Study 2007) Through schools and shopping centre									FCRC	
Kent Street	(4.90-5.36km)	Maryborough			Profile correction and asphalt concrete resurfacing (<75mm)	2012/13									
Kent Street / Adelaide Street	Intersection	Maryborough	FCRC	LRRS	(Maryborough CBD Traffic Study 2007) Intersection upgrade	August 2008	(Maryborough CBD Traffic Study 2007) Intersection modelled failure 2006								

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Kent Street / Bazaar Street	Intersection	Maryborough	FCRC	LRRS	(Maryborough CBD Traffic Study 2007) Review need to upgrade Kent/ Bazaar street intersection in 2012	2013	(Maryborough CBD Traffic Study 2007) Intersection modelled failure 2013						Complete	Signal upgrade in conjunction with CBD beatification project	
Kent Street / Ferry Street	Intersection	Maryborough	DTMR	LRRS	(Maryborough CBD Traffic Study 2007) Review need to upgrade Kent/ Ferry street intersection in 2014.	2015	(Maryborough CBD Traffic Study 2007) Intersection modelled failure 2014/15. Railway overbridge restricts visibility						No	Not in RIP	
Kent Street / Guava Street	Intersection	Maryborough	DTMR	LRRS	(Maryborough CBD Traffic Study 2007) Signalisation	2008-2009							No	Not in RIP	
Kent Street / Lennox Street	Intersection	Maryborough	FCRC	LRRS	(Maryborough CBD Traffic Study 2007) Intersection upgrade. Consider removing on street parking and line markings. Intersection modelled failure 2006. Parking limits length of kerbside lanE	December 2007	(RIP 2009-10 to 2011-12) Modify Signals	2008/9							
Kent Street / March Street	Intersection	Maryborough	DTMR	LRRS	(Maryborough CBD Traffic Study 2007) Signalisation	2008-2009							No	Not in RIP	
Kent Street / Richmond Street	Intersection	Maryborough	FCRC	LRRS	(Maryborough CBD Traffic Study 2007) Review need to upgrade Kent/ Richmond street intersection in 2017.	2018	(Maryborough CBD Traffic Study 2007) Intersection modelled failure 2018						Complete	Signal upgrade in conjunction with CBD beatification project	
Kent Street / Tiger Street	Intersection	Maryborough	DTMR	LRRS	(Maryborough CBD Traffic Study 2007) Review need to upgrade Kent/ Tiger street intersection in 2008.	2008	(Maryborough CBD Traffic Study 2007) Intersection modelled failure 2008						No	Not in RIP	
Lennox Street		Maryborough	FCRC	LRRS	(Maryborough CBD Traffic Study 2007) Terminate the use of Lennox street as a cane haulage route. Change to John, Walker, Ferry and Alice	December 2008	(Maryborough CBD Traffic Study 2007) Freight route, tourist route and alternative route to the central city Maryborough City intends to install additional traffic signals along Lennox Street reducing attractiveness as through route		(RIP 2009-10 to 2013-14) Rehabilitate Pavement	2009/10					
Lennox Street	Woodstock Street to Alice Street	Maryborough	DTMR	LRRS	Install Traffic Signals	2009/10									
Lennox Street / Ellena Street	Intersection	Maryborough	FCRC	LRRS	(Maryborough CBD Traffic Study 2007) Install traffic signals at the Lennox/ Ellena street intersection	2008	(Maryborough CBD Traffic Study 2007) Intersection modelled failure 2017						Complete		
Lennox Street / Walker Street	Intersection	Maryborough	FCRC	LRRS	(Maryborough CBD Traffic Study 2007) Install traffic signals are Lennox and Walker Street intersection	June 2009	(Maryborough CBD Traffic Study 2007) Intersection modelled to fail 2012						Construction in progress		
Lennox Street / Woodstock Street	Intersection	Maryborough	FCRC	LRRS	(Maryborough CBD Traffic Study 2007) Install traffic signals are Lennox and Woodstock street intersection	June 2008	(RIP 2009-10 to 2011-12) Install Traffic Signals	2008/9	(Maryborough CBD Traffic Study 2007) Implement traffic calming as necessary	December 2009			Complete		
Mackay Drive		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Extend										
Madsen Road		Hervey Bay	FCRC	Local	(PSP4) Existing Road										
Madsens Road		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Restrict access and maintain appropriate setback to residences		(PSP4) Road Upgrade	2010					Part complete	Temporary minor work completed. To be reprioritised	
Maggs Hill Road		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) COMPLETE Upgrade classification• Provide distribution from North Kawangan Distributor to Main Street • Topography may require variation to alignment								No	Part thereof proposed for 2011-2012	

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Maggs Hill Road		Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2009							No	Part thereof proposed for 2011-2012	
Main Street		Hervey Bay	FCRC	SR	(PSP4) Existing Road										
Main Street	(0-2.10km)	Hervey Bay			Rehabilitation	2009/10-2010/11									
Main Street	(1.28-2.50km)	Hervey Bay			Realignment	2009/10	Main Street Reconstruction Stage 1 Feb/Mar 2010 FCRC Website (9.03.10)								
Main Street (rural)	(2.40-4.00km)	Hervey Bay			Construct to new sealed 2 lane standard	2013/14 +									
Main Street (rural)	(2.40-2.76km)				Realignment	2011/12									
Main Street (rural)	(2.76-3.08km)				Realignment	2011/12									
Main Street	Between Booral and Christensen Street	Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Importance as an arterial connection will increase over time								Part complete	Upgrade between Booral and Chapel Complete	
Main Street	Between Christensen Street and Boat Harbour Drive	Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Importance as an arterial connection will increase over time		(RIP 2009-10 to 2011-12) Realignment	2008/9	(RIP 2009-10 to 2011-12) Rehabilitation	2009/10 - 2012/13			Construction in progress	Between McLiver & Urraween	
Main Street / Doolong Road	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2010							No	Identified in PSP4 to be constructed in 2010	Priority being reassessed
Main Street / McLiver Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Signalised Intersection								Complete		
Main Street / Torquay Road	Intersection	Hervey Bay	FCRC	Local	(PSP4) Existing Roundabout								No	Identified as existing asset in PSP5	
Main Street / Urraween Road	Intersection	Hervey Bay	FCRC	Local	(PSP4) Signalised Intersection	2009	(PSP4) Signalised Intersection upgrades in conjunction with Urraween Distributor	2011					Construction in progress		
Main Street Culvert		Hervey Bay	FCRC	Local	(PSP4) Culvert	2008									
Main Street Extension	Christensen Street to Chapel Road	Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2012							No	Identified in PSP4 to be constructed in 2012	
Main Street	Doolong Road to Christensen Street	Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2014							No	Identified in PSP4 to be constructed in 2014	
Main Street	Doolong Road to Urraween Road	Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2010							No	Priority being reassessed	
Main Street	Urraween Road to McLiver Street	Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2008							Construction in progress		
March Street		Maryborough	FCRC	Local	(Maryborough CBD Traffic Study 2007) In favour of Alice/Guava Street Arterial										
Martin Street		Hervey Bay	FCRC	Local	(PSP4) Existing Road										
Martin Street / Murphy Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2016							No	Identified in PSP4 to be constructed in 2016	
Martin Street / Tooth Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2016							No	Identified in PSP4 to be constructed in 2016	
Maryborough Eastern Bypass	Burns Street to Treasure Street	Maryborough	DTMR	Local	(DTMR - Graham Duldig 1997) New bridge associated with Maryborough Eastern Bypass - Possible Alignment								No	ATS to consider	
Maryborough Eastern Bypass	Mary River to Maryborough-Cooloola Road on curved alignment via Burns Street	Maryborough	DTMR	LRRS	(DTMR - Graham Duldig 1997) Maryborough Eastern Bypass (Aubinville to Granville/Boonaroo Plains) - Possible Alignment								No	ATS to consider	

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Maryborough Eastern Bypass	Northern extension: Mary River to Maryborough-Hervey Bay Road south of Maryborough Airport	Maryborough	DTMR	LRRS	(DTMR - Graham Duldig 1997) Maryborough Eastern Bypass (Aubinville to Granville/Boonaroo Plains) - Possible Alignment								No	ATS to consider	
Maryborough Eastern Bypass	Odessa Street to Maryborough-Cooloola Road on curved alignment	Maryborough	DTMR	LRRS	(DTMR - Graham Duldig 1997) Maryborough Eastern Bypass (Aubinville to Granville/Boonaroo Plains) - Possible Alignment of long term extension of bypass								No	ATS to consider	
Maryborough Northern Bypass	Maryborough West to St Helens or Dundanthu through forestry and quarry land	Maryborough	DTMR	LRRS	(DTMR - Graham Duldig 1997) Maryborough Northern Bypass - Investigation Area identified								No	ATS to consider	
Maryborough-Biggenden Road	50.70-51.30km (west of Boompa Curve)	Maryborough	DTMR	LRRS	Widen Pavement	2009/10							Complete		
Maryborough-Hervey Bay Road		Hervey Bay	DTMR	SCR	(Hervey Bay Road Hierarchy Study) Opportunities should be sought to further restrict access over time									Work not specified	
Maryborough-Hervey Bay Road		Hervey Bay	DTMR	SCR	(PSP4) Rural Duplication - Duplicate from 2 to 4 lanes for full length of link	2020-2021							NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Maryborough-Hervey Bay Road		Hervey Bay	DTMR	SCR	(PSP4) Rural Duplication - Duplicate from 2 to 4 lanes for full length of link.	2009							NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Maryborough-Hervey Bay Road	Near Susan River (18.70km- 21.90km and 24.90-25.60km)	Hervey Bay	DTMR	SCR	(RIP 2008-09 to 2012-13) Seal Shoulders	2009/10							Complete		
Maryborough-Hervey Bay Road	North of Dundowran Road to Pialba-Burrum Heads Road	Hervey Bay	DTMR	SCR	(RIP 2008-09 to 2012-13) Widen Pavement	2008/9	Completion early 2011- DTMR Website 09.03.10						Complete		
Maryborough-Hervey Bay Road	Torbanlea turn-off to Dundowran Road	Hervey Bay	DTMR	SCR	(RIP 2008-09 to 2012-13) Duplicate 2 to 4 lanes	2008/9 - 2009/10	Completion early 2011- DTMR Website 09.03.10						Construction in progress		
Maryborough-Hervey Bay Road / Boat Harbour Drive	Between Beach Road and Pialba-Burrum Heads Road	Hervey Bay	DTMR	SCR	(Hervey Bay Road Network Study) Duplication	2000	Do minimum						Complete		
Maryborough-Hervey Bay Road / Ibis Boulevard / Fairway Drive	Intersection	Hervey Bay	DTMR	SCR	(Hervey Bay Road Network Study) Signalisation - in association with surrounding development	2000 – 2005	(PSP4) Signalised Intersection	2016					Complete	N/A	PSP4 Not likely to provide sufficient $ to fund works
Maryborough-Hervey Bay Road / Pialba-Burrum Heads Road	Intersection	Hervey Bay	DTMR	SCR	(RIP 2009-10-2011-12) Install Traffic Signals	2010/11 - 2013+	(PSP4) Signalised Intersection	2016					No	Planning in progress	
Maryborough-Hervey Bay Road / Saltwater Creek		Hervey Bay	DTMR	SCR	(PSP4) Existing Bridge								Cost recovery only (?)	NO	PSP4 Not likely to provide sufficient $ to fund works
Maryborough-Hervey Bay Road / Susan River		Hervey Bay	DTMR	SCR	(PSP4) Existing Bridge								Cost recovery only (?)	NO	PSP4 Not likely to provide sufficient $ to fund works
Maryborough-Hervey Bay Road / Urraween Road	Intersection	Hervey Bay	DTMR	SCR	(Nation Building Program) Major Intersection Upgrade								No	Planning in progress	
Maryborough-Hervey Bay Road Culverts		Hervey Bay	DTMR	SCR	(PSP4) Culvert	2016							NO	NO	PSP4 Not likely to provide sufficient $ to fund works

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Maryborough-Hervey Bay Road, Torbanlea-Pialba Road / Booral Road	Intersection	Hervey Bay	DTMR	SCR	(PSP4) Roundabout	2010							NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Meredith Street		Maryborough	FCRC	Local	(FCRC Website) Kerb and channel replacement		Dec/Jan 2010 FCRC Website (9.03.10)								
Miller Street		Hervey Bay	FCRC	Local	(PSP4) Existing Road										
Miller Street / Esplanade	Intersection	Hervey Bay	FCRC	Local	(PSP4) Existing Roundabout								No	Identified as existing asset in PSP5	
Miller Street / Pulgul Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Existing Roundabout								No	Identified as existing asset in PSP5	
Murphy Street		Hervey Bay	FCRC	Local	(PSP4) Existing Road										
Myntje Road		Tiaro	FCRC	Local	(Nation Building Program) COMPLETE Clearing and construction of 7m wide formation and 1 coat bitumen seal								Complete		
Neerdie Road		Tiaro	FCRC	Local	(Nation Building Program) COMPLETE 8.0m wide road pavement formation minor drainage								Complete		
New	Craignish to Dundowran	Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) As urban development progress, some of these may need to be upgraded to urban arterial function										
New	Mid Block link to Lennox Street	Maryborough	FCRC	Local	(Maryborough CBD Traffic Study 2007)										
New	Network of collector Streets in Dundowran	Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) New collector streets to distribute local traffic from East Dundowran and West Pialba onto Hervey Bay-Burrum Heads Road										
New	Urangan Street to Boundary Road	Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) New collector streets• Serves growth at Urangan • Should not be connected into Elizabeth Street										
Nikenbah-Dundowran Road		Hervey Bay	FCRC	Local	(Nation Building Program) COMPLETE Pavement reconstruction, road widening, line marking and appropriate signage								Complete		
Nissen Street		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Restrict access and maintain appropriate setback to residences										
North Kawungan Distributor	Main Street to Maggs' Hill Road	Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) New distributor on a curved alignment connecting to Main Street opposite the Urraween east west traffic distributor, crossing Urraween Road approximately 500m east of Main Street and heading south to connect to Maggs' Hill Road								No	Scheduled in PSP4 with revised alignment	Reliant on Developer progress
Odessa Street	(0-1.03km)	Maryborough	FCRC	LRRS	(RIP 2009-10 to 2013-14) Form and Pave	2009/10									
Old Bruce Highway-Burrum River Bridge		Hervey Bay	FCRC	Local	(PSP4) Existing Bridge										
Old Bruce Hwy		Hervey Bay	FCRC	Local	(PSP4) Existing Road										

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Old Coach Road		Woocoo	FCRC	Local	(Nation Building Program) Reconstruct and widen, sealing to a width of 6.5m. Start chainage 1600 to 2600		Completed								
Old Gayndah Road	(6.16-7.46km)	Woocoo	FCRC	LRRS	(RIP 2009-10 to 2013-14) Construct to new sealed 2 lane standard	2009/10									
Old Gayndah Road	(7.46-8.13km)	Woocoo			(RIP 2009-10 to 2013-14) Construct to new sealed 2 lane standard	2010/11									
Old Gayndah Road	(7.46-8.13km)	Woocoo			(RIP 2009-10 to 2013-14) Construct to new sealed 2 lane standard	2012/13									
Old Gayndah Road	(19.17-19.37 km)	Woocoo			(RIP 2009-10 to 2013-14) Realign and install new culverts	2009/10									
Old Gympie Road	(0-3.00km)	Woocoo			(RIP 2009-10 to 2013-14) Reseal	2011/12									
Old Gympie Road	(3.00-6.00km)	Woocoo			(RIP 2009-10 to 2013-14) Reseal	2012/13									
Old Maryborough Road		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Restrict access and maintain appropriate setback to residences										
Old Maryborough Road		Hervey Bay	FCRC	Local	(PSP4) Culvert	2008									
Old Maryborough Road	Hunter Street to Taylor Street	Hervey Bay	FCRC	Local	(Hervey bay Road Network Study) Connection	2000 – 2005	(PSP4) Future Road Extension	2018					No	Priority being reassessed	Land Acquisitions
Old Maryborough Road	Main Street to Hunter Street	Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2008							Complete		
Old Maryborough Road / Beach Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Signalised Intersection								Complete	Identified as existing asset in PSP5	
Old Maryborough Road / Charles Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Signalised Intersection	2009							No	Identified in PSP4 to be constructed in 2009	Funding from IFC
Old Maryborough Road / Hunter Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Signalised Intersection								Complete	Identified as existing asset in PSP5	
Old Maryborough Road / Main Street	Intersection	Hervey Bay	FCRC	Local	(Hervey Bay Road Network Study) Signalisation - Do minimum - COMPLETE	2000	(Hervey Bay Road Network Study) Improved signalisation	2000 – 2005					Complete	Identified as existing asset in PSP5	
Old Maryborough Road / Tooth Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2013							No	Identified in PSP4 to be constructed in 2013	
Old Maryborough Road extension / Taylor Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Signalised Intersection	2009							No	Priority being reassessed	Land Acquisitions
Old Toogoom Road		Hervey Bay	FCRC	Local	(PSP4) Culvert	2008	(Nation Building Program) COMPLETE Installation of box culverts, raising of causeway, road reconstruction on both sides of causeway, line markings and signage						Complete		
Old Toogoom Road	Beelbi Creek Upgrade	Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2011							No	Identified in PSP4 to be constructed in 2011	
Old Toogoom Road	Torbanlea Road End	Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2012							No	Identified in PSP4 to be constructed in 2012	
Oleander Avenue		Hervey Bay	FCRC	Local	(Nation Building Program) COMPLETE pavement reconstruction, installation of sub soil and foundation drainage, asphalt overlay, line marking								Complete		
Pallas Street	(1.20-1.60km)				(RIP 2009-10 to 2013-14) Reseal	2010/11									
Pantlins Lane		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Extend										

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Pialba-Burrum Heads Road		Hervey Bay	DTMR	SCR	(PSP4) Culvert	2022							NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Pialba-Burrum Heads Road		Hervey Bay	DTMR	LRRS	(Nation Building Program) COMPLETED Construction of pavement 2 coat spray seal overlay line marking guide post and signs								Complete		
Pialba-Burrum Heads Road	from 13.3km to 14.3km	Hervey Bay	DTMR	LRRS	(PSP4) Increase width from 1 to 2 lanes. 1km of new lane	2011							Complete	n/a	PSP4 Not likely to provide sufficient $ to fund works
Pialba-Burrum Heads Road		Hervey Bay	DTMR	LRRS	(PSP4) Install passing lanes. 1km long in each direction	2021	(Hervey Bay Road Hierarchy) Park residential at Dundowran Beach will increase commuter						NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Pialba-Burrum Heads Road		Hervey Bay	DTMR	LRRS	(PSP 4) Urban 4 Lane Duplication for whole of link	2018	(Hervey Bay Road Network Study) Upgrade	2020 +	(Hervey Bay Road Hierarchy) Park residential at Dundowran Beach will increase commuter traffic				NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Pialba-Burrum Heads Road		Hervey Bay	DTMR	LRRS	(PSP4) New Culverts (no. 4)	2021-2022							Cost recovery only (?)	NO	PSP4 Not likely to provide sufficient $ to fund works
Pialba Burrum Heads Road / Wide Bay Drive / Scrub Hill Road	Intersection	Hervey Bay	DTMR	LRRS	(PSP4) Signalised Intersection	2018	(RIP 2009/10 - 2013/14) Concept Planning	2009/10 - 2011/12					NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Pialba Burrum Heads Road / Beelbi Creek		Hervey Bay	DTMR	LRRS	(PSP4) Existing Bridge								Cost recovery	NO	PSP4 Not likely to provide sufficient $
Pialba-Burrum Heads Road / Augustus Boulevard		Hervey Bay	DTMR	LRRS	(PSP4) Signalised Intersection	2018							NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Pialba-Burrum Heads Road / Crawford Road	Intersection	Hervey Bay	DTMR	LRRS	(PSP4) Intersection Works	2007							NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Pialba-Burrum Heads Road / Dundowran Road / Ansons Road	Intersection	Hervey Bay	DTMR	LRRS	(PSP4) Intersection Works	2007	Roundabout (Realigned Ansons Road)	2018					NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Pialba-Burrum Heads Road / Greensill Road (R)	Intersection	Hervey Bay	DTMR	LRRS	(PSP4) Roundabout	2018							NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Pialba-Burrum Heads Road / Rosentreater Lane / Dury Lane realignment	Intersection	Hervey Bay	DTMR	LRRS	(PSP4) Roundabout	2018							NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Pialba-Burrum Heads Road / Sawmill Road	Intersection	Hervey Bay	DTMR	LRRS	(PSP4) Intersection Works	2007							NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Pialba-Burrum Heads Road / Sorrensens Road	Intersection	Hervey Bay	DTMR	LRRS	(PSP4) Roundabout	2018							NO	NO	PSP4 Not likely to provide sufficient $ to fund works

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Pialba-Burrum Heads Road / Urraween Road	Intersection	Hervey Bay	DTMR	LRRS	(PSP4) Signalised Intersection	2016							NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Pialba-Burrum Heads Road / Valfern Court	Intersection	Hervey Bay	DTMR	LRRS	(PSP4) Intersection Works	2018							NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Pilerwa Road	(0.67-1.20km)	Woocoo	FCRC	LRRS	(RIP 2009-10 to 2013-14) Widen Pavement	2008/9 - 2009/10	RIP 2009/10 - 2013/14	2009/10					Part complete	Sections completed and remaining to be constructed as per DTMR RIP	
Pilerwa Road	(3.04-3.64 km)	Woocoo	FCRC	LRRS	(RIP 2008-09 to 2012-13) Overlay and seal	2009/10 - 2012/13	RIP 2009/10 - 2013/14	2009/10 - 2010/11					Part complete	Sections completed and	
Pilerwa Road	(3.64-4.24km)	Woocoo	FCRC	LRRS	(RIP 2008-09 to 2012-13) Widen Pavement	2008/9	RIP 2009/10 - 2013/14	2010/11					Part complete	Sections completed and remaining to be constructed as per DTMR RIP	
Pleasant Street		Maryborough	FCRC	Local	(Nation Building Program) COMPLETE Reconstruct road and upgrade drainage and kerb and channels 210m long * 13 m wide roadworks required.								Complete		
Rassmussens Road		Hervey Bay	FCRC	Local	(PSP4) Culvert	2014									
Rasumussens Road		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Upgrade classification• Provide distribution from North Kawangan Distributor to Main Street • Topography may require variation to alignment										
Raward Road		Hervey Bay	FCRC	Local	(PSP4) New Culvert (no. 2)	2010									
Raward Road		Hervey Bay	FCRC	Local	(PSP4) New Culverts (No. 6)	2020									
Raward Road	extension to Doolong South Road	Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2020	(PSP4) Future Road Extension and roundabout	2020	(Hervey Bay Road Network Study) extension to Doolong South Road in association with surrounding development	2015 - 2020			No	Identified in PSP4 to be constructed in 2020	
River Heads Road	Between Booral Road and northern edge of River Heads	Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) A case has been outlined for this road to be declared as a state controlled road.		(RIP 2009-10 to 2013-14) Widen and overlay	2009/10							
River Heads Road-Ariadne Street	(7.40-7.71km) River Heads Urban Area	Hervey Bay	FCRC	LRRS	(RIP 2009-10 to 2013-14) Widen and overlay	2009/10-2010/11									
Rohan Way		Hervey Bay	FCRC	Local	(Nation Building Program) COMPLETE reconstruction of pavement, overlay, kerb and channel, linemarking and signage.								Complete		
Rosentreater Lane / Grinsteads Road	Intersection	Hervey Bay	DTMR	LRRS	(PSP4) Intersection Works	2018							NO	NO	PSP4 Not likely to provide sufficient $ to fund works
Saltwater Creek Bridge		Hervey Bay	DTMR	SR	(PSP4) Bridge	2020							Cost recovery only (?)	No	PSP4 Not likely to provide sufficient $ to fund works
Saltwater Creek Road / Woodstock Street	Intersection	Hervey Bay	DTMR	SR	(RIP 2008-09 to 2012-13) Improve Traffic Signals	2008/9							No	IN RIP	

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Sawmill Road		Hervey Bay	FCRC	Local	(PSP4) Existing Road								No	Identified as existing asset in PSP5	
Seed Road		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Extend to connect Urangan Street and Garden Drive										
Sempfs Road		Hervey Bay	FCRC	Local	(PSP4) Existing Road								No	Identified as existing asset in PSP5	
Sorrensons Road Extension	to Grinsteads Road	Hervey Bay	FCRC	Local	(PSP4) Future Road	2018							No	Identified in PSP4 to be constructed in 2018	Reliant on Developer progress
Sorrensons Road Extension / Grinsteads Road	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2026							No	Identified in PSP4 to be constructed in 2026	Reliant on Developer progress
St Joseph Drive		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Extend										
Steeley Street		Hervey Bay	FCRC	Local	(PSP4) Existing Road								No	Identified as existing asset in PSP5	
Steeley Street Bridge		Hervey Bay	FCRC	Local	(PSP4) Existing Bridge								No	Identified as existing asset in PSP5	
Susan River Bridge		Hervey Bay	DTMR	SR	(PSP4) Bridge	2021							Cost recovery only (?)	No	PSP4 Not likely to provide sufficient $ to fund works
Sussex Street		Maryborough	FCRC	Local	(Maryborough CBD Traffic Study 2007) Traffic calming	June 2009									
Sussex Street / Lennox Street	Intersection	Maryborough	FCRC	Local	(Maryborough CBD Traffic Study 2007) Review need to upgrade Sussex/ Lennox street intersection in 2008. Intersection modelled failure 2009	2009									
Tavistock Street / Boundary Rd	Intersection	Hervey Bay	FCRC	Local	(FCRC Website) Intersection Improvements	Dec-Jan 2010									
Teddington Road	(0-2.458km)	Maryborough	FCRC	LRRS	(RIP 2009-10 to 2013-14) Reseal	2009/10							Complete		
Teddington Road	(6.953-7.148km)	Maryborough	FCRC	LRRS	(RIP 2008-09 to 2012-13) Widen and Seal	2008/9									
Tinnanbar Road	(1.93-4.93km)	Tiaro			(RIP 2009-10 to 2013-14) Construct to new sealed 2 lane standard	2012/13 - 2013/14									
Tinnanbar Road	(4.93-5.93 km)	Tiaro	FCRC	LRRS	(RIP 2009-10 to 2013-14) Construct to new sealed 2 lane standard	2009/10	Tinnanbar Road Section 2 Feb/Mar 2010 FCRC Website (9.03.10)						Part complete	Sections completed and remaining to be constructed as per DTMR RIP	
Tinnanbar Road	(5.93-6.93km)	Tiaro	FCRC	LRRS	(RIP 2009-10 to 2013-14) Construct to seal standard	2009/10	Feb/March 2010 FCRC Website (9.03.10)						Part complete	Sections completed and remaining to be constructed as per DTMR RIP	
Tinnanbar Road	(6.93-7.93 km)	Tiaro	FCRC	LRRS	(RIP 2009-10 to 2013-14) Construct to seal standard	2009/10	Tinnanbar Road Section 2 Feb/Mar 2010 FCRC Website (9.03.10)						Part complete	Sections completed and remaining to be constructed as per DTMR RIP	
Toogoom Road		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy) To be upgraded to standards appropriate to this classification		(RIP 2009/10 - 2013/14) Widen and overlay	2010/11					No	Identified as existing asset in PSP5	
Tooth Street		Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Restrict access and maintain appropriate setback to residences										

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Tooth Street		Hervey Bay	FCRC	Local	(PSP4) Existing Road								No	Identified as existing asset in PSP5	
Torbanlea-Pialba Road		Hervey Bay	DTMR	SCR	(Hervey Bay Road Hierarchy) To be upgraded to standards appropriate to this classification								No	No	PSP4 Not likely to provide sufficient $ to fund works
Torbanlea-Pialba Road / Old Walligan Road	Intersection	Hervey Bay	DTMR	SCR	(PSP4) Intersection Works	2010							No	No	PSP4 Not likely to provide sufficient $ to fund works
Torquay Road		Hervey Bay	FCRC	Local	(PSP4) Existing Road								No	Identified as existing asset in PSP5	
Torquay Road	To Charles Street	Hervey Bay	FCRC	Local	(Hervey Bay Road Network Study) Connection	2000 – 2005	(PSP4) Future Road Extension	2007					Complete	Road recommended to be down graded to Sub Arterial Main Street Status	
Torquay Road / Denmans Camp		Hervey Bay	FCRC	Local	(PSP4) Signalised Intersection	2012							No	Identified as existing asset in PSP5	
Torquay Road / Hunter Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Signalised Intersection								No	Identified as existing asset in PSP5	
Torquay Road / Queens	Intersection	Hervey Bay	FCRC	Local	(PSP4) Signalised Intersection								No	Identified as existing asset in PSP5	
Torquay Road / Taylor Street	Intersection	Hervey Bay	FCRC	Local	(PSP4) Existing Roundabout								No	Identified as existing asset in PSP5	
Tulesco Road		Maryborough	FCRC	Local	(Nation Building Program) COMPLETE Upgrade of road, 8.0m formation of road pavement and floodway.								Complete		
Urangan Distributor		Hervey Bay	FCRC	Local	(PSP4) New Culvert (no. 2)	2016									
Urangan Street	East of Robert Street	Hervey Bay	FCRC	Local	(Hervey Bay Road Hierarchy Study) Upgrade classification • Serves growth at Urangan										
Urraween Distributor	Extension	Hervey Bay	FCRC	Local	(PSP4) Culvert	2018									
Urraween Road		Hervey Bay	FCRC	Local	(PSP4) Culvert	2009									
Urraween Road	Extension to Boundary Road	Hervey Bay	FCRC	Local	(Hervey Bay Road Network Study) • Restrict access and maintain appropriate setback to residences • Extend east through Dundowran to tie into Boundary Road. New Link in association with surrounding development	2000 – 2005	(PSP4) Future Road	2015-2016	(Hervey Bay Road Hierarchy) • New distributor between Boat Harbour Drive and Urraween Road • Connects to Maryborough-Hervey Bay Road	2026	(Hervey Bay Road Hierarchy) • New distributor between Boat Harbour Drive and Urraween Road • Connects to Maryborough-Hervey Bay Road	(PSP4) upgrade required in 2026	No	Scheduled in PSP4	
Urraween Road	Citrus Drive to Pialba-Burrum Heads Road	Hervey Bay	FCRC	Local	(PSP4) Future Road Extension	2018	(Hervey Bay Road Network Study) extension to Pialba-Burrum Heads Road	2010-2015					No	Identified in PSP4 to be constructed in 2018	Reliant on Developer progress currently in appeal
Urraween Road	Main Street to Citris Drive	Hervey Bay	FCRC	Local	(PSP4) Road Upgrade	2019							No	Identified in PSP4 to be constructed in 2019	
Urraween Road / Denmans Camp / Boundary Road		Hervey Bay	FCRC	Local	(PSP4) Signalised Intersection	2018							No	Identified in PSP4 to be constructed in 2017	
Urraween Road / Madsen Road	Intersection	Hervey Bay	FCRC	Local	(PSP4) Intersection Works	2010	(PSP4) Future Roundabout	2011					No	Identified in PSP4 to be constructed in 2010	

Road	Location	Area	Road Owner	Road Category	Description	Scheduled	Description	Scheduled	Description	Scheduled	Description	Scheduled	Is this work complete	Has this work been scheduled for future	Known barriers to progression
Urraween Road / Nissen Street	Intersection	Hervey Bay	FCRC	Local	(FCRC Website) Intersection Improvements		(PSP4) Future Roundabout	2009					No	Identified in PSP4 to be constructed in 2009	Funding from IFC
Urraween Road / Pantlins	Intersection	Hervey Bay	FCRC	Local	(PSP4) Future Roundabout	2020							No	Identified in PSP4 to be constructed in 2020	
Urraween Road extension / Grevillea Street		Hervey Bay	FCRC	Local	(PSP4) Signalised Intersection	2018							No	Identified in PSP4 to be constructed in 2018	Reliant on Developer progress
Walker Street	John Street to Ferry Street	Maryborough	DTMR	LRRS	(Maryborough CBD Traffic Study 2007) Change sugar cane route from Lennox to John, Walker, Ferry and Alice	September 2008	(RIP 2009-10 to 2013-14) Rehabilitate and overlay (175mm)	2009/10						This section of road is DTMR	
Walker Street	(0-0.7km)	Maryborough			(RIP 2009-10 to 2013-14) Profile correction and asphalt concrete resurfacing (<75mm)	2012/13									
Walker Street / Ferry Street	Intersection	Maryborough	DTMR	LRRS	(Maryborough CBD Traffic Study 2007) Review need to upgrade Walker/ Ferry street intersection in 2012.	2013	(Maryborough CBD Traffic Study 2007) Intersection modelled failure 2013						No	Not in RIP	
Wharf Street		Maryborough	FCRC	LRRS	(Maryborough CBD Traffic Study 2007) Traffic calming	June 2009									
William Street		Hervey Bay	FCRC	Local	(PSP4) Existing Road								No	Identified as existing asset in PSP5	
Woods Road		Hervey Bay	FCRC	Local	(PSP4) Existing Road								No	Identified as existing asset in PSP5	
Yerra Road	(5.899-6.890km)	Woocoo	FCRC	LRRS	(RIP 2009-10 to 2013-14) Widen and Seal	2008/9	2009/10						No	Removed from LRRS network due	
Yerra Road	(7.07-7.65 km)	Woocoo	FCRC	LRRS	(RIP 2009-10 to 2013-14) Intersection Improvements	2008/9	2009/10						No	Removed from LRRS network due to non-compliance with LRRS criteria	

Appendix D
Potential airport initiatives

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Extract from Wide Bay Burnett Aviation Infrastructure Requirements Study, Aurecon, August 2009

Figure 8: Hervey Bay Airport – possible initiatives

MARYBOROUGH CITY COUNCIL

GHD

CLIENTS | PEOPLE | PERFORMANCE

NOT TO SCALE

Horiz. Datum, Metres (GDA94, Zone 56)
Vert. Datum, Metres (AHD)

MARYBOROUGH AIRPORT MASTERPLAN

MASTER PLAN LAYOUT

A4 ORIG

FIGURE 9.1

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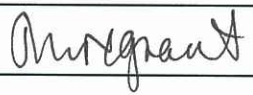
0	S Cross	S Hinrichsen		B van Heerden		08/06/2010
A	S Cross	T Knox-Grant		S Hinrichsen		04/02/2011
B	S Cross	T Knox-Grant		S Hinrichsen		08/04/2011

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