Southern Moreton Bay Islands Integrated Local Transport Plan Review, 2011
Redland City Council

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1. Executive summary

1.1 Review purpose

The Southern Moreton Bay Islands – Integrated Local Transport Plan (SMBI-ILTP) was undertaken in 2002. The aim of the study was to build on the Access and Transport Strategy recommended in the Southern Moreton Bay Islands Planning and Land Use Strategy (SMBIPLUS) 2002.

This 2011 cyclical review of the SMBI ILTP aims to capture the findings of a number of contemporary studies including the SMBI Mobility Study 2011, the SMBI Alternative Route Study 2011 and the Weinam Creek SEIA[1] 2011, and translate these into strategies moving forward.

1.2 Guiding principles

The strategies in this review are holistic and seek to integrate transport into good outcomes for the community socially, economically, and environmentally. This is in accordance with overarching principles for transport planning notably the Queensland Government's Integrated Transport Planning Framework 2003 and South-East Queensland Regional Plan 2009-2031.

1.3 Key review outcomes

This review has determined that the strategies in SMBIPLUS and the SMBI ILTP 2002 and Council's subsequent review paper are still highly relevant. While Council can advocate for many transport outcomes, not all are within its remit and therefore Government collaboration is crucial to advancing the recommendations in these reviews.

The most telling review was of the SMBI Mobility Study 2011, which gave a clear picture of current transport patterns. The study revealed that, in comparison to other communities within the Redlands, the SMBI community travelled for longer, visited more destinations during one trip, and yet car ownership was the same or lower than elsewhere in the Redlands or Brisbane. The community also has a higher ageing population.

The strategic direction for management of transport for the SMBI community must therefore address:

- Accessible public transport and waterborne services
- Travel demand management to reduce vehicle trips, but to also better service key island and mainland destinations
- Sustainable provision of car parking on the Redland foreshore
- The continued effective collaboration of Local and State Government, including Council's continued advocacy for improved transport outcomes for the SMBI

1.4 Community engagement

Council has adopted a highly consultative approach to the ILTP review, encouraging community ownership by displaying ideas and strategies and obtaining feedback at a number of forums including the Macleay Island Speakout and the Russell Island Open House, which attracted high numbers of the community. These events sought feedback on numerous 'bright ideas'[2] relating to transport, which originated with, and have been voted on, by the community.

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[1] Weinam Creek Social and Environmental Impact Assessment, June 2011

[2] Refers to a series of action ideas formulated by government and the community and displayed at the Russell Island Open House forum in late 2010

1.5   Public submissions

The community provided comprehensive responses to the consultation process, with submissions received from Our Parking Spot, SMBI CAC and SMBI Forum[3]. The more significant community concerns related to parking. The community stated that pricing parking would lead to:

- A reduced island population
- Lowering of island property values
- Reduced rental prices
- Reduced mainland income derived from sales to island residents

The view expressed from community submissions was that the Redland Bay Centre and Foreshore Masterplan 2009, if implemented, would lead to the loss of parking and pricing parking should not proceed. A large petition was also received to this effect, detailed below.

There community believed there needed to be improved awareness of public transport in the island communities, and until services improved, public transport could not replace the private car as the primary means of travel.

1.6   SMBI Strategies

The 10 strategies derived from the 2011 SMBI ILTP Review process are as follows:

1. The environment

Encourage transport solutions and technologies that preserve the unique environmental values of the SMBI, the Redland foreshore and surrounding marine park.

2. Travel demand

Increase the self-containment of utility trips on the islands and decrease the reliance on parking on the Redland foreshore.

3. Equitable access

Ensure that transport services are competitively regulated, contracted and priced for the SMBI community and the continued development of a safe, low maintenance road network which supports cycling.

4. Travel responsiveness

Develop an efficient TransLink integrated public transport system that responds more specifically to the travel needs of the SMBI community.

5. Sustainable transport

Continue to develop integrated, connected walking and cycling networks on the islands and on the mainland to make walking and cycling genuine options for all trip types.

6. Land use

Ensure that land use supports and balances all transport modes.

7. Economy

Foster business and service growth on the SMBI to boost employment and tourism.

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[3] Refer to the Glossary of Terms and Section 5.1 for explanations

8. Government collaboration

Ensure continued collaboration and knowledge sharing through all levels and departments of Government and private sector responsible for the management of the SMBI and their environs.

9. Population growth

Recognise the growth of the SMBI population, and plan transport solutions which account for the current rate of growth.

10. Aged demographic

Foster a transport system which recognises the aged or mobility impaired demographic of the SMBI population and allows for safe, convenient and comfortable access for this group.

1.7   SMBI Prioritised actions

Appendix A of this review contains numerous actions for the advancement of the ILTP, reproduced below. Not all are achievable in the short term, nor can Council achieve all of them independently, however Council's role in each, and the importance of each, have been noted.

1.   The environment

Encourage transport solutions and technologies that preserve the unique environmental values of the SMBI, the Redland foreshore and surrounding marine park.

1.1.	Support and advocate for measures that reduce the environmental impact of transport to, from and on the SMBI
1.2.	Identify and advocate for the resolution of environmental constraints during the initial stages of project planning
1.3.	Site and design future facilities to avoid or minimise the impact on the marine or intertidal environment
1.4.	Introduce and adapt existing technology to reduce impacts on turtles and dugongs

2.   Travel demand

Increase the self-containment of utility trips and decrease the reliance on parking on the Redland foreshore.

2.1.	Advocate for the provision of improved medical facilities on the SMBI
2.2.	Undertake further research into the impacts of short term priced parking
2.3.	Advocate for the expansion of community services on the SMBI
2.4.	Encourage denser residential development closer to SMBI ferry terminals to reduce intra-island trips

3.   Equitable access

Ensure that transport services are competitively regulated, contracted and priced for the SMBI community and the continued development of a safe, low maintenance road network which supports cycling.

3.1.	Work with DTMR to provide a subsidised on-call shuttle bus service on the SMBI
3.2.	Continue to lobby DTMR for the regulation of barge service pricing

3.3. Continue to improve roads and road shoulders to improve drainage and limit damage during wet weather and keep the SMBI community informed

3.4. Extend the sealed footpath network on the SMBI, with routes prioritised according to demand

4. Travel responsiveness

Develop an efficient TransLink integrated public transport system that responds more specifically to the travel needs of the SMBI community.

4.1. Coordinate the timetabling of TransLink bus services at Redland Bay Marina with the Bay Islands Transit Systems and Stradbroke Ferries services

4.2. Extend the TransLink *go* card system to encompass the Bay Islands Transit Systems service

4.3. Undertake further research into key mainland destinations for SMBI residents and work with TransLink to better service these destinations

4.4. Subsidise existing ferry services for SMBI residents and SMBI goods and services providers by extending off peak periods

5. Sustainable transport

Continue to develop integrated, connected walking and cycling networks on the islands and on the mainland to make walking and cycling genuine options for all trip types.

5.1. Provide bicycle lockers and racks at the Redland Bay Marina and at island ferry terminals

5.2. Provide exclusive on-road bicycle lanes on Pitt Street/Boundary Street adjacent the Redland foreshore to improve access to the PCN

5.3. Widen the sealed footpaths on High Street Russell Island and High Central Road Macleay Island and designate as shared paths for cyclists, pedestrians and mobility scooter

5.4. Provide exclusive on-road bicycle lanes on High Street Russell Island and High Central Road Macleay Island

6. Land use

Ensure that land use supports and balances all transport modes.

6.1. Build an at-grade park and ride near Weinam Creek Terminal serviced by a subsidised shuttle bus service with parking reserved for SMBI residents, in place of the informal overflow car park

6.2. Encourage the location of commercial facilities such as retail outlets co-located with the Redland Bay Marina

6.3. Undertake CPTED audits at all island ferry terminals and at the Redland Bay Marina and implement the findings

6.4. Upgrade the Redland Bay Marina to include more shelter, more seating capacity, a kiosk and *go* card top up provision

7. Economy

Foster business and service growth on the SMBI to boost employment and tourism.

7.1. Provide cost assistance for trades (utilities and health services) travelling from the mainland and undertaking work on SMBI

7.2. Work with Bay Islands Transit Systems to promote and operate a sight-seeing service of the Moreton Bay Marine Park, with the service headquartered on the islands

7.3. Advocate for the provision of more retail facilities on Russell and Macleay Islands

8. Government collaboration

Ensure continued collaboration and knowledge sharing through all levels and departments of government and private sector responsible for the management of the SMBI and their environs.

8.1. Continue to work with SMBI community groups to provide and advocate for services that meet the needs of the SMBI residents

8.2. Continue to monitor SMBI population growth to anticipate and plan for public transport provision, including waterborne in advance

9. Population growth

Recognise the growth of the SMBI population, and plan transport solutions which account for the current rate of growth.

9.1. Upgrade existing road network on the SMBI in strategic grows areas to allow for easy, safe and reliable access.

9.2. Promote and trial a 'car-share' arrangement for six months operating from the Redland foreshore as a means of reducing future vehicle trips

9.3. Further investigate the feasibility of barge services from Macleay Island to Victoria Point and additional services from Russell Island to Redland Bay

9.4. Increase the capacity of ferry terminal ramps to prepare for increased demand

10. Aged demographic

Foster a transport system which recognises the aged or mobility impaired demographic of the SMBI population and allows for safe, convenient and comfortable access for this group.

10.1. Assess ferry terminals and SMBI footpaths for DDA compliance, document deficiencies and upgrade infrastructure as practicable

10.2. Subsidise taxi fares on both the SMBI and mainland for elderly residents

10.3. Improve internet access on the SMBI to allow on-line ordering of goods and services

10.4. Provide shaded public seating at key island destinations

2. Introduction

This document presents the findings of the 2011 review of the Redland City Council ('Council') SMBI ILTP. The review process is cyclical and integrates the transport needs of the island populations with broader land use, environmental, social and demographic considerations.

The original 2002 SMBI ILTP addressed issues related to island transport, from an island and mainland perspective, including recreational boating, environmental issues, the barge and water taxi network, land use, public transport, walking and cycling and travel demand management measures, and provided an implementation program around 50 consolidated actions.

The 2002 ILTP was underpinned by the Island Vision and the SMBIPLUS document which had four guiding transport principles, namely:

- "A water based transport system will continue to service the islands. There is no State or Local Government support for a bridge between the mainland and Russell Island
- Provision of appropriate standards of infrastructure is crucial to the ongoing sustainability of development. However, infrastructure should be tailored to the specific needs of each island and not detract from the island landscape. Natural drainage systems, a low impact road network, and eventually, reticulated sewerage, are ultimately envisaged
- Similarly, social infrastructure (community services, health welfare facilities etc) will not be provided at the same standard as that available on the mainland. This is consistent with the Island Vision and underscores the need for a reliable and affordable transport system to provide access to the higher order facilities and services on the mainland, and;
- Implementation of the ILTP will have significant implications for the broad community, and economic considerations need to be considered as a component. The ILTP recognises that elements of the transport system operate similarly to the public transport system on the mainland and therefore warrant similar consideration in relation to State Government funding and subsidies."

These guiding principles remain relevant today and still form the basis of this current review. The key principles of an improved water based transport system, supporting sustainable development, remain unchanged.

Since 2002 however, further supporting studies have been undertaken, most notably a detailed travel survey of over 700 SMBI households, an alternative route study to investigate an augmentation of the existing vehicular barge service, a foreshore strategy for the management of land around Weinam Creek, and a social and economic analysis related to proposals for the treatment of parking at the Weinam Creek ferry terminal.

Council has published its own discussion paper as a community update, with strategies relating to public transport, walking and cycling travel demand and so forth and the progress made on these issues since 2002.

2.1 Integrated thinking

The ILTP process calls for more than the identification of transport needs present and future. The process requires integration of sustainable outcomes for the natural environment, an emphasis on sustainable thinking in transport, how land can best be used to support sustainable transport, to support the SMBI economy, the education and health of its population.

The Queensland Government's Integrated Transport Planning Framework (2003) is the core document through which many of the strategies in this ILTP review have been articulated. This document contains multiple overarching principles, among them good economic, social and environmental outcomes, an integrated transport system, integrated transport and land use, and importantly effective Government partnerships.

Similarly the RCC Corporate Plan 2010-2015 looks across several sustainability principles relating to the environmental, social, community and economic consequences of decisions made about the Redlands community.

2.2   Government and community collaboration

Currently the SMBI population stands at approximately 5,500 permanent residents, which is projected to increase to an ultimate population of 20,000 residents, an enormous increase which brings with it many planning and social challenges which will not be solved by transport measures alone, although transport will play a key part in ensuring the welfare and prosperity of island residents.

Collaboration across Government sectors and across community bodies will be integral to this prosperity, and has already begun through the Council's consultative approach to engagement with a range of sectors across the State Government and with island residents.

Accordingly, in addition to SMBI community representatives, TransLink, Department of Transport and Main Roads (DTMR) Department of Environment and Resource Management (DERM)[4], Department of Communities, Queensland Health and the Department of Local Government and Planning are all involved.

This process has already yielded a wide range of transport ideas and solutions, evaluated by stakeholders and captured in the ILTP, and will guide the way for future strategy.

2.3   ILTP Review purpose

The purpose of this review is not to simply carry forward the actions and strategies indentified in the previous 2002 ILTP and Council's ILTP review.

The review has independently re-evaluated those strategies in the context of current travel patterns, population trends and on the basis of Council and State achievements to date toward the better facilitation of inter and intra-island transport and transport on the mainland.

To this end, a prioritisation framework has been developed to bring consistency and robustness to the assessment of multiple transport actions. Of these actions, Council must decide which to invest in during the short term, which to refine and develop in the long term, and across which agencies the actions should be apportioned.

It is hoped that the prioritisation framework will provide a sound basis for these decisions, in the face of limited funding, and often conflicting requirements, of the community.

This document presents renewed strategies and actions for the islands and associated mainland services, based on the community engagement process, and the latest research, which has preceded the preparation of this ILTP.

The review is structured to provide:

- The SMBI within the context of key planning documents
- SMBI profile including land use and demographics, and a brief history to the evolution of transport for the islands
- A summary of the nature of the public submissions received during the ILTP consultation
- Current day issues and constraints affecting the SMBI community
- Strategies and prioritised actions which address these issues

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[4] The Glossary of Terms explains the role of Government Departments

3. Supporting literature

3.1 Integrated Transport Planning Framework (2003)

The State Government's Integrated Transport Planning Framework (A guide for transport planning) 2003 has underpinned the process used to undertake the SMBI 2011 review. The framework defines integrated transport planning as:

> "A process to identify current and future access needs – for people, places, goods and services – and inform decision makers on ways to manage the transport system and land use to best address these needs. It aims to do this in a way that sustains economic growth, conserves the environment and supports the quality of life of current and future generations"

Clearly for the SMBI ILTP to be successful, engagement across Government sectors is required, coupled with an holistic approach to transport planning which encompasses sustainability, land use, and most of all, community input. The framework is reproduced below in Figure 1.
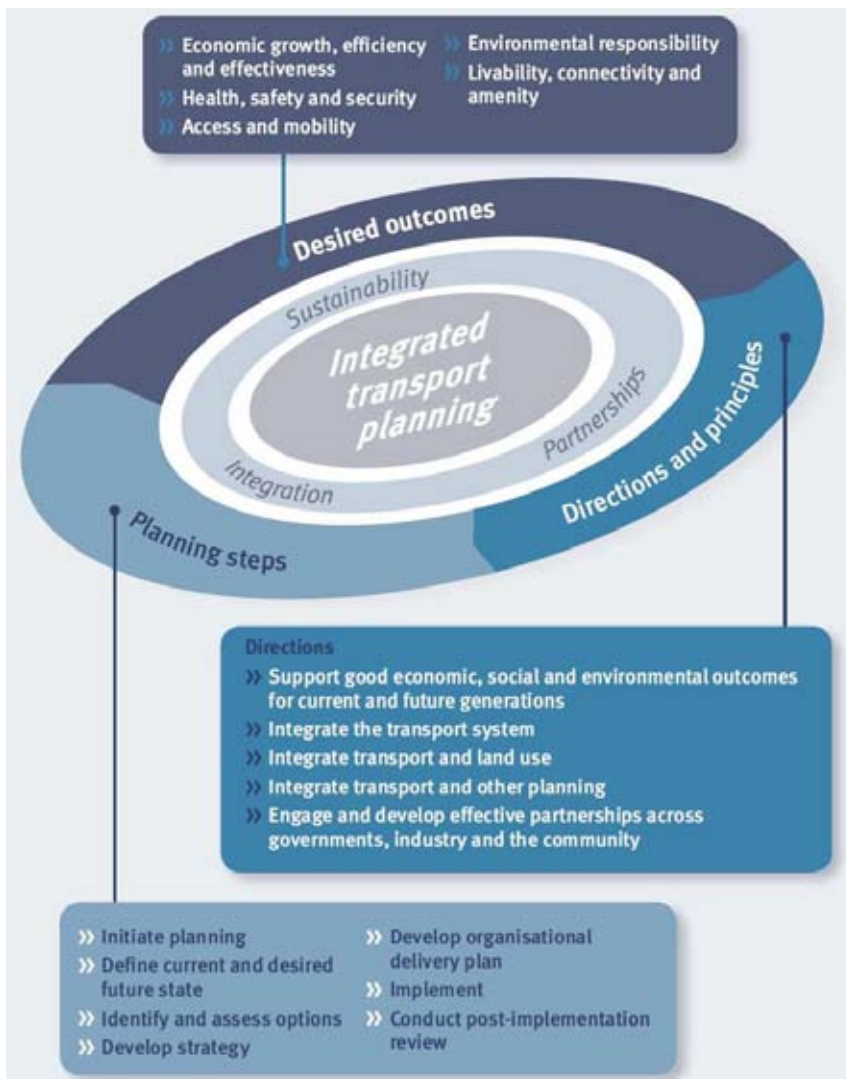
Figure 1: Integrated Transport Planning Framework
Source: Qld Government Integrated Transport Planning Framework (A guide for transport planning) 2003

The framework has a series of desired outcomes, namely:

- Economic growth, efficiency and effectiveness
- Health, safety and security
- Access and mobility
- Environmental responsibility
- Liveability, connectivity and amenity

These are supported by the following directions and principles:

- Support good economic, social and environmental outcomes for current and future generations
- Integrate the transport system
- Integrate transport and land use
- Integrate transport and other planning
- Engage and develop effective partnerships across government, industry and the community

As perhaps the most strategic overarching guideline, the South-East Queensland Regional Plan (SEQRP) 2031 particularly emphasises the importance of managing travel demand, with the efficient use of transport infrastructure through education, technology and even pricing on the use of infrastructure. A key strategy of the ILTP is therefore aimed at managing and balancing private car use by improving public transport on the mainland, and waterborne transport servicing the islands.

How does the SMBI ILTP answer the requirements of the framework?

The strategies which have evolved as part of the ILTP review have encompassed the directions of the framework above by avoiding a narrow focus and looking broadly across the social, environmental and health benefits to an effective transport system. For example, the ILTP strategies put forward seek to:

- Preserve and enhance the Moreton Bay marine park for all to enjoy
- Decrease reliance on mainland parking
- Bolster the SMBI economy
- Ensure the continuation of effective Government collaboration across departments
- Manage ongoing population growth

3.2   Redland Transport Plan 2016

The Redland Transport Plan 2016 seeks to preserve the liveability of the Council area, in particular through improvements to the bus and walking and cycling networks, and to make public transport as a mode of choice (rather than just necessity) by making it more attractive to use than the private car.

The plan presents several strategies and actions around travel demand management, walking and cycling, land use and transport integration, freight and the road network. As a top priority the plan seeks to review parking demand and supply at the Weinam Creek ferry terminal, and seek ways to minimise parking demand through better coordination of public transport.

3.3   The Redland Bay Centre and Foreshore Masterplan (July 2009)

The masterplan was developed primarily to manage the use of the Redland Bay foreshore and to

> "Deliver social, environmental and economic benefits to the community that will enhance the quality of life for residents and facilitate recreational opportunities for the broader community at Redland Bay."

The masterplan recommended the following actions:

- More frequent bus connections to the ferry terminal - improvements to line-haul services between the Redland Bay marina via Victoria Point and the Brisbane CBD, and improved ancillary requirements such as shelters
- Future contracted island bus services with appropriate promotion to residents
- Improved barge services including additional docking areas
- Affordable fare structure for commuters
- Improved integrated ferry/bus timetabling
- Integrated ticketing on SMBI ferry services (the extension of TransLink's *go* card system) and demand responsiveness of services
- Commercial facilities in the vicinity of the Redland Bay Marina
- Rationalisation of parking around the foreshore and a pricing structure to recoup the costs of parking improvements

The masterplan was adopted by Council in August 2009, but subject to a review of the existing ILTP (this document) and subject to a social and environmental impact analysis (Section 3.10) to qualify the impacts on SMBI residents of pricing short term parking.

3.4 SMBI Planning Study – Planning and Land Use Strategy (2000)

The SMBIPLUS details the current and preferred land use patterns on the SMBI. It was prepared to provide a framework for the future development and conservation of Russell, Macleay, Lamb and Karragarra Islands. It is acknowledged within the Strategy that any future development on the SMBI should protect their unique environmental characteristics, such as:

- Conservation locations
- Visual landscape
- Residential development patterns

3.5 SMBI Integrated Local Transport Plan (2002)

The SMBI ILTP 2002 was prepared to provide insight into existing transport issues within the SMBI and to provide clear recommendations for the development of future transport planning to and from the SMBI. The strategy that resulted from this document was:

> "Provide for the location of settlement support activities and ensure these are integrated with transport networks".

The actions derived from this document were:

- Limit the extent of island development to protect the environment, and control transport demand.
- Develop policies that would encourage the development of the businesses and services on the island to improve self-containment.
- Work with state government agencies to locate community services on the Islands
- Investigate opportunities for improving inter-island transport.
- Concentrate transport interchanges at the existing four ferry terminals to facilitate the provision of highly integrated high frequency public transport services.

The land use strategy and actions from the SMBI ILTP 2002 has assisted the development of the goals and recommendations in this review.

It is noted in the SMBI ILTP 2002 discussion paper that self containment (that is the provision of employment, shopping, and services to reduce island to mainland trips) of the islands could effectively limit the need for mainland trip making. Policies that support island self containment would also have important social advantages for the SMBI community.

3.6   Redland City Council Planning Scheme (Version 3.1)

RCC is the Local Government authority for the SMBI. As such, the RCC Planning Scheme (Version 3.1) provides a framework for managing development in a way that advances the purpose of the Sustainable Planning Act 2009. There are two key zones that relate to the SMBI being the SMBI Residential Zone and the SMBI Centre Zone. The overall outcomes of each zone as outlined below:

SMBI Residential Zone - the overall outcomes sought for this zone are described by five characteristics:

- Uses and other development
- Built form and density
- Amenity
- Environment
- Infrastructure

These characteristics typically aim to allow for residential development and limit other development on the islands. The range of non-residential development is to simply meet the needs of those residing on the islands. Otherwise, it is preferred that commercial uses are limited to the SMBI Centre Zone. Furthermore, these characteristics seek development that will not impact negatively on the environmental and cultural significance of the island.

Similar to the SMBI Residential Zone, the overall outcomes sought for the SMBI Centre Zone are described by five characteristics:

- Uses and other development
- Built form and density
- Amenity
- Environment
- Infrastructure

For the SMBI Centre Zone these characteristics encourage commercial and retail development that has a 'village centre' appearance, maintains a low-rise appearance and caters for the needs of the community.

The above zone codes are essential to the ILTP as future development is to comply with the overall outcomes and intentions of the zones. Any goals and recommendations that are developed through this study in regards to land use will take into account the overall outcomes sought through the Redland Planning Scheme.

Redland City Council – Community Profile (2009) - The Redland City Council – Community Profile (2009) document details statistics and trends regarding the residents of the SMBI. These statistics and trends relate to the population, residents occupations and any disabilities.

3.7   SMBI ILTP Review Paper (November 2010)

The SMBI ILTP Review Paper 2010 was drafted by Council to provide background to planning for the SMBI and to inform the SMBI ILTP review. The document was a key component of Council's community engagement strategy, discussed below. It discussed the original strategies within the 2002 SMBI ILTP and contained six revised strategies for the islands:

- "Support and encourage on-island/inter-island trips, through supporting establishment of appropriate development that bolsters the island economies and preservation of the environment
- Work with transport operators and regulators to foster and advocate for a transport system that is easily accessible, frequent, secure and reliable to destinations which meet the needs of the SMBI residents

- Consider the needs of pedestrians and cyclists to encourage walking and cycling. In particular, consider the needs of pedestrians and cyclists in infrastructure upgrades and end-of-trip facility planning
- Identify and confirm road upgrading priorities and develop a program of upgrading that matches Council's funding capacity
- Encourage and support initiatives and alternatives to reduce the demand for parking at island ferry terminals and Weinam Creek
- Encourage transport technology that is environmentally friendly and contributes to the amenity of the SMBI"

Based on the community consultation, these strategies respond to the concerns the community has spoken about, and as such the intention of these strategies has been wholly taken forward in this review. This includes those that address the reliability and accessibility of public transport, and strategies aimed at improving the road network and reducing parking reliance on the mainland.

3.8   SMBI Travel Survey (January 2011)

Between July and August 2010, Council commissioned the SMBI Travel Survey. The aim of the survey was to provide Council with a detailed understanding of the travel patterns of residents on the SMBI, as crucial base data for the preparation of the ILTP. The full study is provided in **Appendix E**. Some of the graphical outputs of the study are reproduced herein for convenience of reference.

To provide Council with an understanding of current travel behaviours, travel surveys were sent to 1,000 households across the SMBI. The travel surveys consisted of a questionnaire together with diaries for all household members. Out of the 1000 households, 714 households responded (refer to Table 1). Taking into account the number of surveys lost (128) this gave a response rate of 82%. This response rate was considered to be robust.

Table 1: SMBI Mobility Study Surveys

	Total	Karragarra	Lamb Island	Macleay Island	Russell Island
Surveys sent out	1000	70	150	400	380
Sample loss	128	8	19	49	52
Adjusted surveys sent out	872	62	131	351	328
Samples return	714	50	108	294	262
Number of persons	1373	90	201	559	523
Response rate	82%	81%	82%	84%	80%

The main areas that the study focused on were:

- Socio-demography
- Private car ownership and usage
- Mode choice
- Activities (trip purpose)
- Trip type (island and mainland)
- Water transport
- Mobility
- Leg (discrete sections of trips) characteristics

Socio-demography is the combination of sociological and demographical characteristics. In the travel survey, this consisted of studying the community from Redlands, Brisbane and the SMBI, and the demographics of these groups. Figure 2 provides details on the socio-demographic results of the travel survey.

As the results show, more that one third of the population on the SMBI are aged 60 years or over. Karragarra has the highest percentage (50%) of people aged 60 years and older. Conversely the middle-age group (20 – 59 years) is under-represented when compared to that of RCC and Brisbane.
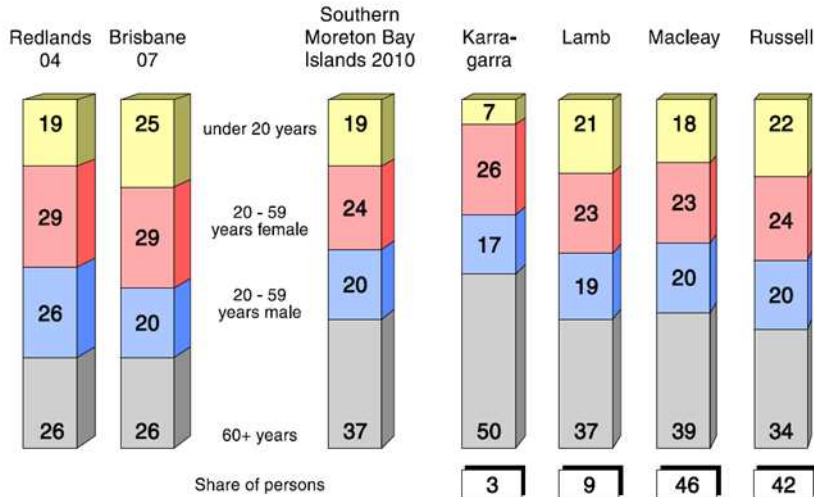
Figure 2 SMBI Socio-Demographic Data
Source: SocialData SMBI Travel Survey 2011

Figure 3 provides details on car ownership per household. As the results show, the average car ownership per household (1.6) is consistent with Redland Shire but higher than that of Brisbane. The results also show that multiple car ownership on the SMBI is slightly higher than that of Redlands Shire but significantly higher than that of Brisbane. Interestingly there is some conflict between the travel survey and the 2006 Census data, with the Census perhaps underestimating SMBI car ownership due to the number of vehicles garaged on the mainland and not at resident's homes.
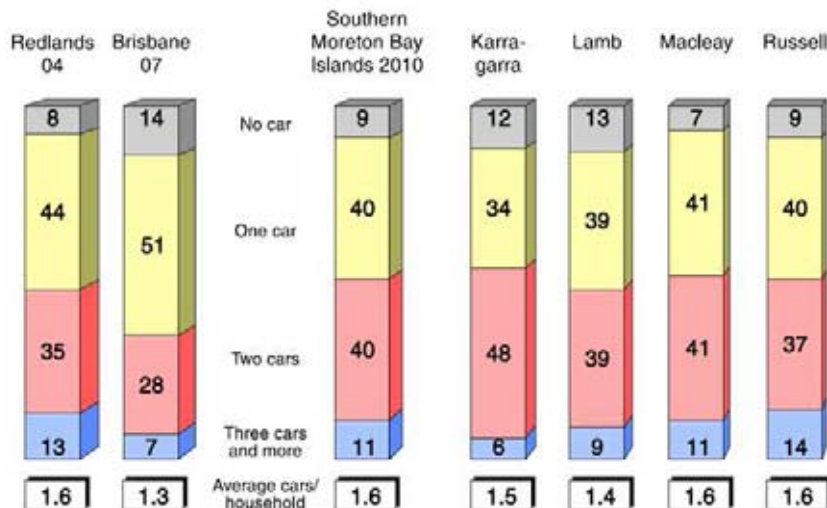
Figure 3 SMBI Private Car Ownership
Source: SocialData SMBI Travel Survey 2011

The number of households running a car on both the SMBI and the mainland were investigated. The results of this can be seen in Figure 4. As the information shows, 36% of all households on the SMBI maintain vehicles on both the islands and the mainland. As Figure 4 shows, the majority of these cars park at the parking locations at Redland Bay Marina.
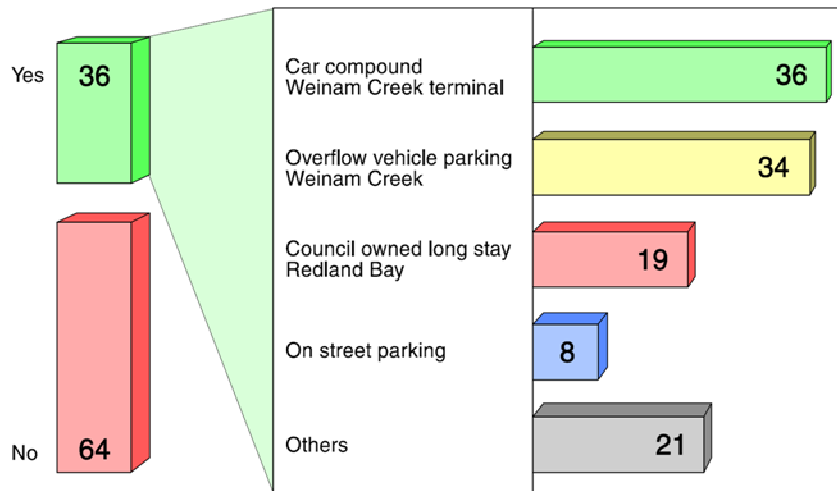
Figure 4 SMBI and Mainland Car Ownership
Source: SocialData SMBI Travel Survey 2011

The mode choice split for the SMBI can be seen in Figure 5. As shown, the dominant mode of transport on the SMBI is the private car. This equates to an average of 80% of all trips. Walking as a mode on Karragarra and Lamb Island are significantly higher than on Macleay Island and Russell Island, naturally expected due to the much smaller size of Lamb and Karragarra Islands. However, even on Lamb Island where walking has the highest percentage, over 50% of all trips are made by private car (as either driver or passenger).
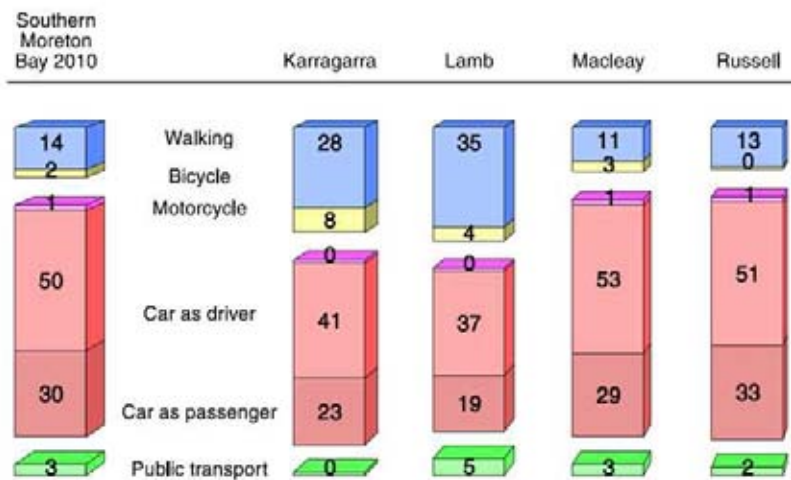
Figure 5 SMBI Mode Choice
Source: SocialData SMBI Travel Survey 2011

Figure **6** provides information on mode choice splits for Redlands, Brisbane and the SMBI. As

Figure **6** shows, provide car use (as driver) on the SMBI is only 2% lower than that of Brisbane. However, car as passenger is higher than both Redlands and Brisbane at 29%. This shows that the private car is still the most dominant form of transport on the SMBI. Also, walking and cycle on the SMBI (9%) falls below that of Redlands (11%) and Brisbane (12%).

Public transport use on the SMBI is comparable with that of Brisbane (10%). As the only form of public transport that exists on the SMBI is a school bus, it is assumed that most if not all public transport trips on the SMBI are undertaken for educational purposes.

Private car use on the SMBI accounts for a high percentage of the mode split, several reasons account for this trend:

- Geography – the terrain on the SMBI is undulating and lacking paths, and as such, walking and cycling may not be a desirable mode choice
- Road network – the majority of the road network on the SMBI is unmade. The made sections of the network do not have sufficient facilities for cyclist and pedestrians
- Services – the SMBI lack a number of service provisions. A number of the trips undertaken are for shopping. Without a car, carrying out the weekly/monthly shop is likely to be time consuming
- Socio-demographics – as Figure 2 show, the age group of 60+ contributed to 37% of the total SMBI population. As such, walking and cycling may not be a viable option for this age group.
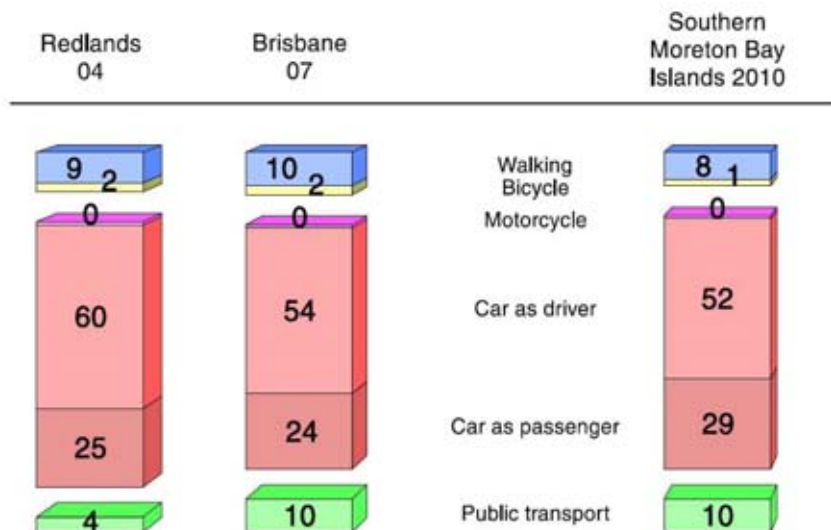
Figure 6 Mode Choice for mainland and SMBI
Source: SocialData SMBI Travel Survey 2011

In order to access shopping, the work place and other essential services, SMBI residents need to make two journeys, one being within the SMBI to reach a ferry terminal, and the second being a mainland trip to reach their ultimate main destination. The on-island trip, at least for Russell and Macleay islands, takes place almost always by private vehicle, as there is little alternative.

On Macleay and Russell islands, the communities are quite dispersed, with many trips beyond the typical 800m-1km walking catchment distance, and up to 4-5kms in length, again promoting use of the car. The second mainland trip again is dominated by car use, a reflection of a reliance on the car to reach dispersed mainland destinations, and the fact that islanders trip chain to a greater extent than those on the mainland, and conduct longer trips as a result. Figure 9 refers to this further.

The activities undertaken by SMBI residents can be seen in Figure 7. As the figure shows, SMBI residents undertake less work based trips compared to that of Redlands and Brisbane residents. 18% of trips undertaken by SMBI residents are work related trips. This compares to 21% for Redlands and 24% for Brisbane.

This highlights that 82% of trips undertaken by SMBI residents fall under the categories of education, shopping, escort and leisure (recreational trips). With a high level of recreational trips being undertaken by SMBI residents, higher demand is placed on the private car, particularly if the desired destinations are not adequately serviced by public transport.
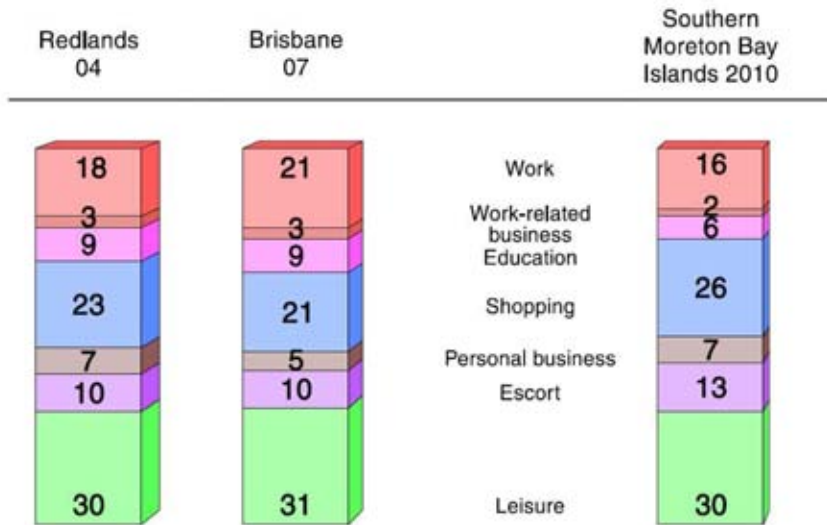
Figure 7 SMBI Mode Activities

Source: SocialData SMBI Travel Survey 2011

The mode split between ferry, barge and private boat can be seen in Table 2. As Table 2 shows, the highest form of water transit is via the ferry service provided by Bay Islands Transit Systems, with a mode share of 90%. This is compared to only 7% for barge services (Stradbroke Ferries) and 3% for private boat use. The dominance of ferry use is likely to be due to the frequency of services run by Bay Islands Transit Systems and the reduced travel times on this service.

Table 2: Water transport mode split

Water Transport Mode	Percentage Split
Ferry	90%
Barge	7%
Private boat	3%

Source: SocialData SMBI Travel Survey 2011

Figure 8 provides details on the mobility figures for the SMBI. The mobility figures are split up into four sections:

- Activities
- Travel time
- Trips
- Distance

Activities: main business carried out in one spatial setting out of home

The activity levels for the SMBI (1.5) are less than that in Redlands (1.7) and Brisbane (1.8).

Travel Time: time taken between start of times and arrival at destination

Travel time for residents on the SMBI (103 minutes) is significantly higher than that for residents in Redlands (60 minutes) and Brisbane (61 minutes).

Trips: movement generated by an out of home activity or trip

The average number of trips for residents on the SMBI is less than that of residents in Redland and Brisbane. The SMBI have an average trip chain of 2.5 whereas Redlands and Brisbane have trips chains of 2.9 and 3.1 respectively.

Distance: door to door distance

The average distance residents of the SMBI have to travel is significantly higher than that of residents in Redland and Brisbane. The average distance travelled by residents on the SMBI is 43 km, compared to 32 km for Redlands and 25 km for Brisbane.
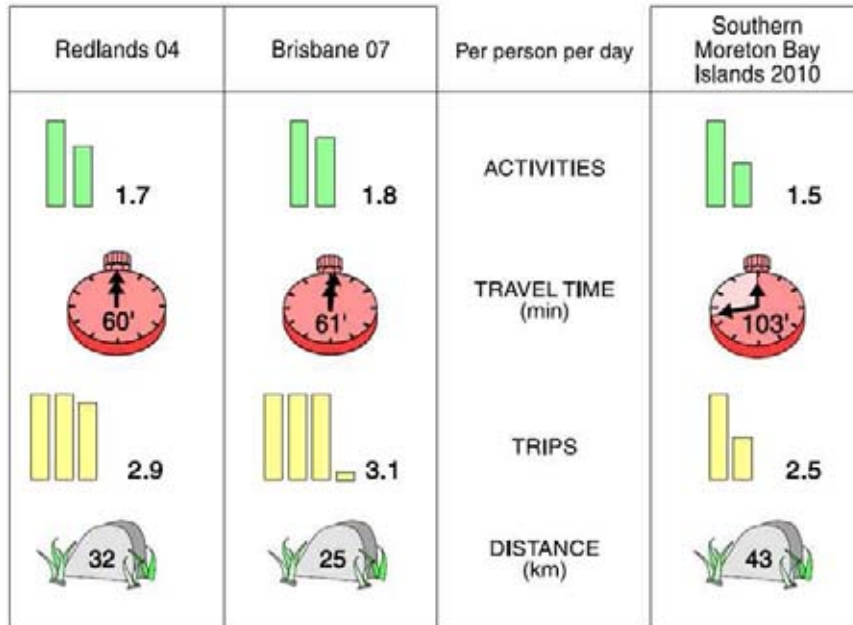
Figure 8 SMBI Mobility Statistics
Source: SocialData SMBI Travel Survey 2011

Figure 9 provides details on the leg (distinct different trip sections within the one overall trip) characteristics for residents on the SMBI. As Figure 9 shows, on average each resident makes 2.5 trips per day and a total of 9.5 legs. This equates to an average of 3.8 legs per trip .This shows that the average distance for each leg is 4.7 km and has an average journey time per leg of 11 minutes.
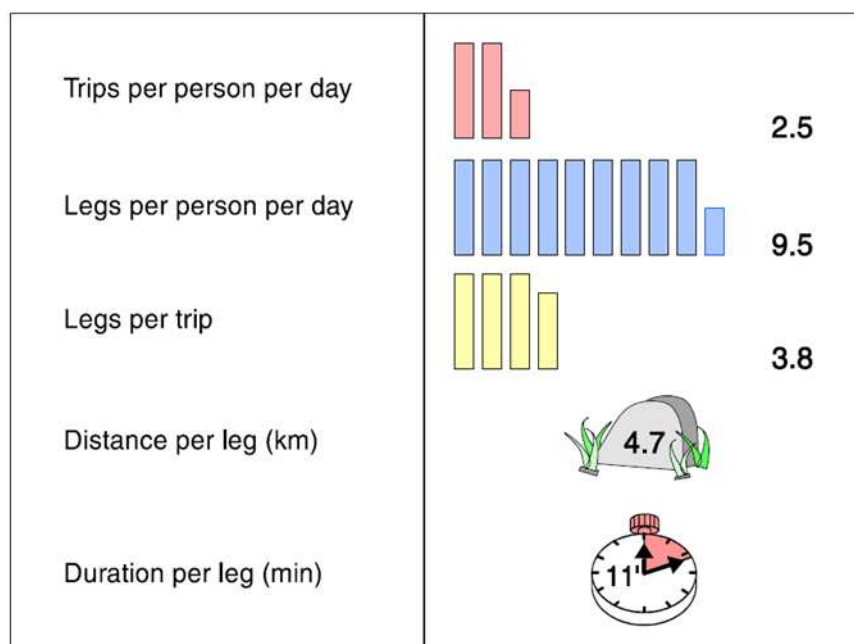
Figure 9 SMBI Leg Characteristics
Source: SocialData SMBI Travel Survey 2011

Results taken from the mobility study show that residents on the SMBI rely heavily on the private car. Car ownership, particularly multi-car ownership, on the SMBI is higher than that in Redland and Brisbane. This reliance on the private car is also evident in mode choice.

The study also highlights residents maintaining a car on the mainland. 36% of all households maintain a car on the mainland which in turn places pressure on the limited parking available at Redland Bay Marina (Weinam Creek).

On average, residents of SMBI have longer distances and travel times from their start and end destinations.

3.9 SMBI Water Transport Alternative Route Study (February 2011)

The study assessed the feasibility of additional access routes to the SMBI. The complete study is provided in **Appendix F**. These additional routes included vehicle barge routes, water taxi/passenger routes and the introduction of a bridge between Russell Island and the mainland.

As part of the study, consideration was given to previous alternative route assessments, environmental issues and constraints, site constraints, and implementation and operational costs.

The study area, and the existing barge routes, can be seen in Figure 10. The study area is located in the southern section of the Moreton Bay Marine Park and runs between:

- Little Rocky Point (south) and Dundas Street (Cleveland) on the mainland
- Rocky Point in the south to Channel Street/Jackson Street on Russell Island
- Eagle Street in the south to Beelong Street to the north on Macleay Island
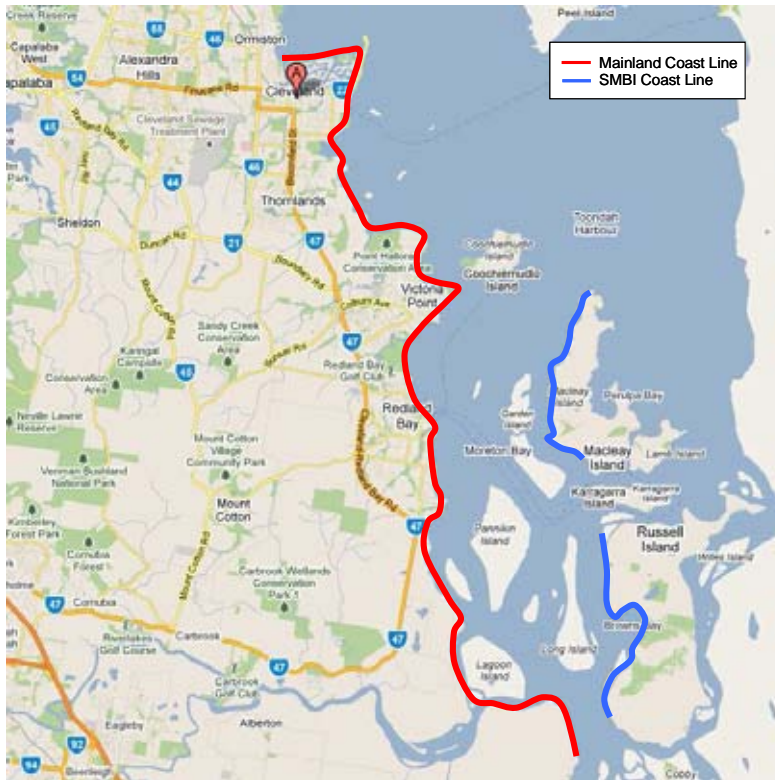
Figure 10: Alternative Route Choice Study Area

Within the study area, 22 sites were selected from previous alternative routes studies for further investigation as landing points. Of these 22, 12 were on the mainland, two on Russell Island and eight on Macleay Island. A list of these sites can be seen in Table 3.

Table 3: Site assessed as part of the SMBI Water Transport Alternative Route Study

Mainland	Russell Island	Macleay Island
William Street, Cleveland	Channel Street/Jackson Street	Eagle Street – Perrebinpa Point
Orana Esplanade, Point Halloran	Rocky Point	Karrawarra Street
Dundas Street, Ormiston		Wharf Street – known as Thompson's Point
Thompson Street, Victoria Point		Orana Street/Kalara Street
Masters Avenue, Victoria Point		Attunga Street – Dalpura Point
Toondah Harbour, Cleveland		Dalpura Street – at the existing boat ramp
Raby Bay Boat Harbour, Cleveland		Beelong Street – Pat's Park
Point Talburpin		Cross Street – known as Parson's Point
Little Rocky Point (south), Woongoolba		
Little Rocky Point (north), Woongoolba		
Rocky Passage Road, Redland Bay		
Zipf's Road, Redland Bay		

After the 22 sites were selected, a two stage assessment was undertaken. Upon completion of the two stage assessment process, seven sites initially met the required recommendation for further consideration. These seven sites can be seen in Table 4.

Table 4: Selected Site for Further Consideration

Mainland	Russell Island	Macleay Island
Masters Avenue, Victoria Point	Rocky Point, Russell Island	Cross Street, Macleay Island
Toondah Harbour, Cleveland		
Little Rocky Point (south), Woongoolba		
Little Rocky Point (north), Woongoolba		
Rocky Passage Road, Redland Bay		

These were then narrowed down to two sites, Cross Street, Macleay Island and Rocky Point, Russell Island. In addition to the alternative routes, new barge routes were also considered. Within the study area, four additional routes were investigated and can be seen in Table 5. These routes were chosen based on potential advantages and disadvantages, operation considerations, infrastructure requirements and capital costs.

Table 5: Proposed Barge Routes

Cross Street (Macleay Island) to Victoria Point (mainland)
Rocky Point (Russell Island) to Little Rocky Point (south - mainland)
Rocky Point (Russell Island) to Little Rocky Point (north – mainland)*
Rocky Point (Russell Island) to Passage Road (mainland)*

Using a cable drawn barge

Since the 1980's, there has been speculation about a possible bridge connecting Russell Island to the mainland. Over the years, Council has received ongoing requests from the community to investigate the feasibility of implementing the bridge.

Despite no support for the bridge by Council or State Government, a bridge option was tested as part of the alternative route study. The proposed alignment of the bridge would run from Rocky Point on Russell Island to a point just north of Little Rocky Point at Woongoolba on the mainland, a distance of approximately 1.5 km.

The design of the proposed bridge was split into two main options and three main construction options. These options and sub-options are detailed in Figure 11.
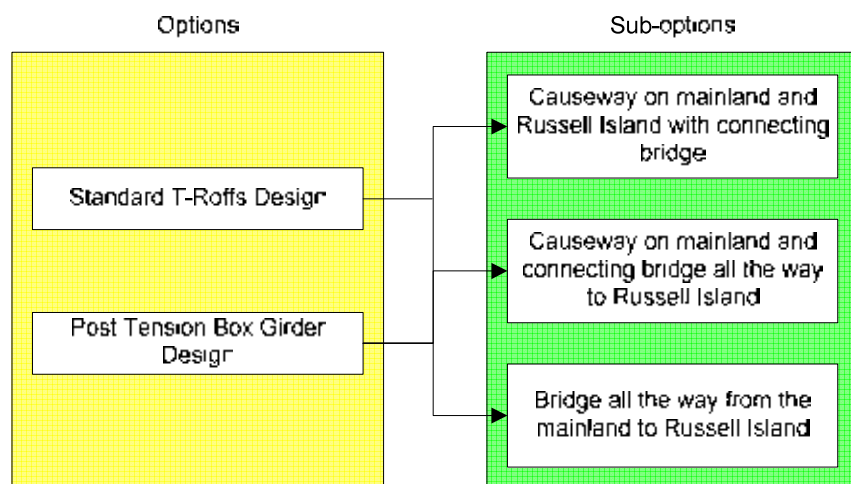
Figure 11 Proposed Bridge Options

Source: SMBI Water Transport Alternative Route Study (February 2011)

In summary, the SMBI Water Transport Alternative Route Study assessed the feasibility of alternative areas where water transport stations/stops could be located on the SMBI. The analysis of possible alternative landing locations found that of the sites assessed, only two were deemed suitable for further assessment. The remaining locations were not feasible due to environmental or ownership constraints.

Of the two sites deemed appropriate for further assessment (Cross Street, Macleay Island and Rocky Point, Russell Island) it was noted that each would require significant causeway construction, and therefore had the potential to have significant environmental impact.

The possibility of bridges between the mainland and the islands was also analysed within this study. The study found that the disadvantages of this type of infrastructure (typically cost, congestion and environmental constraints) outweighed the advantages.

3.10　Social and Economic Impact Assessment, Weinam Creek Ferry Terminal (June 2011)

The original recommendation for pricing short term parking was raised in the Redland Bay Centre and Foreshore MasterPlan 2009. This raised community concern but the MasterPlan was qualified by a requirement to further assess the impacts. Council commissioned a further analysis (SEIA[5]) to investigate the impact of a pricing policy for the Weinam Creek Car Park at Redland Bay Marina, based on a nominal levy of 25c/hour. The complete study is provided in **Appendix G**. The aim was to provide Council with an understanding of what impact a parking charge would have on the residents on SMBI, the local community and commercial services operating in this area. As part of the study, the following was investigated:

- Stakeholder views
- Social and economic profile of the SMBI
- Impact management measures

Key stakeholders consulted included the community and community groups on SMBI, Health and Community Services, other Government agencies, commercial service providers and mainland residents in the vicinity of Weinam Creek. During the stakeholder consultations, a number of issues and concerns were raised by various parties. These related to:

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[5] Refer to Glossary of Terms

- Demographic change, for example an increase in unemployment, and that the introduction of pricing could encourage residents to relocate from SMBI with a negative impact on the social-economic profile of the islands
- Community cohesion, that the scheme could further disconnect the SMBI from the mainland
- Accessibility, that patient health services could be affected as they would no longer be able to maintain a car on the mainland
- Student opportunities to visit the SMBI could be limited because of less public transport to and from the SMBI
- The employment and the economy could be impacted if travel and tourism are discouraged and the attraction and retention of staff could become more difficult
- Could affect house prices and saleability
- People with needs, and concerns that the aging population and their need to access health services could be compromised, and that goods and services provisions could be reduced due to higher costs
- The scheme could erode trust in Government
- Amenity issues including overspill from the car park, security issues (vandalism) and new facilities having a visual impact on the local area

The results of the social profile concluded that on the SMBI there was a higher proportion of low income households, social disadvantage, and increasing costs of travel. Further there was clear evidence of resident activism and lobbying for community benefit.

The results of the economic profile concluded that services are limited, the SMBI demographic had more aged persons than the Redlands, more retirees, and decreasing property values. An analysis of transport and car use revealed that 90% of mainland transfers were made by ferry, 42% of households on SMBI do not have a car on the mainland, 42% park at Weinham Creek for over 21 hours at a time and public transport use (for work) is only 6%.

In terms of income, employment and education, the SMBI economy is narrowly based. Average household incomes were 50% of the Redlands average, and there was high unemployment and low labour force participation with a high level of Centrelink (social security) reliance. 39% of SMBI workers work on SMBI (and 17% elsewhere and 18% in the Brisbane area) and the occupation and education characteristics of employed SMBI residents are not greatly different from other Redland residents.

In addition to stakeholder consultation and social and economic profiling, mitigations to the negative impacts of a pricing scheme were considered (Council has incorporated these recommendations into the 'bright ideas', refer to Section 6.2) including:

- Taxi transit hail and ride service
- Community shopper service
- Barge vouchers for retirees
- Car and bicycle hire scheme
- Electric bicycle hire scheme
- Improvements to public transport at Weinam Creek and better onward connections
- Free parking to impacted groups at the Meissner Street car park
- Participatory planning at Weinam Creek with Council and the community
- Weinam Creek and SMBI Economic Development Strategy
- Redland wellbeing hub for health for higher order services, to avoid visits to medical facilities further afield such as Cleveland
- CPTED[6] to be considered in the detailed car park design, for example lighting and passive surveillance to be built into the design
- National broadband provision

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[6] Refer to the Glossary of Terms

In summary, the impact of a 25c/hour per hour parking fee could be broadly expected to:

- Directly impact on one third of SMBI residents (those with a mainland vehicle and no resident worker)
- Indirectly impact on the most socially disadvantaged SMBI residents (who are likely to own a mainland vehicle) through cost impacts on their visitors
- Result in minimal behavioural change in the short term, for example longer term changes such as relocating from the SMBI and changing employment would take some time to occur

Overall the long term impact was difficult to quantify, but could result in a reduction of mainland car ownership.

3.11   Summary of supporting literature

In addition to Council and State Government plans and policies, which govern transport management on the SMBI, Council has undertaken several recent studies, to firstly understand the current travel patterns of islanders, and secondly to understand how best to accommodate them. The key reports are the SMBI Mobility Study 2011, the SMBI Alternative Route Study 2011 and the Weinam Creek SEIA 2011.

The Redlands Transport Plan 2016, SEQRP 2031 and the Redland Bay Centre and Foreshore Masterplan 2009 espouse sustainable transport solutions such as walking and cycling and improved public transport, and integration with the barge and water taxi services on offer.

From this review of the supporting literature, it is evident that there is conflict between these overarching plans, and the findings of the mobility study and the SEIA[7]. The current travel patterns of islanders rely on private vehicle trips with many different trip purposes (legs) rolled into each trip, and the public transport network does not adequately service these needs or can yet replace the motor vehicle as the primary form of transport for islanders.

The foreshore masterplan calls for a rationalisation of foreshore parking and a price on parking, in order to facilitate mode swing away from the private vehicle. As indicated in the SEIA, with car park pricing in place, approximately a third of all households would be impacted, and a further third indirectly impacted by the flow on effect to the costs of goods and service provisions to the islands.

The recurrent theme throughout is the need for equitable access to transport. If public transport, and barge and water taxi services can be better tailored to the needs of islanders, then car parking and reliance on the private vehicle could feasibly be reduced for SMBI residents, and future management of the foreshore could better respond to the SEQRP 2031 and the Redland Transport Plan 2016.

Coordinated bus and water taxi services are by no means a panacea, as a host of supporting strategies need to be executed in parallel, among them integrated ticketing with TransLink, demand responsive service, and improved services on the islands themselves to support trip internalisation and improve travel demand.

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[7] Refer to the Glossary of Terms

4. SMBI Profile

4.1 Introduction

The residents on the SMBI face a number of transport issues both on the islands and the mainland. As there is no fixed link between the islands and the mainland, residents on the islands have to rely upon vehicle ferry and passenger services.

The cost of using these services, particularly the vehicle barge service, is relatively expensive for a community which is already highly price sensitive, and as such many residents maintain two vehicles, one on the mainland and one on the islands.

This situation has led to issues of excessive parking demand at the ferry and barge terminals at Redland Bay Marina (Weinam Creek) which Council is addressing through various initiatives including the strategies outlined in this review.

The ageing population of the islands, and the high proportion of low income earners, tend to compound the issues around transport and reinforce the notion of a disadvantaged island community without recourse to the level of service expected on the mainland, for example none of the households are connected to conventional reticulated sewerage systems. Rising unemployment rates on the SMBI are higher than those in Redland and Brisbane and represent a significant change in the demographic since the 2006 Census.

As noted in the SocialData SMBI Travel Survey 2011, a significant proportion of the SMBI community are aged with more that one third of the population on the SMBI aged 60 years or over, more than the Redlands or Brisbane. This brings with it additional pressures for transport to high order medical facilities in Cleveland or Brisbane, and transport needs on the islands themselves.

The following sections provide a current day profile of the SMBI community within the context of current planning instruments, a brief transport history and overview of current transport providers, and an overview of the issues affecting the community today.

4.2 SMBI Planning framework

The SMBI are comprised of Russell, Macleay, Lamb and Karragarra Islands. The planning framework for the islands is outlined as follows:

The SEQRP 2031 addresses regional planning issues in south-east Queensland and provides the framework for managing growth, change, land use and development to the year 2031, taking into consideration population growth and future demand.

The SEQRP 2031 identifies the SMBI as being identified as within the urban footprint, and partially identified as being within the regional landscape and rural production area. The land within the urban footprint is envisaged to provide for the region's urban development needs to 2031.

The regional landscape and rural production areas have environmental, conservation, rural production and other non-urban values. The SEQRP protects these lands from encroachment by inappropriate development, particularly urban and rural residential development.

The SMBI each fall within the RCC Local Government authority. Under the Redland City Council Planning Scheme (Version 3.1) the SMBI are subject to two specific codes. These codes are examined below.

Figure 12 identifies the SMBI planning area under the Redlands Planning Scheme.
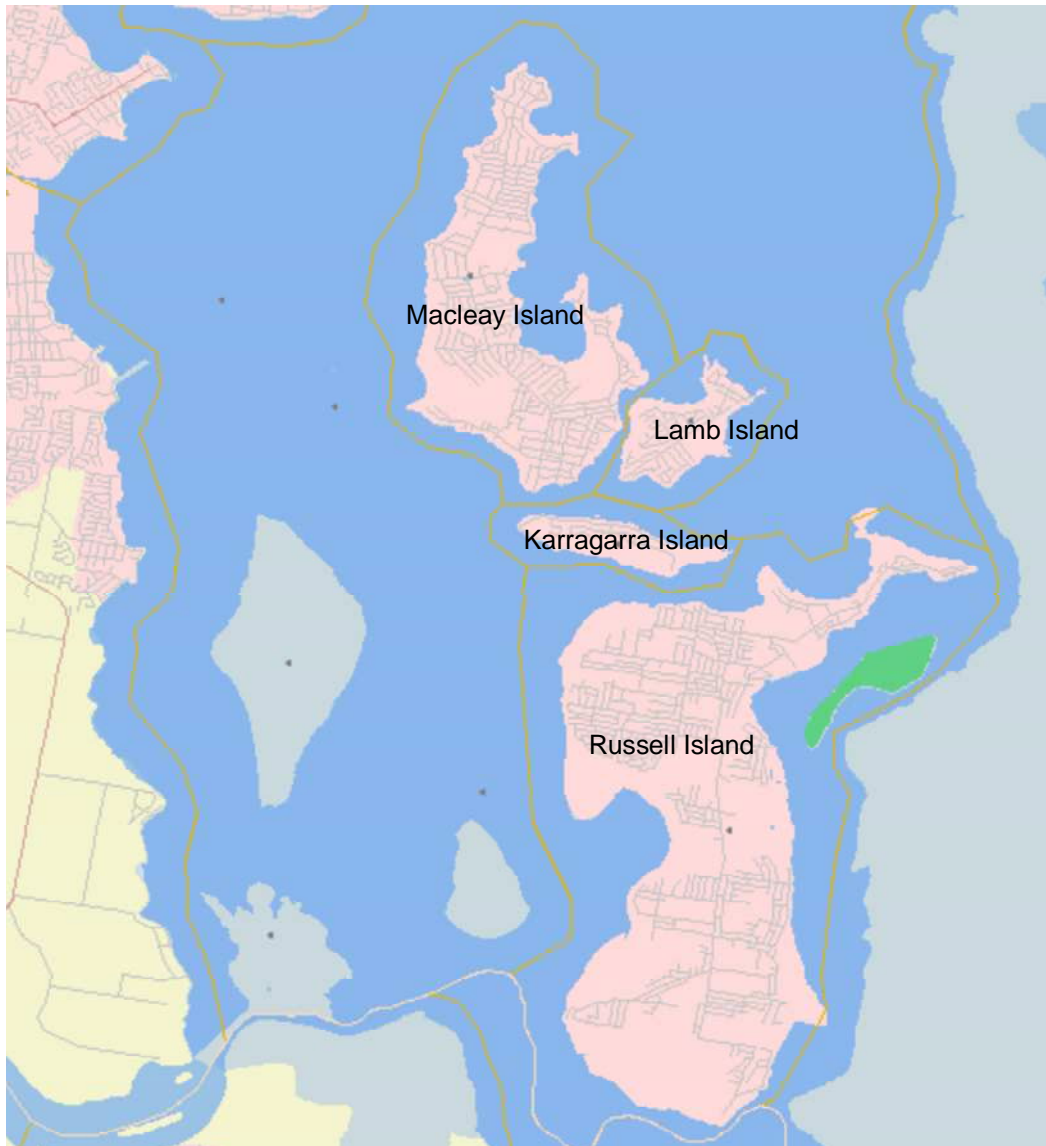
Figure 12 SMBI Planning Area

The SMBI Integrated Local Transport Review (2010) and RCC Planning Scheme Version 3.1 detail the land uses that currently exist on the SMBI at the time of writing. These land uses are:

- SMBI Residential
- SMBI Centre
- Conservation
- Open space
- Local centre
- General industry
- Community purposes

In addition to the land uses listed in the SMBI Integrated Local Transport Review (2010), the SMBI Planning Study – Planning and Land Use Strategy 2000 details the patterns that exist on the SMBI currently. This document also outlines preferred land uses for the SMBI. These descriptions are summarised as follows:

Russell Island

The common land use for Russell Island is conservation and residential. The Island has the highest population of all of the SMBI and is the most remote from Brisbane. Development density is highest in the northern half of the Island where there are fewer environmental constraints and where services have been established.

Russell Island has areas of medium, high and very high conservation levels. These conservation areas are largely located at the southern end of the Island and have typically been precluded from development due to high ecological and cultural heritage values and higher servicing costs.

Macleay Island

Macleay Island is popular for those residents needing to commute frequently to the mainland. Being the most developed of the Islands; it has fewer areas of conservation priority. However, the Island retains relatively extensive vegetation cover, which also provides a significant visual landscape.

Management of the landscape is an important component of the preferred land use and development strategy for Macleay Island.

Lamb Island

Lamb Island is typically residential, with some areas allocated to community and commercial land uses. These uses typically exist in the more populated areas of the Island. The residential land use is preferred, as well as the integration of more open space. Development strategies aim to maintain the visual amenity of the Island.

Karragarra Island

The current land use pattern for Karragarra Island is typically small scale residential communities. It is preferred that the land use on Karragarra Island remains in a similar way due to the high cultural heritage significance areas (Indigenous areas).

The south eastern and western sectors of the Island are preferred to be maintained for rural land uses to uphold the existing mangrove communities.

Overall, the SMBI Planning Study – Planning and Land Use Strategy 2000 recognised a need for access to the mainland for higher level facilities and services. However, the improvement of social infrastructure services on the islands should be encouraged to limit trips for small level facilities and services (for example medical services).

Figure 13 indicates key destinations on the islands and mainland within the urban footprint.
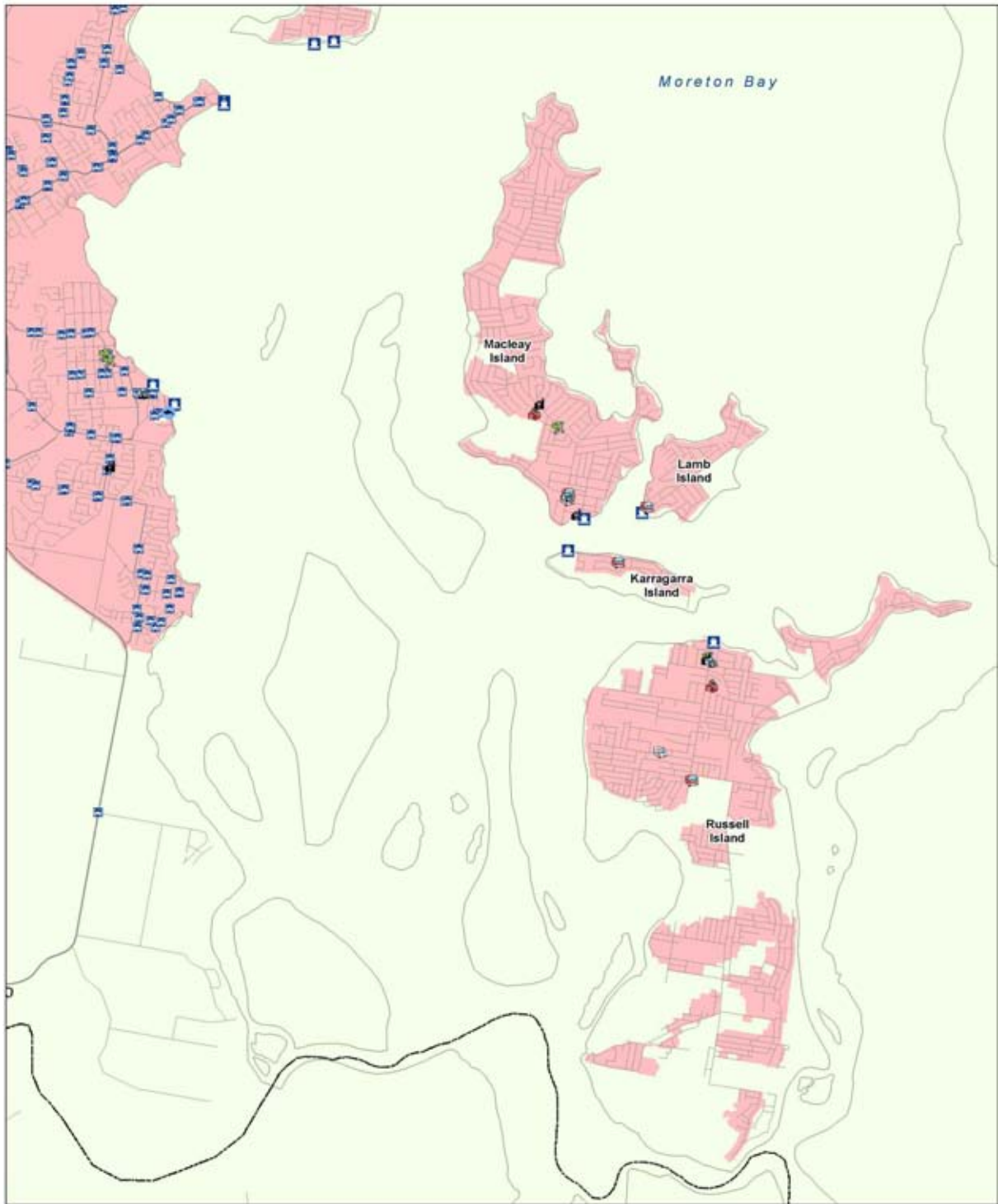
Figure 13 SMBI and Mainland Key Attractors

4.3 Population and demographics

Before European settlement of the Moreton Bay region in the 1820s, North Stradbroke Island and the surrounding areas were home to the traditional land owners the Noonucal and Gorenpul people[8].

Records taken during the early stages of indigenous and European interaction show that, similar to the present day, indigenous communities travelled between the islands on waterborne craft.

Although settlement of the Moreton Bay region started in the 1820s, settlement of the SMBI did not commence until the 1850s and 1860s. Early settlement on the islands was based around the farming of sugar, cotton and fishing industries[9].

The following tables show the key timeline for the early settlement of the SMBI islands.

Table 6 SMBI Development Timeline
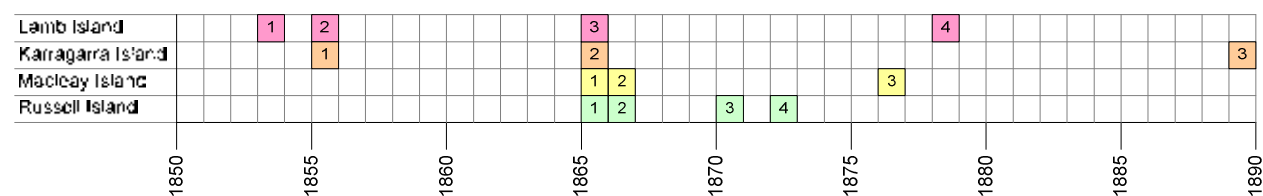
	Lamb Island			Karragarra Island	
1	1853 – First European settler – Thomas Lucas		1	1855 – Logging of the island began	
2	1855 – Logging of the island began		2	1865 – QLD Premier leased land to sugar farmers	
3	1865 – QLD Premier leased land to sugar farmers		3	1889 – Subdivision of land took place	
4	1878 – Subdivision of the island took place				

	Macleay Island			Russell Island	
1	1865 – First settlement by Robert Campbell – grow sugar		1	1865/1866 – First settlement by John Campbell	
2	1866 Salt works built		2	1870 – Island was established and first major agricultural land sale	
3	1877 – Population 15		3	1872 – First major land sales	
			4	1916 – First school opened	

After the first subdivision in 1878, a number of much later subdivisions took place, with the most infamous 'scandal' occurring in the early 1970's on Russell Island.

During this decade large parcels of farmland on this island were subdivided by investors and sold off to members of the public. Unbeknownst to many of the buyers, the blocks were often not where the

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8 www.redland.qld.gov.au/SiteCollectionDocuments/_About_Redlands/History/inthebeginning.pdf
9 www.redland.qld.gov.au/SiteCollectionDocuments/_About_Redlands/History/Our_Suburbs/bay_islands_timeline_Nov09.pdf

buyers thought they were, and a number of the blocks were located under water at high tide[10]. At the time of this land scam, the SMBI did not have any local authority to enforce planning restrictions.

This was finally addressed on 12 May 1973 when Russell Island, Macleay Island, Karragarra and Lamb Island became part of Redland Shire. This was in line with a move throughout the state of Queensland to bring islands off the coast under the control of local authorities[11].

Since early European settlement of the SMBI in the 1850s and 1860s, the population of the islands has continued to increase steadily. Census data provides population numbers for 1991, 1996, 2001 and 2006. Figure 14 below shows how the total population on the SMBI has continued to grow over an 18 year period. The SMBI population has grown fairly linearly to 2006 with a more rapid rate of growth noted beyond that year.
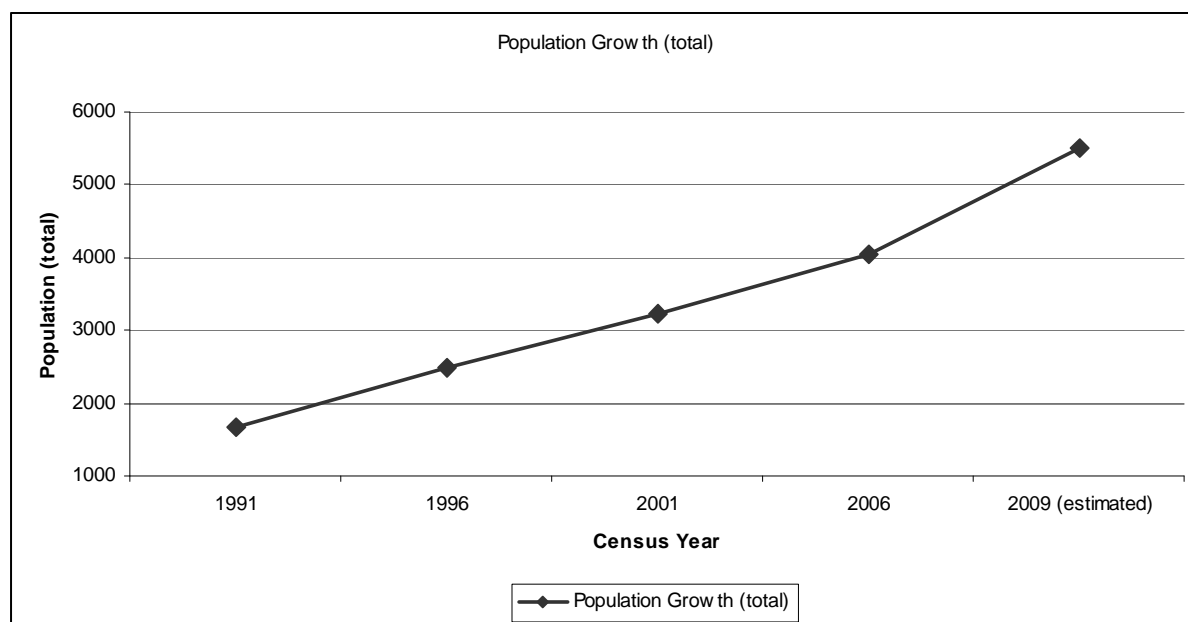
Figure 14: SMBI Population Growth *Estimated population number for 2009 taken from SMBI ILTP Review

The population of the SMBI fluctuates during certain times of the week and year. In general, the population comprises of people who live there all year round, those who reside there while on holiday (for a weekend or an extended period) and those who split their time between the SMBI and the mainland.

In 2006 the estimated population for the SMBI was 4,043 (Redland City Council - Community Profile, 2009). In 2008, the population of the SMBI was 5,206 permanent residents (SMBI ILTP Review Paper 2010). From the 2008 data, it was estimated that the population in 2009 would be approximately 5,500 permanent residents. It is noted that these projections were based on residential development approvals on the islands.

These population statistics are important as they demonstrate that the population for the SMBI is notably increasing. Between 2006 and 2009 the increase in population exceeded 35%, which is considered significant for the SMBI and in relation to the potential impact on land use patterns and transport demand.

The other key demographics that were reviewed were occupation and age. The age demographic percentages for SMBI compared to Redlands are shown in Table 7.

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[10] Shannon Molloy (18 August 2007). "$150m resort plan unveiled for Russell Island". Brisbane Times, retrieved 9 May 2011
[11] SMBI Integrated Local Transport Review November 2010

Table 7 Age Demographics of SMBI Compared to Redlands[12]

Age	SMBI	Redlands
18 to 24 year olds	3.9%	8.8%
25 to 34 year olds	6.4%	10.7
35 to 49 year olds	17.6%	22.4%
50 to 59 year olds	19.5%	14.0%
60 to 69 year olds	21.0%	8.8%

Table 7 shows that the age structure of SMBI included a small proportion of people in the younger age groups, but a larger proportion of people in the older age groups (60+). Specifically, approximately 19.2% of the population was aged between 0 and 17, and 33.5% were aged 60 years and older, compared with 25.9% and 18% respectively for Redland City. The percentage of elderly residents on the SMBI may mean fewer requirements for major services such as education, in turn reducing the amount of trips required to the mainland for this age group.

The occupation data identifies the occupations of the residents of SMBI. Table 8 displays the three most common occupations held by the residents of SMBI in comparison to Redland City as of 2006.

Table 8 Occupational Demographics of SMBI Compared to Redland City[13]

Occupation	SMBI	Redlands
Technicians and Trade Workers	18.4%	16.8%
Labourers	16.0%	11.1%
Professionals	12.3%	14.6%

In combination the three employment types account for 46.7% of the employed resident population (approximately half of the workforce on the SMBI), in comparison with Redland City's 42.6%. Overall, the high amount of trade based occupations is considered to be a positive statistic for the islands. That is, as the population increases, it is predicted that the availability of work on the SMBI will increase.

This may give an opportunity for residents on the SMBI to access employment, in particular trade and technical work. Although this may decrease the amount of service trips required between the mainland and SMBI for trade based work, it is recognised that the general increase in population will undoubtedly generate higher demand for transport services.

One key statistic that has been drawn from the Redland City Council – Community Profile relates to the number of residents who have disabilities and require special care. In 2006, the ABS recorded that 9.7% of the SMBI population reported needing assistance with core activities, compared to 4.1% of the population in Redland City.

It has been recognised since 1999 that this larger proportion of the population who require additional transport assistance will increase the requirement for access to higher order medical facilities on the mainland.

4.4   Travel patterns

For the SMBI community, mode share is dominated by driving. On the mainland, driving as either a driver or passenger is the dominant mode of transport (81% of total trips) with a significantly lower proportion using public transport (15%)[14].

This reflects that existing public transport (bus) routes on the mainland, although servicing major destinations such as Victoria Point, Cleveland and Redland Bay itself, do not allow for specific destinations such as hospitals or retail outlets, or the carriage of large goods. Further the time penalty involved in using buses as opposed to private vehicles is significant, particularly when, as the travel survey indicates, nearly four legs are included in each trip, with nearly 10 legs a day. Although islanders conduct less trips per day than those in the Redlands, each trip contains a higher number of purposes, and each trip is considerably longer by comparison to Redlands trips.

The main travel purpose to the mainland is for personal business, shopping and leisure (nearly 70% of total trips are 'non-mandatory'). The main destination is to Redlands followed by Brisbane and then a much smaller proportion to the Gold Coast and Logan City. It can be seen from the data that the SMBI community has a significantly higher proportion of aged persons and retirees (37% as opposed to 26% for Brisbane) which tends to indicate issues with personal mobility and further reliance on the private car over public transport.

Islanders are more efficient with their travel patterns in order to reduce the number of repeat trips by barge or ferry. This is because the SEIA has shown a high proportion of low income households on SMBI, with average household incomes 50% of the Redlands average, social disadvantage, and high sensitivity to pricing of goods and services including barge and ferry transfers.

On the islands, the car is again the dominant form of transport (80% of all trips) as there is little or no alternative for everyday trip-making to reach the ferry terminals and other destinations. Non-motorised options for transport overall are used much less than in the Redlands, as there is less infrastructure in place on the SMBI to support uptake, than in Brisbane or the Redlands.

In terms of transfers between the islands and the mainland, price again drives the choice of residents to use water taxis as opposed to barges, and of course many islanders keep a vehicle on the mainland. The cost of a return trip for a car between the SMBI to the mainland currently stands at $105.00. This cost means that everyday vehicular transport to and from the islands is impractical. This cost has led to many islands residents choosing to maintain a car on the mainland as a cheaper option. Many islanders feel the service is infrequent and should they miss their intended ferry, they have to wait between 30 to 60 minutes (between Monday to Friday) for the next service.

Rates of two-vehicle ownership are not significantly higher for islanders than those in the Redlands, however because of the pricing of barge and ferry services, two-car ownership is seen as mandatory rather than discretionary.

Trip patterns differ between those SMBI residents with a car and those without a car. The 9-13%[15] of the community without a car are at a particular disadvantage and are obviously restricted in the way they go about their shopping and appointments, as islanders with a car tend to adopt efficient travel patterns out of necessity as noted. It is likely that at least some of this group are represented in the travel survey 'car as passenger' category, or would otherwise have recourse to special bus services or similar.

4.5   Travel demand management

The key travel demand management measures which have been posited include pricing of car parking and improvements to public transport. The SMBI community is not typical of that in the Redlands or Brisbane, with a higher aged population, lower incomes and employment, and therefore pricing of parking alone will not address the issues. The implementation of more responsive public transport (more reliable in terms of coordination with other modes and frequency) and competitive pricing, would provide a services that are more in line with the needs of SMBI residents.

The internalisation of island trips has always been a further potential travel demand measure and is recommended in the SMBI ILTP 2002. As a principle this approach would certainly improve the island economies and reduce reliance on car parking, but is reliant on population growth to be entirely

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[15] SMBI SEIA 2011

feasible. Some of the community have identified that in fact the trend is for greater numbers of off-island trips, a 'catch-22' brought about by lack of on-island services in the first instance.

Council should continue to advocate to the State on a number of issues including subsidies for on-demand island buses and for the location and retention of on-island businesses and Government services.

4.6   Land use and sustainable transport integration

On the SMBI, much of the land use is constrained due to tidal inundation and flooding or areas of natural reserve. Development is restricted to low rise. It is therefore impractical, both on the islands and on the mainland, to continue to provide more space for parking, and the direction will need to be improvements to the infrastructure already in place. This may mean better integration of walking and cycling facilities at barge terminals, more frequent ferry services and demand responsive shuttle bus type services until such time as the TransLink network is further expanded.

4.7   Land transport

4.7.1   Private vehicles

As discussed, the residents of SMBI have a high reliance on the private vehicle on both the SMBI and the mainland. Many residents choose to keep a car on the mainland for the following reasons:

- The existing public transport services do not connect them to their required destinations
- Public transport is not frequent enough and leads to longer journey times between destinations
- Residents with health issues or special requirements need convenient, responsive access to health services

The high reliance on private cars has created excessive parking on both the SMBI and the mainland. Parking at both locations is limited and without reliable alternative transport modes, parking issues will continue to worsen with the increase in SMBI population.

As no public transport (except school services) exists on the SMBI, the private car is the only reliable current alternative.

4.7.2   Public transport

There are currently limited transport services on the SMBI. Services include the Blue Bus (an on-demand bus service available on Macleay and Russell Islands) Yellow Cabs and Special Transport Access Redland (STAR) Transport (for the elderly and mobility impaired in particular) however these services do not form part of the TransLink network.

Translink have set criteria for general use and school bus routes that have to be met in order to receive subsidised assistance from the State.

The SMBI do not meet the criteria for a general commuter bus route but do meet the criteria for a school route. As such, school bus routes are in operation on both Macleay Island and Russell Island during school term times.[16]

From 2004 to 2005 the previous Redland Shire Council was part of a trial of public transport service on Macleay and Russell Islands. The trial received a mixed response from the community and in June 2005 it was decide that at this time the service was not economically viable. The main reason for this was the low patronage numbers observed during the trial.[17] This stemmed from the fact that the islands are sparsely populated and the catchments do not currently exist to support a full time TransLink bus service.

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[16] SMBI ILTP Review Paper November 2010
[17, 18] SMBI ILTP Review Paper November 2010

Currently the islands do not meet DTMR criteria for a bus route nor do the Transport Operations (Passenger Transport) Regulations 2005 currently permit the State subsidisation of island bus services. The DTMR criteria that need to be met in order to receive public transport services (outside the TransLink network) are:

- Population size:
  - Population ≈ 1,000 – Community car with volunteer driver
  - Population ≈ 5,000 – Timetabled community car (people mover) with volunteer driver + weekly town service
  - Population ≈ 10,000 – People mover runs more frequently + on-demand community bus
  - Population ≈ 15,000 – Community car + mass transit services, or community car + on-demand bus + bus brokerage for groups
- Demographics (for example age, disability), location (urban or rural) the presence of existing transport systems and social networks

As the population of Karragarra and Lamb Islands falls below 1,000, the only form of transport for the residents would be a community car with volunteer driver. The service is available to the community one or two days a week on a door-to-door, operating only on an on-demand basis.

Macleay and Russell Islands do exceed a population of 1,000. However, the population on each still falls short of 5,000 and as such, they too currently qualify for a community car with volunteer driver.

On the mainland, public transport services the Redland Bay Marina. There are six TransLink bus routes operated by Veolia, the 250, 280, 281, 282, 283 and 285.

Routes 250 and 280 are the most frequent services with the 250 providing headways of approximately 30 minutes and the 280 of approximately 60 minutes. Although bus services have increased over the last few years, it has been highlighted that:

> "Further service improvements could be made to increase the accessibility to and from the terminal"[18].

The need for these improvements has been considered in the Redland Bay Centre and Foreshore Master Plan 2009.

Despite public transport being provided on the mainland, the most frequent service is every 30 minutes and very little information about the bus services is available at Redland Bay Marina. There is no coordination between the Bay Island Transit Service (refer to Section 4.8.2) water taxis and Veolia services, and a key community concern is that the Veolia services do not adequately service the required destinations of the community. The Bay Islands Transit Systems services are not subsidised by the State Government, do not use the TransLink *go* card system, and there are no top-up facilities at Redland Bay Marina for *go* card users.

4.7.3 Walking and cycling

The RCC Cycling and Pedestrian Strategy (2004) identified key impediments to walking and cycling in the Redlands, and these also affect the island communities. The more relevant of these are:

- The dominance of private vehicles as the mode of transport
- Relatively dispersed land use – for example a trip by cycle from the south of Russell Island to the ferry terminal is over 6 km
- Lack of cohesive on and off-road cycle network
- Lack of end of trip facilities – there are no cycle racks or lockers provided at the Redland Bay Marina or at the island ferry terminals.
- A lack of information and education

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[18] SMBI Integrated Local Transport Review November 2010

Although there are some walking and cycling facilities on the islands, there are a number of challenges that restrict where these facilities can go and ultimately affect their usability. An indication of typical deficiencies is listed below[19].

- Limited secure cycle storage facilities, such as lockers, and in some areas the existing storage needs to be upgraded. The SMBI ILTP Review Paper 2010 notes the presence of some lockable facilities in need of upgrade on the islands.
- The topography of the SMBI is undulating and as such the walking and cycle facilities have to follow a less direct route to key attractors
- Due to the limited infrastructure and challenging topography on the islands, walking and cycling facilities cannot be designed to consistently meet Austroads Guidelines
- The relatively sparse population on the islands mean that not all the communities can be connected by the walking and cycle network
- Walking and cycling as a mode choice does not often meet the needs of the island residents, chiefly because of the ageing demographic
- Flood prone areas or private land holdings impede some direct routes

Aside from a lack of end-of-trip facilities at the ferry terminals and at the Redland Bay Marina[20] there is reasonable provision for onward cycle trips onto the Cleveland-Redland Bay Road (a State controlled road) which does have on-road cycle lanes. Connections can be made via the Esplanade however local road access is disjointed.

Walking and cycle facilities have been partially implemented on Macleay Island, Russell Island and Lamb Island. The cycle facilities in place consist of sealed footpaths, off-road shared paths and cycle friendly routes (on-road cycle routes deemed safe to ride under the prevailing traffic conditions). The majority of walking and cycle facilities are located on the main access roads on the islands and provides connectivity between key destinations.

A section of the DTMR Principal Cycle Network (PCN)[21] (first formulated in conjunction with Local Governments in 2006) runs the length of Russell and Macleay Islands. The routes are currently indicated as dashed 'future principal routes' (Figure 15).

On these routes for the most part sealed footpaths have been established, for example on High Street Russell Island and on High Central Road Macleay Island, but are too narrow to qualify as shared paths, that is less than 2 m[22], and no on-road facilities exist. There is also an 'off-road path' running east-west on Lamb Island but not forming part of the PCN.

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[19] RCC SMBI ILTP review, a community and stakeholder discussion paper, November 2010
[20] Refers to lockers or racks for those switching from water taxi to bus
[21] DTMR SEQ Principal Cycle Network Map 11
[22] Austroads Guide To Road Design 2009

Figure 15 DTMR Principal Cycle Network
Source: DTMR Website

Redland Bay Marina is serviced by both walking and cycle facilities. The existing facilities consist of off-road paths, off road shared paths and cycle friendly routes. Unlike the SMBI, the topography on the mainland is gently undulating and cycle routes are able to follow a number of different more direct routes to their destinations.

Part of the cycle network within the vicinity of Redland Bay Marina forms part of the Moreton Bay Cycleway. However, it must be noted that current cycle provision at the ferry terminal itself is limited with no end-of-trip facilities, such as lockers or racks, or designated paths[23].

4.8   Water-based transport

Regular waterborne passenger and public transport services to the SMBI have been operating since World War I. The first operator, the Routledge Brothers, set up a business to transport the growing numbers of people seeking entertainment and relaxation on the islands.

Over the next 15 years, boat trips around the Moreton Bay area grew in popularity and by 1930, facilities on the islands were being provided to cater for the large numbers of people visiting or indeed commuting to and from the islands[24]. Over the decades a number of companies serviced island transport according to demand. In 2011 the islands are serviced by a highly modern fleet of barges and catamarans.

Currently there are two waterborne transport operators serving the SMBI. These are:

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[23] SMBI ILTP Review Paper November 2010

[24] www.redland.qld.gov.au/SiteCollectionDocuments/_About_Redlands/History/Our_Suburbs/bay_islands_timeline_Nov09.pdf

- Stradbroke Ferries (sole provider of the vehicular barge service)
- Bay Island Transit Service (passenger transport service only)

4.8.1   Barge services

Stradbroke Ferries operate shallow draft vessels of the type indicated below with a capacity of between 20-100 cars.

Image taken from: www.islandvibe.com.au/transport

Stradbroke Ferries has been operating in the Moreton Bay since 1964. The first service supplied by the company was used to supply the mining industry on North Stradbroke Island with a regular vehicle transport service between the island and the mainland.

In 1972 this operation moved to it current location at Toondah Harbour in Cleveland, north of Weinam Creek. In the late 1980s, the company commenced vehicle transport services to the SMBI. This service provides regular vehicular access for the first time to the islands of Russell, Macleay, Karragarra and Lamb Islands[25].

Ferry Terminal, Russell Island

This service is still in operation and the company currently has four vessels that service the SMBI. These vessels are detailed below.

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[25] www.stradbrokeferries.com.au/about/history

Table 9: Stradbroke Ferries Vessel Details

Vessel	Capacity		Length (m)	Breadth (m)
	Cars	Passengers		
Lakarma*	22	204	38.77	8.84
Moreton Escape**	19	297	39.77	11.32
Stradbroke Venture	32	403	54.41	10.97
Bay Islander	102	16	33.99	9.45

*Vessel details taken from www.stradbrokeferries.com.au/about/fleet
**Sister ship to the Lakarma

The company runs 14 return services Monday to Thursday, 15 return services on Fridays, nine on Saturdays and eight on Sundays[26]. Further details (frequency and operation hours) on the service can be seen below. The outbound services run in a clockwise direction from Redland Bay Marina to Karragarra, Macleay Island, Lamb Island and Russell Island.

The inbound services run in an anticlockwise direction from Russell Island to Lamb Island, Macleay Island, Karragarra and Redland Bay Marina.

Table 10: Stradbroke Ferries Service Details

Days	Number of services*	Frequency (mins)	Operation hours			
			Outbound		Inbound	
			AM	PM	AM	PM
Monday to Thursday	14	30-60	5:30	6:30	6:45	7:45
Friday	15	30-60	5:30	6:30	6:45	7:45
Saturday	9	45-90	6:00	4:00	7:15	5:15
Sunday	8	70-90	7:00	5:00	8:15	6:15

*Service details taken from www.stradbrokeferries.com.au/

Unlike other forms of public transport, barge services and prices are not subject to the regulations set by the Department of Transport and Main Roads (DTMR) and TTA[27] and are currently not subsidised by the State, although the water taxi service to Coochiemudlo Island (a smaller populated island to the north of SMBI) currently does receive Government subsidies.

Information from the Stradbroke Ferries website shows that the standard return trip costs $105.00 for main land residents and a discounted rate of $87.00 for island residents (refer to Table 11) for a car with passengers. As stated in previous transport studies, chiefly the SMBI Travel Survey 2010, these prices brackets have led to island residents maintaining two cars, one the island and one on the mainland, and the use of the ferries as walk on passengers. This equates to a daily saving of $83 (approximately 95%) for island residents. The study also showed that 37% of trips carried are passenger trips and only 3.1% of trips involve a vehicle journey.

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[26] www.stradbrokeferries.com.au/

[27] SMBI Water Transport Alternative Route Study – February 2011

Table 11: Stradbroke Ferries Fare Details June 2011

To/From Redland Bay Marina	Standard Fare		Island Resident	
	Return	One way	Return	One way
Standard vehicles				
Car, 4WD, ute (under 5.5 m)	$105.00	$52.00	$87.00	$43.50
Commercial vehicle (per m)	$23.00	$11.50	$23.00	$11.50
Inter-island				
Car, 4WD, ute (under 5.5 m)	$52.00	$26.00	$42.00	$21.00
Commercial vehicle (per m)	$11.00	$5.50	$11.00	$5.50
Caravans and trailers	$11.00	$5.50	$11.00	$5.50
Motorbikes	$22.00	$11.00	$18.00	$9.00
Passenger (Walk on – return)				
Adult	$8.00	$4.00	$8.00	$4.00
Child	$4.00	$2.00	$4.00	$2.00
Passenger (Walk on – inter-island)				
Adult	$4.00	$2.00	$4.00	$2.00
Child	$2.00	$1.00	$2.00	$1.00

*Fare details taken from www.stradbrokeferries.com.au/

The coordination of fares between water based transport and mainland public transport could be improved. Currently both TransLink and Stradbroke Ferries operate their own payment systems. However, once on the mainland, SMBI residents cannot use TransLink's *go* card systems as payment/top up facilities have not been installed at the Redland Bay Marina.

Another issue is the connectivity between the two transport systems. The bus service timetable on the mainland does coordinate with the barge service timetable. This means passengers are often left waiting for the next bus service which can take up to 30 minutes. This leads to significant passenger frustration with public transport often seen as an undesirable alternative to private transport.

Future demand will eventually drive the need for an expansion of the barge services, however the Alternative Route Study 2010 has determined that only two routes would be feasible, Macleay Island to Victoria Point and Russell Island to Redland Bay. These would not come without an environmental impact and would require ongoing dredging. The State Government has recently provided funds toward dredging, however further progress is contingent on collaboration between Council and Stradbroke Ferries and environmental authorities.

4.8.2   Water taxis

Bay Islands Transit Systems has been operating since 1982 and has been providing waterborne transport between the mainland and the SMBI. Bay Islands Transit Systems operates from the Redland Bay Marina and provides passenger only services (with limits placed on the size of goods carried, for example furniture and whitegoods are not permitted, however bicycles are permitted) to the SMBI.

Bay Islands Transit Systems currently operates four catamarans out of Redland Bay Marina, the largest of which can carry up to 150 people[28]. Vessels are of the type indicated below.

Image taken from: www.transitsystems.com.au/divisions/view/4/bay-islands-transit

Bay Islands Transit Systems run 37 return services each day from Monday to Thursday, 38 return services on Fridays, 31 on Saturdays and 28 on Sundays[29]. Further details (frequency and the operation hours) on the service can be found in Table 12. Similar to Stradbroke Ferries, outbound services provided by Bay Islands Transit Systems run in a clockwise direction from Redland Bay Marina to Karragarra, Macleay Island, Lamb Island and Russell Island. The inbound services run in an anticlockwise direction from Russell Island to Lamb Island, Macleay Island, Karragarra Island and Redland Bay Marina. Bay Island Transit Systems also provide an additional anticlockwise service that runs direct from Redland Bay Marina to Russell Island, and then on to Lamb Island, Macleay Island, Karragarra Island before returning to Redland Bay Marina.

Table 12: Bay Islands Transit Systems Service Details

Days	Number of services	Frequency (mins)	Operating hours			
			Outbound		Inbound	
			AM	PM	AM	PM
Monday to Thursday	37	20-60	5:10	11:10	4:20	11:35
Friday	38	20-60	5:10	12:10	6:45	7:45
Saturday	31	30-60	5:10	12:10	4:30	11:35
Sunday	28	30-60	5:10	10:10	5:30	11:35

*Service details taken from http://www.transitsystems.com.au/timetables/index/1

Fare information taken from the Bay Islands Transit Systems website shows that the standard 2011 adult return fare between the mainland and the SMBI is $16.60 (refer to Table 13). This return trip is approximately twice as much as the same return trip with Stradbroke Ferries. However, a multi-trip ticket can be purchased which lowers the cost, and inter-island one way trips, if needed, can be purchased for $3 (adult). Despite this, many islanders are unhappy with the recent fare increase of a one-way journey from $6.60 to $8.80.

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[28] www.transitsystems.com.au/display/34/business-overview

[29] http://www.transitsystems.com.au/timetables/index

Unlike the fare structure with Stradbroke Ferries, Bay Islands Transit Systems has an unexclusive fare regulated contract with DTMR. This contract allows Bay Islands Transit Systems to undertake a yearly review of their fares and adjust them based on operating costs such as fuel and wages[30].

As stated previously, the 2010 SMBI Travel Survey showed that passenger water taxi trips are the most popular form of transport between the mainland and the SMBI (37% of trips carried are passenger trips) while only 3.1% of trips included a vehicular barge journey, despite the increase in fare cost[31] which is related to the greater speed and number of services offered by Bay Islands Transit Systems.

Table 13: Bay Islands Transit Systems Fare Details June 2011

To/From Redland Bay Marina	Fare cost			
	Return	One Way	10 Trip	40 Trip
Adult	$16.60	$8.80	$72.00	$272.00
Concession	$8.30	$4.40	$36.00	$136.00
Child	$8.30	$4.40	$36.00	N/A
Student	$8.30	$4.40	$36.00	$136.00
Inter Island	Fare cost			
	Island Hopper		One Way	10 Trip
Adult	$23.00		$3.00	$20.00
Concession	$11.50		$1.50	$10.00
Child	$15.00		$1.50	$10.00

*Service details taken from http://www.transitsystems.com.au/display/36/fares

A comparison has been drawn on current TransLink fares in Brisbane. While it is acknowledged that the trip types and operating costs obviously are quite different for the SMBI community, the comparison broadly highlights the difference in everyday cost for a commuter trip, based on a return *go* card trip to and from Zone 4 (for example the CBD to Shorncliffe or Upper Mount Gravatt).

Zone 4 *go* card **Return**:   (peak) $8.28 (concession $4.14)
                                            (off-peak) $7.04 (concession $3.52)

As with the vehicle barge services, continuity between payment systems and connectivity between publics transport on the mainland could be improved. As noted, public transport services on the mainland do not coordinate with water transport services. Despite Bay Islands Transit Systems having a fare agreement with TransLink, they do not provide *go* card for payment on any of their services.

4.8.3   Recreational boating

Recreational boating has formed parts of previous SMBI transport studies, however as per Council's SMBI ILTP Review Paper 2010 it is not regarded as part of an essential transport system. Nevertheless issues around recreational boating are discussed herein. Previous studies showed that residents on the SMBI have a relatively high proportion of recreational boats registered compared to that of residents on the mainland.

It was also noted that as the population increased, the ownership of recreational boats would increase. This increase would mean that the current facilities on the islands would not be able to cope with the future demand and would have adverse affects on the surrounding areas. As things stand, many leisure craft are anchored adjacent to ferry and water taxi routes, and as the number of registrations

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[30] SMBI Water Transport Alternative Route Study – February 2011
[31] SMBI Water Transport Alternative Route Study February 2011

increase, available space will become scarce. The key issues raised in regard to future demand related to:

- The additional landing facilities on both Macleay and Russell Islands
- The concern over the damage and destruction of the natural environment in places where there is an absence of adequate facilities or illegal boat launching sites.
- Increased conflicts between recreational vessels (non-essential) and commercial vessels (essential for day to day living) due to the proximity between the pontoons and the boat ramps and the shared use of the boat ramps with the vehicle barges
- Acknowledging that recreational boating is an essential part of the enjoyment of the island environment, and indeed a commercial industry in itself

Another issue raised was in relation to illegal access. When recreational boating increases and the existing facilities are not upgraded, then boat owners would be likely to seek alternative locations to launch their craft. This could damage the surrounding environment and lead to serious safety issues.

4.9   Environmental constraints

4.9.1   Offshore constraints and issues

The SMBI ILTP Discussion Paper 2002 identified a number of environmental issues for consideration in light of upgrades to waterborne transport. The discussion paper identified potential impacts including:

- Boat strike and increased turbidity
- Foreshore erosion and waste from vessels such as oil and fuel
- Maintenance dredging and disturbance to the sea floor
- Disposal of dredge material

A number of management measures were proposed to mitigate these potential impacts and included as action tasks in the SMBI ILTP 2002. Implementation of a number of these proposed actions were beyond the control of Council, and as a consequence, many of the recommended actions were not implemented. It should be noted that the SMBI ILTP – Discussion Paper 2002 still provides relevant information and should be referred to for any proposed future upgrades to transport around the Islands.

The SMBI Water Transport Alternate Route Study (2010) assessed 22 sites for their suitability for marine transport infrastructure based on:

- Land zoning, tenure and availability
- Shelter from prevailing wind and waves
- Access to navigable water without dredging
- Conflicts with use of other marine infrastructure
- Extent of environmental constraints

The environmental considerations of the study included preliminary sea grass/marine life distribution, coastal habitat area and marine park zoning

The study identified environmental constraints in the marine area including:

- The Moreton Bay Marine Park covers the entirety of the SMBI study area. The Moreton Bay Marine Park Zoning and Designated Areas are shown in Figure 16. The Moreton Bay Marine Park water support environmentally significant fish, turtle and dugong habitats and the shorelines and riparian zones provide habitat for significant shore birds.
- Figure 3 in the SMBI Water Transport Alternate Route Study shows that there are a number of significant environment habitats which may constrain the potential for additional maritime infrastructure in the SMBI area

- Moreton Bay is a Wetland of International Significance and is a protected matter under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Any project which may have a significant impact on this wetland may need to be referred to the Federal Minister of the Department of Sustainability, Environment, Water, Populations and Communities (SEWPaC)
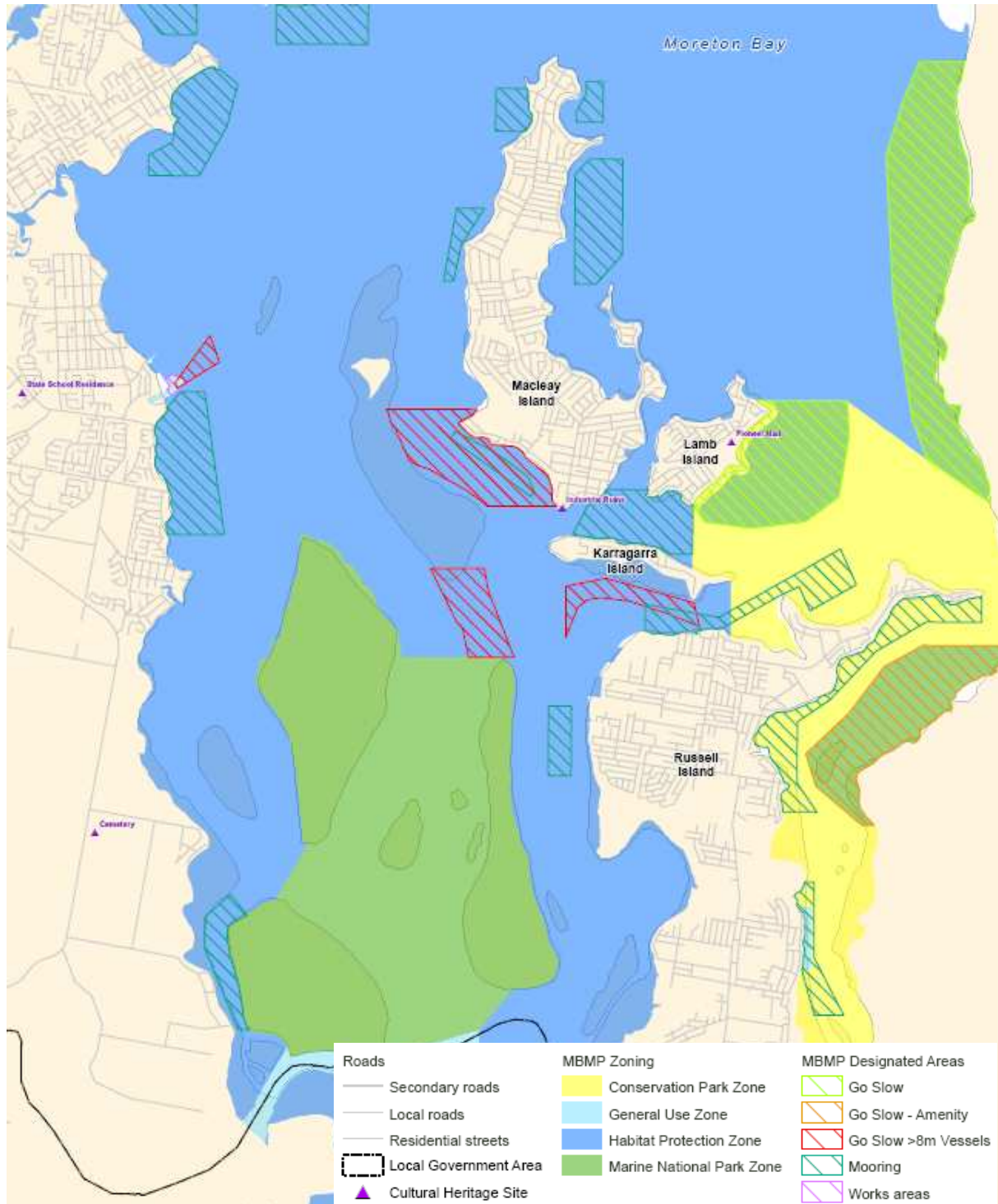

Figure 16 Marine Park Zoning and Designated Areas

- Planning documents (including the Draft Queensland Coastal Plan 2010, South East Queensland Regional Coastal Management Plan 2006, Marine Parks (Moreton Bay) Zoning Plan 2008 and the Redlands Planning Scheme) provide direction and guidance on how development in the SMBI coastal area should be managed.

It should be noted that development approval can be obtained if it can be demonstrated that there is an overriding need in the public interest for the development to occur, and that potential environmental impacts can be appropriately managed or mitigated. The SMBI Water Transport Alternate Route Study provides further advice regarding addressing these constraints and potential additional constraints from a legislative and approvals perspective.

4.9.2   Mainland constraints and issues

In addition to the offshore environmental constraints identified, there are also onshore environmental values that could constrain future proposed upgrades to SMBI transport infrastructure and services.

Figure 17 outlines areas of 'High Value Regrowth Vegetation' and 'Regional Ecosystems' mapped and protected under the *Vegetation Management Act 1999* (VM Act) within the SMBI.

Figure 17 illustrates that both 'High Value Regrowth Vegetation' and 'Regional Ecosystems' occur on all four islands and the mainland. Clearing of this vegetation is regulated under the VM Act, and clearing may involve undertaking environmental investigations, obtaining appropriate approvals and providing offset areas. Where possible, development that could potentially impact on these areas should be avoided.

Items listed on the Queensland Heritage Register within the SMBI area include Redland Bay State School Residences and the Serpentine Creek Road Cemetery on the mainland, the industrial ruins on McLeay Island and Pioneer Hall on Lamb Island. Any proposed future development of the SMBI transport network should avoid these areas.

There are no Koala Habitat Areas mapped under either the South East Queensland Koala Conservation State Planning Regulatory Provisions or the State Planning Policy 2/10: Koala Conservation in South East Queensland, nor are there National or Conservation Parks within the SMBI area.

There is the potential for other constraints that cannot be mapped to occur on the SMBI. This includes protected matters listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), and species and areas protected under the *Nature Conservation Act 1992* (NC Act).

For many of the SMBI actions in this review, Council will need to seek advice from State Government including the Department of Environment and Resource Management (DERM) and act as an advocate to this key stakeholder, with regard to potential legislative and approvals requirements.

This advice should include, but not be limited to any requirements under the following legislation:

- Environment Protection and Biodiversity Conservation Act 1999
- Sustainable Planning Act 2009
- Fisheries Act 1994
- Vegetation Management Act 1999
- Water Act 2000
- Environmental Protection Act 1994
- Queensland Heritage Act 1992
- Nature Conservation Act 1992
- Aboriginal Cultural Heritage Act 2003
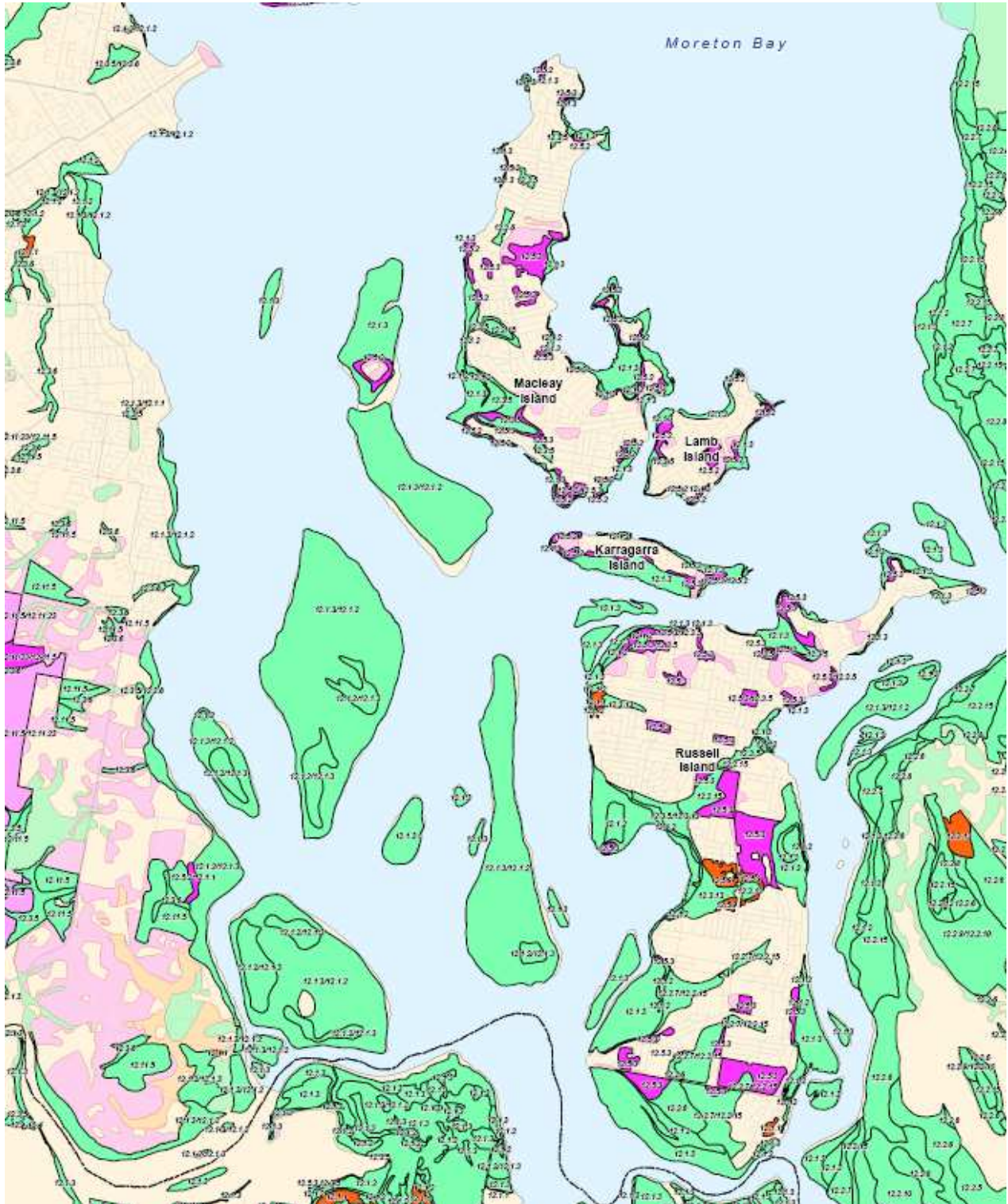
Figure 17 Regional Ecosystems and High Value Regrowth

Roads
— Secondary roads
  Local roads
  Residential streets
⌐ ⌐ Local Government Area

RE03_v6
Regional Ecosystem
- Endangered - Dominant
- Endangered - Sub-dominant
- Of Concern - Dominant
- Of Concern - Sub-dominant
- Least Concern

Regrowth_veg_v2
High Value Regrowth Vegetation
- Endangered Regional Ecosystem
- Of Concern Regional Ecosystem
- Least Concern Regional Ecosytem
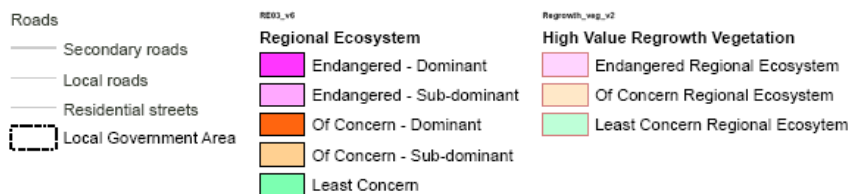
4.10   Parking

The management of parking is clearly highly important to the SMBI community and has been the most recurrent issue in the public consultation and documentation undertaken. Current mainland facilities consist of:

- An overspill informal parking area on Meissner Street (pictured below) which is being improved by Council
- Timed parking (up to 18 hours) adjacent the Redland Bay Marina
- An adjacent informal uncontrolled, unsealed area for long term parking (used by SMBI residents)
- A fenced compound area (also pictured) for paid parking for island residents. This is charged at $900 per annum
- Untimed on-street parking along side streets including Banana Street
- A proliferation of 'backyard' informal parking where spaces on private land are made available.

Overall, utilisation is high and demand has continued to grow in line with population growth. The uncontrolled parking areas in particular impact on the amenity of the foreshore. On the SMBI, parking is limited and additional overspill parking areas are located away from the ferry terminals. The additional parking areas are also unsealed and in wet weather conditions, the car parks and surrounding road network can become damaged, or dusty in dry conditions.

Parking on the mainland is also limited. However, unlike the SMBI, mainland parking is located within close proximity to the Redland Bay Marina and vehicle ferry. SMBI residents have a strong reliance on the parking at Weinham Creek. SMBI residents who maintain a car on the mainland, and can afford secure parking, use the parking to store their cars to ensure they are in a secure area, as vandalism of cars has been an intermittent issue in the area.

As noted, there have been a number of studies that have investigated ways to reduce parking levels at Weinham Creek. One of these has been the implementation of paid parking. The paid parking would be an hourly charge and could possibility apply to all users of the car park. However, as noted frequently elsewhere in this review, this option is unpopular with the residents of SMBI who feel it would lead to further separation from the mainland and create further costs for which they receive no benefit.

Meissner Street Overflow Car Park

Compound Car Park off Banana Street

4.11   Road network

The existing road network on the SMBI consists of sealed and unsealed roads with a distinct hierarchy with major roads forming north-south spines on Macleay and Russell Islands. Sealed roads are mainly

limited to destination routes. The remainder of the roads, which connect the majority of the community, are formed but unsealed. Approximately 30-40% of the total road network is made (sealed) as indicated in Figure 18.

Figure 18 SMBI Made and Unmade Roads

Road (Made)
Road (Unmade)
Local Government Area

The roads on the SMBI have significantly different structural and cross sectional requirements than those in the Redland 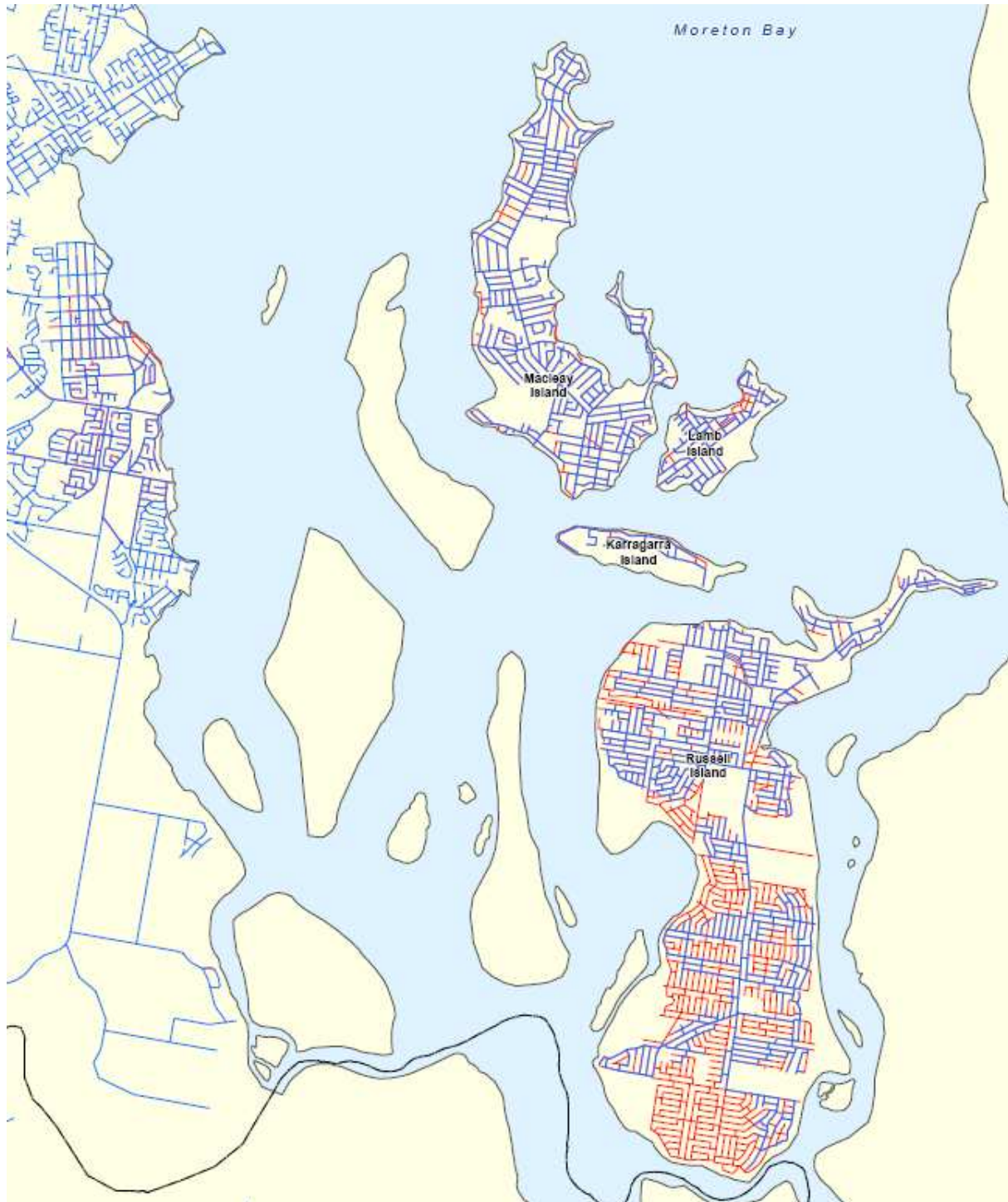Bay area. The SMBIPLUS 2002 document outlined preferred road types, in view of low traffic volumes and high environmental values on the SMBI.

These include 6 m wide bitumen paved roads, with limited kerb and channel, for more intensely used areas such as the northern end of Russell Island, 6 m bitumen sealed collector roads with grassed table drains and 3.5 m wide paved roads servicing low order uses. In all circumstances the strategy has been to avoid the use of reticulated stormwater pipes and pits where possible, and to use overland flow paths instead.

These 'less engineered' solutions have included the partial rollout of concrete footpaths on high order roads such as High Street on Russell Island, however the low order roads are prone to damage during heavy rain.

The number of unsealed roads and shoulders is likely to be reducing the attractiveness of walking and cycling. Once off the main destination roads, pedestrians and cyclists have to navigate narrow unmade roads with private vehicles. This again has led to greater reliance on the private car. As on the mainland the treatment of roads needs to be balanced according to the speed environment, safety, traffic demand, heavy vehicle demand and pedestrians and cyclists.

In some cases the road speed environment appears high, impacting on safety. The demands on island roads are lower than those on the mainland and therefore the 'less engineered' approach offers the opportunity to reduce environmental impact of construction.

The road network at Weinam Creek has good connectivity with surrounding areas such as Cleveland, Brisbane, Logan and the Gold Coast. Main arterial roads within the area include Cleveland – Redland Bay Road (DTMR) German Church Road, Mount Cotton Road and Beenleigh – Redland Bay Road (also DTMR).

4.12   CPTED and wayfinding

CPTED[32] refers to the concept of reducing opportunities for the occurrence of crime by creating a safe environment using design features to increase personal safety in the pubic realm, which discourage crime while encouraging the legitimate use of the environment.

CPTED and wayfinding are two important concepts for the SMBI community, as when these principles are implemented in the public realm, the potential for crime can be reduced. For example, the provision of recreational areas, designed according to CPTED principles (casual surveillance, lighting, no concealment areas, appropriate landscaping) has a marked reduction in crime rates by providing an outlet to reduce boredom. Council's SMBI Sport and Recreation Strategy 2009 supports the provision of playing fields and use of school facilities in this regard.

The SMBI Place Project is ongoing and is partly funded by the Department of Communities. Projects include the Youth and Community Facilities SMBI and the Business Summit. Overall the projects and strategies in place seek to prevent the movement of youth off the islands, to provide creative social outlets for disadvantaged people through sport and community empowerment to foster these things.

Transport is fundamentally linked to the success of the projects, with good access encouraging participation in sport. CPTED principles, applied at transport nodes, will reduce crime and promote community safety and well-being.

4.13   SMBI Profile in summary

The SEQRP 2031 identifies the SMBI as being identified as within the south-east Queensland Urban Footprint, which is envisaged to provide for the region's urban development needs to 2031, however restrictions to further development apply due to conservation and marine park areas.

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[32] Refer also to the Glossary of Terms

The SMBI community is ageing, with roughly double the number of 60-69 year olds as Redland overall, and has a high rate of unemployment, resulting in trip patterns which are reliant on the private vehicle, and which are not adequately supported by public transport on the mainland or on the islands themselves.

The tripmaking of the SMBI community is characterised by:

- Less trips per day undertaken than those in Redland
- Longer journeys per trip with a greater number of legs (different purposes) within each
- High numbers of two-car households with private car as the predominant mode of travel

Currently there are two waterborne transport operators serving the SMBI. These are Stradbroke Ferries and the Bay Island Transit Service.

The cost of transporting a car via barge with Stradbroke Ferries has led to a large number of SMBI residents choosing to maintain a car on both the island and the mainland. This situation has placed pressures on the already constrained parking facilities available at Weinam Creek.

Connectivity between the barge and passenger services, and public transport on the mainland is lacking and the recurring issue arising out of the assessment of current day transport is the need for the provision of an equitable public transport system, in particular improved waterborne services.

The key constraints to this, following on from the 1999 SMBI PLUS were, and still are, the adequacy of vessel landing areas, the environmental impacts of further waterborne routes, and the capacity of parking and onward mainland public transport services.

The information on current transport services indicates that while there is significant infrastructure and services in place, residents on the SMBI are restricted in how they go about their daily activities due to limitations on waterborne vessel timetabling, and lack of coordination with mainland bus services.

The SMBI road network may be an obstacle to walking and cycling, with the need to balance road functionality with environmental impact.

5. Public submissions

5.1 Key community bodies

Key community representatives have made submissions to Council over the course of the ILTP consultation. A few of the key groups are noted below.

5.1.1 SMBI Communities Advisory Committee (CAC)

The role of this committee is to provide for formal dialogue between Council and the SMBI community. Under the *Local Government Act 2003*, the SMBI CAC was inaugurated in 2009 on a two year term. The Mayor and the local Councillor sit on the committee.

5.1.2 Our Parking Spot

The Our Parking Spot forum is a community group set up by SMBI residents to specifically lobby Council to retain the current area of fenced car parking located at Weinam Creek adjacent Banana Street. The group is opposed to the loss of parking on the foreshore and has lobbied in particular for the provision of a multi-deck car park on the Redland foreshore.

5.1.3 SMBI Forum

The SMBI Forum represents fifteen associations from around the SMBI. The group was formed to lobby Council on behalf of its associations, for improvements to transport for islanders, and has been in operation for over a year. Associations include the Russell Island Association. The group maintains a close working relationship with Council and representatives include those on the SMBI CAC.

5.2 Community engagement process

The community, including the key representative bodies stipulated above, has been fully and extensively engaged throughout the SMBI ILTP review process. Reports on the community engagement, including all the comments and issues raised, are contained in **Appendix D**.

Three key forums have been used to ensure community involvement, including the events at Macleay and Russell Island and a key stakeholder workshop at Council's offices. These events are discussed below. Aside from these, a key component of the community engagement has been the SMBI ILTP Review Paper (November 2010) which is discussed more fully in Section 3.7. This paper, released by Council, was a comprehensive briefing on SMBI matters to date.

5.2.1 Macleay Island speak-out session, held early 2010

An informal session was held on Macleay Island at the Progress Hall, attended by approximately 500 members of the community. Council officers manned interactive displays during this time, and attendees were encouraged to participate in activities to identify their concerns around transport.

Council's analysis of the comments received (Figure 19) revealed that lack of parking, both on the island and the foreshore, was easily the most contentious issue, and received the most votes, followed by barge route improvements and a bridge to the mainland. Participants were in favour of subsidised barge services, and low or no fees for parking.
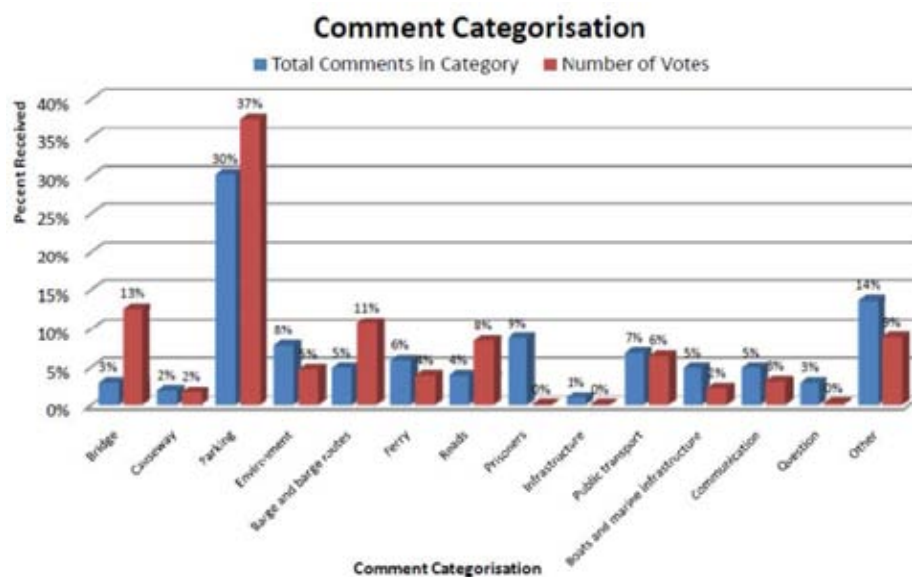
Figure 19 Macleay Island Speakout Comment Categorisation

Source: RCC Consultation Report

5.2.2   Russell Island Open House, held 26 March 2011

This open forum, conducted in the Russell Island Recreation Hall, provided the chance for large numbers of the community to attend with the opportunity to indicate their own priorities against various transport options ('bright ideas') that were proposed. The forum gave the community a chance to understand the outcomes of key studies including those undertaken into alternative water transport, the mobility study and ILTP review paper, and also to prioritise the framework for assessing the 'bright ideas'. Council officers were on hand to answer queries throughout the day.

Options such as a bridge to Russell Island, or a cable drawn barge, rated very highly. Actions around the provision of permanent foreshore parking rated highest, with the idea to purchase additional land adjacent Banana Street for parking receiving the most votes overall.

Key issues and concerns included the following:

- Two cars are required for SMBI residents so that specialist trips can be accommodated and so that the time taken commuting to work is not excessive
- Public transport was not coordinated, reliable and too long, and not viable for workers
- Proposed parking fees appeared to be inequitable, not affordable and would exacerbate the issues raised in the SEIA (refer to Section 3.10)
- Conflicting views on how to manage the foreshore, however some views were that the area should be returned to parklands and development reduced, and parking scaled back

5.2.3   Stakeholder workshop, held 26 May 2011

The SMBI ILTP Stakeholder workshop was the culminating event to draw together key community representatives and Government agencies to further test the 'bright ideas' and a framework for criteria to be used to prioritise the series of ideas. Full details of the workshop can be seen in **Appendix B**.

The workshop was facilitated over a full day, and attended by 22 stakeholders including representatives from nine Government agencies. The objectives of the workshop were for:

- Council to brief attendees on relevant studies and their findings
- A collective review of the evaluation framework for the SMBI ILTP and to prioritise the criteria provided in terms of high, medium and low priority, and then discuss and report back on the series of 'bright ideas' in terms of timescale, ownership, funding and other key questions designed to test the viability of the ideas

From the activity session held on the evaluation criteria, improvements to access to mainland destinations, and the growth of supporting infrastructure, were most important to stakeholders, with the competitive pricing of transport also very important.

The overarching strategies guiding management of the island communities, including the Redland Transport Plan 2016, were considered less important. The group considered that the majority of ideas could be implemented quickly, however funding was considered the key obstacle.

In addition, community feedback has been invited on Council's SMBI ILTP review paper. Detailed outcomes are reported below.

5.3   Public submissions

Numerous public submissions were received in response to the general ILTP review process. A full record of the public submissions received by Council can be seen in **Appendix C**. The following is an overview of the submissions received, and is not an exhaustive list.

5.3.1   Petition against parking pricing at Weinam Creek Ferry Terminal

Immediately prior to the Stakeholder Workshop on 26 May 2011, a 6,000 signature petition was submitted to Council, which reads:

> "We, the undersigned Residents of Redland City, Ratepayers of Redland City and Residents or Ratepayers of Queensland request that Council commission independent studies of the parking solutions at Weinam Creek proposed by the Our Parking Spot group; stop all action towards charging the people of the Southern Moreton Bay Islands of Russell, Karragarra, Lamb and Macleay, and people visiting these Islands, a fee for parking in the Weinam Creek precinct other than a reasonable fee for spaces allocated specifically to individuals for long-term or permanent parking; and provide parking facilities in the Weinam Creek precinct sufficient to accommodate at least the ultimate number of vehicles as estimated by Council, being 2,240."

Council has undertaken to use the SMBI ILTP review to address the petition. The petition obviously reflects strong community opposition to a price on short-term parking, already expressed throughout the consultation process.

5.3.2   SMBI Forum

The SMBI Forum submission to the ILTP Review Paper 2010 outlined the following issues and concerns:

- Unsure of terms of reference being used for the review, or the methodology used for the SEIA
- As raised in the Redland Bay Centre and Foreshore Master Plan 2009 parking reductions, and paid parking, are not seen as feasible for islanders
- Cycling and walking on the islands are difficult and parking at the barge landings has been increasing
- Russell Island IGA supermarket successful in reducing off-island trips
- The need for a further on-island bus trial
- A lack of footpaths prevents the increased use of 'gophers' and electric buggies as alternative transport forms
- Bay Islands Transit Systems service should be included in the TransLink network

- Stradbroke Ferries pricing makes a second car on the mainland economically viable, Stradbroke Ferries should be regulated with increased flexibility
- Consider the implementation of 'The Island Way' barge service (from Gold Coast to Rocky Point on Russell Island)
- Concurs with Our Parking Spot on the parking issues at Weinam Creek
- Need to balance environmental restrictions with increasing SMBI population, consider exempting SMBI travel routes and barge landings from the Moreton Bay Marine Park
- Parking issues should be addressed in the short term
- Consider car sharing (short period rental cars, as opposed to car pooling)
- Various issues relating to safety, security

5.3.3   Russell Island Association

The submission highlights in particular concerns around the lack of walkability and cycling on the islands, particularly Russell Island. Shade and wayfinding on key routes is lacking. The concerns focus on out-of-date cycle maps which do not represent actual cycling provision on the islands and which could be updated.

5.3.4   Our Parking Spot

The Our Parking Spot submission outlines how the existing transport options for islands residents is inadequate and requires residents to own a private vehicle on the mainland.

However, the submission outlines that there is limited free parking available to island residents, there is a waiting list of 450 people for a Council run compound parking facility that costs $900 per annum, and Weinam Creek residents have set up backyard car parks to meet demand.

Our Parking Spot believe that the strategies outlined in The Redland Bay Centre and Foreshore Masterplan (Section 3.3) will further adversely impact upon parking that is suitable and available to island residents because it entails the:

- Loss of 27 free parking spaces
- Loss of allocated parking spaces
- Discouragement of long term parking
- Closure of 'illegal' back yard car parks
- Introduction of a pay by the hour car park that is estimated to not meet 54% of the actual parking demand

Furthermore Our Parking Spot believe that the improvement of bicycle facilities and end-of-trip facilities will not be of benefit to Island residents. Our Parking Spot identified the following potential consequences of the Masterplan:

- Further disadvantage to SMBI residents
- Social upheaval and violation of existing rights
- Reduced population – due to those that work on the mainland or requiring regular medical treatment being forced to move back to the mainland
- Reduced property values
- Reduced number of visitors to the island
- Reduced number of community workers choosing to service the islands
- Businesses located on the islands being adversely affected

Our Parking Spot recommended the following:

- Development of the Weinam Creek area should be in line with that of a working port to support SMBI residents
- A multi-storey car park should be re-considered by Council

5.4 Summary of public submissions

5.4.1 General submissions

A review of submissions presented to Council identifies that the community are concerned that adoption of a user pay parking service at Weinam Creek will reduce the liveability and economic viability of living on the islands, resulting in:

- A reduced island population
- Lowering of island property values
- Reduced rental prices
- Reduced mainland income derived from sales to island residents

The following suggestions were made as to how mainland parking demand could be reduced:

- Position services on the SMBI to minimise the reliance on mainland services - while positioning mainland services that cannot be set up on the islands close to the ferry terminal to reduce island commuter reliance on mainland private vehicles.
- Increase vehicle transport by barge through the regulation of barge transport prices so that the cost of small vehicle transport is maintained at an affordable level to minimise the need for two vehicles, one on the island and one on the mainland
- Improve the efficiency of ferry routes by using a north and south route from the mainland to the islands to minimise ecosystem damage and reduce travel time
- Improve mainland bus services to cater for the transport of bulky goods between the terminal and major shopping complex, while introducing a subsidised minicab service on the islands
- Improve cycling infrastructure on the mainland and on the islands to encourage these modes of transport
- Introduce and actively support a car share and hire system on the mainland terminal by providing adequate car parking spaces for the services to operate

5.4.2 General submissions to the RCC ILTP Review Paper 2010

It is noted that in the submissions to the ILTP review paper, the community expressed concern over the terms of reference for the amendment of the ILTP, as this information was not provided to them.

A review of the ILTP discussion paper by several community groups identified the following areas of concern:

- It was perceived that the Review did not include a comprehensive demographic analysis of island residents, particularly pertaining to the high level of disadvantage on the islands and high percentage of elderly and how a 'pay to park' system will impact upon these groups.
- There needed to be recognition of the existing and future potential tourism industry in the area and the impact of ILTP measures.
- The community was sceptical about the proposed revised changes to the land use and transport integration strategy as there is a perception that Council decisions are not supportive of on-island development. This perception is due to historical decisions made by Council.
- There was support for an inter-island travel subsidy program to support island business. However, there were concerns on how it is structured, that it is considered that subsidising business trips, particularly those with large loads, rather than subsidising general passengers will be more supportive to local business.
- There should be reconsideration of an on-island shuttle service considering that high subsidies alone did not encourage high patronage, instead an affordable and on-demand system is required.
- The proposed land use and transport integration actions encouraged a more contained travel footprint – when in reality data shows that residents and businesses on the islands are commuting to the mainland more often.

- To improve public transport uptake by island residents it was identified that there needs to be improved awareness of public transport facilities, improved safety on and at public transport terminals, improved frequency and destinations of public transport and more access to TransLink *go* card purchase and top up facilities at Weinam Creek stores and on the islands.
- Existing public transport on the mainland did not cater for all trips residents needed to make because residents cannot carry large items or necessary petrol for island vehicles on buses. Furthermore the mainland bus system did not travel to large retail outlets, nor offered repeat services to hospitals. For these reasons residents need independent travel means on the mainland.
- There is support for improved cycling and walking infrastructure on the islands. However, there is emphasis on the need for trip-end facilities, providing facilities along routes with shade, and an awareness of cost, so that future proposed infrastructure could be built and used.
- Residents identified a need for an increase in all-weather roads but also for greater transparency of the process used for selecting roads to be sealed.
- With regards to ferries, barges and their routes to the islands, further investigation is required into technology and routing that is environmentally friendly.

Furthermore there was concern expressed regarding the lack of analysis of recreational boating, in that the review did not identify the number of residents or employees on the island that use their own boats for transport. The review does not capture the demand for this form of private transport, which may require further supporting infrastructure.

Motorcycles, scooters, electric bicycles, or mobility devices should have been considered further because of the high proportion of elderly residents on the SMBI.

Issues around parking and public transport arose frequently, and clearly the SMBI community looked to Council to initiate acceptable directions moving forward, through the SMBI ILTP.

The community largely accepted that the supply of foreshore parking areas could not be increased ad-infinitum without negative consequences for the environment, and that improvements to public transport, both land and water based, were the key, at least for the short to medium term.

6.   ILTP Strategies and actions

6.1   SMBI Strategies

As discussed, Council's ILTP Review 2010 contains six high level strategies (reviewed from the original 2002 SMBI ILTP) dealing with development, reliable transport, walking and cycling end of trip facilities, road upgrading, the management of parking demand and environmentally sustainable transport.

Based on the foregoing issues identification, associated studies and reviews, and the extensive public submissions received by Council, overarching strategies have been formulated as part of this review which capture the issues raised and respond to them. These have been divided into 10 main strategies (not prioritised).

1. The environment

The findings of investigations undertaken to-date regarding environmental constraints/issues within the SMBI area and the future transport requirements of the SMBI have been incorporated into Strategy 1.

Encourage transport solutions and technologies that preserve the unique environmental values of the SMBI, the Redland foreshore and surrounding marine park.

2. Travel demand

Perhaps the key issue in the review process has been the management of parking on the Redland foreshore, however the issue is larger than just parking, and relates to many other travel behaviours, some stemming from the lack of opportunity to undertake utility trips on the islands themselves. Strategy 2 seeks to address these issues.

Increase the self-containment of utility trips on the islands and decrease the reliance on parking on the Redland foreshore.

3. Equitable access

Equitable access relates not only to physical access standards but to pricing, availability and safety for all. Strategy 3 deals with equity of access.

Ensure that transport services are competitively regulated, contracted and priced for the SMBI community and the continued development of a safe, low maintenance road network which supports cycling.

4. Travel responsiveness

Strategy 4 addresses integration of public transport with the major mainland network, which better services mainland destinations, for the benefit of the SMBI community.

Develop an efficient TransLink integrated public transport system that responds more specifically to the travel needs of the SMBI community.

5. Sustainable transport

Strategy 5 champions the continued development of a useable walking and cycling network on the islands and mainland, particularly important in the face of continued population growth and, with appropriate supporting infrastructure, ideal and important for island transport.

Continue to develop integrated, connected walking and cycling networks on the islands and on the mainland to make walking and cycling genuine options for all trip types.

6. Land use

For the benefit of the SMBI community and the wider community which services the islands, continued appropriate development, within applicable limits, is envisaged on the islands and on parts of the foreshore. Integrating transport networks with this, and making development decisions which are responsive the development, are important. Strategy 6 addresses land use and transport integration.

Ensure that land use supports and balances all transport modes.

7. Economy

The growth of services and industry on the SMBI is integral to the success of the community in terms of employment and tourism, and ties back to travel demand, social welfare and continued population growth. Strategy 7 champions the growth of the SMBI economy.

Foster business and service growth on the SMBI to boost employment and tourism.

8. Government collaboration

Strategy 8 addresses collaboration between all tiers of Government and Government sectors with the mutual aim of sensitive, appropriate management of the SMBI community.

Ensure continued collaboration and knowledge sharing through all levels and departments of Government and private sector responsible for the management of the SMBI and their environs.

9. Population growth

The current rate of population growth on the islands is faster than ever before and may mean the population exceeds projected targets sooner than anticipated. Decisions on transport infrastructure must look at the bigger picture of transport demand to 2026 and beyond. Strategy 9 seeks to capture this growth in transport planning decisions for the SMBI and mainland.

Recognise the growth of the SMBI population, and plan transport solutions which account for the current rate of growth.

10. Aged demographic

In comparison to the Redlands, recent socio-demographic data indicates that the SMBI community is home to an older demographic, and disadvantaged groups. Strategy 10 calls for transport solutions which recognise and respond to this demographic.

Foster a transport system which recognises the aged or mobility impaired demographic of the SMBI population and allows for safe, convenient and comfortable access for this group.

6.2   Bright ideas

During the consultation process, Council and the community put forward over 80 ideas for action to address transport issues, and other issues, on the islands. These were considered by the community during the consultation process, with the community provided the opportunity to vote on the more favoured ideas, prioritising some over others, and providing input where desired as to the intention of the ideas.

The resultant ideas have been considered and reviewed against the assessment criteria in Section 6.4. Where repetition was noted between ideas, some rationalisation has occurred. The original list of the 'bright ideas' (ordered by the number of dots applied during the Russell Island Open House session (refer to Section 5.2.2) is reproduced in **Appendix H**.

Of these, the vast majority of the intentions have been retained in this review, although as stated, some rationalisation has occurred around similarly themed ideas.

6.3   SMBI Prioritised actions

Further to the formation of strategies as part of this review, and in consideration of the 'bright ideas' a number of actions have been identified, mapping out finer grained objectives for implementation, which will collectively ensure that the strategies are achieved over the timeframes indicated.

As discussed, a prioritisation framework has been applied to the actions to rate them in terms of high, medium or low priority for Council.

The prioritisation ratings are defined as follows:

High	Of high importance and should be considered immediately
Medium	Of medium importance for consideration
Low	Of low importance and not an immediate priority

These actions have been flagged as those applicable to the mainland and those applicable to the islands, noting that some are applicable to both, and grouped around each of the 10 strategies. The 'bright ideas' (**Appendix H**) some of which were used to formulate the actions, have been numbered and are cross referenced in **Appendix A** which contains the summarised, prioritised SMBI ILTP actions.

6.4   Assessment criteria and prioritisation methodology

The criteria and assessment matrix shown in Table 14 was formulated as part of the review for use in prioritising the numerous actions resulting from the foregoing strategies and ideas.

The criteria and sub-criteria have been designed to tie back to the strategies, but importantly, to allow an assessment against key elements such as community priorities, environmental impact, and to remain consistent with the objectives of higher level plans including SEQRP 2031.

Further, the ideas are classified according to Council's role as either owner, or advocate.

Table 14 Assessment Criteria and Sub-Criteria

Strategic Importance	1.1	The action aligns with Connecting SEQ 2031 or the TransLink network plan or SEQRP 2009 - 2031
	1.2	The action aligns with RCC Corporate Plan and Community Plan.
	1.3	The action aligns with SMBI Plus.
	1.4	The action aligns with the priorities of the Redlands Transport Plan, and the cycling and pedestrian strategy.
Sustainability	2.1	The action supports a shift towards public and active transport
	2.2	The action has low environmental impact on marine, foreshore and island environments.
	2.3	The action will complement long term infrastructure and future population growth.
	2.4	The action supports a reduction in private vehicle use.
Liveability	3.1	The action improves access to recreational facilities (for example pools, boat ramps, beaches and foreshore parks.)
	3.2	The action supports competitive barge and water taxi fares.
	3.3	The action enables better coordination between travel modes.

	3.4	The action improves intra-island connectivity.
Efficiency and timeliness	4.1	The cost of the action is reasonable for the return benefit to the community.
	4.2	The action is not complex to be implemented and action can be achieved within six to 18 months.
	4.3	The action is economically viable for the responsible agency.
	4.4	The action can be coordinated with RCC's budgeted programs.
Community Benefit	5.1	This action supports overall community needs.
	5.2	The action is a community priority.
	5.3	The action improves access to the community's key mainland destinations.
	5.4	The action addresses the needs of key target groups of the SMBI.

The outcomes of the Stakeholder Workshop[33] and the Russell Island Open House (refer to Section 5.2.2) have played an important part in the decisions made around the prioritisation of actions. From the workshop, attended by a broad cross section of the community and Government, it was evident that all the criteria were important to stakeholders, and with the exception of 'Strategic Importance' the voting was fairly equal as can be seen below:

- Sustainability (114 votes)
- Community Benefit (113 votes)
- Liveability (102 votes)
- Efficiency and Timeliness (97 votes)
- Strategic Importance (56 votes)

However, there was far greater variation evident within the 20 sub-criteria. Some were clearly more important than others as indicated in Figure 20.

Figure 20: Stakeholder Criteria Votes
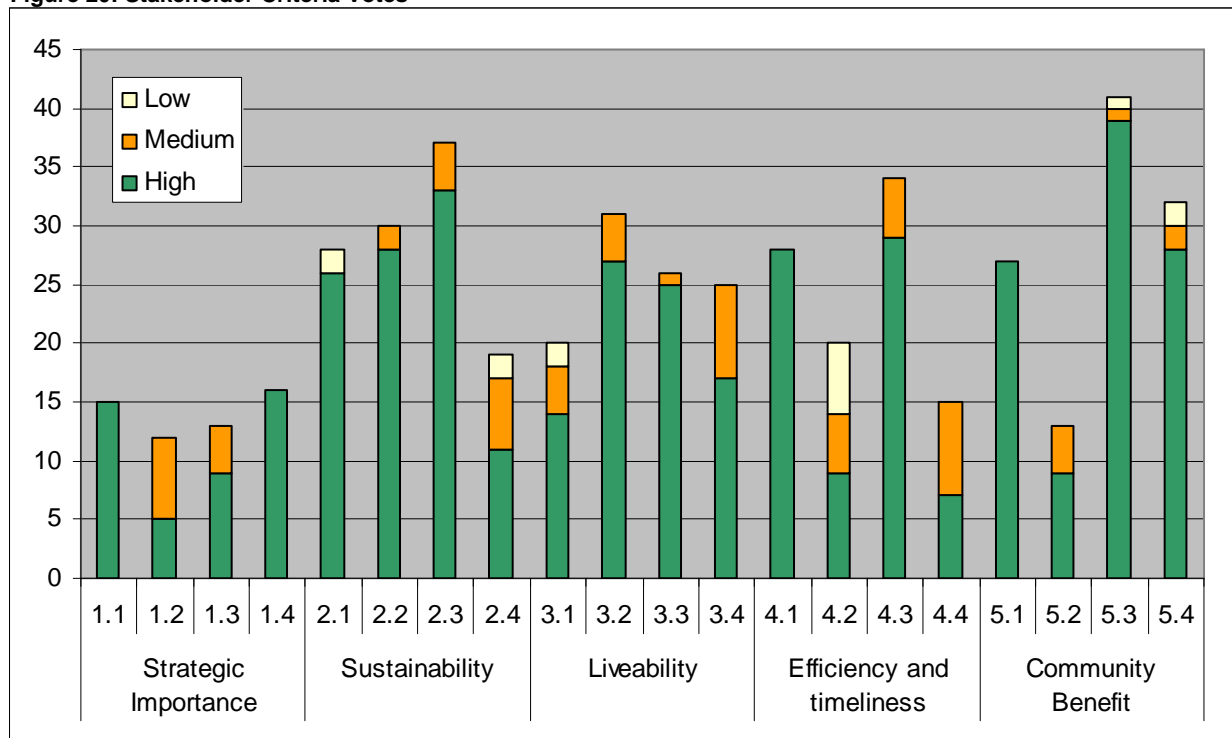
Similarly at the Russell Island Open House, participants considered that most of the criteria were of high importance, with competitive pricing, infrastructure and community needs receiving the most votes.

As the sub-criteria provided a clearer indication of where stakeholders placed their importance, it was felt appropriate to weight each sub-criteria, to ensure that this importance was carried through into the prioritisation of the various actions.

The weighting factor for each sub-criteria has been calculated simply on the basis of the number of votes received against 'high' importance, divided by the total number of votes received against 'high'.

For example, sub-criteria 2.2 (The action has low environmental impact on marine, foreshore and island environments) received 28 votes, with 402 votes received in total, giving a weighting factor of 7%. Sub-criteria 1.2 (The action aligns with Connecting SEQ 2031 or the TransLink network plan or SEQRP 2009 – 2031) received five votes, giving a weighting factor of 1.2%.

These raw weighting factors were then 'smoothed' out by plotting a line of best fit through the values to achieve a reasonable weighting range without excessively high or low weightings. Final weighting factors for each sub-criterion can be seen in Table 15. The average of the weightings is still reflective of the criteria when prioritised by their respective number of 'high' votes.

Table 15: Final Weighting Factors for Sub-Criteria

|			Final weighting factors (%)	
Strategic Importance	1.1	The action aligns with Connecting SEQ 2031 or the TransLink network plan or SEQRP 2009 - 2031	1.97	**Average 1.80**
	1.2	The action aligns with RCC Corporate Plan and Community Plan.	1.50	
	1.3	The action aligns with SMBI Plus.	1.73	
	1.4	The action aligns with the priorities of the Redlands Transport Plan, and the cycling and pedestrian strategy.	2.00	
Sustainability	2.1	The action supports a shift towards public and active transport	2.26	**Average 2.16**
	2.2	The action has low environmental impact on marine, foreshore and island environments.	2.30	
	2.3	The action will compliment long term infrastructure and future population growth.	2.40	
	2.4	The action supports a reduction in private vehicle use.	1.82	
Liveability	3.1	The action improves access to recreational facilities (for example pools, boat ramps, beaches and foreshore parks.)	1.93	**Average 2.12**
	3.2	The action supports competitive barge and water taxi fares.	2.28	
	3.3	The action enables better coordination between travel modes.	2.24	
	3.4	The action improves intra-island connectivity.	2.03	
Efficiency and timeliness	4.1	The cost of the action is reasonable for the return benefit to the community.	2.30	**Average 2.00**
	4.2	The action is not complex to be implemented and action can be achieved within six to 18 months.	1.73	
	4.3	The action is economically viable for the responsible agency.	2.32	
	4.4	The action can be coordinated with RCC's budgeted programs.	1.63	

				Final weighting factors (%)	
Community Benefit	5.1	This action supports overall community needs.	**2.28**	**Average**	
	5.2	The action is a community priority.	**1.73**	**2.21**	
	5.3	The action improves access to the community's key mainland destinations.	**2.50**		
	5.4	The action addresses the needs of key target groups of the SMBI.	**2.30**		

The penultimate step in the process has been to independently score each of the actions and apply the weighting factor, yielding a list of prioritised actions. The scoring has been undertaken using a typical Likert[34] type scale as follows:

3 points	Strongly Agree
2 points	Agree
1 point	Partially Agree
0 points	Do not Agree

The final step has been to 'bin' the actions into high, medium and low priority. Full results can be seen in **Appendix A**. No weighting has been applied to the 10 overarching strategies, only the actions.

6.5   Ownership and advocacy across government

Council cannot achieve the actions in the ILTP in isolation and must advocate to and rely on other government agencies for support in terms of funding, services, approvals and a host of other collaborations. Other agencies which have been identified as the owners or leaders of certain initiatives include:

- DTMR and TransLink TTA, which collectively administer the high order road network, bus services subsidies and operators, and transport regulation
- Department of Local Government and Planning (DLGP) responsible for planning and infrastructure decisions for Queensland and to administer and fund certain Local Government programs
- Department of Communities (DC) administers sport and recreation funding and planning, housing services and Aboriginal and Torres Strait Islander support
- Department of Environment and Resource Management (DERM) responsible for conserving the natural environment including the Moreton Bay Marine Park and island reserve areas, and responding to climate change and land management
- Department of Employment, Economic Development and Innovation (DEEDI) responsible for the development of infrastructure land planning and development
- Department of Education, Training and the Arts (DETA) principally responsible for administering schools and education throughout the State
- Department of Community Safety (DCS) includes the Queensland Ambulance Service, the Queensland Fire and Rescue Service, Queensland Corrective Services and Emergency Management Queensland
- Queensland Health delivers and administers aged care, health and hospital services and health promotion programs

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[34] Refer to the Glossary of Terms

6.6   Breakthrough projects

Based on the outcomes of the Stakeholder Workshop a series of 'breakthrough' projects have been identified. These are considered priority projects, based on the foregoing actions, and are characterised by their high level of 'quick win' opportunity for implementation.

The opportunity has been measured against funding, programming, community and Government perception and level of support for the projects. Much of the assessment in this regard relies on the outcomes of the previous Stakeholder Workshop and in particular the comments placed against the list of 'bright ideas'. The 'bright ideas' were appraised by stakeholders with the use of the following questions:

- How would you implement the item?
- What funding opportunities are available to bring the item to life?
- Could this item be completed within 12 months?
- Which departments could take carriage of this?
- Are there any showstoppers for this item?

These projects are tabulated below.

Table 16: Breakthrough Projects

Extend the sealed footpath network on the SMBI, with routes prioritised according to demand
Coordinate the timetabling of TransLink bus services at Redland Bay Marina with the Bay Islands Transit Systems and Stradbroke Ferries services
Undertake further research into key mainland destinations for SMBI residents and work with TransLink to better service these destinations
Provide bicycle lockers and racks at the Redland Bay Marina and at island ferry terminals
Provide exclusive on-road bicycle lanes on Pitt Street/Boundary Street adjacent the Redland foreshore to improve access to the PCN
Widen the sealed footpaths on High Street Russell Island and High Central Road Macleay Island and designate as shared paths
Provide exclusive on-road bicycle lanes on High Street Russell Island and High Central Road Macleay Island
Upgrade the Redland Bay Marina to include more shelter, more seating capacity, a kiosk and *go* card top up provision
Promote and trial a 'car-share' arrangement for six months operating from the Redland foreshore as a means of reducing future vehicle trips
Provide shaded public seating at key island destinations

7. SMBI ILTP concluding recommendations

This review has encompassed the outcomes of Council's public consultation, and the findings of key inputs including the SMBI Mobility Study 2011, the SMBI Alternative Route Study 2011 and the Weinam Creek SEIA 2011.

Section 6 of the review contains 10 strategies with accompanying actions, based on the findings of the documents above, among others. It is recommended that these are adopted by Council to guide its management of the SMBI.

Broadly, the strategic direction for management of transport for the SMBI community should address:

- Accessible public transport and waterborne services which reflect population growth on the islands
- Travel demand management to reduce vehicle trips, but to also better service key island and mainland destinations – this will require further collaboration with DTMR, TransLink, Stradbroke Ferries and Bay Islands Transit Systems
- Sustainable provision of car parking on the Redland foreshore – the issue of foreshore parking and pricing is clearly very sensitive to the community and will require further appraisal
- The continued effective collaboration of Local and State Government, including Council's continued advocacy for improved transport outcomes for the SMBI

Glossary of terms

Term or Acronym	Definition or explanation
Action	Refers to a specific prioritised action for implementation
Austroads	A national body responsible for the research and publication of a series of guidelines informing engineering work ranging from traffic signal design through to intersection and road design
Bright Ideas	A series of action ideas formulated by Government and the community and displayed at the Russell Island Open House forum in March 2011
CPTED	Crime prevention through environmental design, a series of design philosophies designed to reduce the risk of crime and anti-social behaviour in the public realm
DC	Department of Communities administers sport and recreation funding and planning, housing services and Aboriginal and Torres Strait Islander support
DCS	Department of Community Safety includes the Queensland Ambulance Service, the Queensland Fire and Rescue Service, Queensland Corrective Services and Emergency Management Queensland
DDA	The Commonwealth Disability Discrimination Act 1992
DEEDI	Department of Employment, Economic Development and Innovation, responsible for the development of infrastructure land planning and development
DERM	Department of Environment and Resource Management, and the State Government department responsible for conserving the natural environment, responding to climate change and land management
DETA	Department of Education, Training and the Arts principally responsible for administering schools and education throughout the State
DLGP	Department of Local Government and Planning, the State Government Department responsible for planning and infrastructure decisions for Queensland and to administer and fund certain Local Government programs
DTMR	Department of Transport and Main Roads, responsible for all State Controlled Roads throughout Queensland
End of trip facility	A facility for cyclists either reaching their destination, or switching between travel modes from say cycle to bus or train. This can be a cycle rack, a locker or shower facility within a cycle centre or office building
ILTP	Integrated Local Transport Plan
LATM	Local area traffic management, a plan for calming traffic in a local area, typically when vehicle speed, safety and amenity are being considered
Likert scale	A psychometric scale commonly used in survey questionnaires to specify a level of agreement or disagreement with a statement
PCNP	Refers to TMR's Principal Cycle Network Plan
SEIA	Social and Environmental Impact Analysis
SEQIPP	South-East Queensland Infrastructure Plan and Program 2009-2031
SEQRP	South-East Queensland Regional Plan 2009-2031
SMBI	Refers to the Southern Moreton Bay Islands of Russell, Macleay, Lamb and Karragarra, within Redland City Council
SMBI PLUS	Southern Moreton Bay Islands Planning and Land Use Study

Term or Acronym	Definition or explanation
RCC	Redland City Council
Trip	The one way movement of a pedestrian or motor vehicle or bicycle between an origin and a destination
TransLink	TransLink Transit Authority (TTA) the agency in charge of administering public transport and public transport operators in South-East Queensland
Walkability	The quality of the walking environment, taking into account shade, footpaths, grade and overall street feel

References

Integrated Transport Planning Framework for Queensland (A Guide for Transport Planning) (Queensland Government, September 2003)

SEQRP 2009-2031 and SEQIPP

SMBI Travel Survey (SocialData, January 2011)

SMBI Water Transport Alternative Route Study (GHD, February 2011)

Social and Environmental Impact Assessment, Weinam Creek Ferry Terminal Car Park Pricing (SMEC, June 2011)

RCC SMBI ILTP Review Paper (November 2010)

Redland Bay Centre and Foreshore Master Plan (July 2009)

RCC Corporate Plan 2010-2015

RCC SMBI Planning and Land Use Study (January 1999)

RCC SMBI Integrated Local Transport Plan (May 2002)

RCC SMBI Supplementary Planning Study (June 2002)

RCC SMBI Sport and Recreation Strategy Part A (December 2008)

RCC – Planning Scheme (Version 3.1) (2010)

RCC – Community Profile (2009)

Redland Cycling and Pedestrian Strategy Summary Report (May 2004)

RCC Transport Plan 2016

Austroads Part 6A Pedestrian and Cyclist Paths

Austroads Part 13 Pedestrians

Commonwealth Disability Discrimination Act 1992

Crime Prevention Through Environmental Design Guidelines for Queensland, Part A: (Qld Police 2007)

TMR Road Planning and Design Manual

TMR Principal Cycle Network Plan, 2006

TransLink Infrastructure Guidelines (Public Transport Infrastructure Manual) 2007

Appendix A
SMBI Prioritised Actions and Ownerships

Actions	Relevant 'bright ideas' (refer to Appendix H)	Strategic Importance				Sustainability				Liveability				Efficiency and timeliness				Community Benefit				Weighted Score	Priority	RCC Ownership /Advocacy	Action on Islands or Mainland or both
		1.1 The action aligns with Connecting SEQ 2031 or the TransLink network plan or SEQRP 2009 - 2031	1.2 The action aligns with RCC Corporate Plan and Community Plan.	1.3 The action aligns with SMBI Plus.	1.4 The action aligns with the priorities of the Redlands Transport Plan, and the cycling and pedestrian strategy.	2.1 The action supports a shift towards public and active transport	2.2 The action has low environmental impact on marine, foreshore and island environments.	2.3 The action will compliment long term infrastructure and future population growth.	2.4 The action supports a reduction in private vehicle use.	3.1 The action improves access to recreational facilities (for example pools, boat ramps, beaches and foreshore parks).	3.2 The action supports competitive barge and water taxi fares.	3.3 The action enables better coordination between travel modes.	3.4 The action improves intra-island connectivity.	4.1 The cost of the action is reasonable for the return benefit to the community.	4.2 The action is not complex to be implemented and action can be achieved within 6 - 18 months.	4.3 The action is economically viable for the responsible agency.	4.4 The action can be coordinated with RCC's budgeted programs.	5.1 This action supports overall community needs.	5.2 The action is a community priority.	5.3 The action improves access to the community's key mainland destinations.	5.4 The action addresses the needs of key target groups of the SMBI.				
Weightings		1.97	1.50	1.73	2.00	2.26	2.30	2.40	1.82	1.93	2.28	2.24	2.03	2.30	1.73	2.32	1.63	2.28	1.73	2.50	2.30				
1. The Environment																									
1.1 - Support and advocate for measures that reduce the environmental impact of transport to, from and on the SMBI		3	3	2	2	3	3	2	3	1	1	1	1	2	1	2	2	3	3	2	1	83.83	HIGH	Advocate	I and M
1.2 - Identify and advocate for the resolution of environmental constraints during the initial stages of project planning	51	2	2	2	1	3	3	0	2	1	1	0	1	2	2	2	2	1	1	1	1	56.21	LOW	Advocate	I and M
1.3 - Site and design future facilities to avoid or minimise the impact on the marine or intertidal environment		2	2	2	1	2	3	0	1	1	1	1	1	2	2	2	1	1	1	0	0	52.45	LOW	Owner	I
1.4 - Introduce and adapt existing technology to reduce impacts on turtles and dugongs		3	3	2	1	1	3	0	1	1	1	1	0	1	2	3	2	1	1	1	1	58.07	LOW	Advocate	I
2. Travel Demand																									
2.1 - Advocate for the provision of improved medical facilities on the SMBI		2	2	1	1	1	3	3	3	0	0	0	0	3	2	2	2	3	2	0	3	67.93	MEDIUM	Advocate	I
2.2 - Undertake further research into the impacts of short term priced parking	50,58,75,77,78,89,90,92	3	2	2	1	3	3	0	3	0	0	0	0	0	3	3	3	0	0	0	0	50.54	LOW	Owner	M
2.3 - Advocate for the expansion of community services on the SMBI		2	2	2	1	1	3	3	3	0	0	0	0	3	2	2	2	3	3	3	3	78.90	MEDIUM	Advocate	I
2.4 - Encourage denser residential development closer to SMBI ferry terminals to reduce intra-island trips		3	2	2	1	3	0	1	2	2	0	1	0	2	0	1	2	1	1	1	1	52.26	LOW	Owner	I
3. Equitable Access																									
3.1 - Work with DTMR to provide a subsidised on-call shuttle bus service on the SMBI		3	2	2	2	3	3	3	3	2	0	2	2	3	1	2	1	3	2	3	3	92.69	HIGH	Advocate	I
3.2 - Continue to lobby DTMR for the regulation of barge service pricing	9,12,13,46,47,66	2	1	1	1	2	3	2	2	2	3	3	2	3	0	1	1	3	3	2	3	85.27	HIGH	Advocate	I and M
3.3 - Continue to improve roads and road shoulders to improve drainage and limit damage during wet weather and keep the SMBI community informed		2	2	2	3	2	2	3	2	3	0	0	1	2	1	2	1	2	2	2.50	2	76.90	MEDIUM	Owner	I
3.4 - Extend the sealed footpath network on the SMBI, with routes prioritised according to demand		2	2	3	3	3	3	2	2	3	0	0	1	2	1	2	2	2	2	1	2	77.42	MEDIUM	Owner	I
4. Travel Responsiveness																									
4.1 - Coordinate the timetabling of TransLink bus services at Redland Bay Marina with the BITS and SF services		3	3	2	2	3	3	2	3	3	0	3	1	3	3	3	3	3	3	3	3	106.70	HIGH	Advocate	M
4.2 - Extend the TransLink Go-Card system to encompass the BITS service	1,6,40,42,43,44,45,49,51,58,62,63,64,65,66,69,71,91	2	3	2	1	3	2	3	3	3	3	3	3	0	0	0	1	2	3	3	3	89.14	HIGH	Advocate	M
4.3 - Undertake further research into key mainland destinations for SMBI residents and work with TransLink to better service these destinations		2	2	2	1	3	3	3	3	3	0	3	1	3	3	2	2	2	2	3	2	93.37	HIGH	Advocate	M
4.4 - Subsidise existing ferry services for SMBI residents and SMBI goods and services providers by extending off peak periods		1	1	0	0	3	3	2	3	1	3	0	0	3	0	1	1	3	3	0	2	63.65	LOW	Advocate	I and M
5. Sustainable Transport																									
5.1 - Provide bicycle lockers and racks at the Redland Bay Marina and at island ferry terminals		3	2	1	3	3	3	2	3	2	0	0	1	2	2	2	2	2	2	2	2	80.04	HIGH	Owner	I and M
5.2 - Provide exclusive on-road bicycle lanes on Pitt Street/Boundary Street adjacent the Redland foreshore to improve access to the PCN	7,8,9,10,11,13,14,51,86,87	3	2	2	3	3	3	2	3	3	0	3	0	2	1	2	2	1	1	3	2	85.14	HIGH	Owner	M
5.3 - Widen the sealed footpaths on High Street Russell Island and High Central Road Macleay Island and designate as shared paths for cyclists, pedestrians and mobility scooter		2	2	2	2	3	3	2	3	3	0	1	1	2	1	2	2	3	2	0	2	79.52	HIGH	Owner	I
5.4 - Provide exclusive on-road bicycle lanes on High Street Russell Island and High Central Road Macleay Island		2	2	2	3	3	3	2	3	3	0	1	1	2	1	2	2	3	2	0	2	79.52	HIGH	Owner	I
6. Land Use																									
6.1 - Build an at-grade park and ride near Weinam Creek Terminal serviced by a subsidised shuttle bus service with parking reserved for SMBI residents, in place of the informal overflow car park		1	1	1	0	3	3	3	2	2	0	2	0	3	1	2	2	2	2	3	3	76.99	MEDIUM	Advocate	M
6.2 - Encourage the location of commercial facilities such as retail outlets co-located with the Redland Bay Marina	23,25,26,31,32,33,34,35,36,37,38,39,41,75,77,78,88,89,90	2	2	2	1	0	0	1	2	1	0	0	0	2	0	1	2	1	1	0	2	39.15	LOW	Advocate	I
6.3 - Undertake CPTED audits at all island ferry terminals and at the Redland Bay Marina and implement the findings		1	1	1	1	1	3	1	0	2	0	0	0	3	3	3	3	2	2	2	2	64.18	MEDIUM	Owner	I and M
6.4 - Upgrade the Redland Bay Marina to include more shelter, more seating capacity, a kiosk and Go-Card top up provision		2	2	1	2	3	0	3	2	2	0	3	0	1	1	1	0	2	2	2	3	67.12	MEDIUM	Advocate	M
7. Economy																									
7.1 - Provide cost assistance for trades (utilities and health services) travelling from the mainland and undertaking work on SMBI		1	1	1	0	0	3	3	2	0	2	0	0	3	1	2	2	3	3	3	3	70.45	MEDIUM	Advocate	M
7.2 - Work with BITS to promote and operate a sight-seeing service of the Moreton Bay Marine Park, with the service headquartered on the islands	20,58,60,61,77,78,93	1	1	1	0	1	1	0	1	3	2	0	2	1	1	1	0	1	1	0	0	36.36	LOW	Advocate	I
7.3 - Advocate for the provision of more retail facilities on Russell and Macleay Islands		2	2	2	1	2	1	3	3	0	0	0	0	3	2	2	2	3	3	3	3	76.55	MEDIUM	Advocate	I
8. Government Collaboration																									
8.1 - Continue to work with SMBI community groups to provide and advocate for services that meet the needs of the SMBI residents	4,5,66,67,68,77,78,80,86	2	2	2	1	3	3	3	2	3	1	2	2	3	3	3	3	3	3	3	3	103.89	HIGH	Owner	I
8.2 - Continue to monitor SMBI population growth to anticipate and plan for public transport provision, including waterborne transport, in advance		3	3	2	1	3	3	3	3	3	2	3	3	3	2	1	1	3	3	3	3	106.09	HIGH	Owner	I and M

	Strategic Importance				Sustainability				Liveability				Efficiency and timeliness				Community Benefit							
	1.1	1.2	1.3	1.4	2.1	2.2	2.3	2.4	3.1	3.2	3.3	3.4	4.1	4.2	4.3	4.4	5.1	5.2	5.3	5.4	Weighted Score	Priority	RCC Ownership /Advocacy	Action on Islands or Mainland or both
	The action aligns with Connecting SEQ 2031 or the TransLink network plan or SEQRP 2009 - 2031	The action aligns with RCC Corporate Plan and Community Plan.	The action aligns with SMBI Plus.	The action aligns with the priorities of the Redlands Transport Plan, and the cycling and pedestrian strategy.	The action supports a shift towards public and active transport	The action has low environmental impact on marine, foreshore and island environments.	The action will compliment long term infrastructure and future population growth.	The action supports a reduction in private vehicle use.	The action improves access to recreational facilities (for example pools, boat ramps, beaches and foreshore parks).	The action supports competitive barge and water taxi fares.	The action enables better coordination between travel modes.	The action improves intra-island connectivity.	The cost of the action is reasonable for the return benefit to the community.	The action is not complex to be implemented and action can be achieved within 6 - 18 months.	The action is economically viable for the responsible agency.	The action can be coordinated with RCC's budgeted programs.	This action supports overall community needs.	The action is a community priority.	The action improves access to the community's key mainland destinations.	The action addresses the needs of key target groups of the SMBI.				
Weightings	1.97	1.50	1.73	2.00	2.26	2.30	2.40	1.82	1.93	2.28	2.24	2.03	2.30	1.73	2.32	1.63	2.28	1.73	2.50	2.30				
Actions — Relevant 'bright ideas' (refer to Appendix H)																								
9. Population Growth																								
9.1 - Upgrade existing road network on the SMBI in strategic growth areas to allow for easy, safe and reliable access.	3	2	2	2	3	1	3	2	1	0	2	1	3	1	1	1	3	2	1	3	76.99	MEDIUM	Owner	I
9.2 - Promote and trial a 'car-share' arrangement for six months operating from the Redland foreshore as a means of reducing future vehicle trips	2	1	1	1	3	3	2	3	3	0	3	0	2	2	2	2	2	2	2	2	79.19	HIGH	Advocate	M
9.3 - Further investigate the feasibility of barge services from Macleay Island to Victoria Point and additional services from Russell Island to Redland Bay	2	2	1	1	3	0	3	3	3	2	2	1	2	0	1	0	3	3	3	3	80.31	HIGH	Advocate	I and M
9.4 - Increase the capacity of ferry terminal ramps to prepare for increased demand	2	2	2	1	1	0	3	1	3	0	1	1	1	0	1	0	2	2	2	2	55.97	LOW	Owner	I and M
10. Aged Demographic																								
10.1 - Assess ferry terminals and SMBI footpaths for DDA compliance, document deficiencies and upgrade infrastructure as practicable	2	2	2	1	2	3	3	3	3	0	2	0	2	1	2	2	2	2	2	2	78.59	MEDIUM	Owner	I and M
10.2 - Subsidise taxi fares on both the SMBI and mainland for elderly residents	2	1	1	0	3	3	1	2	2	0	1	1	3	3	2	1	2	2	3	2	73.50	MEDIUM	Advocate	I and M
10.3 - Improve internet access on the SMBI to allow on-line ordering of goods and services	3	2	0	0	2	2	3	2	1	0	3	2	1	2	1	0	2	2	3	3	72.05	MEDIUM	Advocate	I
10.4 - Provide shaded public seating at key island destinations	2	2	1	1	0	3	0	0	1	0	0	0	1	3	0	3	0	0	0	0	31.87	LOW	Owner	I

Relevant 'bright ideas' for 9. Population Growth: 15,27,28,29,51,55,56,58,86
Relevant 'bright ideas' for 10. Aged Demographic: 2,3,23,50,79,85,95

Total Number		Range
High	14	>79
Medium	13	Between 64 to 79
Low	10	<64