

Executive Summary

Two boat ramp facility concept options are developed for Emu Park:

- Option 1 located at the southern end of Fisherman's Beach adjacent to Emu Point, Emu Park
- Option 2 located just south of Fisherman's Beach adjacent to Emu Point, Emu Park.

No further commitment (with regard to funding or start of construction), other than the completion of this study has been made. If one of these options did proceed, it may take approximately 3 to 5 years before construction would commence due to further planning and detailed design required to be completed. The actual construction period would take approximately six to nine months.

The purpose of this study is to undertake a Social and Economic Impact Assessment (SEIA) to assess the direct and indirect benefits and impacts to the local community and wider Capricorn Coast region for two proposed boat ramp facility options in Emu Park. The assessment is to assist with identifying a preferred option. The SEIA has also investigated more broadly if Emu Park is a suitable location for the proposed recreational boating facility or whether other site options within the broader Capricorn Coast should be considered.

This report details the potential social and economic benefits and impacts of the two proposed boat ramp options for Emu Park and uses the findings of the impact/benefit assessment to comment on the wider debate of potential suitable location of the boating facility.

A tailored methodology was developed to achieve the purpose of this SEIA. The process was broadly guided by *The Queensland Government Social Impact Assessment Guidelines 2013* and the International Association for Impact Assessment's *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects.* The SEIA involved the following tasks:

- Identification of study area
- Desktop review of supporting and background information
- Scoping of issues
- Community and stakeholder consultations
- Engagement with local businesses
- Impact identification and assessment
- Developing conclusions and recommendations

Typically, the SEIA methodology draws on findings from other supporting impact assessment technical studies such as economic, noise, visual, air quality and traffic assessments to provide evidence to confirm the magnitude of some impacts. This SEIA differs in that regard as it is primarily based on stakeholder feedback and perceptions and has drawn on the opinion of some of GHD's technical leaders in the above mentioned areas.

The main conclusions of the study are:

Potential benefits from the proposed boating facility

 In the long run the key benefits from the proposed new boating facility at Emu Park (irrespective of the options) include potential small to medium increase in trading opportunities for local businesses (such as the service station, takeaways/eateries/cafes, accommodation facilities and hardware services) and potential small increase in local employment opportunities. Potential employment opportunities would most likely be for unskilled or semi-skilled type of casual or part-time work. There are a few constraints which would limit the boaties from accessing local businesses, these being the distance of over 500 meters of Option 1 from the existing businesses and the lack of short term cartrailer parking for boaties to stop in town.

Additionally, the boating facility would provide easy access to recreational boating and
active lifestyle for approximately 35% of the community who own boats in Emu Park and
Zilzie. If managed appropriately, the facility would provide additional parking for the town,
especially for use on market days and for festivals and events.

Potential impacts from the proposed boating facility

- The proposed boating facility at Emu Park (irrespective of the options) would marginally
 alleviate the demand for recreational boating facilities in the South Capricorn Region, it is
 questionable whether the proposed scale of the facility would cater to the existing spill over
 from Rosslyn Bay boating facility and if the cost of the facility is worth the investment for its
 scale.
- Access to the proposed new boating facility (irrespective of the options) through the town
 centre and associated increased traffic issues such as congestion from spill over cars and
 trailers from the boat facility, competition for parking spaces in and around town centre,
 potential safety of pedestrians is a key concern for the local community.
- In conjunction with the traffic issues, irrespective of the options, irreversible impacts of the proposed facility on the community values, identity, character and amenity of the town are also a key concern for some groups in the community. These concerns are further compounded with the fear that once the facility is built; it could potentially become a site for future development of a larger recreational and commercial boating facility like a marina. In this regard, the SEIA has in particular considered feedback from the local Emu Park community because they would be directly impacted by the proposed development.
- SEIA has identified that other boating facilities in the immediate region have access roads
 located away from town centres or communities, unlike Emu Park which would require cars
 and trailers to drive through the town centre to access the ramp. Due to lack of examples
 where access to boat ramp facilities is through town centre, it is difficult to fully understand
 the boat ramp related traffic issues that could impact on the Emu Park town centre and
 community.
- The SEIA study concludes that from a social perspective a number of social impacts and benefits are common to both the proposed boat ramp options, however Option 1 is the preferred option by those stakeholders in support of the boating facility development in Emu Park, such as the boating and fishing groups and business community. This option is preferred because it offers better protection from wind and wave action for boats launching or returning to the ramp, it is not in conflict with the town's Foreshore Master Plan, because of its distance from the shore it is considered as a destination by itself which would take the boaties out of the town and it offers design potential for better integration and use of non-boating community.
- The SEIA study is limited in its scope, the study therefore concludes that the decision on whether the proposed boating facility should be developed at Emu Park should also consider the following (but not limited to):
 - Findings and conclusions of the SEIA
 - Findings and conclusions from the environmental studies

- Undertake a cost benefit analysis to determine the economic value of the facility in the longer term
- Results of the community survey undertaken by TMR in April-May 2016 and submissions received by TMR with emphasis on feedback from the Emu Park community who are likely to experience direct benefits and impacts from the proposed boating facility.
- Availability of other boating facility options in the region to address the increasing demand for recreational boating facilities
- TMR's engagement with key stakeholders such as Livingstone Shire Council and the Great Barrier Reef Marine Park Authority.

This SEIA concludes with two sets of recommendations. The first set caters to the wider debate about the location of the boating facility in Capricorn Coast, while the second set of recommendations relates to managing social and economic impacts should the boating facility be developed in Emu Park.

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1. Introduction

1.1 Purpose of this Study

Population and levels of boat ownership are projected to increase significantly in the Capricorn Coast area. To accommodate this forecast growth and reduce pressure on existing recreational boating infrastructure, there have been a number of investigations into the provision of additional boat ramp facilities. The background of these investigations is provided in Section 2.

The purpose of this Study is to undertake a Social and Economic Impact Assessment (SEIA) to assess the direct and indirect benefits and impacts to the local community and wider Capricorn Coast region for two proposed boat ramp facility options in Emu Park. The assessment is to assist with identifying a preferred option. The SEIA has also investigated more broadly if Emu Park is a suitable location for the proposed recreational boating facility or whether other site options within the broader Capricorn Coast should be considered.

This report details the potential social and economic benefits and impacts of the two proposed options for Emu Park in Section 4. In addition it uses the findings of the impact/benefit assessment to comment on the wider debate of potential suitable location of the boating facility in Section 5.

1.2 Project Description

The SEIA has been undertaken for the following two boat ramp facility concept options:

- Option 1 Fisherman's Beach
- Option 2 Emu Park

These concept options are described below. No further commitment (with regard to funding or start of construction), other than the completion of this study has been made. If one of these options did proceed, it may take approximately 3 to 5 years before construction would commence due to further planning and detailed design required to be completed. The actual construction period would take approximately six to nine months.

The sourcing of rock, has not been identified yet however material would most likely be sourced from one or two local quarries depending on the market at the time of construction.

1.2.1 Option 1 – Fisherman's Beach

The facility would be located at the southern end of Fisherman's Beach adjacent to Emu Point (refer to Figure 1-1 which is an extract of the concept design provided in Appendix A). It is a small to medium size north facing rocky headland with reasonable shelter from the prevailing south-easterly winds. The site is located adjacent to the Emu Park town CBD precinct, with access through the town centre via Hill Street.

This option involves:

- Construction of a two lane boat ramp, floating walkway facing south-west and small breakwater adjacent to the ramp providing protection from northerly winds and waves
- 45 car trailer park spaces located on the reclaimed land
- Approximate area of reclamation would be 5,000 m²
- Road access would be off the existing car park (road length approximately 236 m) adjacent to the existing jetty

 Preliminary estimates on the haulage of rock required have been calculated at around 3,000 (Option 1) truckloads (truck and dog) over a construction period of 6 months, generating average of 22 return trips via Hill Street over a 10 hour working day.

The estimated cost of developing this option is \$11.4 million.



Figure 1-1: Proposed Boat Ramp Facility Option 1 – Fisherman's Beach (extract from Appendix A)

1.2.2 Option 2 – Emu Park

This facility would be located just south of Fisherman's Beach adjacent to Emu Point, Emu Park (refer to Figure 1-2 which is an extract of the concept design provided in Appendix A). This option is located in naturally deep water between the rocky headlands. A breakwater is required to provide protection from south-easterly winds. The site is located adjacent to the Emu Park town CBD precinct, with access through the town centre via Hill Street.

This option involves:

Construction of a two lane boat ramp and floating walkway facing north east

- 45 car trailer park spaces
- Parking area reclaimed adjacent to existing car park (approximate reclamation area is 5,200 m²)
- Construction of two breakwaters approximately 100 m and 150 m in length either side of the ramp
- Preliminary estimates on the haulage of rock required have been calculated at around 1,400 truckloads assuming a construction period of 6 months, generating average of ten return trips via Hill Street over a 10 hour working day.

The estimated cost to develop this option is \$8.6 million.



Figure 1-2: Proposed Boat Ramp Facility Option 2 – Emu Park (Extract from Appendix A)

1.3 Methodology

A tailored methodology was developed to achieve the purpose of this SEIA. The process was broadly guided by *The Queensland Government Social Impact Assessment Guidelines 2013* and the International Association for Impact Assessment's *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects.* Typically, the SEIA methodology draws on findings from other supporting impact assessment technical studies such as economic, noise, visual, air quality and traffic assessments to provide evidence to confirm the magnitude of some impacts. This SEIA differs in that regard as it is primarily based on stakeholder feedback and perceptions and has drawn on the opinion of some of GHD's

technical specialists in the above mentioned areas (refer to Section 1.3.4 for details on selection of relevant stakeholders).

The SEIA involved the following tasks, which are detailed in Sections 1.3.1 to 1.3.7:

- Identification of study area
- Desktop review of supporting and background information
- Scoping of issues
- Community and stakeholder consultations
- Engagement with local businesses
- Impact identification and assessment
- Developing conclusions and recommendations

1.3.1 Identification of social and economic study area

The social area of influence for the proposed boating facility options was determined to be the town of Emu Park with particular reference to the town centre, Hill Street, Fisherman's Beach, and the foreshore area. For the wider socio-economic context, the communities of Zilzie and Kinka Beach and the wider Capricorn Coast region were considered.

1.3.2 Desktop review

A detailed desktop review of various documents was undertaken, documents and information reviewed included previous studies and surveys regarding recreational boating in the Capricorn region and Emu Park, notes from previous stakeholder engagement/consultation activities, census data, Livingstone Shire Council Community Plan, Emu Park Foreshore Master Plan and other relevant information listed in the reference list in Section 6.

1.3.3 Scoping of issues

A scoping exercise was undertaken to confirm the study area, identify stakeholders to be consulted and identify key theme/issues related to the proposal.

1.3.4 Community and stakeholder consultations

Based on the scoping exercise and feedback and participation at the Community Information Day held on 16 April, 2016, a list of stakeholders representing various impacted groups was identified and a SEIA-specific consultation plan was developed with TMR. Feedback from these stakeholders was considered highly valuable in the SEIA, as they would be the primary receivers of the social, economic and environmental benefits and impacts arising from the proposed boating facility in Emu Park. The following stakeholders were invited for face to face meetings with the GHD SEIA Team and the TMR Project Manager:

- Professionals Real Estate
- Friends of Emu Park (No Boat Ramp in Emu Park facebook group)
- Central Queensland Boat Ramp Access Group (CQBRAG)
- The Treehouse Tavern Family Fishing Club
- Livingstone Shire Council
- Emu Park Community Bushcare Group
- Capricornia Chamber of Commerce
- South Capricorn Coast Boat Ramp Advisory Committee

- Capricorn Coast Conservation Council (and Capricorn Coast Local Marine Advisory Committee)
- Wildlife Preservation Society
- Emu Park Museum
- Infofish Services
- Country Women's Association Emu Park branch
- Emu Park Lions Club
- Capricorn Coast Community Access Group.
- The Emu Park RSL Club
- Emu Park Surf Life Saving Club
- Australian Volunteer Coast Guard Association
- Yeppoon Police Station
- Bendigo Bank
- Society of St Vincent De Paul
- Emu Park Art Gallery
- The Darumbal Aboriginal Party / Darumbal Enterprises.

A total of 15 stakeholder meetings were held in Emu Park from 17-20 May, 2016; some of the stakeholders listed above declined to meet with the SEIA team or did not respond to the meeting invitation. A summary of the key themes discussed during the stakeholder consultations are stated in Table 1-1.

Table 1-1: Summary of themes and issues discussed at the stakeholder consultations

Groups	Key themes in favour of the boat ramp proposal	Key issues against the boat ramp proposal
Community groups: Friends of Emu Park Emu Park Lions Club Country Women's Association – Emu Park branch Emu Park Museum Capricorn Coast Community Access Group	Understand need for a facility in the Capricorn Coast region. May free up the existing boat ramp to be used as a beach access.	Concerns regarding loss of visual amenity and aesthetic values of town and beach (i.e. view of islands from village and overall natural values impacts). Potential conflict with the Town's Foreshore Master Plan. Exiting visitors come to Emu Park for quaint village lifestyle and views over the water which may be compromised due to the proposed boat ramp. Access to boat ramp through town centre would potential increase in traffic and demand for parking in town during construction and operation would put pressure on existing parking shortfalls and local traffic and pedestrian safety. Potential increase in noise during construction. Potential conflict for space on local market/festivals days. Potential impact upon users of Lions Club house, Fisherman's Beach,

Groups	Key themes in favour of the boat ramp proposal	Key issues against the boat ramp proposal		
		Emu Park and others located in proximity to the proposal.		
		Fear of the proposed boat ramp facility to grow into a larger facility like Rosslyn Bay marina in the future, which would not be compatible with town and community values.		
		The boat ramp proposal has proven to be divisive in the community and has caused stress and anxiety and strained social relationships within the community of Emu Park.		
Boating and fishing groups:	Reduce overflow at Rosslyn Bay Boat Harbour.	Limited accommodation and parking facilities (e.g. caravan park has no		
CQBRAG The Treehouse Tavern	Provide a local ramp for Emu Park and Zilzie residents.	areas) for boating type of tourists who would come with their cars and		
Family Fishing Club South Capricorn Coast Boat Ramp Advisory	Economic benefit (including job and business opportunities) during construction and operation.	trailers.		
Committee Infofish Services	Easy access to marine areas, new fishing grounds and would be closest point to Great Keppel Island.			
	Would make use of the new net-free zoning to access fishing areas to the north of Emu Park.			
Environment/ conservation groups: Emu Park Community	-	Potential that waste material from boat owners and fuel spills will impact the natural environment.		
Bushcare Group Capricorn Coast		The dunal system at the foreshore/Bell Park, is highly valued		
Conservation Council		and has been subject to rehabilitation, therefore any impact		
Capricorn Coast Local Marine Advisory Committee		should not be discounted. This includes requirement for further review of coastal processes.		
Wildlife Preservation Society		Turtles nest on Fisherman's Beach and migratory birds are frequently present in the area.		
		Concerns were raised about visual amenity.		
Businesses: Real estates	Potential for increased trade for local business (e.g. bait/petrol/food).	Traffic and parking were raised as a concern in general.		
Local businesses in Emu Park	Potential for increased employment opportunities.	Potential loss of amenity raised as a concern from some.		
(eateries/cafes, service stations, gift shops, newsagent, etc.)	Will offer the town an opportunity to diversify its economy and be a catalyst for growth and progress.			
Capricornia Chamber of Commerce	Be an added drawcard for the area to make it a destination (therefore indirect benefits).			

1.3.5 Engagement with local businesses

Businesses were identified as a separate stakeholder group for the purpose of the SEIA consultations. Therefore, in conjunction with TMR, GHD prepared a list of businesses in Emu Park who were located either in the immediate vicinity of the proposed boating facility (e.g. Hill Street businesses) or who may have interactions with users of the proposed facility. Upon

identification of the businesses, a letter and survey was developed and hand delivered on 13 May, 2016 and collected on 20 May, 2016 from the business places.

In addition, businesses were invited to two 'drop in sessions' held on 18 May, 2016 for detailed discussions with the SEIA team if they required. Survey questions and results of the business survey responses are included in Appendix A.

1.3.6 Impact identification and assessment

Based on the scoping exercise, stakeholder consultations and review of preliminary environmental studies undertaken by TMR a number of potential issues arising from the construction and operation activities of the proposal were identified and assessed from a social impact perspective. It should be noted that impacts related to environmental issues have not been based on detailed technical studies, but rely on the preliminary desktop studies and stakeholder perceptions.

The assessment of potential socio-economic impacts included identifying the nature of impact (positive (benefit)/negative (impact)), duration (temporary, short-term, medium-term, long-term), and level (negligible, minor, moderate, major) of each impact. Table 1-2 provides more detail on the impact assessment criteria.

Table 1-2: Impact assessment criteria

Criteria	Definition					
Nature	Positive - Impacts that result in net benefits for the community.					
	Neutral - A change that does not result in a positive or negative impact but allows continuation of the usual function.					
	Negative - Impacts that result in detriments for the community or specific stakeholder groups.					
Duration and	Temporary - Less than 1 year.					
project phase	Short-term - 1 year or more and less than 5 years.					
	Medium-term - 5 years or more and less than 10 years.					
	Long-term - 10 years or more.					
	Pre-construction – before construction of proposal starts.					
	Construction – when proposal is being constructed (2-year period).					
	Operation – when proposal is in use.					

Criteria	Definition
Level of impact	Negligible – Marginal change from the baseline conditions so no discernible effect is expected and a function recovery occurs within several months.
	Minor – A small but measurable change from the baseline conditions. Changes are expected to be temporary and/or only affect only a small number of people. Functional recovery is expected within 5 years.
	Medium – Noticeable and relatively substantial change from the baseline conditions. Changes may be longer term or temporary and affect a large number of people. A functional recovery is expected within 5 years.
	Major – A change fundamentally altering the baseline conditions in the community and affecting a large number of people, and/or a moderate number of people over the long-term. A functional recovery is expected to take more than 10 years, if at all.

1.3.7 Conclusions and recommendations

Findings from the impact assessment led to the discussion of what conclusions could be drawn from the study, further more impact management measures were recommended should the proposal go ahead.

1.4 Scope and Limitations

This report: has been prepared by GHD for Department of Transport and Main Roads and may only be used and relied on by Department of Transport and Main Roads for the purpose agreed between GHD and the Department of Transport and Main Roads as set out in Section 1.1 of this report.

GHD otherwise disclaims responsibility to any person other than Department of Transport and Main Roads arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

The opinions, conclusions and any recommendations in this report are based on stakeholder feedback gathered during the SEIA consultations and assumptions made by GHD as described in the impact assessment Section 4. GHD disclaims liability arising from any of the assumptions being incorrect.

GHD has prepared this report on the basis of information provided by Department of Transport and Main Roads and others who provided information to GHD (including stakeholders), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

2. Project Background

The following section provides an overview of the previous investigations into boating demand and boating facilities available in the Capricorn Coast region including information on how Emu Park was identified as a site for a potential boat facility to be further investigated. The section also addresses the investigations and studies that have been undertaken for the proposed Emu Park location prior to this SIEA.

2.1 Boating Context in the Capricorn Coast Region

2.1.1 Boat Registrations and Demand Forecasting

Boating registration details are held by TMR, as at 30 June 2016 there were 4,623 boat registrations within Livingstone Shire Council, 654 of which are registered in the Emu Park and Zilzie postcode (4710), 634 consider to be of trailerable size (vessels up to 10m in length). Refer to Table 2-1. Using the demand scenarios from the 2011 Demand Forecasting Study (refer to Section 2.2.1), the average demand for access to a boat ramp lane for the Emu Park region, 14%, is approximately 89 boats.

The previous feasibility study undertaken by RRC (RRC, 2012) and stakeholder consultation undertaken as part of this SEIA identified that the proposed Emu Park facility would only be an interim solution as boat registration figures are intended to grow and demand increase.

TMR have provided boat registration figures and fees collected from 01 January to 31 December 2015 to assist in determining revenue from the region. In 2015, revenue collected from all recreational vessels in the Emu Park and Zilzie postcode areas for new registrations, renewals, transfers and updates was \$144,364.05. In 2015, the revenue collected from all recreational vessels for the Livingstone Shire Council area was \$1,161,136.

Review of boat registrations from 2011 indicates that within Livingstone Shire, since 2011 the annual growth rate is approximately 3.5%, above that of the Rockhampton Region growth rates.

Table 2-1: Boat Registrations as at June 2016

Area / Location	Up to 3.0m	3.01 - 4.0m	4.01 - 4.5m	4.51 - 5.0m	5.01 - 6.0m	6.01 - 8.0m	8.01 - 10.0m	10.01 - 12.0m	12.01 - 15.0m	15.01 - 18.0m	18.01 - 20.0m	20.01 - 25.0m	Over 25.0m	Total
Gladstone Regional Council - TOTAL	177	2621	2019	934	1187	588	119	78	59	7	1	0	0	7790
Rockhampton Regional Council - TOTAL	138	1875	1443	646	603	296	64	47	33	5	2	0	0	5152
Livingstone Shire Council - TOTAL	92	1472	1049	506	700	494	128	102	68	7	3	2	0	4623
Emu Park (post code 4710)	8	114	71	41	38	30	6	10	1	0	1	0	0	320
Zilzie (post code 4710)	7	116	94	36	41	29	3	4	3	0	1	0	0	334

2.1.2 Current Boating Facilities in the Capricorn Coast Region

The LSC draft Strategic Plan identifies that Rosslyn Bay Boat Harbour will continue to have a primary role as a major marine transport hub, with any development at the harbour being required to be supported by an adequate road network. However, the draft Strategic Plan recognises the need for additional boat launch and retrieval capacity that meets current and future demands while minimising impacts on the environment and sensitive land uses, and providing safe all-tide access.

The following provides a summary of the current boating facilities in the Capricorn Coast Region and key aspects of the facilities. Figure 2-1 provides an overview of the location of the facilities.

Fisherman's Beach, Emu Park

The current Emu Park facility is a single lane beach access ramp. There is limited parking, 14 car-trailer parks, and it is very tidally restricted with people driving onto the beach to launch off the beach, this creates some safety concerns. Additionally, the area is exposed to waves and only suitable for small to medium sized vessels. During the stakeholder consultation it was identified that at times car-trailer units are currently parking in the general parking area outside the retail areas.

Rosslyn Bay Boat Harbour

The Rosslyn Bay Boat Harbour is one of 14 State Boat Harbours strategically positioned along the Queensland Coastal to provide sheltered havens for recreational and commercial boating. The Harbour includes an eight lane boat ramp facility and is an all-tide, all weather facility suitable for all boats. There is a large number of car-trailer parks available, over 240, however it has been known to exceed capacity during peak times of the year. Stakeholder consultation has identified that this may occur on up to 30 days a year.

The configuration of the eight lanes available at the boat harbour creates water congestion at peak times during boat retrieval. During the stakeholder consultation undertaken for this SEIA it was communicated that greater than 30 vessels were waiting to use one of the ramps to leave the water during the 2016 labour day long weekend at one time. This at times can create conflict on the water between users and safety concerns if users are rushing to take their boats out (both in the water and later on the road). Other capacity impacts include overflow of the cartrailer parking areas, where users have in the past parked in unmarked parks and received fines for this. During peak days there are also waiting times for launching boats from the ramps.

The Rosslyn Bay Boat Harbour was developed over 20 years ago and is visible from a number of vantage points along the Capricorn Coast. The car-trailer parking areas have been expanded periodically to assist in coping with demand. Access to the Harbour is via a dedicated access road off the Scenic Highway. As mentioned in Section 2.2.2, this Harbour is utilised by LSC residents, RRC residents and visitors from further afield. A small number of facilities are available at the harbour, including service station, restaurant and chandlery, to access other services such as a convenience store users need to travel up to 15 minutes.

Coorooman Creek, Zilzie

The Coorooman Creek boat ramp is a four lane facility (after recent upgrade works) with 49 cartrailer parks available. The ramp is on the north bank of Coorooman Creek/Cawarral Creek approximately 2 km upstream from the creeks outlet to Keppel Bay. Access to the facility is currently via a 3 km unsealed gravel road, Svendsen Road. The driving distance from Emu Park to the facility is approximately 10 km and there are no service facilities (such as a service station) at the facility. It is noted that further works area proposed by LSC including sealing of the access road and a large expansion of the car park by 50 CTUs.

The facility is well-used, however there are reported issues with access to open water and Keppel Bay being restricted at times with boats being impacted by the creek entrance bar. Anecdotal evidence suggests that the creek entrance bar can change over time, with conditions potentially being different one month to the next with local knowledge being essential to safe navigation to open water. The entrance bar has therefore raised safety concerns for the use of the Coorooman Creek facility.

Keppel Sands

Keppel Sands is a relatively small community located south of Emu Park, the driving distance from Emu Park to Keppel Sands is approximately 34 km. There are two facilities at Keppel Sands, one is off Taylor Street at the entrance of Coorooman Creek and the other is accessible via Limpus Avenue with access to Pumpkin Creek. Both facilities are two lane boat ramps. There are restrictions on use of the facilities including limited parking at each, Taylor Street being exposed to strong currents, and Limpus Avenue also reportedly exposed to weather conditions with limitations due to creek bathymetry. Access to both of these facilities is partly through town via residential streets that have very few businesses or other attractions.

Other Facilities

The other facilities identified by Maritime Safety Queensland (MSQ) as occurring in the wider region are summarised as follows (MSQ, 2016).

- Corbetts Landing, Byfield
 - Corbetts Landing is a single lane facility with 25 unformed car-trailer parks which
 provides access to Water Park Creek. The facility is an approximate 55 km drive north
 of Emu Park with access partly via unsealed roads. It is located approximately 12 km
 upstream from Water Park Creek's entrance to open water.

Mulambin

Mulambin is a single lane facility located between Kinka Beach and Rosslyn Bay. The
facility services as an access point to Causeway Lake but is not suitable for access to
open water. It has an unformed car park area and is accessed from the Scenic
Highway.

Nerimbera

 Nerimbera is a four lane facility located near the boundary of LSC and RRC. It is an approximate 35 km drive from Emu Park, but approximately 10 km from Rockhampton. The facility is separate from any townships and provides access to the Fitzroy River. It has an unformed car park area.

Yeppoon

 The Yeppoon facility is a single lane ramp with access to Fig Tree Creek. It is in proximity to the coastline with part tide access. The facility is accessible directly off the Scenic Highway, but has limited car-trailer unit parking available.

Rockhampton Regional Facilities

There are a number of boating facilities in the RRC area, MSQ identify 13 lanes being available in total. Most of these facilities are inland with access to areas such as the Fitzroy River. RRC and TMR are currently reviewing the boating facilities in the Rockhampton Region, with RRC developing a Recreational Fishing Development Strategy.

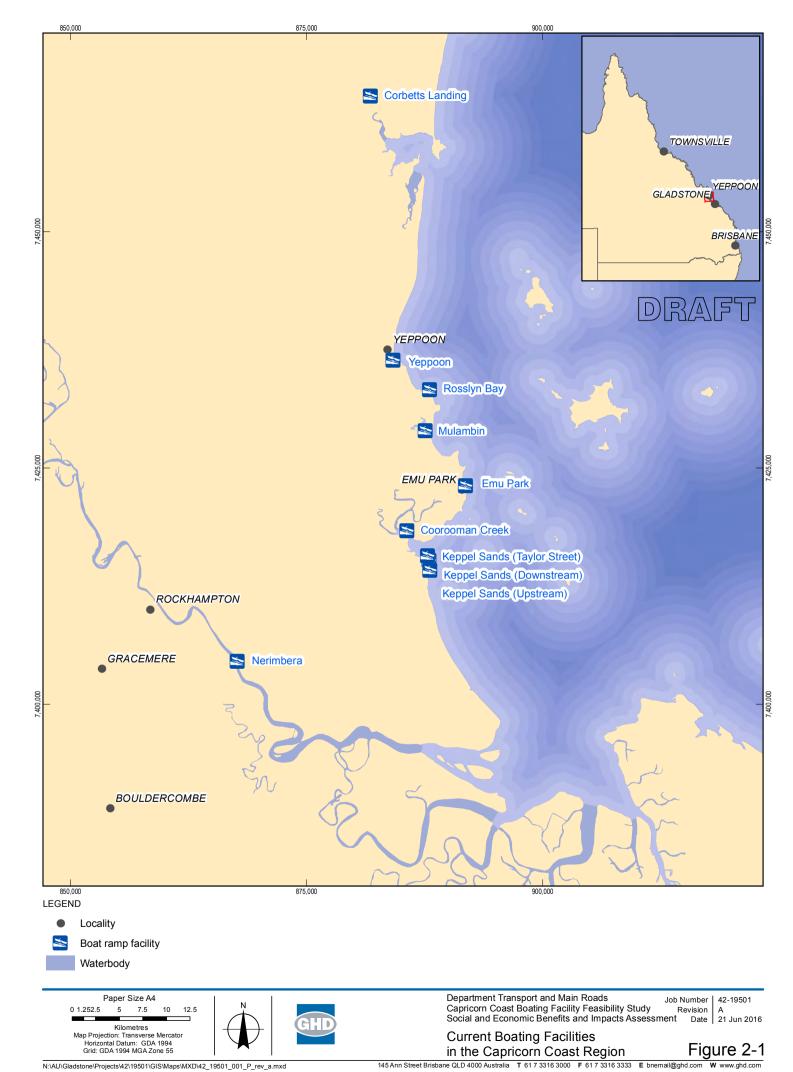
2.1.3 Offshore Fishing and Recreational Areas

The stakeholder consultation identified some offshore fishing and recreational areas in the Capricorn Coast / Keppel Bay area. It is noted that to access offshore locations favourable weather is needed. These areas include:

- Great Keppel Island is located north east of Emu Park, access to the island is best from
 Emu Park (if launching from Emu Park is feasible) as access from Rosslyn Bay requires
 cross current boating. Great Keppel Island, while being the subject of development
 proposals that have stalled, is still a popular destination, according to information obtained
 during the stakeholder consultations it was identified that over the Labour Day long
 weekend 100-200 boats were anchored about the island.
- Lisa Jane Shoals is east of Emu Park and southeast of Great Keppel Island
- Hummocky Island located south of Emu Park and north of Curtis Island, and the northern areas of Curtis Island
- General fishing spots in locations including:
 - North of Rosslyn Bay Boat Harbour
 - Emu Park headland
 - Ritamada Headland and associated shoal areas
- Dive spots such as Egg Island south of Great Keppel Island.

As well as existing fishing locations, the State Government introduced a net free zone that extends from Curtis Island, along the Fitzroy River, 20 km north of Yeppoon and east to Great Keppel Island. The zone was introduced 1 November 2015 with an aim to increase recreational fishing opportunities in Queensland thereby supporting tourism and economic growth (Queensland Government, 2015). The stakeholder consultation undertaken indicated that the local boating groups and boat owners anticipate that the introduction of this net free zone will increase the fish stock in the area, in particular mackerel, thereby potentially increasing the use of the current boating facilities and attracting tourists. This increase may be more apparent in the southern areas of the Capricorn Coast about Emu Park, Zilzie and offshore islands which are currently not regularly visited.

As with most coastal regions, there is a fishing competition held in the Capricorn Coast Region, the local competition is the Yeppoon Coast Guard Tight Lines Fishing Classic. Additionally, the stakeholder consultation identified that fishing groups from other regions travel to the Capricorn Coast, or other regions, for group fishing trips.



2.2 Previous Investigations – Capricorn Coast Boating Facilities

There have been a number of investigations and associated consultations that have progressed in the Capricorn Coast region to assess boating facility demand (current and future) and to identify potential options to meet the demand in the region. Key findings from these studies and consultations have been identified from the review of the following documents and detailed in Sections 2.2.1 to 2.2.3:

- Recreational Boating Facilities Demand Forecasting Study Central Region (GHD, 2011)
- South Capricorn Coast Boat Ramp Feasibility Study (Rockhampton Regional Council Infrastructure Committee, 2013)
- Rockhampton Regional Council South Capricorn Coast Boat Ramp Community Engagement Report (Rockhampton Regional Council, 2012)
- Boat Ramp Usage Capricorn (Infofish Australia, 2012)
- South Capricorn Coast Boat Ramp Advisory Committee Community Open Day (The Morning Bulletin, Sep 2014)
- Emu Park Boat Ramp Community Survey and Summary Local State Member for Keppel,
 Mr Bruce Young MP (Bruce Young MP, 2014).

2.2.1 2011 Recreational Boating Facilities Demand Forecasting Study – Central Region

In 2011, the Queensland Department of Transport and Main Roads (TMR) undertook a Demand Forecasting Study for Recreational Boating Facilities. The purpose of the study was to establish current and future demand for recreational boating for the State of Queensland. The Study was undertaken for each of the five TMR regions¹ to assist in the identification of the areas with greatest need for additional or upgraded recreational boating facilities.

Of relevance to the Capricorn Coast area, the Central Region study (GHD, 2011) identified that demand for recreational boating has been increasing throughout Queensland in response to population growth, higher levels of participation by the community and increasing boat ownership. This has exacerbated the pressure on recreational boating facilities particularly in the more popular and populous locations. The study identified that commercial fishing is a significant industry in the region and operates mainly from the Gladstone and Rosslyn Bay Harbours with the area fished including Keppel Bay, major estuaries and the Great Barrier Reef.

The Demand Forecasting Study utilised a number of measures to assess demand in the region including consultation (surveys, workshops and general discussions), demand analysis, identification of needs and determination of priorities. To estimate the demand for boating infrastructure the following scenarios were adopted in the Study:

- Off-peak demand 8% of boats demanding a boat lane on any given weekend (which could be as low as 2% pending weather).
- Average demand 14% of boats demanding a boat lane on any given weekend.
- Peak demand 20% of boats demanding a boat lane on any given weekend.

Over the period of 2005-2009 annual boat registration growth of sail and motor boats was found to be approximately 4.5% within Rockhampton Regional Council (RRC)², over 90% of which

² In 2011, at the time when this study was prepared, Rockhampton Regional Council comprised of the local government areas that are now Rockhampton Regional Council and Livingstone Shire Council.

¹ The TMR Regions include South East Queensland South Region, South East Queensland North Region, Southern Region, Central Region and Northern Region.

being identified as trailable boats (i.e. assumed to be 10 m or less in length). Note that at the time of the study RRC included Livingstone Shire Council (LSC). The Demand Forecasting Study in 2011 identified boat registration predictions utilising information available at the time indicating approximately 6-7% increase in registrations every five years for the Rockhampton Region.

The study showed that while the boat ramp lanes within the Rockhampton Region met the predicted growth, this did not meet peak demand periods, nor all-tide access needs specifically in relation to the Capricorn Coast region. Two stakeholder priorities for the Rockhampton Region where presented within the Study, expanding car parking at the Rosslyn Bay Harbour, upgrading the existing Emu Park boat ramp and/or upgrading the Coorooman Creek boat ramp facility.

2.2.2 2012-2013 South Capricorn Boat Ramp Feasibility Study and Consultation

Following on from the 2011 study, RRC recognised the demand needs in the area to meet forecasted growth and relieve the potential pressure on existing facilities. In 2012-2013 a memorandum of understanding was entered into between the then RRC and TMR to conduct a joint study into potential recreational boating facility sites along the southern region of the Capricorn Coast. The South Capricorn Coast Boat Ramp Advisory Committee (SCCBRAC) was formed and included representatives from a variety of local and stakeholder groups. The Feasibility Study included a review of the 2011 Demand Forecasting Study, specific reviews of facilities in the region, community and stakeholder surveys/meetings, and priority ratings.

Rockhampton Regional Council Survey (October – December 2012)

The SCCBRAC undertook an initial evaluation on a number of potential sites to meet demand forecasting, including upgrading existing sites and development of new sites. This shortlisted seven potential sites of Rosslyn Bay Boat Harbour, North Kemp Beach, South Kemp Beach, Ritamada, Emu Park, Ladies Beach and Coorooman Creek.

After identification of the seven potential sites, RRC undertook a survey in October 2012 through to December 2012 to understand the perceptions of the communities across the Southern Capricorn Coast and boat owners with regards to the seven potentially feasible all tide boat ramp facility options recommended by SCCBRAC.

A total of 2,980 mailed surveys were sent in October 2012 with 532 survey responses received, a response rate of 17.8%. A summary of the findings from the survey is as follows (RRC, 2012):

- 87% of respondents supported additional boat ramp facilities in the region.
- The survey found that only 19% of respondents did not own a boat, and therefore the findings may be skewed towards boat owners with the majority of boat owners using ramps once a month or every few months.
- Rosslyn Bay Boat Harbour had support for additional facilities (38%), however parking and water congestion were major concerns.
- A potential new facility at Ritamada had support (42%), however expense of development was noted as a concern.
- Emu Park (Fisherman's Beach) had a relatively high level of support (70%) for upgrade works.

- Coorooman Creek also had a high level of support for upgrade works (57%)3.
- Other sites/works proposed by SCCBRAC had low levels of support.

Assessment of Current Facility Usage

The Feasibility Study included a usage report by InfoFish Australia which included trailer counts and boat ramp surveys (Infofish Australia 2012). It identified that while the majority of users are from the Capricorn Coast area, there are residents of Rockhampton and further afield utilising the coastal boat facilities. A summary of the trailer counts provided are as follows:

- Rosslyn Bay Harbour was surveyed on selected days between 2004 and 2010 (a total of 1,504 survey days) identified that between Summer 2009 and Autumn 2009 there were approximately 5 days when all car-trailers where exceeded (surveys were not taken on all days).
- Emu Park surveys between 2005 to 2010 (325 survey days) identified that on 33 days cartrailer counts exceeded 10 and the average use of the facility was three car-trailer units.
- Coorooman Creek survey counts were impacted by upgrade works between 2009 and 2011, after the works 69 survey days were undertaken where on 24 days where car-trailer counts exceeded 20.

InfoFish also undertook surveys of the home towns of the boat owners (between 2005 and 2012). The following was noted:

- Rosslyn Bay 7,043 surveys were undertaken with 37% from Rockhampton, 49% from Yeppoon, 8% from Capricorn Coast towns and the remainder from elsewhere.
- Coorooman 479 surveys undertaken with 57% from the Emu Park/Zilzie area, 14%
 Rockhampton, 21% from other Capricorn Coast towns and the remained from elsewhere.

Feasibility Study Findings

Based on the spread of users of facilities along the Capricorn Coast, the Feasibility Study included an assessment of the potential users from the Capricorn Coast and Rockhampton regions using coastal facilities, therefore identifying a shortfall in the number of all-tide boat lanes (RRC, 2013). The population and boat ownership forecasts presented in the Feasibility Study equated to a 3.4% annual increase in boat registrations.

Following investigations and consultations the recommendation from the study was to investigate Emu Park and Coorooman Creek for further in-depth study and concept development. In addition, Ritamada was identified as a potential site for a future long term marina type development. At the time of the study a number of advantages and concerns were noted in the study with regard to the Emu Park site development including (RRC, 2013):

- The benefits that the site offered included relatively good weather protection, good road
 access and access to township infrastructure. It was also noted a facility may add to the
 community's local economy.
- The concerns raised included potential traffic management issues during construction and operation, unknown cost estimate for the works, consideration of environmental/marine impacts, and general impact upon the natural environment of Emu Park.

³ The 2012 Survey was undertaken prior to the main upgrade works at Coorooman Creek converted the facility to four lanes

2.2.3 2014 Information Day and Survey

Following the Feasibility Study, SCCBRAC developed concept designs for two boating facility options at Emu Park, each of the two options included eight lane all-tide ramps and approximately 200 car-trailer unit parking spaces, involving significant land reclamation (Bruce Young MP, 2014). These options were presented to the Emu Park community in September 2014, at an open day held by SCCBRAC and attended by approximately 150 people (The Morning Bulletin, Sep 2014)⁴.

In conjunction with the open day, in September 2014 the Local State Member for Keppel, Mr Bruce Young MP, commissioned a survey to 1,770 Emu Park and Zilzie residents for the Emu Park Boat Ramp utilising a concept design for the eight lane facility as proposed by SCCBRAC. The associated summary report identified that 142 surveys were returned, a return rate of approximately 8% (Bruce Young MP, 2014). Anecdotal evidence suggests that only a small number of residents at the time were aware of the survey.

Key questions and responses from the 2014 survey are summarised in Table 2-2. Overall key findings of the survey indicate that a facility of that scale would generally not be supported by the community at the Fisherman's Beach site.

Table 2-2: Bruce Young Member for Keppel Survey, 2014

Question	Yes	No
Do you support a ramp at Fisherman's Beach?	44%	54%
Do you think the proposed ramp is suitable for Fisherman's Beach?	41%	57%
Would you be concerned with traffic flow?	65%	33%
Are you concerned about potential noise?	46%	49%
Do you think it would change the culture of Emu Park?	70%	28%
Are you concerned about the scale?	56%	43%
Would you support an alternate site such as Ritamada?	57%	35%
Do you think a scientific study(s) should be undertaken?	49%	46%

(Source: Bruce Young MP, 2014)

2.3 Investigations and Studies Undertaken for the Proposed Emu Park Facility

Following from the previous investigations and consultation undertaken with regards to Emu Park as a potential site for a boating facility, the current Member for Keppel, Brittney Lauga, and TMR agreed to further investigate the potential for an all tide recreational boating facility at Emu Park. TMR have determined a staged pathway for further studies. At stage one, TMR undertook the following:

- Hydrographic surveys
- Concept design for two options
- In-house preliminary environmental and coastal assessments

Stage two of the process includes additional community consultation and this Social and Economic Benefits and Impacts Study (SEIA).

The following sections summarise the recent studies and surveys that have been undertaken with regards to the proposed Emu Park / Fisherman's Beach location for a boat facility.

⁴ At the 2014 Open Day concept designs for upgrades at the Coorooman Creek facility were provided and Ritamada was identified as a potential option.

2.3.1 Hydrographic Surveys and Concept Design – 2015

During the initial stages of investigating the options TMR undertook hydrographic surveys of the Emu Park / Fisherman's Beach area to determine seabed levels in the area with an object to inform design. It was determined that due to the tidal range in the area a new all-tide access facility would require a large reclamation and causeway access. Following the hydrographic surveys, TMR developed the two concept designs that are described within this report, refer to Section 1.2.

2.3.2 Environmental and Coastal Considerations – 2016

Following concept design development for boat facility options, TMR undertook internal desktop studies, namely an Environmental Scoping Report (ESR) and Coastal Processes Assessment. A summary of the findings from these studies is provided as follows.

Environmental Scoping Report

The desktop ESR was undertaken by TMR in March 2016. The ESR identified the project as a medium risk project with further assessment being required. The following summarises the key findings of the ESR.

The existing environmental values and potential impacts were identified to be:

- The works are within the coastal management district and are subject to tidal influences.
- Permanent works will cause permanent damage to the seafloor within the proposed works area.
- The works are within the boundaries of the Great Barrier Reef Marine Park (GBRMP) Habitat Protection Zone.
- Erosion protection and acid sulfate soil management during construction will be required.
- The Commonwealth Department of Environment Protected Matters Search Tool identified a
 number of protected species as having habitat known to occur in the region including
 migratory species (birds and turtles)⁵. It was identified that a fauna survey will be required
 to determine potential impacts and that underwater noise and light impacts are to be
 considered.
- There are no recorded Aboriginal or other cultural heritage sites in the works area.
- There are potential impacts from noise, dust, vibration and other construction aspects (e.g. chemical spills, waste).

As a result of the above there were also potential legislative requirements identified in the form of approvals, permits or licenses. The following summarised the key potential legislative requirements:

- Due to location within the CMD and tidal environment development approval for operational works tidal works (and potentially others depending upon construction methodologies)
- A marine parks permit from the Great Barrier Reef Marine Park Authority (GBRMPA) will be required.
- The Environment Protection and Biodiversity Conservation Act 1999 will need to be reviewed to determine if referral to the Department of Environment is required. It was considered likely that a referral would be required.

GHD | Report for Department of Transport and Main Roads - Capricorn Coast Boating Facility Feasibility Study,

⁵ The potential for protected species at Emu Park (Fisherman's Beach) was confirmed in stakeholder consultations undertaken for this SEIA where migratory bird species have been noted in the area and turtles have been reported as nesting on Fisherman's Beach.

 Other legislative requirements, including environmental offsets, may be triggered for the works.

It is worth noting that discussion with state and federal government agencies has not yet occurred for the proposed boat facility and approval is not guaranteed.

Coastal Processes Assessment

An initial Coastal Processes Assessment was undertaken by TMR in February 2016. The assessment utilised "A Detailed Study of Coastline Behaviour along Capricorn Coast of Queensland" titled "Capricorn Coast Beaches" BPA (1979)). TMR identified that even though this study is over 30 years old it provides the most comprehensive investigation of coastal processes in the area and in terms of coastal morphology the time delay was not considered significant.

Present Coastal Features

The assessment determined the key hydrodynamic forcing mechanisms to be:

- Wind conditions dominated by easterly conditions with seasonal fluctuations ENE and ESE.
- Wave conditions 75% of waves are locally generated at sea and 25% being highly refracted and diffracted ocean swell.
- Tidal levels –highest astronomical tide at 5.14 m and mean low water spring at 0.62 m.
- Tidal currents approximately 0.08 m/s.
- Storm tide the project is to consider the localised magnification of storm site impacts and funnelling of storm tide into the corners of the beaches.

With regards to sediment transport / geomorphological features, TMR identified that shape of the crenulated bays between the headlands reflects the dominant South Easterly wave conditions. Additional findings addressed:

- Longshore transport this region includes a very small northerly supply past Emu Point.
- Onshore transport volumes are not expected to be significant over a 50 or 100-year practical life of any proposed facility.
- Advective silt and fine sand transport TMR is aware that high volumes of silt and fine sand are present in the Fitzroy coastal system, hence the need for dredging at Rosslyn Bay. Therefore, the design of the proposed Emu Park facility will need to consider siltation from fine sediment.
- Wind blown erosion the previous report included signs of instability due to excessive dune
 usage, some work has been undertaken to reduce the instability, however either way TMR
 identified that any existing dune instability (if present) will not be impacted by the ramp
 proposals.

Consideration of Options

TMR assessed the potential coastal processes associated with Option 1, the Fisherman's Beach option, and identified the following key findings:

- Option 1 may not greatly affect the existing longshore processes; however, it will change
 hydrodynamics of the area immediately onshore with a resultant adjustment to the southern
 beach alignment.
- The works have the potential to impact on the existing wave climate either side of the structure during higher tides.

- Increased wave shadowing onto the southern portion of Fisherman's Beach may cause slight beach rotation and may cause minor erosion of the beach to the north (note the current Emu Park headland already does this to some extent).
- Option 1 will influence waves in the headland area and may impact recreational uses such as surfing, boating or swimming.
- Option 1 is likely to influence hydrodynamics of the area during cyclones or storm tides where erosion impacts may be magnified. The effects of storm tide will require further assessment.

TMR assessed the potential coastal processes associated with Option 2, the Emu Park headland option, and identified the following key findings:

- Works are largely within the existing rocky spur, therefore there is predicted minimal impact on shorelines.
- However, wave climate (hydrodynamics/wave reflection) during higher tides will be impacted so this may impact upon recreational users such as surfing, boating or swimming.
- TMR identified that it was important that an investigation be undertaken to determine impact of potential waves on the recreational users of the beach and also within the boat facility.
- With regards to the design, the northern breakwater provides protection from northerly conditions and will avoid sand being transported into the facility during high tides.

Overall, based on the desktop Coastal Processes Assessment undertaken, Option 2 was considered to have less coastal process impacts than Option 1.

2.4 Community Engagement 2016

2.4.1 Community Information Day - April 2016

To launch the Social and Economic Benefits and Impacts Assessment (this report), TMR held a community information day, Saturday 16th April 2016. The purposes of the information day were to:

- Provide details to the community about the proposed revised options for the Emu Park Boat Facility
- Launch the Social and Economic Benefits and Impacts Assessment
- Launch the project specific online survey
- Answer any initial queries, concerns and take comment about the proposed options
- Provide advice about further consultation that was to be undertaken.

2.4.2 Online Survey - April-May 2016

As mentioned, TMR developed and launched an online survey specifically targeting community feedback into feasibility of the proposed options at Emu Park. The survey was available on the Get Involved website and was available from Saturday 16 April to Monday 16 May 2016.

TMR have undertaken an assessment of the survey results and have identified that 1,638 legitimate responses were received. Overall 43% of respondents did not support the proposed facility and 57% did provide support, with the Option 1 design having the highest support (79%) over Option 2. Of particular relevance to this SEIA are the respondents from Emu Park and Zilzie. 759 responses were recorded from Emu Park and Zilzie (postcode 4710) with 61% not supporting a boat facility at Emu Park.

3. Social Baseline

3.1 Overview of the Livingstone Shire Council Area

Livingstone Shire is within the Fitzroy Region in Central Queensland situated east and north of the Rockhampton Region. The shire is approximately 11,776 square kilometres in size with the major coastal towns being identified as Yeppoon and Emu Park. The coastal areas of Livingstone Shire are generally referred to as the Capricorn Coast, where key towns over approximately 30 km of coastline include (but are not limited to):

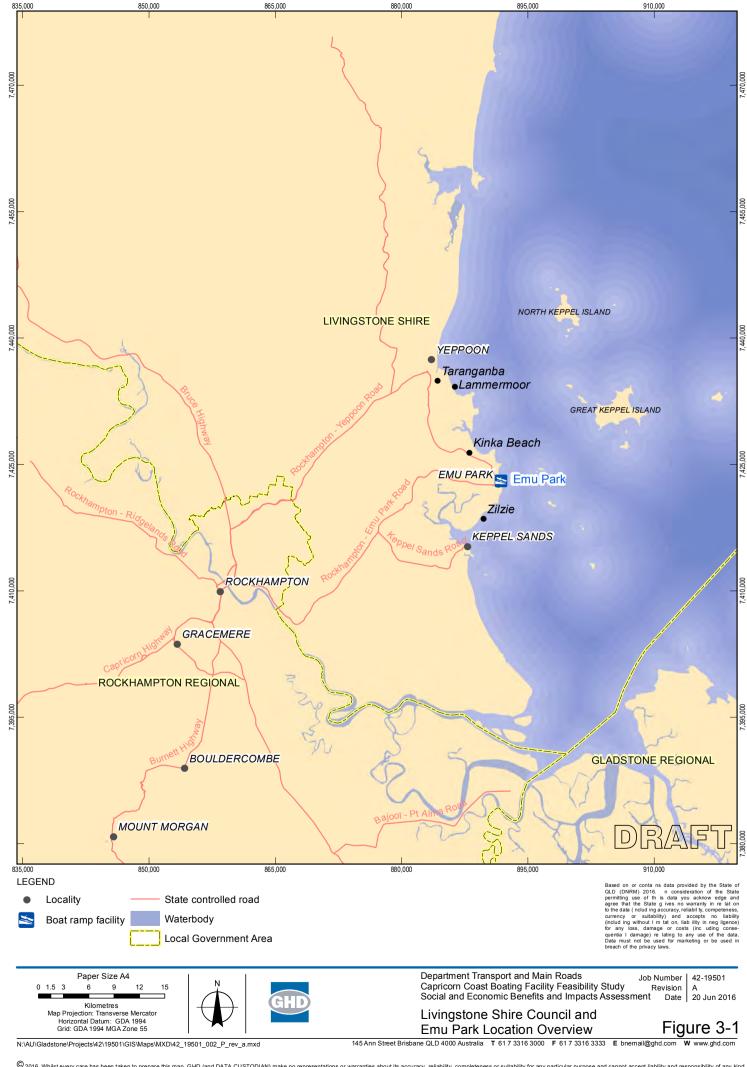
- Yeppoon
- Emu Park
- Taranganba
- Lammermoor
- Kinka Beach
- Zilzie
- · Keppel Sands.

The Capricorn Coast is the gateway to Great Keppel Island and the Great Barrier Reef Marine Park. Figure 3-1 provides an overview of LSC and the location of Emu Park and other key coastal towns.

The most recent detailed population review was undertaken in 2013, this was prior to the deamalgamation of LSC from RRC. The population of the then Rockhampton Regional Council was 118,000 people (an increase from the population in 2009 of 109,922) with a median age of 36.6. The total number of businesses was reported to be 7,850 (with 4,627 as non-employing) with total registered motor vehicles within Rockhampton of 91,107. (Australian Bureau of Statistics, 2015)

The current Livingstone Shire Council population is estimated to be 37,001 persons with average annual predicted growth rate of 2.6% (over 2005-2015) or 2.4% (over 2010-2015) (Queensland Treasury, 2016). The median age predicted for 2014 was 41.5 years. The Queensland Treasury estimates the projected population by 2036 to be 57,042. Note that the 2014-2015 Livingstone Shire Council budget identified a projected population growth to approximately 60,000 by the year 2031 (LSC, 2014a).

With a population of 37,001 and an average Australian household size of 2.5 persons per household, it is estimated that approximately 12% of households in LSC own a boat.



3.2 Description of the Emu Park Community

3.2.1 Overview of the community

Emu Park is a coastal town south of Yeppoon. The Emu Park community includes Kinka Beach (to the north) and Zilzie (to the south). The latest Census, 2011, provides demographic details per state suburb. The information discussed in this section is for Emu Park (Australia Bureau of Statistics, 2013a), Kinka Beach (Australia Bureau of Statistics, 2013b) and Zilzie (Australia Bureau of Statistics, 2013c) state suburbs.

Population figures and the age breakdown for the three state suburbs are provided in Table 3-1. At the time of the Census, the total population of the area was identified to be 4,540 and the medium age was identified to be 47.

Table 3-1: 2011 Census Population Figures

	Emu Park	Kinka Beach	Zilzie	Total
Total Persons	2,021	629	1,890	4540
Age groups population:				
0-4 years	99	13	148	260
5-14 years	255	48	223	526
15-19 years	120	29	95	244
20-24 years	95	18	88	201
25-34 years	141	26	236	403
35-44 years	232	59	225	516
45-54 years	316	130	230	676
55-64 years	318	132	268	718
65-74 years	269	113	195	577
75-84 years	137	59	108	304
85 years and over	40	3	74	117
Median age:	47	54	41	47.3

With regards to household compositions:

- Emu Park had 797 households, 71% of which identify as family households
- Kinka Beach had 278 households, 63% of which identify as family households.
- Zilzie had 626 households, 76% of which identify as family households

As mentioned previously, Queensland Treasury identify the annual population growth in LSC to be 2.6%. Applying this growth rate to Emu Park, the 2016 population is estimated to be 2,294. The average household size in Australia is 2.5, therefore the approximate number of households/dwellings in Emu Park is 918. Given that the current boat ownership in Emu Park is 320 boats, the estimated percentage of the Emu Park households that own a boat is 35% (assuming one boat per household).

Applying similar calculations and assumptions to Zilzie, the 2016 population is estimated to be 2,148 with the approximate number of households/dwellings being 860. Given that the current boat ownership in Zilzie is 334, the estimated percentage of the Zilzie households that own a boat is 40%.

3.2.2 Description of the town of Emu Park

Some of the key features of the Emu Park town are displayed in Figure 3-2. The main street of Emu Park is Hill Street, this street has either community services or businesses along each side of the road, with some businesses along the side roads (Emu Street, Patterson Street and the

Scenic Highway). Towards the end of Hill Street is Bell Park, a skate park, the existing ramp and jetty, and the Singing Ship monument. Hill Street is seen as a major attraction of the area, with people, local and tourists, travelling down the street to the water/jetty for the scenic view that includes Great Keppel Island.

It was communicated during the stakeholder consultations undertaken for this SEIA that current parking in the town of Emu Park is seen as a challenge, although no known parking studies or assessments have been undertaken. Parking is offered along the edges of Hill Street and other main streets, with centre street parking also available. The only off street parking is associated with IGA. Within the town centre (as per Figure 3-2) there is a cluster of important services for the town including IGA, a newsagent, bank, library/council information, eateries, real estates and similar. Bell Park and the end of Hill Street is also an important community service area.

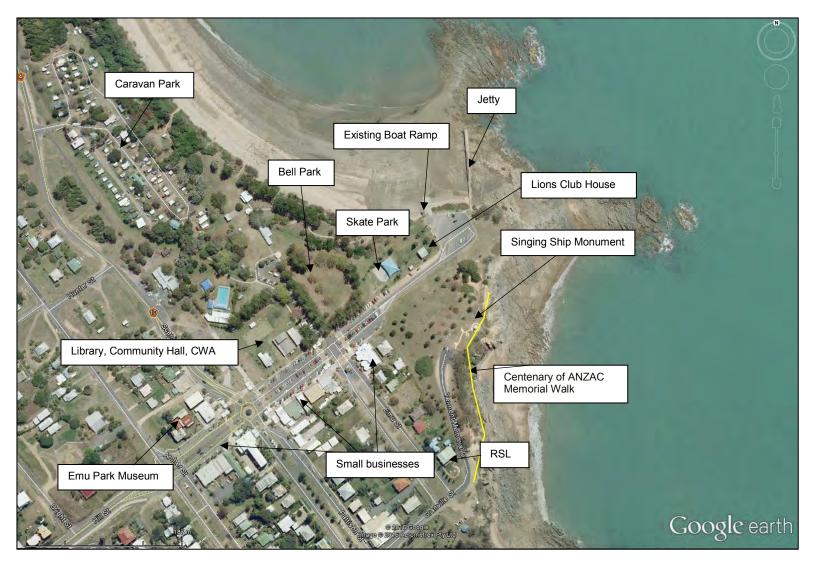


Figure 3-2: Key Features of Emu Park Town Centre

3.2.3 Community identity, values and aspirations

The Emu Park area includes a number of beaches and rocky headlands as well as community parklands, walkways and cultural features. Emu Park, being part of the Capricorn Coast Region, is a popular destination for families, either local, from the regional locality or from further afield.

A supporting document to the current Planning Scheme for the area is the Emu Park Town Centre Design Guidelines (Hassell Pty Ltd, 2007). The guidelines aim at achieving an outcome of Emu Park being the second most important centre in Livingstone Shire by 2027. It is identified that Emu Park is a popular tourist spot renowned for its relaxed village feel. The Guidelines identify the Emu Park 2027 Vision Statement as being:

"A popular focal point for residents, workers and visitors to the Capricorn Coast, Emu Park Town Centre successfully combines the tropical coastal village feel with a range of services and facilities that promote a self-sufficient and vibrant community. Importantly, development protects and celebrates local assets including Hill Street, Bell Park and the Singing Ship. The town centre demonstrates sustainable development by encouraging economic prosperity, social equity and environmental responsibility."

Some elements identified as essential to achieving the vision for Emu Park and relevant to this SEIA include:

- Views and vistas are valued by residents and visitors. These along with the seaside landscape charter are important to the town's overall character.
- View corridors are to be retained which include the Singing Ship Monument, Fisherman's Beach foreshore.
- Relaxed village coastal atmosphere is to be retained and promoted.

Emu Park's landscape settings are of high regional significance due to their intrinsic scenic qualities and contribution to the distinctive landscape values of the Capricorn Coast region. Interesting to note is that development in allotments about Bell Park and the Historical Museum have been limited to a maximum of nine metres in height. While the guidelines identify that safe and convenient car parking and circulation within the town centre is important to retain the characteristics of the town.

LSC are in the process of developing a revised Planning Scheme for the area and in the process are reviewing the Guidelines. In development of the revised Planning Scheme, supporting studies have been undertaken which identify that the coastal town feel of Emu Park should be retained (Urban Economics, 2010).

Additionally, in support of the development of the Planning Scheme LSC have released a draft Strategic Plan for the purpose of providing policy direction. The plan has identified that to accommodate the forecast population growth, urban development in proximity to Yeppoon and Emu Park will be required. LSC plan to keep a strong network of centres that are developed based on a hierarchy to ensure role, function and scale are appropriate. With regards to Emu Park, it is proposed that a district centre is developed that would service the southern settlements once the population catchment is sufficient to support the centre without compromising the current local centre of Emu Park.

The Plan has identified that:

"New and existing tourist land uses and facilities focussed on the cultural or natural environmental features of the planning scheme area shall continue to play an important role in the economy and tourism industry."

Stakeholder consultations undertaken as part of this SEIA have identified that the key community values currently present are similar to those in the 2007 guidelines. It was identified that Emu Park has a real community feel to it, with the community being proud of the festivals and events that occur in Emu Park (refer to Section 3.2.5). The vistas of Keppel Bay, including Great Keppel Island, are held in high regard, especially from key viewing points of the foreshore area, the existing jetty and the Singing Ship Monument.

There are a number of community groups that operate in the Emu Park area, such groups/stakeholders have been identified in Section 1.3.4. Some groups, such as the Emu Park Lions Club, raise significant funds for community projects and others, such as the Country Women's Association, provide places for local residents to gather with likeminded people. Other groups specific to Emu Park include Friends of Emu Park who were formed to provide a local voice to matters of interest to residents. Specific to the boating community, the Central Queensland Boat Ramp Action Group were formed six to seven years ago as a committee to highlight the need for improved infrastructure in the region, local fishing clubs, and the No Boat Ramp in Emu Park facebook page which was formed directly as a result of the current works by TMR into investigating a proposed boat facility at Emu Park

3.2.4 Community lifestyle and recreation

The Singing Ship Monument is one of the popular Emu Park sites to visit. The monument is situated on a hill/headland and the viewshed is Keppel Bay and the islands. It commemorates Caption Cook's Bicentenary in 1970 and marks his discovery of the bay in May 1770. The monument represents the billowing sail, mast and rigging of his ship Endeavour with concealed organ pipes using the sea breezes to create eerie music (Monument Australia, 2010).

The Emu Park headland itself is a recreational area due to the surrounding parkland, the existing jetty acting as a walking platform and the rock pools. According to information received during the community engagement, the rock pools have been visited by schools in the past and are currently visited by local children and people interested in the rock formations. There is also evidence that fishing occurs in the rock pool area including spear fishing at different tides.

The Emu Park headland and the existing boat ramp are located at the southern end of Fisherman's Beach. According to the information obtained during stakeholder consultation Fisherman's Beach is a popular beach with locals for activities such as walking, swimming, kayaking, beach fishing and surfing (during favourable weather). Additionally, as the Emu Park Caravan Park is adjacent to the beach, the Caravan Park users frequent the beach. The local environmental groups have been involved in revegetation projects along the duneal areas associated with the beach and adjacent parklands. This highlights the general importance of the coastal area with the Emu Park community.

Emu Park also offers other recreational facilities. In proximity to the beach is the skate park and Bell Park. Both are seen as important to the local community and are frequently used. Other facilities provided in the Emu Park area include:

- Further parklands (Lions Park, Kerr Park and Bicentennial Park)
- Don Ireland Swimming Complex, where school children frequently walk to the complex as part of school classes
- Emu Park Golf Club
- Emu Park Bowls Club
- Community Hall and Council Library
- Community groups (RSL, Country Women's Association, Lions Club and Surf lifesaving club).

Key Projects

There are two key projects within Emu Park that Council are in the process of undertaking; the Centenary of ANZAC Memorial Walk and the Emu Park Foreshore Revitalisation Project. The Centenary of ANZAC Memorial Walk forms part of the Council's overall ANZAC Commemorative Precinct. The Memorial Walkway extends along the foreshore north to the Singing Ship with a viewing deck below the Singing Ship. It has been identified that the walkway will provide a strategic link connecting the Town Centre and Bell Park with the iconic Singing Ship Monument, RSL Cenotaph and the Surf lifesaving club (LSC, 2014b). The stakeholder consultations undertaken indicate that the walkway is a popular tourist destination.

Council released the Concept Masterplan for the Emu Park Foreshore Revitalisation Project in September 2015. The Project extends in the north from the existing boat ramp and jetty south to Kerr Park and the Surf Life Saving Club. The Project includes a number of proposed developments, including Peace Park immediately east and adjacent to the existing boat ramp car park, an Indigenous Memorial immediately south of the existing boat ramp car park, additional pathways and accesses about the Singing Ship (LSC, 2015). The Project aims to connect to the Centenary of ANZAC Memorial Walk.

3.2.5 Festivals, Events and Heritage

Festivals and Events

There are a number of local events that are very popular within the region that occur in Emu Park, specifically about the Bell Park area that have been identified either through research and/or that were discussed during the stakeholder consultation. These events include:

- The Festival of the Wind occurs around Easter annually and is one of the most popular family kite festivals in Australia. The 2016 event was the 16th annual event. It occurs within Bell Park and Fisherman's Beach and involves the closure of Hill Street (near the existing Boat Ramp) and up to 8,000 attendees (Emu Park Lions, 2016).
- Emu Park markets occur in Bell Park on the third Sunday of the month with up to 150 stall holders (Lions Club of Emu Park, 2016).
- 2016 will be the second year that a Beef to Beach markets event will be held in Bell Park as part of Queensland Week.
- Oktoberfest occurs annually and is reportedly attended by approximately 3,500 locals and visitors, with 2015 being the 31st occurrence of the event (Emu Park Lions, 2015).
- All Classic Motor Club 'Classics by the Coast', a car show&shine picnic day held in Bell Park every two years with around 300 displays (All Classic Motor Club, 2016)
- Beach to Beach Fun Run Relay occurs annually in September and is organised by the Capricorn Coast Runners and QCWA as an Emu Park event (it occurs in Bell Park and Hill Street) (Capricorn Tourism, 2016).
- Beach Day Out during disability action week which is run by Council where buses drop people off near the existing boat ramp to access stalls and activities.
- ANZAC Day is a large event in Emu Park, with thousands of people attending the dawn service which is held outside the RSL and viewing the new ANZAC Memorial.

Cultural Heritage

Searches of cultural heritage registers were undertaken for the Emu Park area. The Queensland Heritage Register identifies Bell Park as a heritage place (Queensland Government, 2016). One of the more important aspects for the development of Emu Park was

the establishment of a railway line from Rockhampton in 1888. This made Emu Park a popular recreational destination, this includes Bell Park which has a strong history in the region with a gazettal in 1892 as a Reserve for Public purposes. Following improvements in the 1910s the reserve became a popular venue, and in the 1940s it was a popular destination for large company picnics. The current heritage listing cadastral boundaries are provided in Appendix C. The key themes that Bell Park is listed for includes:

- Exploiting, utilising and transforming the land: Valuing and appreciating the environment and landscapes
- Creating social and cultural institutions: Sport and recreation (Queensland Government, 2016).

The Emu Park Museum holds a wealth of information about Emu Park, including the railway line history and the development of the current jetty. While the jetty is not identified in any heritage register, is holds some significance to the Emu Park community in general (SCCBRAC, 2013). The information about the jetty provided by the Emu Park Museum is as follows:

"The first attempt to have the jetty built was in the early 1890s for a deep water jetty but it was decided that it was not needed at that time. It was not until the 1900s when the *Progress Association* called a meeting of the boat owners to discuss where they would like the jetty. It was not until the fifth meeting, with non-attendance by the boat owners, that it was realised that a jetty was not wanted by boat owners. The proprietor of Emu Park Hotel, H. Johnson resigned his position on the committee.

The building of the jetty was taken up by the Women's Environment League in the 1920s. they set about raising funds from individual donations and Livingstone Shire. They were able to complete the first stage of the jetty in 1924. It seems that this controversial project was doomed from the start as this was as far as it got due to lack of funds. There were other attempts to complete this project but interest waned when it was announced by the then government that a boat harbour would be construction at Rosslyn Bay."

A search of the Aboriginal Cultural Heritage Database was undertaken for the Emu Park area. No Aboriginal cultural heritage sites were recorded; however, this may be due to lack of previous surveys in the area. The cultural heritage party for the area was identified to be the Darumbal People with the cultural heritage body for the area identified to be Darumbul Enterprises Pty Ltd.

3.2.6 Economic profile

Business Environment

There are a number of businesses in the Emu Park area that are typical of a regional coastal town. These includes:

- Eateries and restaurants
- Bakeries
- Newsagent
- Community bank
- Supermarket
- Hardware Store
- Real-estate agencies
- Hair and Beauty

- Accommodation services (such as hotels, caravan park, backpackers and holiday homes)
- Small industrial, including local painters, builders and plumber, and a small workshop area near the airstrip
- Home businesses.

The draft Strategic Plan for LSC has identified investigation areas for new industry in the Emu Park area; the area is outside the residential urban growth places. Additionally, the Plan identified land use strategies for Emu Park to occur in an orderly and planned manner with proposed urban infill areas (higher density accommodation activities) about the town centre and an investigation area approximately 1 km west of the town centre for a future district centre. Other development identified within the Plan included potential for a secondary school in the Emu Park locality and provision of smaller scale community facilities.

Employment Opportunities

As identified above, there are limited employment opportunities in the Emu Park area due to the type of businesses and lack of industry in the area. Additionally, key management/professional roles, such as those associated with Council, are based in Yeppoon.

Employment details from the 2011 Census are summarised in Table 3-2. According to census 2011 the unemployment rate in Emu Park was 6.1 per cent. Discussions held with community stakeholder groups indicate that a large portion of people from Emu Park travel to Yeppoon or Rockhampton for work. The occupations and industry types outlined in the tables support this.

Table 3-2: 2011 Census Employment Percentages by Occupation Type

Employment Occupation	Emu Park	Kinka Beach	Zilzie	Total
Managers	10%	11%	10%	10%
Professionals	16%	14%	15%	16%
Technicians and trades workers	18%	21%	19%	19%
Community and personal service workers	12%	11%	11%	12%
Clerical and administrative workers	13%	11%	11%	12%
Sales workers	7%	7%	8%	8%
Machinery operators and drivers	9%	10%	12%	10%
Labourers	12%	12%	11%	12%
Not stated	3%	2%	3%	3%

Table 3-3: 2011 Census Employment Percentages by Industry Type

Employment Industry	Emu Park	Kinka Beach	Zilzie	Total
Agriculture, forestry and fishing	0%	2%	2%	1%
Mining	6%	6%	11%	8%
Manufacturing	7%	8%	8%	7%
Electricity, gas, water and waste services	2%	1%	2%	2%
Construction	11%	13%	11%	11%
Wholesale trade	2%	5%	4%	3%
Retail trade	10%	11%	9%	10%
Accommodation and food services	7%	13%	6%	8%

Employment Industry	Emu Park	Kinka Beach	Zilzie	Total
Transport, postal and warehousing	4%	3%	5%	4%
Information media and telecommunications	0%	0%	1%	0%
Financial and insurance services	1%	3%	2%	2%
Rental, hiring and real estate services	2%	0%	2%	2%
Professional, scientific and technical services	2%	2%	4%	3%
Administrative and support services	3%	3%	3%	3%
Public administration and safety	6%	6%	6%	6%
Education and training	10%	8%	7%	9%
Health care and social assistance	16%	10%	14%	14%
Arts and recreation services	1%	0%	0%	1%
Other services	5%	4%	3%	4%
Inadequately described/Not stated	3%	1%	2%	2%

Market Conditions

In the Emu Park region, the current property market is geared more towards a buyers' market which reflects the current low interest rates and market conditions generally in Australia. As with other Australian areas, the mining downturn has impacted the Emu Park region to a degree, however there is not a high reliance on mining jobs as elsewhere. The stakeholder consultation identified that the coastal environmental of the Capricorn Coast attracted the younger families during the mining boom (for fly-in-fly-out workers), however these families are generally staying in the region due to the lifestyle on offer.

4. Identification and Assessment of Potential Social and Economic Benefits and Impacts

4.1 Introduction

This section describes the potential social and economic benefits and issues that may arise from the construction and operation of Option 1 and Option 2. Information for this section was sourced from the project description provided by TMR, stakeholder consultations undertaken for the SEIA, the desktop preliminary environmental studies undertaken by TMR and extrapolation of economic impact information undertaken by TMR based on experience from other similar projects.

Social impacts that rely on environmental factors are discussed and assessed based on stakeholder perceptions and are not based on technical studies.

4.2 Meeting Regional Demand for Recreational Boating Facilities

4.2.1 Potential Construction Benefits/Impacts

Benefits

No particular benefits were identified in regards to regional demand for boating facilities during construction.

Impacts

For the duration of construction of either option, it is anticipated that the existing Emu Park boat ramp would be temporarily closed. While a detailed survey of the use of the current facility has not been undertaken, the previous investigations, refer to Section 2.2.2, indicate that three to four car-trailer units may be present on certain days, with usage increasing on peak days. Therefore, the closure of the existing boat ramp for at least 6 months may inconvenience a small number of boat owners who currently use the ramp.

4.2.2 Potential Operations Benefits/Impacts

Benefits

One of the key benefits and drivers for a potential boating facility at Emu Park, has been to alleviate pressure on the existing facilities of Rosslyn Bay Harbour and Coorooman Creek which are at or above capacity on peak use days, refer to Section 2.1.2. Therefore, an additional facility in the Capricorn Coast region would assist in:

- Providing an alternate all tide facility to take some pressure off Rosslyn Bay Harbour and Coorooman Creek boat ramps and trailer parking.
- Providing a boating facility to the north of the Capricorn Coast and reducing travel times for some of the boat owners in that region namely Emu Park, Zilzie and Kinka Beach. For example, for a boat owner to access Rosslyn Bay Boat Harbour the travel distance is approximately 15 km.
- Alleviating water congestion and/or boat retrieval wait times, and in doing so reducing fuel wastage.

- Improved safety in launching and retrieval due to less congestion on good boating days.
- Providing suitable car-trailer parks to avoid users parking illegally as it currently happens at Rosslyn Bay on days when the car-trailer parking is full.
- Providing shorter travel distance and faster access to offshore areas, where Emu Park would be considered the most suitable access point for Great Keppel Island.
- Stakeholder consultation has identified that with the recent introduction of the net free zone
 and the potential new boating facility at Emu Park would provide better access to new
 fishing grounds in the offshore areas east and south of Emu Park.

Stakeholder consultation was undertaken as part of this SEIA that included discussions with boating/fishing groups and boat owners. They identified a preference for Option 1 because, Fisherman's Beach, provides a large area for boat manoeuvres that is protected from the wind.

Impacts

The potential impact on addressing the demand for boating facilities in the region would be:

- Anecdotal evidence from the SEIA stakeholder consultations indicate that the size of the
 proposed facility at Emu Park (45 car-trailer parks), would not meet the overflow of boaties
 from Rosslyn Bay Harbour and Coorooman Creek facilities on a good boating day.
 Consultations have indicated that there are approximately 30 such days in a year.
- In conjunction to the consultations, the Demand Forecasting Study undertaken in 2011 also
 indicates that on an average 100 car-trailer parking spots would be required every day of
 the weekend by the Emu Park/Zilzie boat users. This is over double the amount the
 proposed facility is providing.

4.3 Economic Values

4.3.1 Potential Construction Benefits/Impacts

Benefits

Potential business/contracting opportunities

The construction of either of the two proposed boat ramp options is likely to generate similar contracting opportunities for goods and services. Depending on the technical requirements of construction, contracting opportunities are likely to be awarded to suitable goods and services providers from across the State of Queensland. Due to the nature of constructing in marine environment, contractors in the region with experience in this field is limited. It is possible that some contracts maybe awarded to local companies operating out of the South Capricorn Coast region. Rocks may be sourced from one or two local quarries. However, as the award of contracts will depend on a number of variables and market conditions at the time, it is not possible to assess the location and value of the contracts with any level of certainty at this early stage of investigation.

Potential employment opportunities

The construction of either of the two proposed boat ramp options is likely to generate similar employment opportunities. Depending on the availability of appropriately skilled labour force, it is estimated based on similar types of projects that the proposal may generate about 35% local (Rockhampton and Livingstone Shire Council areas) construction jobs over a period of six to nine months This would equate to about 10 - 12 persons locally averaged out across the works for the duration of the project

Potential benefits to local businesses from construction workers

During the construction period of approximately six to nine months (for either of the boat ramp option) it is likely that the non-resident construction workers would generate a demand for local accommodation facilities and would access local businesses for food and other supplies and services. SEIA consultations with the accommodation facilities at Emu Park indicate that they have been operating well below capacity and such demand would provide them with much needed business opportunity.

It is also likely that when off roster these non-resident workers would invite their families to holiday in Emu Park or in the region, increasing tourism in the area. At this stage of the investigation it is difficult to estimate the value of such potential opportunities, however based on similar projects, it is estimated that somewhere between 40 – 60 per cent of the total project cost would be spent locally in the Rockhampton and Livingstone Shire Council areas

A survey of local businesses indicates that approximately five to six local businesses such as takeways/cafes/eateries/food stores and the service station would attract additional business from construction workers and trucks delivering material to the site.

Impacts

Potential impacts on local businesses at Emu Park

Construction activities for either of the boat ramp options may restrict access to the existing boat ramp, associated car park and some parts of the foreshore area. Additional truck and worker movements during day time along Hill Street may restrict access or deter locals and visitors from accessing the central business area along Hill Street. Such change in access or traffic conditions during construction may reduce the number of visitors to Emu Park and associated business they generate.

There is a potential that the dust and fumes generated by the construction trucks driving through town (on average 20 return trips a day for construction of Option 1 and on average 9 return trips a day for construction of Option 2 over a construction period of six months), especially along Hill Street would deter business such as eateries and cafes from offering outdoor/street side seating for their customers. Reduced seating is likely to reduce patronage at four to five businesses during the construction period.

Also it is likely that the demand for accommodation facilities generated by the non-resident construction workers may compete with demand from tourists and visitors, especially around the special events and festivals held at Emu Park. However, as indicated during the SEIA consultations with the accommodation facility owners, the local accommodation facilities have been operating below capacity and with the availability of short term rentals in Emu Park, Zilzie and Kinka Beach areas the demand generated by the construction workers is not likely to deter visitors from accessing accommodation facilities.

4.3.2 Potential Operations Benefits/Impacts

Benefits

Potential benefits to local businesses at Emu Park

SEIA consultations with local business owners and the business survey indicate that the local business community perceives that either of the proposed boat ramp option would lead to an increase in trade for their businesses. Approximately 95 per cent of the respondent businesses (14 out of 15 respondents) support the development of a boat ramp in Emu Park and mainly prefer Option 1. The business survey indicates that approximately 75% of respondent businesses (11 out of 15 respondents) such as the takeaways/cafes/eateries, accommodation,

hardware, service station, perceived that they would have increased trade as a result of the new boat ramp. Eight of these businesses indicated that the perceived expected increase in trade due to the boat ramp would range from 3 percent to 25 per cent averaged over one year.

Such increase in trade at local businesses is likely to generate increased employment opportunities in Emu Park. Given the type of businesses and per cent increase in trade, it is anticipated that majority of these jobs would involve un-skilled or semi-skilled type of work, mainly offering casual or part-time work opportunities, which would potentially offer supplementary income generation opportunities, with a small number of full-time jobs offering primary income to a household.

However, a number of constraints and challenges have been identified by the SEIA team, which may restrict boat ramp user access to businesses located along Hill Street, these constraints include:

- Distance of new boating facility (Option 1) from local businesses The concept for Option 1, shows that the parking on the new facility would be located approximately 400 meters from the existing boat ramp parking, this means that boating patrons would have to walk more than 500 meters one way or over a kilometre round trip to access the nearest business located on Hill Street. Discussions with boating groups and TMR indicate that it is highly unlikely that boaties would be willing to park their car and trailer at the new facility and walk that distance to access local businesses for their food and supplies. The distance would therefore limit the opportunities for increased trade for local businesses along Hill Street.
- Limited or no trailer parking in the central business area in Emu Park with the recent street scape upgrades along Hill Street, there are no trailer parking spots in the central business area, this would prevent boaties from stopping in town on their way to the new boating facility, again limiting the opportunities for increased trade for local businesses along Hill Street.

Some other challenges for the local businesses to avail of the benefits of increased trade from the new boat ramp facility may include:

 Timing of the start of construction – SEIA consultations with the business community in Emu Park identified that some of the businesses would need to prepare and upgrade their services in order to cater to the patrons of the new boating facility. They would therefore require certainty about the proposal and if it were to go ahead, they would require a lead time of 12 to 18 months to make necessary changes to their businesses.

Potential increase in tourism

SEIA consultations with the business community at Emu Park and the boating and fishing community in the South Capricorn Coast region indicate that proximity to Great Keppel Island and access to new fishing areas in the Southern Capricorn Coast would generate additional new business opportunities such as fishing and boating tours and water taxi services, which would encourage tourism in the region. There is the potential that this would have additional economic benefits to a number of businesses that cater to tourists. They also believe that having an all tide boating facility would attract more visitors to Emu Park for overnight holidays.

Also, local businesses believe that if Option 1 is suitably designed to offer walkways and fishing platforms, it would provide increased opportunities to draw not only boating tourists, but could also provide an additional attraction for non-boating locals and tourists for fishing and walking.

Impacts

No particular impacts to businesses were identified during the operation phase.

4.4 Community Values

Community values include people's sense of identity, reasons to live and belong to a place or community, including a person's connection and relationship with their community, property or home. It refers to the ability of a community to function and see itself as a whole. In cohesive community all individuals and groups have a sense of belonging, participation, inclusion, recognition and legitimacy (United Nations Department of Economic and Social Affairs 2009).

4.4.1 Potential Construction Benefits/Impacts

Benefits

No particular benefits to community values were identified during construction phase.

Impacts

Community cohesion

SEIA consultations strongly revealed that the introduction of the SEIA study and the two proposed boat ramp concepts took the community by surprise, as they had not received communication regarding the proposal for over a year and had since become a divisive issue in the community. The factions of the community in support and in opposition of the proposal, has led to stress and anxiety, and strained personal and social relationships within the Emu Park community. Anecdotal evidence suggests that the topic has "brought the worst out of some people in town, calling names and verbally abusing others (others meaning those supporting a view other than their own regarding the new boat ramp facility)" (Member of the community, May 2016).

The SEIA consultations gathered that the prolonged uncertainty (refer to section 2.1 for the history of the proposed boating facility in Emu Park) and the intermittent nature of community consultations/surveys about the proposal have added to the anxiety and stress in the community and people on either side of the debate are hoping for an early resolution, which would allow the community to get back to normality.

Community character/identity - conflict with festival and events

As discussed in Section 3.2, Emu Park community values its quiet rural character, natural coastal environment, views over the beach, shore and community parks (Bell Park and Peace Park), the War Memorial and its cultural festivals and events. It is perceived that visitors to Emu Park come to enjoy these local characteristics. SEIA consultations with the community and environmental groups have suggested that construction of either of the proposed boating facility options would interfere with the local character of the town. Construction activities would alter amenity in the surrounding areas to the site (refer to Section 4.5 for details) and restrict access and use of Bell Park, Peace Park, Skate Park, Lions Club House, Fisherman's Beach due to increased construction truck traffic along Hill Street and restricted access areas for safety reasons.

Due to the location of Option 2, this option would be in conflict with Livingstone Shire Council's Foreshore Revitalisation Project Concept Masterplan 2015 and would bring changes to local amenity which would interfere with the visual effects from the War Memorial and future development plans of the Heritage Walk and Peace Park (also refer to Section 4.5 for details on visual impacts).

Construction activities are not likely to directly impact on the once a month Emu Park Markets held on third Sunday of the month, as construction would most likely be undertaken from Monday to Saturday.

The increased truck traffic through the town centre during construction would alter the usual traffic movement of the local traffic and increase safety risks for vehicles and pedestrians using Hill Street (refer to Section 4.6 for details on traffic impacts).

Impacts on facilities and use of area

As discussed above, construction activities are likely to limit access and bring about amenity changes to a number of public spaces near the proposed boat ramp site, such as Bell Park, Peace Park, Skate Park, Loins Club House, Fisherman's Beach, which would temporarily make the use of these spaces unpleasant and potentially impact on the safety of the users (also refer to Section 4.5).

The Lion's Club House was identified to be the community facility nearest to the proposed boat ramp facility site. The club house is used as an Alternate Learning Space for up to 15 students from Monday to Thursday during school term. The students using this space have learning difficulties and behaviour and change management issues. The noise and dust from the construction trucks and other construction activities, (especially as the trucks could park, load/unload and turn around at the existing boat parking area which is adjacent to the club house), could disturb the learning environment for these students and potentially impact on their development.

4.4.2 Potential Operations Benefits/Impacts

Benefits

As described in Section 2.1.1 as of June 2016, there were 654 registered boats in the Emu Park and Zilzie postcodes. Based on the total household count for the two, it is assumed that 37% of households in Emu Park and Zilzie have boats. SEIA consultations with the boating and fishing community indicate that they would value having a recreational boating facility in Emu Park. The facility would provide the local boating and fishing community recreational access closer to home and promote an active lifestyle to enjoy with their family and friends. SEIA consultations with the boating/fishing and business community suggested that they consider the development of such a facility to be a catalyst to future growth and development of the town (also refer to Section 4.3.2).

Impacts

Community cohesion

At present the community and visitors access the Fisherman's Beach and the foreshore area for general recreational activities. The beach is also used during the 'Festival of the Wind'. The SEIA consultations noted that the beach and the rocks are also visited by the local school and childcare for excursions. It is possible that operation activities of the boating facility such as presence of boats, associated noise, fumes and smell and the built up façade of the area, could potentially discourage the general community from using the space and could impede on the activities of the 'Festival of the Wind'.

SEIA consultations identified that the proposed boating facility is viewed as a facility that would benefit only a specific segment of the community i.e. boaties, but through its potential traffic, parking and amenity impacts would impact on the wider community in town.

Community character/identity – conflict with festival and events

An overwhelming feedback received during the SEIA consultations was the potential change in the community character brought about during the operation of the boating facility. The quiet coastal town character could be altered with the increased cars and trailer traffic through the town centre and around the access to the beach. As discussed in section 4.2, the 45 parking

spaces provided in the concept of either of the options at Emu Park, may not cater to the existing demand for boating facilities especially on good boating days, which could lead to boaties parking their cars and trailers illegally in other parts of the town in the vicinity of the town centre. Such increased demand for parking and road use could potentially increase incidences of road rage and conflict in town (also refer to Section 4.6).

Congestion and competition for parking could be further exaggerated on good boating days that coincide with festivals and events in town such as market days, Festival of the Wind, Octoberfest and classics by the coast and could impact on the patronage of the festivals (also refer to Section 4.6).

Since the structures and breakwaters for the boating facility would be located a fair distance into the water further away from town, it could potentially provide space for anti-social activities especially at night time.

Additionally, the community and environmental groups also expressed their fear that, there is a potential for the proposed facility to grow into a yet larger marina type of a facility in the future with commercial boating activities which could further change the character and identify of the town.

Impacts on facilities and use of area

Increased car and trailer traffic and competing demand for parking could impact on the patronage and use of the Lions Club House, the CWA Hall, Cultural Centre and the library.

4.5 Amenity issues

4.5.1 Potential Construction Benefits/Impacts

Benefits

No particular benefits were identified with regard to amenity issues.

Impacts

The impacts discussed in this section are based on the SEIA consultations, preliminary environmental studies undertaken by TMR and discussions with GHD's technical specialists. It is recommended that technical studies are undertaken for accurate prediction of the level and extent of visual, noise and air quality impacts.

Visual amenity

During construction there will be direct visual amenity changes from a range of viewpoints for both options. As well as visual impacts from the ramp construction itself, a site office, laydown areas and/or similar will be required. While the exact location of these ancillary facilities is unknown at this stage, it is anticipated that some of ancillary areas will be located in the existing Emu Park boat ramp car park. To ascertain detailed viewsheds and visual amenity impacts the construction methodology would need to be known. However, based on the location of the existing boat ramp car park construction works are likely to be visible for the duration of construction from a number of positions including:

- Fisherman's Beach
- Bell Park, the skate park and the Lions Club House
- The Singing Ship Monument
- Parklands to the south and the ANZAC Memorial Walk
- Hill Street (for example the visitors driving in via Hill Street may see the construction works)

• Potentially other hilly vantage points in the Emu Park area.

As mentioned in Section 3.2 the area around the current boat ramp is valued by residents and tourists, so too is the overall view of Keppel Bay. Visual amenity issues can include changes to the overall visual/scenery, waste or site untidiness, and the potential for deterrence of locals and visitors to visit the surrounding area. Such impacts may occur on weekdays, weekends or on festival/market days.

Noise from construction

The impacts from noise nuisance during construction depends upon the construction methodology, for example if blasting is required this would result in higher noise levels than other means. Based on details known from the concept design it is considered that for both options two potential key noise sources, a part from general construction noise, include the placement of rocks and truck movements through town. Review of topographic information for Emu Park indicates that the Emu Park town centre and foreshore area is partly surrounded by topographic features (hills with an elevation of approximately 40-60 m). It is likely that these topographic features will act as a barrier to construction noise limiting the forecasted potential nuisance area. Furthermore, it is anticipated that construction works will occur during daylight hours only, Monday to Saturday.

However, noise nuisance still has the potential to impact sensitive receptors as follows:

- Recreational area users (such as deterring use of Bell Park, the skate park or Fisherman's Beach use)
- Local residents and tourists limiting use of eateries and other businesses in the town centre
- Residences that live within proximity to the site
- The caravan park users may be impacted
- While the transport of material has potential to impact sensitive receptors along the transport route.

Air quality

As per noise, air quality impacts will be dependent upon the construction methodologies. It is anticipated that impact may include dust as a result of direct construction works, dust from transport/truck loads and minor odour due to vehicle exhausts. It is anticipated that under normal weather conditions air quality impacts will be localised, however dust or odour may deter local residents or tourists visiting the town centre and area about the site.

4.5.2 Potential Operation Benefits/Impacts

Benefits

No particular benefits were identified with regard to amenity issues.

Impacts

Visual Amenity

As identified in Section 3.2.3, the views and vistas are important to the seaside landscape character of the town, with one of the cultural heritage values of Bell Park being the sweeping easterly views. Overall it is considered that the boat facility itself may distract from the natural values and attraction of the area.

With regards to Option 1, the height of the breakwater is approximately 1.4 to 0.8 m above the existing jetty, and the overall length is approximately 400 m (longer than the current jetty which is approximately 96 m long). The height and length of the facility will result in the obstruction of

the views of Keppel Bay (including Great Keppel Island) from the southern portion of Fisherman's Beach foreshore and may result in a partial obstruction of views from the Bell Park duneal areas.

With regards to Option 2, based on the current design (mainly height and location) it is considered that the boat facility is unlikely to directly obstruct views. However, Option 2 will be more readily visible from the Singing Ship, the ANZAC Memorial Walk and Peace Park than Option 1.

It is considered that both options will be visible from a number of locations, and while this is not considered a major obstruction (as per above) it is considered likely that the facility will detract from the overall natural views that Emu Park is known for. Such viewpoints include:

- Fisherman's Beach
- Bell Park, the skate park and the Lions Club House
- The Singing Ship Monument, ANZAC Memorial Walk and Peace Park
- Hilly vantage points within Emu Park.

During the community engagement process, refer to Section 2.4 and Appendix D, 3D artistic impression visualisations were prepared for the two options. These display what the facility may look like and confirm the findings as above.

Additionally, there was concern raised during the stakeholder consultations about other visual amenity issues, namely lighting, untidiness and waste. It is considered that appropriate measures could be designed and subsequently put in place during operation to mitigate against these concerns.

Noise

During operation it is anticipated that the key potential for noise impacts will occur as a result of increased road and water traffic due to the use of the facility. In assessing potential noise impacts the existing use of the boat ramp should be considered, however it is noted that currently the use is restricted to smaller boats (refer to Section 2.1.2).

In assessing noise from potential road traffic increase the size of the facility being 45 car-trailer units and the through-traffic routes are to be considered. Additional traffic is likely restricted to Hill Street as boat owners are likely currently using the Scenic Highway and Rockhampton-Emu Park Road to access to other existing facilities. However, traffic counts and modelling has not been undertaken. The traffic noise in Hill Street (predominately past businesses) is not anticipated to be significant nuisance/impact.

In assessing noise from boat/water noise the orientation, frequency/timing of use and type of boat is to be considered. Option 1 is considered to have a greater potential for noise impacts due to the orientation of the launching facility being orientated towards Fisherman's Beach and closer to the Caravan Park. While Option 2 provides direct open water access.

While the current boat ramp is utilised by boats due to the need to use the beach away from these areas, it is considered that this use is restricted to smaller boats. The proposed new facility would be accessible to larger boats which have larger motors and potentially higher noise emissions. Due to the Emu Park topography (refer to Section 4.5.1) noise nuisance may be experienced from nearby sensitive receptors, however receptors distant from the town centre (west of the topographic features) are unlikely to be impacted by boat launching/retrieval.

Also of consideration is the timing of use of the facility, it was communicated during the stakeholder consultation that some boat owners will launch their boats early in the morning (predawn), while businesses may not have customers at this hour, there is potential for impact upon the Caravan Park users being the closest accommodation type receptor.

Air quality

During operation it is considered that air quality impacts will be minor and localised to odour from motor/vehicle emissions, which could change the natural open space feel of the area and discourage community use of open spaces areas near the site.

4.6 Traffic, Parking and Pedestrian Safety

4.6.1 Potential Construction Benefits/Impacts

Benefits

No particular benefits were identified with regard to traffic and parking.

Impacts

As described in Section 1.2 the construction of the boating facility would lead to approximately on average 20 return trips per 10 hour day for option 1 and approximately on average 9 return trips per 10 hour day for option 2 along Hill Street passing through the central business area of the town. SEIA consultations identified concerns that, such increase in heavy vehicle traffic through the town centre would potentially lead to wear and tear of the road and have safety implications on the existing local traffic and pedestrians and road and adjacent park users. Impacts of increased traffic on amenity and local businesses along Hill Street are discussed in Sections 4.3 and 4.5. Detailed traffic studies would need to be undertaken to determine the level and extent of traffic impacts.

4.6.2 Potential Operation Benefits/Impacts

Benefits

It is possible that if managed in an integrated manner and in collaboration with festivals and events in town, the new boating facility would offer additional parking spaces to alleviate the existing parking issue in town.

Impacts

Increased car and trailer traffic through the town centre along Hill Street could potentially lead to competition of road use, between locals and boaties and potentially increase congestion on good boating days. There is concern that on good boating days trailer traffic passing through the town centre would be more than just the 45 trailer parks at the facility, as the spill over traffic would be circling through town trying to find an alternate parking space. As mentioned in Section 4.4.2 this would be further exaggerated on good boating days that coincide with festivals and events in town.

SEIA consultations revealed that there is also a risk of the existing car parking along Hill Street being taken by trailers for pit stops to pick up goods and supplies from local businesses located along the street. This could potentially cause inconvenience to local road and car parking users and could be a safety hazard for pedestrians. Detailed traffic studies would need to be undertaken to determine the level and extent of traffic impacts.

4.7 Cultural Heritage

4.7.1 Potential Construction Benefits/Impacts

Benefits

No particular benefits were identified with regard to cultural heritage.

Impacts

The cultural heritage values of the area are described in Section 3.2.4, whereby the only area listed on a Government register is Bell Park. While construction works are not proposed within Bell Park, there is potential that for either option the park will be indirectly impacted. Potential issues may include:

- Dust deposition on park facilities
- Waste/pollution if waste is not appropriately managed at the construction site (both land and water)
- Noise impacts from construction works
- Vibration may cause structural impact to facilities in the park as some facilities are of significant age
- Impact upon the visual amenity values of Bell Park which are noted to be sweeping easterly views
- Construction may detract visitors to Bell Park (for example due to impacts associated with visual amenity, noise or traffic).

Other areas that have local cultural heritage significance include the Singing Ship Monument (as discussed in Section 4.4.1) and the jetty. Currently both options have the existing jetty as remaining in the landscape, there is potential that construction may cause direct impact to this from a structural viewpoint (such as from vibration), and in general the jetty may not be accessible during construction.

As noted in Section 3.2.4, there are no known Aboriginal cultural heritage places associated with Emu Park, however if additional surveys are undertaken and identify any Aboriginal cultural significance at the rocky headland, than it is anticipated that any such values will be lost. Detailed cultural heritage studies would need to be undertaken to determine the extent and level of impacts.

4.7.2 Potential Benefits/Impacts

Benefits

There are no significant cultural heritage benefits identified as being associated with the proposed facility, either Option 1 or Option 2. The only potential benefit may be a different viewpoint for Bell Park, however this is considered a negligible benefit.

Impacts

As previously identified, either option will not directly impact upon any known cultural heritage values. However, due to the proximity of Bell Park to the proposed location, a facility may detract from some of the values associated with Bell Park, specifically one of the themes it is listed for, the environment and landscapes (refer to Section 3.2.4). Review of the cadastre database indicates that the Bell Park boundary extends partly onto Fisherman's Beach. While a survey of the property has not been undertaken for this SEIA, it is likely that at a minimum the dunal system along the beach is included within Bell Park. Therefore, potential operational impacts on Bell Park are associated with:

- Visual amenity and detracting from the "sweeping eastern views toward the Pacific Ocean" (Queensland Government, 2016)
- Coastal process alterations to the dune system (refer to Section 2.2, this is anticipated to be minor)

Indirect impacts associated with noise from boat usage and traffic volumes/type.

The operational impacts upon the Singing Ship Monument are discussed in Section 4.4.2, while the operational impacts upon the jetty will depend upon the end design. It is anticipated that with regards to the jetty impacts will be associated with visual amenity (refer to Section 4.5.2).

4.8 Summary and Assessment of Social and Economic Impacts

Impact description	Applicable Option	Project phase	Nature of impact	Duration	Level of impact	Stakeholder impacted
Meeting Regional Demand						
Closure of the current Emu Park boat ramp will impact a small number of boat owners who presently utilise the ramp.	Both	Construction	Negative	Temporary	Negligible	Boating community
Provision of an additional facility will alleviate pressure at existing facilities (aspects such as waiting times, safety and reduced potential for conflict).	Both	Operation	Positive	Medium- term	Medium	Boating community
The project will offer a facility closer to Emu Park and Zilzie residents and as such offer reduce travel times.	Both	Operation	Positive	Long-term	Minor	Boating community
There is potential that the facility will not be of sufficient size to alleviate congestion at the existing facilities and cater to forecasted demand.	Both	Operation	Negative	Medium- term	Medium	Boating community
Economic values						
Potential business and contracting opportunities within the Capricorn Coast region	Both	Construction	Positive	Temporary	Minor	Business community in Emu Park
Potential for employment opportunities in the Capricorn Coast region.	Both	Construction	Positive	Temporary	Minor	Business community in Emu Park
Impact on local businesses with the potential to provide accommodation, food and other services to construction workers.	Both	Construction	Positive	Temporary	Medium	Business community in Emu Park
Potential reduction in patronage at local businesses from local residents and tourists as additional construction traffic movements may deter locals and visitors from accessing the Emu Park area. Potential decreased	Both	Construction	Negative	Temporary	Medium	Business Community in Emu Park (Hill Street)
patronage at local eateries due to dust/noise.						
Potential increase in local business trade from boat owners using the new facility.	Both	Operation	Positive	Long-term	Medium	Business community

Impact description	Applicable Option	Project phase	Nature of impact	Duration	Level of impact	Stakeholder impacted
						in Emu Park
Potential employment opportunities at local businesses of un- or semiskilled workers offering casual or part-time opportunities.	Both	Operation	Positive	Long-term	Minor	Available labour force in Emu Park
Potential that the facility and new business opportunities will encourage visitors and increase tourism in Emu Park.	Both	Operation	Positive	Long-term	Minor – Medium	Business community in Emu Park
Community values						
Community cohesion – The introduction of the boat ramp concept options in Emu Park has become a diffusive issue in the community and has led to stress and anxiety and has strained personal and social relationships in the community.	Both	Pre- construction	Negative	Medium term	High	Emu Park Community
Construction and operation activities from either of the options are likely to interfere with local community character and identity.	Both	Construction Operation	Negative	Long term	Medium	Emu Park Community and visitors
The proposed Option 2 would be in conflict with the town's foreshore master plan.	Option 2	Construction Operation	Negative	Long term	Medium	Emu Park Community and visitors
It is possible that operational activities of the boating facility such as presence of boats, associated noise, fumes and smell could potentially discourage the general community from using the surrounding open space and could impede on the activities of the 'Festival of Wind'.	Option 1	Construction Operation	Negative	Long term	Minor- Medium	Emu Park Community and visitors
Increased demand for parking and road use in town centre could potentially increase incidences of road rage and conflict in town.	Both	Construction Operation	Negative	Long term	Minor- Medium	Emu Park Community and visitors
Since the structures of the boating facility would be a located a fair distance into the water further away from town, it could potentially provide space for anti-social activities especially at night time.	Both	Operation	Negative	Long term	Minor-	Emu Park Community and visitors
Community perception/fear that the proposed facility could be developed into a yet larger marina type facility in the future which could further change the character and	Both	Operation	Negative	Long term	Major	Emu Park Community and visitors

Impact description	Applicable Option	Project phase	Nature of impact	Duration	Level of impact	Stakeholder impacted
identify of the town and community.						
Amenity						
Potential change in visual amenity and natural setting of the town, potential increase in noise from construction truck movements and construction activities and potential increase in dust and air emissions from truck movement and construction equipment impacting on the overall quiet, natural setting of the town.	Both	Construction	Negative	Long term	Minor – Major	Emu Park Community and visitors
Potential permanent changes to the natural feel of the town due to built-up views over the water, increased noise in surrounding open spaces from increased road and water traffic and increased odour from car and boat fumes	Both	Operation	Negative	Long term	Medium	Emu Park Community and visitors
Traffic, Parking and Pedestrian Safety						
Increased construction truck traffic along Hill Street would increase wear and tear of the road discouraging local community from accessing the area due to inconvenience and safety implications	Both	Construction	Negative	Temporary	Medium - High	Emu Park Community and visitors
It is possible that if managed in an integrated manner and in collaboration with festivals and events in town, the new boating facility would offer additional parking spaces to alleviate the existing parking issue in town during these events.	Both	Operation	Positive	Long term	Minor	Emu Park Community and visitors
Increased car and trailer traffic through the town centre along Hill Street could potentially lead to competition of road use, between locals and boaties and potentially increase congestion on good boating days. There is concern that on good boating days trailer traffic passing through the town centre would be more than just the 45 trailer parks at the facility, as the spill over traffic would be circling through town trying to find an alternate parking space.	Both	Operation	Negative	Long term	Medium - High	Emu Park Community, Boaties and visitors

Impact description	Applicable Option	Project phase	Nature of impact	Duration	Level of impact	Stakeholder impacted
Risk of the existing car parking along Hill Street used by many more car-trailers for pit stops to pick up good and supplies from local businesses located along the street. This could potentially cause inconvenience to local road users and could potentially be a safety risk for pedestrians.	Both	Operation	Negative	Long term	Minor to Medium	Emu Park Community, Boaties and visitors
Cultural heritage						
Indirect impacts upon cultural	Both	Construction	Negative	Temporary	Medium	Community
heritage values of Bell Park from dust, noise, waste, vibration, visual amenity and detraction of visitors.	Both	Operation	Negative	Long-term	Medium	Community

5. Recommendations and Conclusions

5.1 Conclusions from the assessment

The main conclusions that can be drawn from the benefits and impacts discussed in Section 4 are:

- While the boating facility at Emu Park (irrespective of the options) would marginally
 alleviate the demand for recreational boating facilities in the South Capricorn Region, it is
 questionable whether the proposed scale of the facility would cater to the existing spill over
 from Rosslyn Bay boating facility and if the cost of the facility is worth the investment for its
 scale.
- In the long run the key benefits from the proposed new boating facility at Emu Park (irrespective of the options) include potential small to medium increase in trading opportunities for local businesses (such as the service station, takeaways/eateries/cafes, accommodation facilities and hardware services) and potential small increase in local employment opportunities. The employment opportunities would most likely be for unskilled or semi-skilled type of casual or part-time work. There are a few constraints which would limit the boaties from accessing local businesses, these being the distance of over 500 meters of Option 1 from the existing businesses and the lack of short term cartrailer parking for boaties to stop in town.
- Additionally, the boating facility would provide easy access to recreational boating and
 active lifestyle for approximately 35% of the community who own boats in Emu Park and
 Zilzie. If managed appropriately, the facility would provide additional parking for the town,
 especially for use on market days and for festivals and events.
- Access to the proposed new boating facility (irrespective of the options) through the town
 centre and associated increased traffic issues such as congestion from spill over cars and
 trailers from the boat facility, competition for parking spaces in and around town centre,
 potential safety of pedestrians is a key concern for the local community.
- In conjunction with the traffic issues, irrespective of the options, irreversible impacts of the proposed facility on the community values, identity, character and amenity of the town are also a key concern for some groups in the community. These concerns are further compounded with the fear that once the facility is built; it could potentially become a site for future development of a larger recreational and commercial boating facility like a marina. In this regard, the SEIA has in particular considered feedback from the local Emu Park community because they would be directly impacted by the proposed development.
- SEIA has identified that other boating facilities in the immediate region have access roads
 located away from town centres or communities, unlike Emu Park which would require cars
 and trailers to drive through the town centre to access the ramp. It is therefore difficult to
 fully appreciate the boat ramp related traffic issues that could impact on the Emu Park town
 centre and community.
- The SEIA study concludes that from a social perspective a number of social impacts and benefits are common to both the proposed boat ramp options, however Option 1 is the preferred option by those stakeholders in support of the boating facility development in Emu Park, such as the boating and fishing groups and business community. This option is preferred because it offers better protection from wind and wave action for boats launching or returning to the ramp, it is not in conflict with the town's Foreshore Master Plan, because of its distance from the shore it is considered as a destination by itself which would take the

boaties out of the town and it offers design potential for better integration and use of non-boating community.

- The SEIA study is limited in its scope, the study therefore concludes that the decision on whether the proposed boating facility should be developed at Emu Park should also consider the following (but not limited to):
 - Findings and conclusions of the SEIA
 - Findings and conclusions from the environmental studies
 - Undertake a cost benefit analysis to determine the economic value of the facility in the longer term
 - Results of the community survey undertaken by TMR in April-May 2016 and submissions received by TMR with emphasis on feedback from the Emu Park community who are likely to experience direct benefits and impacts from the proposed boating facility.
 - Availability of other boating facility options in the region to address the increasing demand for recreational boating facilities
 - TMR's engagement with key stakeholders such as Livingstone Shire Council and the Great Barrier Reef Marine Park Authority.

5.2 Recommendations

This SEIA provides two sets of recommendations. The first set caters to the wider debate about the location of the boating facility in Capricorn Coast, while the second set of recommendations relates to managing social and economic impacts should the boating facility be developed in Emu Park.

5.2.1 Investigation of Alternative Sites

It is clear from discussions in Sections 2.1 and 2.1.1 that there is a demand for recreational facilities in the Capricorn Coast, however the location and scale of an appropriate facility, balanced with minimal social impacts and immediate local community's acceptance, needs further consideration. As such the following investigations for alternate sites are recommended:

- Consider expansion of Coorooman Creek boating facility.
- Consider further expansion of Rosslyn Bay Boat Harbour.
- Review of the Capricorn Coast to determine if other sites are available for all-tide boating facilities.
- Consider investigation into the feasibility of the Ritamada headland option.
- Consider developing a boating facility that would cater to yacht or barge transport to compliment other developments in the region.

5.2.2 Recommendations for social impact management

Should the development of the proposed boating facility options at Emu Park be progressed, the following social impact management recommendations would need to be considered:

Better integration with local community

Revisions of the boat facility concept design should be undertaken to provide better
integration with the non-boating community, such aspects may include a walkway along the
access road, fishing platforms and/or a jetty/floating walkway. Any such works would need
to consider community safety and security aspects such as provision of adequate lighting

- on the boating facility at night time and security of cars and their contents when parked at the facility.
- Consider the Foreshore Master Plan and consult with the Livingstone Shire Council to ensure the boating facility does not detract from the Plan.
- Consider alternate use of the existing boat ramp, such as handing it to Livingstone Shire Council to convert it into a suitable disability access to the beach.
- Consider future development restrictions, so the facility remains of the scale acceptable to the local community.

Support for local businesses

 To support local businesses, consider provision of short-term (15 minute) parking spaces for car-trailer units in the town centre along Hill Street or Emu Street to enable boaties to access local shops and takeaways.

Minimise traffic and parking issues

- Consider whether a parking counter system or a camera system could be utilised to indicate the number of free parking space at the boating facility, before the boaties arrive into Emu Park.
- Consider providing non-trailer parking spaces, for better integration with local community or tourist non-boating users of the facility.
- Consider converting the existing car-trailer unit parking provided at the existing boat ramp to regular car parks to alleviate some of the existing parking issues in the town centre.

Environmental considerations

• The development will need to take into consideration environmental impacts and associated mitigation measures as specified in the environmental studies.

Further Studies

Undertake detailed coastal studies and environmental assessment (such as noise
assessment, air quality assessment, visual assessment, traffic assessment and marina
flora and fauna studies), to determine the potential impacts on coastal processes and local
environmental values and identify suitable mitigation measures.

Further Consultations

- Undertake consultations with government agencies, such as the Department of Environment (Commonwealth), Department of Environment and Heritage Protection, Great Barrier Reef Marine Park Authority, Livingstone Shire Council and other agencies to confirm if a facility at this location is feasible and consider the approvals, permits and licences that will be required. Confirming the required level of environmental assessment will also be an outcome of these consultations.
- Liaise with the local community stakeholders, for example the Emu Park Lions Club, to avoid and minimise impacts on markets and festivals and events in town.

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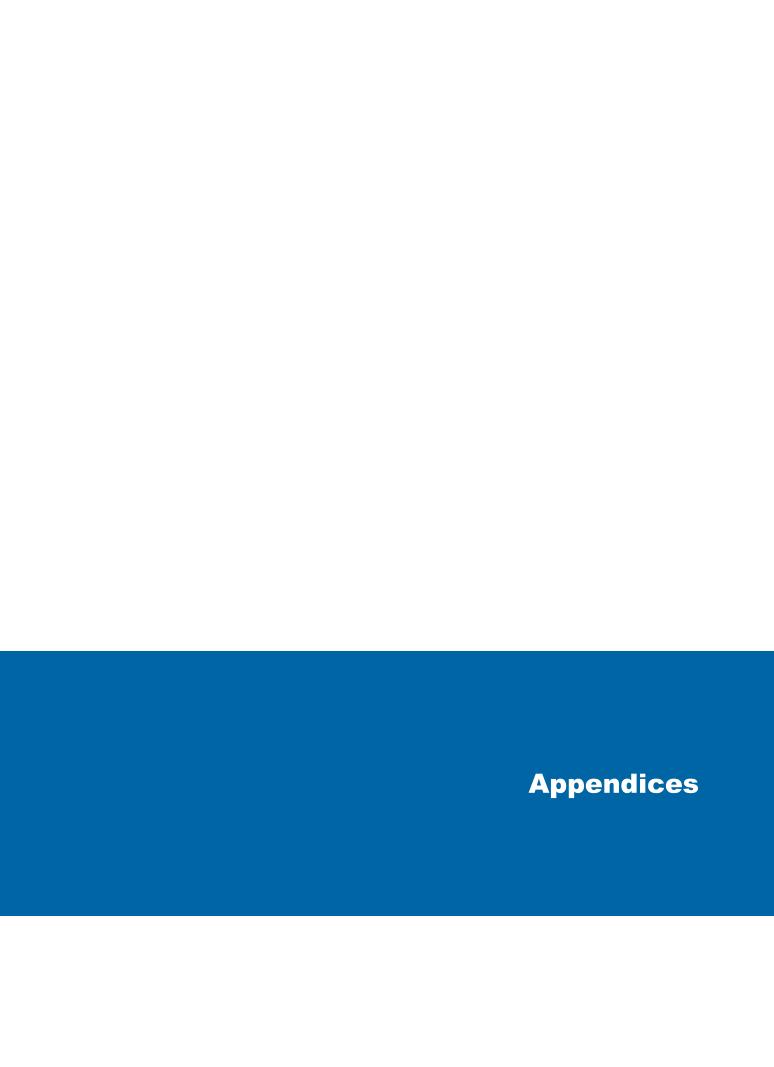
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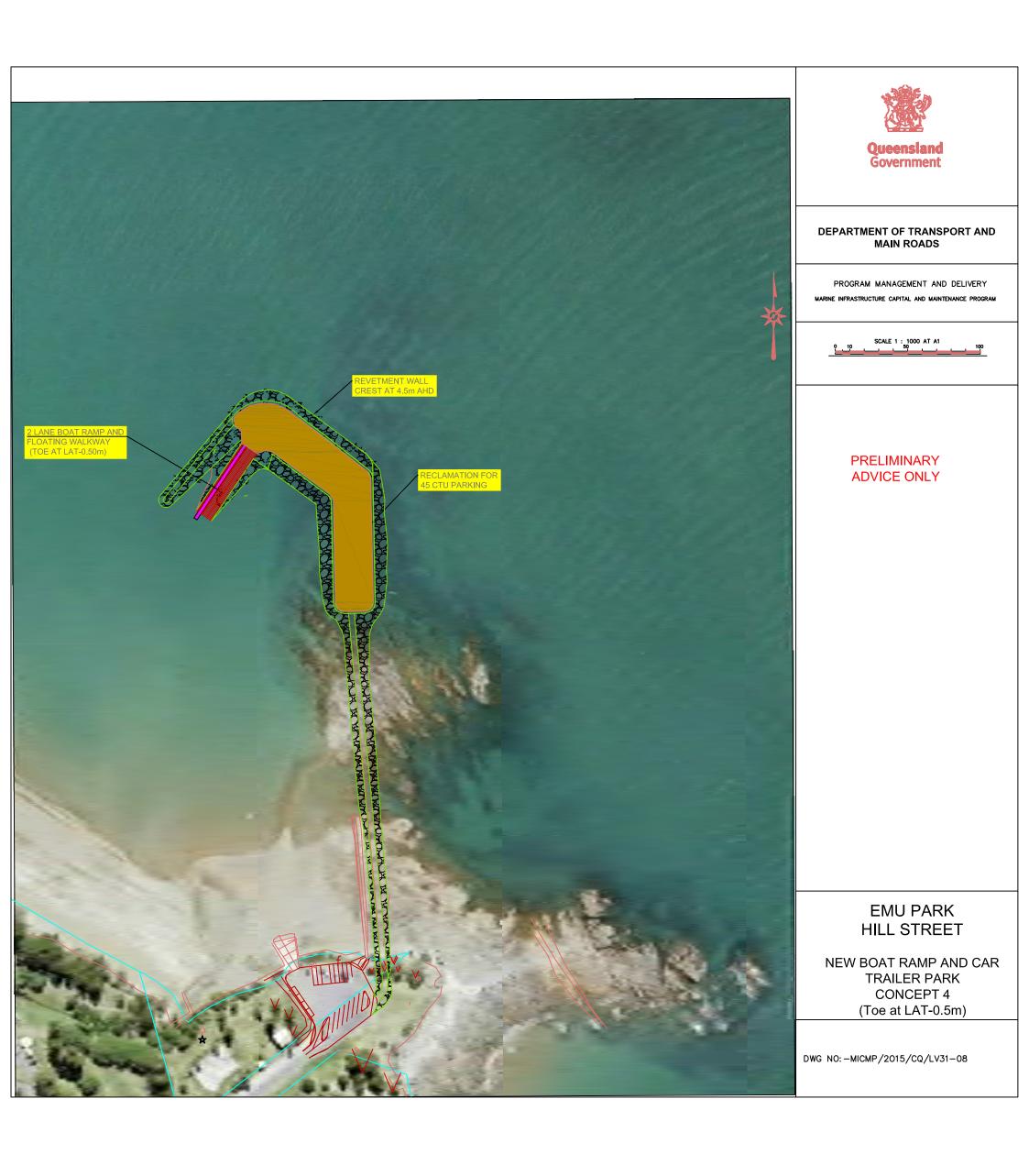
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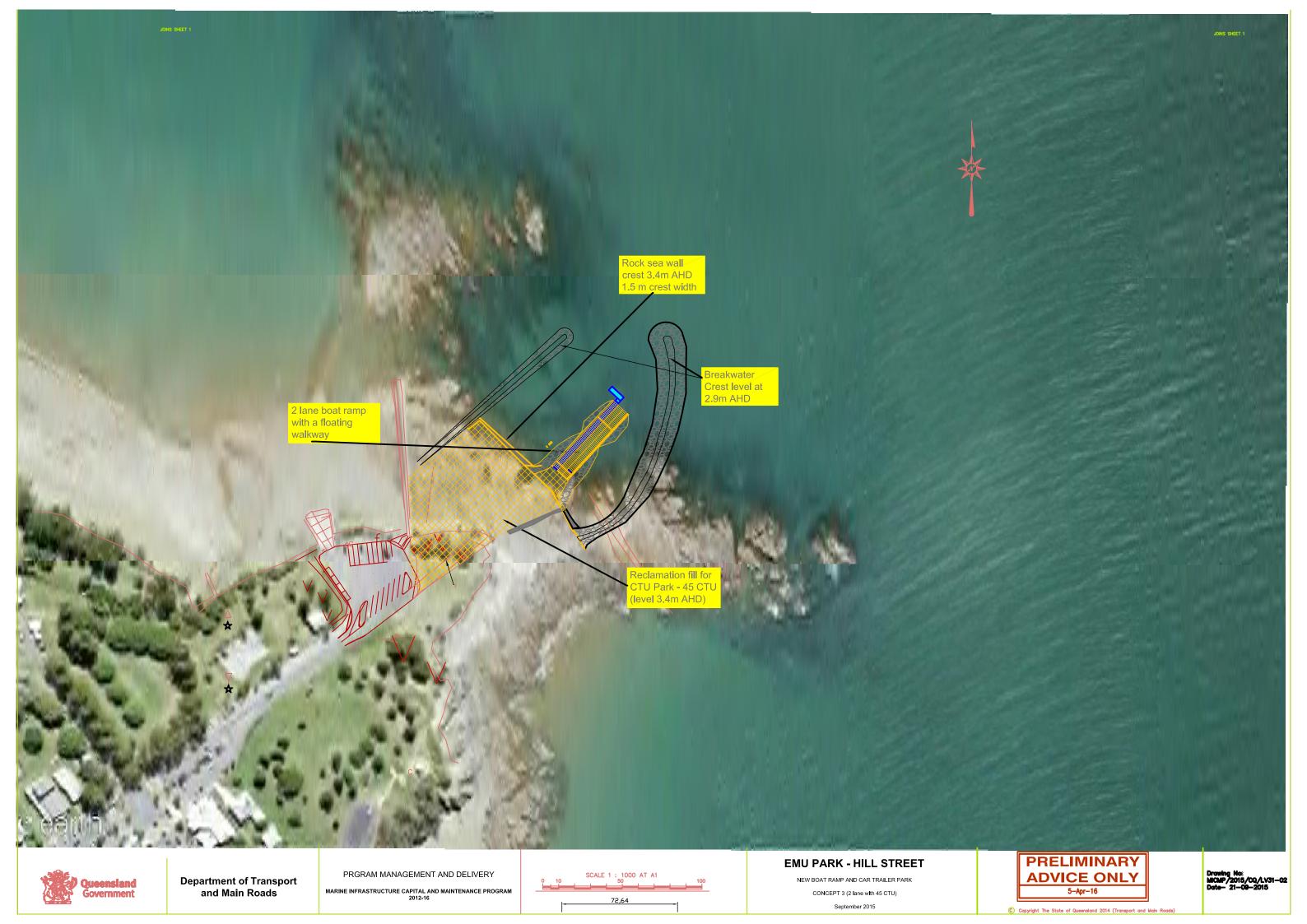
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Appendix A - TMR Concept Designs





Appendix B - Business Survey Template and Results Summary



12 May 2016

Dear business owner/manager,

Re: Business Survey - Emu Park Recreational Boating Study - Social and Economic Benefits and Impacts Assessment

Consulting firm GHD has been engaged by the Department of Transport and Main Roads (TMR) to undertake a Social and Economic Benefits and Impacts study (SEIA) of two proposed recreational boating facility options at Emu Park.

The SEIA will include a comprehensive assessment of the direct and indirect benefits and impacts of the proposed facility options to the local community and wider Southern Capricorn Coast.

As a key part of this study, GHD are undertaking a business survey of local businesses in the Emu Park area. The hard copy survey is being conducted from 12 – 20 May 2016, where one of our representatives will drop and collect a copy of the survey from your business location. Alternatively, you are welcome to drop the filled in survey at one of the information sessions listed below.

Please find the survey attached.

If you wish to provide additional feedback or need more information about the proposed facilities you are invited to a 'drop in session' for businesses with the project team:

Date: 18 May, 2016 (Wednesday)

Time: 7.00am – 9.00am or 4.00pm – 6.00pm

Venue: Emu Park RSL Club, 1 Emu Street, Emu Park

For additional information regarding the Emu Park Recreational Boating Study please refer to attached Information Sheet or contact TMR at: Phone: 13 74 68 Email: boatinginfrastructure@tmr.qld.gov.au or Web: www.tmr.qld.gov.au.

Regards

GHD Team

Emu Park Recreational Boating Study - SEIA

Business name:	
Address:	
Phone number:	
Your name:	
Your position in the	
business:	

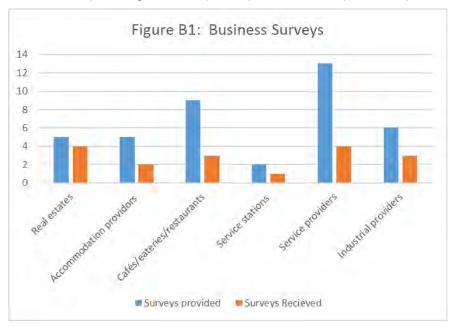
Sr No	Question	Response
1	How many average spending customers do you get each week (please consider the average number of visits over both peak and non-peak times during the week)?	Number:
2	What does your average spending customer spend per visit to your store?	\$
3	What percentage of these spending customers do you believe are a direct result of the existing Emu Park Boat Ramp?	Percentage:%
4	How much on average does each of the boat ramp related spending customer spend per visit to your store?	\$
5	How would you rate the spending of the boat ramp related customer against your average weekly customer?	Tick the most relevant response: □ More than average customer □ Same as average customer □ Less than average customer
6	Do you believe the number of spending customers to your business per week would change if a new boat ramp was built at Emu Park (please consider the average number of visits over both peak and non-peak times during the week)?	Tick the most relevant response: ☐ Increase ☐ Stay the same ☐ Decrease
7	By how much as a percentage increase or decrease?	Increased by% Decrease by% □ No change
æ	 Are you aware of the two current options for a new Emu Park Boat Ramp: Option 1 – Fisherman's Beach - extended out from the Emu Park Headland Option 2 – Emu Park - within the cove of the Emu Park Headland. Also see attached Information Sheet. 	□ Yes □ No
9	If you think that a new boat ramp will change the number of spending customer visits to you store (see question 6 above), please give an estimate (if possible) of the potential increase or decrease you expect per week from:	Option 1: % increase% decrease No difference Don't know Option 2:% increase% decrease % decrease No difference Don't know
10	Do you support a new boat ramp (either option) being built in Emu Park?	□ Yes □ No Comments

Summary of Business Survey Results

39 business surveys were supplied to selected businesses in the Emu Park area. The type of businesses where the survey was supplied include:

- Real estates
- Accommodation providers
- Café/eateries/restaurants
- Service stations
- Service providers (newsagents, chemists, hair/beauty, gift shops, etc.)
- Industrial providers (workshops, painters, etc.).

A total of 15 business survey responses were received, a 38% response rate and an additional 3 businesses providing verbal response (total of 46% response rate). Refer to Figure B1.

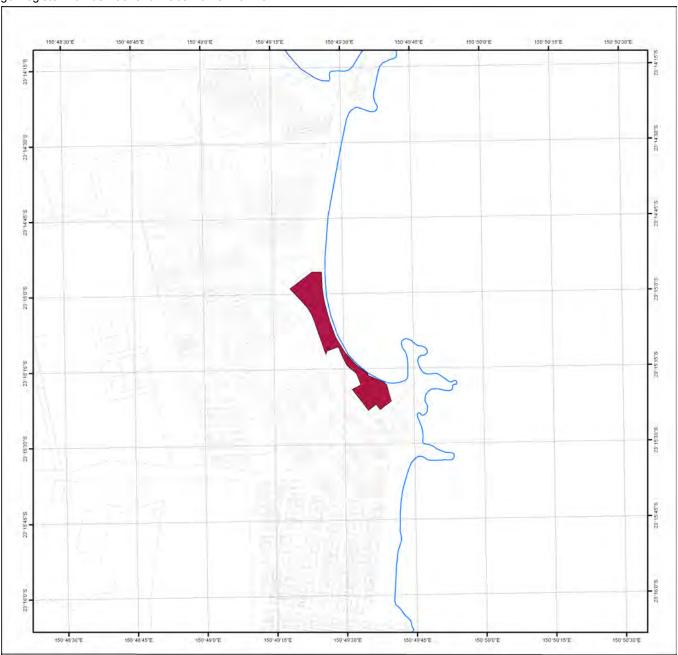


Out of the responses received, 88% supported a boat facility at Emu Park. The responses in support with identified Option 1 or no option preference.

It was identified that some business found it difficult to accurately answer the questions provided, however the following provide a summary of the responses:

- Current patronage attributed to boat owners using the Emu Park facility was low or nondetermined (0-10%)
- Increases in customers as a result of the proposed boat facility was predicted by more than 60% of respondents with the anticipated increase in business ranging from 0% to 30%.
- General comment was that the proposed facility may attract more people to Emu Park and
 if there weren't direct impacts there may be indirect benefits (for example more people
 seeing the businesses that are available).

Appendix C - Cultural Heritage Search Results



Queensland Heritage Register Map

- Listing Boundary Outline -

Queensland Heritage Register Places (Boundary Accuracy)



Cadastral Boundaries

Property boundaries shown are provided as a locational aid only.

Towns

The data used to formulate the heritage boundary displayed on this map may have been derived from a variety of data sources and actual dimensions and the location of the heritage boundary is subject to formal survey.

All information displayed is current as of the time and date the map was



Disclaimer:
This map is not an official document issued as part of any application or decision made with respect to the Queensland Heritage Act 1992 and is not intended or suitable for use in on-ground heritage management, development application assessment, cultural heritage significance assessment work or for any other purposes, requirements or decisions made under the Queensland Heritage Act 1992.

While every care is taken to ensure the accuracy of the information contained in this product, the Queensland Department of Environment and Heritage Protection makes no representations or warranties about its accuracy, reliability, completeness or suitability for any particular purpose and disclaims all responsibility and all liability (including without limitation, liability in negligence) for all expenses, losses, damages (including indirect or consequential damage) and costs which you might incur as a result of the product being inaccurate or incomplete in any way and for any reason.

Official extracts from the Queensland Heritage Register are available from the Queensland Department of Environment and Heritage Protection in accordance with s33 of the Queensland Heritage Act 1992. Application forms are downloadable from the Department website http://www.ehp.qld.gov.au/forms/



This product is projected into GDA 1994 MGA Zone 56

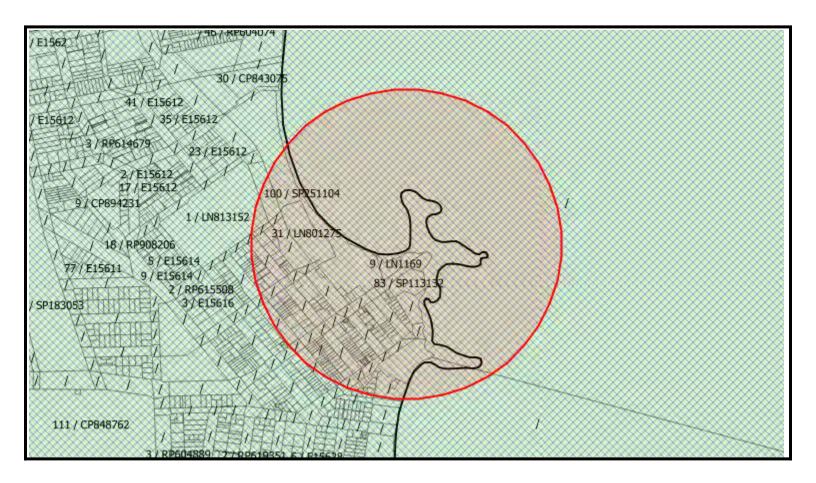
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Date: 08/06/2016 Time: 10:15:00

Latitude/Longitude Search

Reference Number:	8606
Latitude:	-23.254600
Longitude:	150.828700
Buffer Distance:	600 metres



There are no Aboriginal cultural heritage site points recorded in your specific search area.

There are no Aboriginal cultural heritage site polygons recorded in your specific search area.

Latitude/Longitude Search

Cultural heritage party for the area is:

QC Ref Number	QUD Ref Number	Party Name	Contact Details
QC2012/008	QUD6131/98		Queensland South Native Title Services PO Box 10832 Adelaide Street BRISBANE QLD 4000 Phone: (07) 3224 1200 Fax: (07) 3229 9880 Free call: 1800 663 693 Email: reception@qsnts.com.au

Cultural heritage body for the area is:

Name	Contact Details
	Mr Doug Hatfield 133 Dee Street North Rockhampton QLD 4701
	Phone: (07) 4926 0026 Fax: (07) 4926 7457 Email: Darumbal.enterprises@bigpond.com

There are no cultural heritage management plans recorded in your specific search area.

There are no Designated Landscape Areas (DLA) recorded in your specific search area.

There are no Registered Cultural Heritage Study Areas in your specific search area.

Regional Coordinator:

Name	Position	Phone	Mobile	Email
	Cultural Heritage Coordinator Central Region	07 4938 4100	0427 406 004	Gregory.Heath@datsip.qld.gov.au

Latitude/Longitude Search

I refer to your application in which you requested advice on Aboriginal cultural heritage places recorded on the above location.

The Cultural Heritage Database and Register search has been completed and I would like to advise that no Aboriginal cultural heritage is currently recorded in your specific search area, from the data provided by you. However, it is probable that the absence of recorded Aboriginal cultural heritage places reflects a lack of previous cultural heritage surveys of the area. Therefore, our records are not likely to reflect a true picture of the Aboriginal cultural heritage values of the area.

I note that, pursuant to the Cultural Heritage Duty of Care Guidelines, you have advised that the proposed activity is a 'Category 5 activity'. As such, I take this opportunity to remind you that in accordance with those Guidelines:-

Where an activity is proposed under category 5 there is generally a high risk that it could harm Aboriginal cultural heritage. In these circumstances, the activity should not proceed without cultural heritage assessment.

Where an activity is proposed under category 5, it is necessary to notify the Aboriginal Party and seek:

- (a) Advice as to whether the feature constitutes Aboriginal cultural heritage; and
- (b) If it does, agreement as to how best the activity may be managed to avoid or minimise harm to any Aboriginal cultural heritage.

I remind you also that the extent to which the person has complied with Cultural Heritage Duty of Care Guidelines and the extent to which the person consulted with Aboriginal parties about the carrying out of the activity, and the results of the consultation are factors a court may consider when determining if a party has complied with the duty of care.

Please refer to our website www.datsip.qld.gov.au/people-communities/aboriginal-and-torres-strait-islander-cultural-heritage for a copy of the gazetted Cultural Heritage duty of care guidelines, which set out reasonable and practical measures for meeting the duty of care.

Should you have any further queries, please do not hesitate to contact the approval officer on (07) 3405 3050.

Kind regards

The Director

Cultural Heritage | Community Participation | Department of Aboriginal and Torres Strait Islander Partnerships

Appendix D - Community Consultation Documentation



Proposed Emu Park Boating Facility: Option 1

Artist's Impression: View from Grass Hill Behind Existing Jetty Carpark

Job No: **42/19501**

Scale: N.T.S Original Size: A1

Drawing No: **SK-002**

Approved:

Date: 20.04.2016

Rev: D



Scale: N.T.S Original Size: A1

Job No: **42/19501**

Date: 20.04.2016

Rev: **B**

Approved:

Drawing No: **SK-003**



Proposed Emu Park Boating Facility: Option 2

Artist's Impression: View from Observation Deck Adjacent Singing Ship Monument

Job No: **42/19501**

Scale: N.T.S Original Size: A1

Drawing No: **SK-001**

Approved:

Date: 20.04.2016

ev: D

GHD

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Document Status

Rev	Author	Reviewer		Approved for Issue		
No.		Name	Signature	Name	Signature	Date
0	A Smedley	P Mandke	Person	S.Orr	4966	12/09/2016

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