



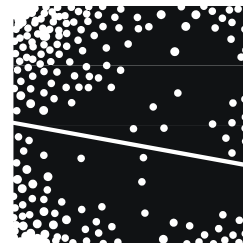
Great Keppel Island

REVITALISATION PLAN

Initial Advice Statement

August 2010





**HUMPHREYS
REYNOLDS
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GREAT KEPPEL ISLAND RESORT REVITALISATION PLAN

INITIAL ADVICE STATEMENT

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August 2010

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Executive Summary

Over the last 25 years, tourism revenue and investment in Central Queensland has been behind that achieved in Far North Queensland, the Whitsundays and South East Queensland. Over this period these regions have actively pursued and encouraged tourism development.

Investment in Central Queensland has historically been focused on farming, grazing and mining. In recent years the region experienced an unprecedented boom in mining fuelled by the world wide appetite for Australia's natural resources, Tourism, however, is a sector that faces continued under investment in Central Queensland and puts at risk the economic robustness of the greater Capricorn Region through lack of economic diversity.

In June 2009, the Federal Government's National Long Term Tourism Strategy Steering Committee released the *Jackson Report* which highlighted that Australian domestic tourism growth has been in relative decline for ten years. In particular, the *Jackson Report* identified that between 1998 and 2008, the number of domestic overnight trips and domestic visitor nights fell by 4.5 percent and 7.4 percent respectively. However, over the same period the amount of outbound tourism has increased by a massive 84 percent. Clearly, Australians prefer to holiday overseas rather than in Australia and a major contributing factor to this problem is the significant lack of new tourism investment.

The greater Capricorn Region lags behind most other Queensland regions in terms of visitor numbers and contribution to the State's tourism industry. This is largely attributed to a deficiency in keystone tourist generators through an overall lack of investment in tourism infrastructure. Reflecting this is that most visitors to the region (76 percent) are Queensland domestic visitors, with only a small portion from interstate¹.

Due to the under investment in tourism infrastructure in the Capricorn Region, the Region only attracts a small proportion of visitors compared to other Queensland coastal destinations. During 2008, the Capricorn Region attracted 79 percent less visitor nights than Tropical North Queensland, 60 percent less visitor nights than Mackay/ Whitsundays and 28 percent less visitor nights than the Fraser Coast. Thus, the Capricorn Region's tourism industry is clearly underperforming that of other coastal regions¹.

Great Keppel Island's competitiveness as a tourist destination has also declined in recent years and this has negatively impacted on local economic activity. Unemployment is higher and population growth is lower in the Capricorn Region than the State average¹.

¹ Foresight Partners Pty Ltd (2010) *Forecast Economic Impacts: Proposed Revitalisation of Great Keppel Island*.

Tower Holdings Pty Ltd are proposing a \$592.5 million Revitalisation Plan for the Great Keppel Island Resort which will constitute the most significant new tourism investment in Queensland for over 20 years.

The Revitalisation Plan for Great Keppel Island (GKI) will provide for a low rise, low impact environmentally focused resort which will be fully accessible to the public. The Revitalisation Plan will have a major focus on ensuring that it meets high environmentally sustainable tourism guidelines and that it sets a new benchmark for environmental management practices.

On 28 August 2009 the Coordinator-General declared the Great Keppel Island Resort Project to be a 'significant project'. In September 2009 the proponent submitted an *Environmental and Biodiversity Conservation Act 1999* (EPBC Act) referral to the Minister of the Department of Environment, Water, Heritage and the Arts (DEWHA). On 28 October 2009, the Minister made a decision that the proposed action would have clearly unacceptable impacts on a matter protected by Part 3 of the EPBC Act.

In response to DEWHA's rejection of the proposal the proponent submitted a revised and substantially reduced GKI Revitalisation Plan in its 2010 EPBC Act referral to the DEWHA Minister. On 4 July 2010, the Minister made a decision that the proposed action is a controlled action and that it will require assessment and approval under the EPBC Act before it can proceed.

The GKI Resort Revitalisation Plan provided in this IAS is consistent with the proposal declared a controlled action by the Minister for DEWHA.

The revised proposal (illustrated on the **Great Keppel Island Resort Revitalisation Plan 2010** in **Appendix A**) includes:

- The majority of Lot 21 (approximately 62 percent) is to be designated as Environmental Protection Areas covering approximately 545 hectares, footprint to be chosen through collaboration with conservation groups and Queensland Parks and Wildlife;
- Demolition of the old resort and construction of a new hotel at Fisherman's Beach comprising 250 suites and day spa;
- Dredging activities for construction of the marina and renourishment of Putney Beach using dredge spoil;
- New marina at Putney Beach comprising 250 berths, emergency services facilities, ferry terminal, yacht club and dry dock storage;
- Retail area with a mix of cafes, restaurants and clothing shops around the marina;
- Golf club and an 18-hole golf course designed by Greg Norman Golf Course Design, integrated with essential habitats and ecological corridors, and located on previously disturbed grazing lands;
- Upgrade works and extension to the existing airstrip runway;
- 750 eco-tourism villas incorporating sustainable building design, rooftop solar panels and water tanks;

- 300 eco-tourism apartments incorporating sustainable building design, rooftop solar panels and water tanks;
- Installation of submarine connection of power, water, telecommunications and possibly wastewater and gas line between the Island and mainland;
- Associated service facilities and utilities (waste collection area, fire-fighting and emergency services hub, fuel, solar, wastewater treatment plant etc);
- Establishment of buffer zones to ensure protection of habitats and to provide fauna corridors;
- Establishment of constructed wetlands and a Water Management Plan to ensure that adverse stormwater run-off and golf course run-off into the Marine Park is entirely avoided by best practice engineering design and management;
- Establishment of the GKI Research Centre and Biodiversity Conservation Fund (BCF) which will aim to deliver a better understanding of the surrounding marine and terrestrial environments and to actively undertake conservation works to enhance the natural environment;
- Sporting park which can be used by resort guests and other GKI residents and visitors;
- Preservation of Indigenous sites of significance (in consultation with Traditional Owners); and
- Restoration of the original Leeke's Homestead.

The proposed resort facilities, supported by improved accessibility to GKI, will attract significantly more and a much broader range of visitors to the Island and encourage them to stay longer.

The proponent recognises the values of the Great Barrier Reef World Heritage Area (GBRWHA) and the need to ensure the potential to cause unacceptable impacts is minimal. Of particular importance is the need to ensure that the project would not have an unacceptable impact on the ecological and biological processes on the Island. The detailed environmental assessments which will be undertaken as part of an Environmental Impact Statement (EIS) process will determine the impact, if any, on these processes and the proponent is committed to mitigating these impacts in the design, construction and operation of the resort.

The GKI Revitalisation Plan is forecast to provide the following substantial economic benefits:

- An estimated final development cost of \$592.5 million;
- Around 1,055 full time, part time and casual jobs generated in the Capricorn Region once GKI is fully operational;
- Creation of an average of 350 construction-related jobs each year during the 15-year construction period, with total jobs generated representing 5,400 person years of direct employment;

- Once fully operational, an estimated 685 full-time equivalent jobs on the Island, plus additional workforce in periods of high demand;
- Through flow-on or multiplier effects, the creation of almost 400 additional, full-time equivalent construction and operational jobs on the mainland, predominantly at Rockhampton and Yeppoon;
- Privately funded infrastructure development provided at no cost to Government;
- An average of around 2,360 visitors, staff and residents on the Island each day, totalling around 860,000 person days per year;
- Tourist and residential expenditure contributing over \$82 million per annum to the local economy;
- A substantial increase in total visitor days in the greater Capricorn Region;
- Diversification of the greater Capricorn economy through improved promotion of regional based tourism as an industry through destination marketing and reducing reliance on the commodity price-driven mining and agricultural industries; and
- Significant increases in local and state government revenue through rates, property transaction duties, land tax and payroll tax.

These economic benefits would be delivered at a critical time for the Rockhampton Region as the number of unemployed persons in this Region is higher than the state average. If approved, the GKI Revitalisation Plan will create more jobs than any other currently proposed project in the Central Queensland region.

The project will add significantly to the variety of Queensland's Great Barrier Reef (GBR) and coastal island attractions, improving the economic diversity and social opportunities of the greater Capricorn Region whilst making a positive contribution to the ecological integrity of GKI.

The preparation of an Environmental Impact Statement (EIS) will highlight the Island's opportunities and constraints, project impacts and implementation strategies (including mitigation strategies) relevant to the development of this significant tourism infrastructure project.

1. Introduction

1.1 Purpose and Scope of this Initial Advice Statement

On 28 August 2009 the Coordinator-General declared the Great Keppel Island Resort Project to be a 'significant project' for which an Environmental Impact Statement (EIS) is required under section 26(1)(a) of the *State Development and Public Works Organisation Act 1971* (Qld) (SDPWO Act).

In September 2009 the proponent submitted an *Environmental and Biodiversity Conservation Act 1999* (EPBC Act) referral to the Federal Minister for the Department of Environment, Water, Heritage and the Arts (DEWHA). On 28 October 2009, the Federal Minister made a decision that the proposed action would have clearly unacceptable impacts on a matter protected by Part 3 of the EPBC Act.

In response to DEWHA's rejection of the proposal the proponent submitted a revised and substantially reduced GKI Revitalisation Plan in its 2010 EPBC Act referral to the Federal Minister. On 4 July 2010, the Federal Minister made a decision that the proposed action is a controlled action and that it will require assessment and approval under the EPBC Act before it can proceed.

The GKI Resort Revitalisation Plan provided in this IAS is consistent with the proposal declared a controlled action by the Federal Minister.

The purpose of this Initial Advice Statement (IAS) is to:

- Inform all stakeholders of the scale and nature of development proposed on GKI in accordance with the *State Development and Public Works Organisation Act 1971* (SDPWOA);
- Demonstrate that this is a Significant Project for which an Environmental Impact Statement is required;
- Identify the potential impacts of the redevelopment of GKI; and
- Ensure consistency between the EPBC Act and SDWO Act parallel EIS assessment processes.

1.2 Project Proponent

The proponent and developer of the GKI Revitalisation Plan is GKI Resort Pty Ltd. GKI Resort Pty Ltd is wholly owned by Mr Terrence Agnew. The development process will be managed by Mr Agnew's wholly owned principal trading company, Tower Holdings ("Tower").

2. Site Details

2.1 Location

GKI is located within the Rockhampton Regional Council local government area, approximately 12 km off the coast of Yeppoon on the Central Queensland coast. The Island forms part of the Keppel group of sixteen islands and, as the name suggests, is the largest island in the group. Some of the islands surrounding Great Keppel include North Keppel Island, Corroboree Island, Pumpkin Island, Miall Island, Middle Island, Barren Island, Halfway Island, and Humpy Island. Apart from GKI and Pumpkin Island, all of the other Keppel Islands are designated National Parks.

2.2 Site Description and Land Tenure

The proposed Revitalisation Plan applies to the areas of GKI that are leased by GKI Resort Pty Ltd, which covers an area of approximately 900 hectares. The real property description, area and land tenure of the existing Island lots are outlined in Table 2.1 below and in **Appendix B – Land Tenure Map**.

Table 2.1 GREAT KEPPEL ISLAND LAND TENURE²

Lot Number	Plan Number	Lot Area	Land Tenure
Lot 1	AP2516	130m ²	GKI Resort Pty Ltd (Lands Lease)
Lot 43	CP843165	3m ²	GKI Resort Pty Ltd (Lands Lease)
Lot 2	LN2615	7.986 ha	GKI Resort Pty Ltd (Lands Lease)
Lot 31	LN2704	17.75 ha	GKI Resort Pty Ltd (Lands Lease)
Lot 45	LN2763	3 ha	GKI Resort Pty Ltd (Lands Lease)
Lot 46	LN2763	2,852m ²	GKI Resort Pty Ltd (Lands Lease)
Lot 44	LN2831	1.794 ha	GKI Resort Pty Ltd (Lands Lease)
Lot 8	LN2832	8.109 ha	GKI Resort Pty Ltd (Lands Lease)
Lot 21	SP192569	875ha	GKI Resort Pty Ltd (Lands Lease)
Lot 11	AP11326	4.8 ha	No Title (State Land)
Lot 12	AP11326	1580m ²	No Title (State Land)
Lot 4	AP11326	300m ²	Other Land (Lands Lease)
Lot 5	AP11326	1,300m ²	No Title (State Land)
Lot 1	AP16085	19.4ha	No Title (State Land)

² Real property descriptions and land tenure as at August 2009.

Lot Number	Plan Number	Lot Area	Land Tenure
Lot 50	CP866044	2,800m ²	Other Land – Livingstone Shire Council (Reserve)
Lot 1	CP882198	1,451m ²	Other Land – The State of Queensland (State Land)
Lot 1	CP900493	1,727m ²	Other Land – Keppel Haven Property (Lands Lease)
Lot 2	CP900494	1.3 ha	Other Land – Livingstone Shire Council (Reserve)
Lot 3	CP900494	1,554m ²	No Title (State Land)
Lot 10	LN1428	756m ²	Other Land (Freehold)
Lot 11	LN1428	787m ²	Other Land (Freehold)
Lot 12	LN1428	814m ²	Other Land (Freehold)
Lot 13	LN1428	868m ²	Other Land (Freehold)
Lot 14	LN1428	943m ²	Other Land (Freehold)
Lot 15	LN1428	1,022m ²	Other Land (Freehold)
Lot 16	LN1428	1,098m ²	Other Land (Freehold)
Lot 9	LN1498	9,105m ²	Other Land (Freehold)
Lot 18	LN1658	1,012m ²	Other Land (Freehold)
Lot 19	LN1658	1,012m ²	Other Land (Freehold)
Lot 20	LN1658	1,012m ²	Other Land (Freehold)
Lot 21	LN1658	1,012m ²	Other Land (Freehold)
Lot 22	LN1658	1,012m ²	Other Land (Freehold)
Lot 23	LN1658	1,012m ²	Other Land (Freehold)
Lot 26	LN1658	1,012m ²	Other Land (Freehold)
Lot 27	LN1658	1,012m ²	Other Land (Freehold)
Lot 28	LN1658	1,012m ²	Other Land (Freehold)
Lot 37	LN1761	898m ²	Other Land (Freehold)
Lot 39	LN2681	5,550m ²	Other – Lions Club of Yeppoon (Lands Lease)
Lot 29	LN2747	8.95 ha	Other Land – Livingstone Shire Council (Reserve)
Lot 29 (Lease A)	LN2747	3.69 ha	Other Land – Keppel Haven Resort (Lease A)
Lot 1	PER207764	90m ²	Other Land - Keppel Haven Property (Lands Lease)
Lot 1	PER207768	25m ²	Other – Keppel Haven Resort (Private Ownership)
Lot 1	RP611254	501m ²	Other Land (Freehold)
Lot 2	RP611254	502m ²	Other Land (Freehold)
Lot 50	SP190989	31.37ha	Woppaburra Land Trust
Lot 55	SP190989	1,100m ²	Other Land (Lands Lease)
Lot 56	SP190989	4,756m ²	Other Land (Lands Lease)

Lot Number	Plan Number	Lot Area	Land Tenure
Lot 53	SP190990	75.54ha	Woppaburra Land Trust
Lot 52	SP190991	25.16ha	Woppaburra Land Trust
Lot 51	SP190992	38.73ha	Woppaburra Land Trust
Lot 29	SP190994	642m ²	Woppaburra Land Trust
Lot 8	SP129154	2.988 ha	Other – Department of Natural Resources (Reserve)
Lot 46	USL42204	2.8 ha	Woppaburra Land Trust

The GKI Revitalisation Plan also includes unallocated State Land for the marina and marina access and areas to accommodate submarine connections between GKI and the mainland.

GKI is located within the Comprehensive Development Zone of the Livingstone Shire Planning Scheme 2005, which is the relevant planning scheme under the recently formed Rockhampton Regional Council. The Island is further broken into Accommodation and Associated Facilities, Village Commercial, Conservation and Aquifer Precincts on the GKI Structure Map within the Livingstone Shire Planning Scheme.

2.3 Current Use of Site

Until recently the Island has been occupied by a number of different commercial accommodation facilities ranging from camping ground style accommodation to resort level accommodation. The GKI Resort was the main tourism resort located on the Island and comprised 190 guest rooms. These facilities were closed in early 2008.

The Island is currently occupied by two backpacker's facilities and 20 residential/commercial premises.

There are 17 beaches on GKI and its natural environment offers a wide range of activities including swimming, diving, snorkelling and bushwalking.

Refer **Appendix C – Aerial Photograph**.

2.4 Existing Access Infrastructure

Access to and from GKI is currently provided by air and sea. Ferries and water taxis service the Island by sea. There is currently no jetty facility on GKI, with all water transport currently being required to land on the beach to allow passengers to board and disembark. This makes access for the elderly and disabled extremely difficult and dangerous. Air Capricorn runs flights to the Island from Rockhampton, which are approximately 20 minutes in duration.

Transport around the Island consists of a series of tracks and trails linking the key facilities. There is limited vehicle access outside the central resort other than 4WD or by boat to access the beach areas.

2.5 Physical Environment

2.5.1 Topography

GKI's topography is dominated by two ridges aligned in a south-easterly to north-westerly direction which extend to the coast line, forming a series of rocky headlands. Between these headlands, the Island is fringed by a series of natural sandy beaches that are flanked by beach ridges, coastal sand dune systems and major creeks.

The levels along the northern ridge line vary from approximately R.L.75m AHD at the extremities to a maximum of R.L.155.9m AHD in the south-east. The southern ridge line reaches the highest island level of R.L.171.3m AHD at Mt Wyndham in the central-south section and which then tapers off toward the north-west to approximately R.L.60m AHD.

Refer Appendix D – Contour Plan (1m)

2.5.2 Geology and Geomorphology

GKI is part of the Shoalwater Terrane, a landform pushed up by the Pacific Ocean Plate sliding up under the Australian Plate during the Late Carboniferous period (300 million years Before Present (BP)). Its geology is slightly different to the Wandilla Terrane which forms the Capricorn Coast. Keppel's geological history is more similar to that of Curtis Island.

The surface features of GKI's geomorphology may be seen from aerial photographs (refer **Appendix C – Aerial Photograph**) and Contour Plan (refer **Appendix D – Contour Plan**), with two SE-NW trending ridges (max elevation 174 m) terminating in headlands and with major creeks flowing off these ridges, generally trending in a north-west direction.

The erosional surface is a result of glacial sculpturing during the Ice Ages, more than 18,000 years BP. Since then, sea levels have risen, fluctuating about its present level since about 5,500 BP. Subsequent weathering of the surface rocks and erosion of the headlands has produced the current topographic features, the locations of which may be seen from the Geological Map (refer **Appendix E – Geological Map**).

Significant features include the sandy beaches, beach ridges and dune fields (up to 1 million years BP, generally <20,000 years BP); the cliffs and wave-cut platforms at the headlands; and the coral reefs which have formed around headlands over the past 5,500 years and are less than 15 m thick.

The beaches, fore-dunes, beach ridges and dune fields were significant features which were recognised during the revision of the GKI Revitalisation Plan, particularly in the interpretation of relevant sections of the *Coastal Protection & Management Act 1995*.

2.5.3 Climate

The climate of the Capricorn Coast is classified as “subtropical, with distinctly dry summers”. It is considered that the climate of GKI would be similarly classified. Other means of classification indicate that the area experiences hot, dry summers and mild winters.

The annual mean daily maximum temperature is 26.1°C, while the annual mean daily minimum temperature is 20.9°C. The highest maximum temperature is 34°C and the lowest minimum temperature is 5.0°C. The hottest month is January. The annual average number of days the maximum temperature exceeds 30°C is 43.7.

Monthly average relative humidity is generally high, ranging from 63 percent to 74 percent, with the annual average being 71 percent at 9am and 68 percent at 3pm.

It is estimated that GKI receives somewhere between 1000 and 1200 mm of rainfall per year. Reference to the Heron Island rainfall averages shows the mean annual rainfall to be 1047mm/yr. The mean number of rain days per year is 129. The highest recorded daily rainfall was 282mm.

The annual average number of clear days is 131, while the average amount of daily sunshine is 8.4 hrs.

Winds are predominantly from the SE (approximately 40 percent of the time) and the highest wind speeds are also recorded from this sector. The maximum recorded wind gust at Heron Island was 102 km/hr, whereas that recorded for Rockhampton Aero was 161km/hr.

2.5.4 Regional Ecosystems

The latest regional ecosystem mapping based on rectified 2003 Landsat TM imagery, prepared by the Queensland Herbarium and the Department of Environment and Resource Management, shows most of GKI supporting remnant native vegetation (refer **Appendix F – Regional Ecosystem Map**).

Descriptions of the regional ecosystems occurring on the Island are provided in **Table 2.2**.

Table 2.2 REGIONAL ECOSYSTEMS REPRESENTED ON GREAT KEPPEL ISLAND

Regional Ecosystem ID	Short Description*	VMA status[†]
8.1.1	Mangrove vegetation of marine clay plains and estuaries. Estuarine wetland.	Not of concern
8.1.2	Samphire open forbland to isolated clumps of forbs on salt pans and plains adjacent to mangroves	Not of concern
8.2.1	Casuarina equisetifolia open forest to woodland with Ipomoea pes-caprae and Spinifex sericeus dominated ground layer on foredunes	Of concern
8.2.2	Microphyll vine forest (beach scrub). Characteristic species include Mimusops elengi, Ganophyllum falcatum, Diospyros geminata, D. compacta, Pouteria sericea, Pleiogynium timorense, Drypetes deplanchei, Eugenia reinwardtiana, Cupaniopsis anacardioides. Occurs on coastal dunes.	Of concern
8.2.7e	Melaleuca spp. and/or Lophostemon suaveolens and/or Eucalyptus robusta open woodland to open forest in wetlands associated with parabolic dunes	Of concern
8.2.8a	Variable eucalypt woodland often with heathy elements on parabolic dunes and beach ridges	Not of concern
8.3.6c	Eucalyptus tereticornis and/or Corymbia tessellaris and/or Lophostemon suaveolens and/or E. platyphylla ± rainforest spp. open woodland to woodland. Occurs on alluvial terraces	Of concern
8.3.13c	Eucalyptus tereticornis and/or Corymbia tessellaris woodland with a secondary tree layer of Melaleuca spp. Occurs on marine and alluvial plains commonly adjacent to estuarine areas.	Of concern
8.11.10	Lophostemon confertus and/or Acacia leptostachya and/or Acacia leiocalyx and/or Acacia aulacocarpa and/or Allocasuarina littoralis ± Acacia flavescens ± Corymbia dallachiana ± Eucalyptus drepanophylla ± E. Exserta ± Melaleuca viridiflora low woodland to open-forest	Of concern
8.11.3a	Mixed eucalypt including Corymbia intermedia, Eucalyptus portuensis, C. clarksoniana, E. Platyphylla and E. Drepanophylla woodland to open forest on low hills, on metamorphosed sediments.	Not of concern
8.11.9a	Themeda triandra ± Imperata cylindrica grassland, or Heteropogon contortus, Imperata cylindrica and Heteropogon triticeus grassland, or Xanthorrhoea latifolia subsp. Latifolia shrubland/heathland with Themeda triandra. Small clumps of wind sheared vine thicket and sclerophyllous species may be present, including shrubby species. Occurs on coastal exposed rocky headlands on metamorphosed sediments, subject to strong sea-breezes and salt-laden winds	Of concern
8.12.14x2c	Lophostemon confertus closed-forest. Occurs on slopes of islands on Mesozoic to Preterozoic igneous rocks and contains minor areas of Tertiary acid to intermediate volcanic.	No concern at present

* Source: EPA (2005) Regional Ecosystem Description Database 2009;

§ Source: Sattler and Williams 1999;

† Status under the *Vegetation Management Act 1999*.

2.5.5 Terrestrial Flora

A search of the HERBRECS database (maintained by the Queensland Herbarium Environmental Protection Agency), centred on the Island, found specimens of 179 different species had been collected on GKI and lodged with the herbarium. Of these 179 species, 22 were introduced or non-native species. No species defined as rare, vulnerable or endangered were recorded as occurring on the Island.

2.5.6 Terrestrial Fauna

A search of the Queensland Parks and Wildlife Service database, Wildlife Online, returned 122 records of fauna for GKI. Of the 122 species recorded, there were 116 birds, one insect, three mammals and two reptiles. Five introduced species were recorded - red junglefowl, Indian peafowl, common starling, common crow, butterfly and goat.

2.5.7 Surface Water

There are three catchments on GKI which are of sufficient size to provide water supplies. These are the Putney Beach, Blackall Creek and Wreck Beach catchments.

2.6 Marine Environment

2.6.1 Bathymetry

GKI and the other smaller islands forming the Keppel Group lie at the northern end of Keppel Bay. The Island is approximately 12km off the coastline and more than 200km inshore of the Outer Barrier Reef and the Swain Reef complex.

Bathymetric data for the Keppel Group of islands indicates that deeper water (>15m) extends to the north, east and south of the Island, whereas shallow waters (<6m) extend westwards toward the coast.

There are a number of islands and rock outcrops within easy sailing distance of GKI. The nearest marina facilities are at Rosslyn Bay, on the coastline, approximately 12 km to the west.

2.6.2 Tides

The tidal planes are important descriptors as far as environmental management of coastal areas is concerned. They affect the zonation of tidal wetlands, the nature of beaches and the strength of tidal currents in estuarine and marine waters.

Table 2.3 presents the tidal planes for GKI, as determined from the Queensland Tide Tables.

Table 2.3 TIDAL PLANES FOR GREAT KEPPEL ISLAND (M AHD)

Highest Astronomical Tide (HAT)	2.56m
Mean High Water Springs (MHWS)	1.75m
Mean Low Water Springs (MLWS)	- 1.66m
Indian Spring Low Water (ISLW)	- 2.36m

2.6.3 Waves

The Department of Environment and Resource Management (DERM) operates a wave-rider buoy, designated Emu Park, at a location some 20km SE of GKI. Significant wave heights reach 3.0m, whereas the annual average significant wave height approximates only 0.5m. Higher waves are recorded during summer rather than during winter.

Further information is available from the Capricorn Coast Beaches study. These show that waves from the SE are noticeably higher than those from the NE and east, as would be expected from consideration of the wind data.

2.6.4 Reef Environment

2.6.4.1 The Great Barrier Reef

The GBRWHA was included in the World Heritage List in 1981. The GBR is the most extensive coral reef province in the modern oceans and is World Heritage listed. The GBR which is managed by the Great Barrier Reef Marine Park Authority (GBRMPA) extends from Lady Elliot Island in the south to the Torres Strait in the north, a distance of 3,000 km. It covers approximately 250,000 km² and contains in excess of 3,000 separate reefs which are of many shapes and sizes and irregularly distributed.

2.6.4.2 Coral Reefs of the Keppel Islands

The reefs around the Keppel Islands are island fringing reefs, developed on the inner shelf of the southern section of the GBR. The Keppel Islands reefs are the only reefs on the inner shelf between the Capricorn Group and the Northumberland Islands north of Broad Sound. This lack of reefs on the inner shelf north of the mouth of the Fitzroy River is possibly due to the sediment discharge of the river.

2.6.4.3 Coral Reefs of Great Keppel Island

Fringing reefs are developed off most of the headlands of GKI and adjacent islands such as Humpy and Halfway islands to the south and Middle and Myall islands to

the northwest. The best developed reefs are off Clam Bay and Monkey Beach. Here, reef flats are developed and exposed at spring low tides.

The reefs around GKI's northern and western coastline, from Monkey Point to Butterfish Bay and the surrounding waters form part of the Great Barrier Reef Marine Park (GBRMP) and are subject to the 2003 Zoning Plan MPZ17 – Gladstone. This shows only a small portion of Long Beach lies within the General Use Zone, with the balance either in the more-restrictive Habitat Protection Zone or Marine National Park Zone (Monkey Beach) or Conservation Park Zone (Shelving and Fisherman's beaches). GBRMPA will be involved in the impact assessment process, not only through its own charter but looking at aspects covered by the Commonwealth's EPBC Act.

2.6.4.4 Marine Ecology and Water Quality

GKI is part of a region known as the Capricorn Coast, which has been identified in the DERM State Coastal Management Plan as containing significant areas of freshwater wetlands, sea-grass beds and tidal mudflats.

2.7 European History

The first European to travel through the area was Captain James Cook who sailed through the Keppel group between 25 and 27 May, 1770. During this time he named GKI and Keppel Bay and Cape Capricorn.

Cook did not land at GKI. Nor did Matthew Flinders who would have sighted the Island in 1804 when he circumnavigated Australia. The first European to set foot on the Island was a naturalist named McGillivray, who landed near Leeke's Creek in 1847.

According to the GKI DCP, the first commercial lease was granted to Robert Ross in 1866 to establish a sheep station. Mr Ross set up a station with 3,000 to 4,000 sheep which were free to graze over the entire Island.

Following the death of Mr Ross in 1897, the grazing lease has continued to be transferred and held privately. Future leaseholders continued to graze sheep and also introduced goats to the Island. Part of this lease area is currently held by GKI Resort Pty Ltd.

GKI was never declared a National Park as a result of this grazing activity and having been continually held in private ownership. As a result of over 100 years of grazing activity, there has been significant vegetation disturbance on the Island which is outlined in detail in the Great Keppel Island DCP.

The Island's first resort, Silver Sands, was established in the late 1950s. A new resort was opened in 1967, the airstrip was built in 1975 by Trans Australian Airlines and it was during this time it was modernised and updated. Since February 2008 the resort has been closed.

2.8 Indigenous History

The Ganomi-Woppaburra People lived on North Keppel Island for 5,000 years and at least 700 years on GKI. They used the resources of the inter-tidal zone, fringing reefs and surrounding seas to survive. Based on these resources, it is believed that the Keppel Islands could support a community of up to 80 to 90 people all year round.

Over the last 20 years, archaeological and anthropological research has provided detailed information on the Woppaburra material culture and way of life. For example, middens (eating areas) provide details of the food that was eaten and tools that were used by the indigenous people.

In 1902, the last seventeen Woppaburra ancestors were forcibly removed from the Keppels and sent to Aboriginal missions on the mainland. Today descendants are re-establishing cultural ties with their traditional homeland evidenced for example by a reunion of Keppel Islander descendants held in 1984 on GKI (Queensland Parks and Wildlife Services 2005) and a more recent reunion in 2006.

In the early 1990's, the Woppaburra people began making requests to the Queensland Government to have unallocated state land on GKI returned to them in accordance with the *Land Act 1994*. In April 2007, the Queensland Government transferred the freehold title of approximately 173 hectares of land on GKI to the traditional owners, the Woppaburra Land Trust.

As a result of consultation to date with the Ganomi-Woppaburra people the GKI Revitalisation Plan does not involve any of the land owned by the Woppaburra Land Trust.

The Darumbal People have current Native Title Claim over GKI and will be involved in future consultation.

3. The Proposal

3.1 Project Vision

The vision for the revitalisation of GKI is based on the following objectives:

1. To create Central Queensland's premier tourist destination;
2. To develop the first Green Globe certified tourism resort in the GBR;
3. To develop a low rise resort that complements the natural values of GKI;
4. To overcome the "Get Wrecked" stigma ascribed to the Island;
5. To provide improved access to the Island by air and sea; and
6. To act as the stimulus for visitor generation and further tourism development in the greater Capricorn Region.

3.2 Project Elements

The GKI Revitalisation Plan proposes to upgrade the existing resort and airstrip and to create a low rise, eco-tourism resort on GKI.

The GKI Revitalisation Plan will meet all current environmentally sustainable tourism practices and aims to set a new benchmark for environmental management

Components of the revised GKI Revitalisation Plan include:

- The majority of Lot 21 (approximately 62 percent) is to be designated as Environmental Protection Areas covering approximately 545 hectares, footprint to be chosen through collaboration with conservation groups and Queensland Parks and Wildlife;
- Demolition of the old resort and construction of a new hotel at Fisherman's Beach comprising 250 suites and day spa;
- Dredging activities for construction of the marina and renourishment of Putney Beach using dredge spoil;
- New marina at Putney Beach comprising 250 berths, emergency services facilities, ferry terminal, yacht club and dry dock storage;
- Retail area with a mix of cafes, restaurants and clothing shops around the marina;
- Golf club and an 18-hole golf course designed by Greg Norman Golf Course Design, integrated with essential habitats and ecological corridors, and located on previously disturbed grazing lands;

- Upgrade works and extension to the existing airstrip runway;
- 750 eco-tourism villas incorporating sustainable building design, rooftop solar panels and water tanks;
- 300 eco-tourism apartments incorporating sustainable building design, rooftop solar panels and water tanks;
- Installation of submarine connection of power, water, telecommunications and possibly wastewater and gas line between the Island and mainland;
- Associated service facilities and utilities (waste collection area, fire-fighting and emergency services hub, fuel, solar, wastewater treatment plant etc);
- Establishment of buffer zones to ensure protection of habitats and to provide fauna corridors;
- Establishment of constructed wetlands and a Water Management Plan to ensure that adverse stormwater run-off and golf course run-off into the Marine Park is entirely avoided by best practice engineering design and management;
- Establishment of the GKI Research Centre and Biodiversity Conservation Fund (BCF) which will aim to deliver a better understanding of the surrounding marine and terrestrial environments and to actively undertake conservation works to enhance the natural environment;
- Sporting park which can be used by resort guests and other GKI residents and visitors;
- Preservation of Indigenous sites of significance (in consultation with Traditional Owners); and
- Restoration of the original Leeke’s Homestead.

Refer **Appendix A – Great Keppel Island Resort Revitalisation Plan 2010**.

The proposed resort facilities, supported by improved accessibility to GKI, will attract significantly more and a much broader range of visitors to the Island and encourage them to stay longer.

3.2.1 Resort Precincts

The proposed GKI Revitalisation Plan includes four precincts as described below:

1. **Environmental Protection Areas;**
2. **Marina Precinct;**
3. **Fisherman’s Beach Resort Precinct;** and
4. **Clam Bay Resort Precinct.**

3.2.2 Environmental Protection Areas

A key feature of the proposed GKI Revitalisation Plan is the creation of Environmental Protection Areas covering approximately 545 hectares on Lot 21 (some 62 percent). The establishment of the Environmental Protection Areas will be in collaboration with the key government agencies and conservation groups to ensure that the quality of the valuable natural environment is protected. A large majority of these areas will have restricted dedicated access only, for the purpose of maintenance and monitoring, in order to protect the values listed by Minister Garrett in his Statement of Reasons (October 2009). Where it is permissible to allow access to visitors, marked walking tracks, compost toilets and picnic facilities will be provided. Visitors and employees on the Island will be educated on the importance of protecting the Island's floral and fauna values, including instructions to stay on marked and designated tracks, to dispose of all rubbish appropriately and to avoid smoking in the Environmental Protection Areas to assist with control of bushfire risks.

The Environmental Protection Areas will provide for appropriate rehabilitation and ongoing maintenance and management and protection of culturally significant sites, management and care of wildlife, an active pest and weed management program and appropriate bushfire protection.

3.2.3 Marina Precinct

A new marina facility (occupying 2.3 percent of GKI's coastline) is proposed to be built at the northern end of Putney Beach. A detailed bathymetric survey will be conducted during the EIS to determine the quantity and quality of material to be dredged for the construction of the marina. Detailed marine and geomorphic studies will also be conducted during the EIS to determine the appropriate locations and protection measures to be implemented for the dredging and for the construction and operation of the marina. Dredge spoil is intended to be used to renourish the Putney Beach erosion and also to be used where possible on the Island. Spoil that is not required for these purposes, and meets the sea dumping specifications may be disposed of in locations nominated by the GBRMPA.

The marina will be designed to allow for safe and efficient access to GKI by sea and will be an important part of the transport infrastructure required for the new resort. Accessibility is vital to the successful operation of an isolated island resort and the new marina will ensure that easy and equitable access to the Island is available for all visitors including the disabled and elderly.

The 250 berth marina will be open to the public. Surrounding the boardwalk of the marina will be a mix of cafés, restaurants, small shops, ecotourism apartments and the GKI Research and Conservation Centre.

Central Queensland currently has a significant shortage of marina facilities in relation to the rest of Queensland. Highlighting this is the fact that there are currently 73 marina facilities on the Queensland coast, however, between Bundaberg and Mackay there are currently only two commercial marinas - Rosslyn Bay and Gladstone. Due to the shortage of marina facilities in the region, many of

the boats travelling up and down the Queensland coastline moor on coral reefs. A new marina at GKI would reduce the uncontrolled anchoring on the coral reefs, represent a major piece of tourism infrastructure for the region and complement the Rosslyn Bay Marina.

The proposed GKI marina will include a sewage pump-out facility for boats berthing in the marina.

The proponent has had initial discussions to provide berths at GKI for Emergency Service vessels including Coastguard, Queensland Boating and Fisheries Patrol and Water Police, at the proposed marina to ensure better access for these lifesaving services.

The marina facility is to be located on Unallocated State Land (USL) and will require necessary approvals and permits including those from the Department of Environment and Resource Management (DERM) and GBRMPA. The marina and the area providing access to the marina will not involve any of the land owned by the Woppaburra Land Trust.

3.2.4 Fisherman's Beach Resort Precinct

The proposed development will see the old hotel facilities at Fishermans Beach demolished and replaced with a new 250 suite low-rise hotel located on the site of the existing hotel (currently closed) with swimming pools, beach activities, family entertainment and day tripper facilities. An island sporting oval and low rise, eco-tourism villas and eco-tourism apartments will be located on the northern side of the extended airstrip which will provide tourist guests with a wide range of accommodation choices.

The site planning and architecture of the Fishermans Beach precinct is intended to complement the natural environment and adopt styles and colours which do not dominate the landscape. The proponent wishes to retain the heritage character values of the Island and the current hillside villas with their white roofs will be removed and replaced with eco-tourism villas which will blend into the landscape to minimise their visual impact.

3.2.5 Clam Bay Resort Precinct

The Clam Bay Resort precinct is envisaged to create a nature based tourism area which will complement its natural setting. This area is part of the original sheep farm on GKI and in the past was cleared and extensively used for grazing purposes.

Careful consideration of the potential impacts on the environment and the GBR World Heritage Values were taken into account in the site planning of this precinct. In particular, the site planning aims to ensure that the biological and ecological processes of the Island are not unacceptably impacted upon, that there is no adverse runoff into the wetlands or Marine Park and that the visual impact of the development area is minimized. These issues will be further investigated during the EIS process.

An 18-hole golf course, designed by Greg Norman Golf Course Design, is proposed on the previously disturbed sheep grazing land between Leeke's Homestead and Clam Bay. Following a number of meetings with DEWHA officers the course has been redesigned to ensure its construction and use will not adversely impact on the nearby Leeke's Beach wetlands, Leeke's Creek, streams, underground water or drainage paths.

The course design, which will be to the appropriate national standards, will integrate with buffer zones and essential habitats and the grass species and design will ensure minimal water and fertilizer requirements. Constructed wetlands within and adjacent to the golf course will capture and filter stormwater runoff for reuse.

Located amongst the golf course will be the Golf Resort Facility which will provide resort guests with a setting to relax and unwind. The Golf Resort Facility will include the golf pro shop, café, restaurant, swimming pool, convenience store, day spa, tennis courts and gymnasium facility.

Surrounding the golf course will be tourism accommodation in the form of low-rise eco-tourism villas. These villas will be set below the tree canopies and will be set within the natural topography of the Island to retain a natural "island feel" for visitors in keeping with the Island's heritage values.

3.2.6 Great Keppel Island Research Centre and Biodiversity Conservation Fund

The GKI Revitalisation Plan will seek to make a positive impact on the biodiversity conservation of the fringing coral communities and marine ecology by establishing the GKI Research and Conservation Centre and a Biodiversity Conservation Fund. The Research Centre will aim to be the leading marine research centre within the Keppel precinct of the GBRWHA.

The Research Centre will be used to conduct research programs and conservation activities on the Island and within the marine park; monitor fringing coral communities and facilitate student research activities.

Students from local schools and universities will have access to the facility to advance their learning through practical application. The Research Centre will be available for scientists, government departments and other interested parties.

A proportion of all tourism revenue generated on the Island will be collected into a Biodiversity Conservation Fund to fund research studies, coral management initiatives, marine ecology monitoring, bird monitoring and a range of other marine and terrestrial conservation activities.

3.2.7 Accommodation

The design of the GKI Revitalisation Plan has been based on the premise that the majority of tourists who travel to a beautiful island such as GKI would prefer to stay in low rise accommodation which is integrated into the natural environment rather than a high rise resort. To meet predicted accommodation needs the proposed

resort will offer three forms of accommodation, hotel-style, eco-tourism villas and eco-tourism apartments.

- Fisherman’s Beach Hotel –will provide guests with the opportunity of holidaying in a well appointed hotel suite with traditional hotel services;
- Eco-tourism Villas - each of these low-rise villas would be free-standing and position themselves within the natural topography of the Island. The villas would provide guests with privacy and allow guests to feel as though they are part of the Island. The villas would include state-of-the-art sustainability features including roof top solar panels, solar hot water, rainwater tanks and designed to maximise the natural solar access and natural ventilation. The villas will be ideally suited for families with an open plan layout, verandah, bedrooms and kitchen facilities. The architecture of the villas will be focussed on ensuring that they blend into the natural landscape and that they minimise their visual impact from the marine waters and the Island itself; and
- Eco-tourism Apartments – Similar to the villas, the eco-tourism apartments will be low rise and include the most advanced sustainability features. In contrast from the villas, the apartments will provide guests with a more compact form of accommodation.

The eco-tourism villas and apartments will be centrally managed and no permanent residential accommodation is proposed as part of the development.

3.3 Transportation

3.3.1 Transportation From Mainland

The proposed Revitalisation Plan will increase demand on the transportation needs for GKI and will result in more frequent services being required for visitors and day trippers alike.

Like all island resorts, access from the island to the mainland is paramount. The proposed marina facility will enable ferry services to operate a better and more efficient service to the Island.

The upgraded airstrip and airport terminal will ensure that accessibility for tourists and emergency services to the Island is greatly improved.

3.3.2 Transportation Around Island

Transportation between the resort precincts is to be undertaken predominantly via pedestrian access, bicycles or electric carts.

The introduction of electric carts will allow efficient movement around the Resort Facilities and the Golf Course.

This type of transport method is ‘eco’ clean and user friendly, while offering a level of comfort and easy way to access all the Island’s facilities.

Integrated walking trails will be incorporated in the design of the facilities throughout the resort linking the key internal uses, which will also enable the project to reduce the reliance on motorised transportation methods.

3.4 Water

3.4.1 Water Efficiency

The proposed development will adopt a policy of maximising the rainwater it harvests by installing rainwater tanks to all of the eco-tourism villas and throughout the resort.

Indoor Water Reduction Initiatives

The resort will incorporate a range of water efficient fixtures where possible. The water efficient items include: water efficient showers, taps, toilets, smart appliances such as dishwashers and clothes washing machines, smart meters on water supply and recycle water supply pipe lines and the installation of smart pipe line technology able to sense and alarm high flows and leaks in the supply networks.

Outdoor Water Efficiency

Outdoor water demand will be reduced through the use of native plant species, drip irrigation and smart irrigation controls such as rain sensors.

The efficiency of outdoor water use will be improved through the following features:

- The use of native species in landscaped areas;
- Drip irrigation will be used for common irrigation systems where practical;
- The golf course will use irrigation practices that help conserve water;
- Automatic irrigation systems will be controlled using timers, wind speed gauges and soil moisture probes; and
- Irrigation timers will be used to ensure over-irrigation does not occur.

3.4.2 Water Supply

During preparation of the EIS, a detailed water supply management analysis will be undertaken to thoroughly investigate the most appropriate water supply strategy for the proposed development. Subject to the EIS findings, it is proposed that a mainland water connection will be provided to guarantee supply to meet the resort's water demands to supplement the rainwater harvesting.

The water supply management strategy analysis will include exploration of the following:

- **Mainland Connection:** The connection of a subsea pipe to deliver mainland water to the Island will be investigated during the EIS process.
- **Rainwater Harvesting:** The collection of rainwater from roof surfaces is commonly practiced throughout Australia and is an integral component of water supply in most non-urbanised areas.
- **Bore Water:** Douglas Partners Pty Ltd have been commissioned to conduct a detailed groundwater supply investigation on GKI. This will be assessed during the EIS process.

3.5 Wastewater Management

Wastewater will be generated from the accommodation facilities, restaurants and bars, spa, pools, marina, and the airport. A range of treatment options including a significant upgrade of the current wastewater treatment system, the installation of a centralised wastewater treatment and recycling plant and the option of pumping wastewater back to the mainland for treatment will all be assessed during the EIS.

The treatment and recycling facilities will be designed, constructed and operated to ensure the most sustainable option with the least environmental impact is implemented. The location of any wastewater management facilities will be determined during the EIS after careful assessment of how best to avoid or minimise any potential environmental risk.

3.6 Hydrology and Stormwater Drainage

Best practice stormwater and drainage design is critical to ensure the natural hydrology is not adversely impacted by the proposed development. GKI supports a number of watercourses which drain to the wetland, aquifer and/or the groundwater reserves. The constraints-based approach to site planning that was undertaken in revised the Revitalisation Plan has aimed to ensure that the natural hydrology of the Island is maintained and that adverse stormwater runoff is entirely avoided by best practice design and management.

The proponent recognises the importance of the hydrological processes on the Island and the need to ensure their connectivity in order to protect the Island's ecological and biodiversity values. The buildings and infrastructure will be designed, sited and constructed in a way to ensure minimal impact on the natural hydrological processes on GKI. Hard-stand surface areas will be minimal only and where possible pervious materials will be used on vehicular and bike paths. Villa and apartment footprints will be minimal through the use of above-ground designs.

The hydrological assessment to be conducted as part of the EIS will describe the protection of these systems and the proposed stormwater drainage and treatment arrangements.

The EIS will provide detail on the hydrology on the Island and the associated freshwater flows as well as adjoining tidal waterways in terms of water levels and discharges. The interaction of freshwater flows with different tidal states, including storm tides, will also be explored in the hydrological assessment.

Sources of stormwater and the quantity, quality and location of discharge to watercourses including the GBRMP will be provided in detail in the EIS. The Stormwater Management Plan which will be developed as part of the EIS will ensure the protection of ecosystem health and water quality within freshwater surface, marine and ground waters.

Stormwater treatment systems using best practice engineering principles will be designed to capture and/or treat any stormwater from disturbed areas for reuse. There is no intention to interfere with any watercourses or disturb flows into the wetland.

3.7 Telecommunications

Telecommunications services for the proposed development will be incorporated within the design of the road network. Use will be made of the existing telephone towers on GKI and any additional communication requirements will be provided via a sea-cable along with the electricity and water mains.

Communications are an important part of any resort and while telecommunications are paramount the need for data supply is becoming a necessity for any project. Accordingly, the proposed development will incorporate a network of data cabling providing all accommodation with communication requirements.

3.8 Solid Waste Management

Waste will be generated during all phases of the proposed development including demolition of the old resort, construction of the new resort, operation and maintenance activities. The proponents will work closely with Rockhampton Regional Council's Waste and Regulatory Services Group and operators of the proposed Materials Recycling Facility on the mainland to maximise recycling and reuse of materials. During the EIS process, a Waste Management Plan will be developed that follows the waste management strategy of 'Avoid, Reuse, Recycle, and Dispose'. Waste avoidance, reuse and composting programs will minimise the amount of waste requiring transport from the Island, while recycling programs will facilitate the recovery of reusable materials that would otherwise go to landfill on the mainland. The branding of GKI as an eco-tourism resort will necessitate the need for smart waste avoidance and reuse strategies to be adopted on the Island from the construction phase through the life of the resort.

3.9 Fuel Storage

Fuel storage facilities for the proposed development will be built and operated to Australian Standards to ensure the risk of environmental impact is mitigated.

3.10 Energy

The resort will be powered by a combination of solar energy and electricity supplied from the mainland via a sea-cable.

The proposed development will demonstrate world's best practice in environmental sustainability through its renewable energy objective.

The GKI Revitalisation Plan has adopted an ambitious sustainability strategy to position it as a carbon-positive resort island which will produce more energy than it consumes each year. Embracing one of Australia's most significant natural resources – its abundant sunshine – the proponent is committed to achieving a carbon positive status through the installation of solar photovoltaic panels on the rooftops of the eco-tourism villas, hotel and apartment complexes that will generate enough electricity to offset and surpass the emissions resultant from the operation of the resort.

This solar powered system will generate electricity during the daylight hours and supply both the resort site, other Island residents and into the mainland grid via under-sea cabling connections. In times of poor sunlight, the resort will draw electricity from the grid.

The proposed eco-tourism villas will play a critical role in the objective to reach carbon positive status as 97 percent of the required solar panels will be located on the roofs of these villas.

The proposed development will aim to minimise its use of energy by incorporating state-of-the-art Environmentally Sustainable Design (ESD) features such as:

- Buildings design to maximise natural flow ventilation and reduce the need for air conditioning;
- Build design to maximise natural light and reduce power requirements;
- Low energy usage appliances installed in all buildings;
- Transportation around GKI to be predominantly by foot, bicycle or electric cart;
- Motion sensors to be installed in buildings to reduce energy use wastage; and
- State-of-the-art energy metering to monitor and manage energy usage and efficiency.

3.11 Utilities Investigation Corridor

Installation of a sub-sea connection of power, water, telecommunications and possibly wastewater and gas line between GKI and the mainland is proposed to be investigated during the EIS. In the event that all or some of, these connections are deemed to be appropriate it is envisaged that a single encasement will be installed with each of these connections provided with it. The location of this sub-sea connection is expected to be within the investigation corridor shown in **Appendix G** following detailed investigations of the seabed environmental issues and the mainland infrastructure capacities.

4. Potential Environmental Impacts: Construction and Operational Stages

The GKI Revitalisation Plan provides a very important opportunity for tourism and economic development in the Central Queensland region. A region which relies heavily on the income from mining and agricultural sectors Central Queensland currently offers very few options for tourism activities associated with the nearby GBR.

GKI is important for tourism opportunities due to its proximity to the GBR and Marine Park. It is unique in the Keppels as the only island which has been previously disturbed for sheep grazing, urban development, airstrip and resorts. This disturbance is evident throughout the Island with its numerous walking tracks, roadways and buildings as well as predominance of weeds and the presence of over 200 goats grazing in an uncontrolled manner across the Island.

The EIS will be a robust and transparent process conducted by scientific specialists to identify potential impacts (direct, indirect and cumulative) that could occur as a result of all stages of the proposed development. The project team will work with the design team, proponent, government agencies and conservation groups to nominate appropriate mitigation measures to be adopted by the proponent either in the design phase if possible or through implementation of the EMP.

4.1 Development Footprint – A Constraints Based Approach

In response to DEWHA's October 2009 decision that the now superseded proposal would have clearly unacceptable impacts on a matter protected by Part 3 of the EPBC Act an environmental constraints based approach was undertaken to refine the development footprint for the GKI Resort Revitalisation Plan. This method of site planning requires the identification and mapping of the various environmental constraints. The nominated environmental constraints included in this desktop assessment included:

- Setbacks from beaches and storm surge;
- Mapping of remnant Regional Ecosystems which have Conservation status of Endangered or Of Concern;
- Mapping of remnant Regional Ecosystems which have Biodiversity status of Endangered or Of Concern;
- Areas of 'special' vegetation or habitat;
- Protected marine and intertidal vegetation;
- Buffers to vegetation, watercourses and wetlands;

- Essential habitat of species scheduled under the *Nature Conservation Act* 1992 and EPBC Act;
- Fringing reefs, coral communities, wave-cut platforms, seagrass beds and intertidal wader bird habitats;
- Areas of high scenic amenity or sensitivity; and
- Steep slopes.

The outcome of the preliminary desktop assessment was the identification of a development footprint that may be appropriate for sighting the various components of the proposed GKI Revitalisation Plan. It should be noted that detailed ground-truthing investigations and studies to be completed as part of the EIS will most likely result in some changes to this footprint area to minimise impacts.

Development within this footprint also needs to be sensitive to the following issues:

- Retention of vegetation to ensure habitat connectivity;
- Protection of ecological and biological processes;
- Planning of the golf course to provide habitat, retain corridors and minimise water consumption;
- Revegetation of some of the disturbed non-remnant areas;
- Protection of down-slope protected or sensitive areas including marine aquatic flora and fauna, and fringing corals, seagrass beds and reefs from the potential effects of runoff, erosion, sedimentation or contamination;
- Management of land outside the development footprint, to ensure that the ecological processes associated with the biodiversity continue to operate largely unchanged; and
- Management of visitor impacts and resort/marina operations.

The final proposed footprint of the various components of the development will also incorporate the following:

- Retention of geomorphic or physiographic features;
- Protection of superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;
- Protection of important and significant habitats for insitu conservation or biodiversity including threatened species;
- Retention of the diverse floristic characteristics of the Island; and
- Protection of the geological values associated with the sand, coastal beach ridges and cheniers on the Island in the vicinity of Putney Beach.

Refer **Appendix A - Great Keppel Island Resort Revitalisation Plan 2010.**

4.2 Terrestrial Flora and Fauna

4.2.1 Potential Impacts

The nature and extent of likely impacts on terrestrial flora and fauna (direct, indirect and cumulative) are described as follows:

- Potential impacts on threatened species of plants and animals could occur if the appropriate design and mitigation measures are not employed, however most species are 'generalists', tolerant of environmental change, and unlikely to be significantly affected. Notwithstanding, ecological assessment and response strategies will be required to ensure the protection of threatened species as part of the EIS process;
- Runoff from the golf course could impact on fauna that inhabit the wetland communities, if no controls were employed. The design and operation of the proposed development will ensure no run off of elevated levels of nutrients, hydrocarbons or sediments discharges into these areas. Various reptile species including the rusty monitor, a goanna (listed as rare under the Queensland *Nature Conservation Act 1992* - which inhabits mangrove communities rely on the health of these wetlands;
- Impacts could occur on Littoral Rainforest and Coastal Vine Thickets communities if in existence on GKI and if not appropriately buffered and protected from development. The locations of these species will be identified in the EIS and integrated into the design footprint;
- Impacts will be minimised if the development stays within the footprint identified by the constraints mapping exercise and detailed ground-truthing identification in the EIS;
- Clearing will have some impact on native fauna, management plans must ensure this is minimised;
- Buffers and connectivity corridors will be retained on the development;
- Vegetation in ridges and along riparian zones should be excluded from the development areas; and
- Potential impacts on 'of concern' and 'endangered' regional ecosystems will result (refer **Appendix F– Regional Ecosystem Map**) if not appropriately buffered and protected from development.

The proponent recognises that listed threatened species and ecological communities must be protected against the potential for deleterious impacts and has identified the likely impacts above. The detailed environmental assessments which will be undertaken in the EIS will determine in detail the full impact on threatened species and communities and will identify solutions to protect against or mitigate impacts. This may result in a further reduction in the scale, intensity and extent of the proposed GKI Revitalisation Plan.

4.3 Marine Ecology

4.3.1 Potential Impacts

The nature and extent of likely impacts on marine ecology (direct, indirect and cumulative) are described as follows:

- Potential impacts could occur on fringing coral reefs and associated marine life through polluted surface runoff if appropriate stormwater quality management systems, buffers, and water sensitive design techniques are not employed; and
- Dugongs which are marine and migratory species are protected under the EPBC Act have been reportedly observed near GKI feeding on seagrass communities. GKI is also in close proximity to Rodds Bay Dugong Protection Area. A preliminary snorkel of the proposed marina area during a rapid inspection of the Island did not identify any seagrass beds within the proposed marina footprint. Protection of this species, as well as the other listed marine species and their feeding areas will be a critical element in the planning for and final sighting of the marina and dredging activities, as well as future boat movements. There may be a need to improve controls of boat mooring locations near the Island to protect these seagrasses and minimise disturbances to dugongs. Dredging operations have significantly improved in recent years, with dredging activities taking place up and down the east coast of Australia within the GBRMPA under permits issued by GBRMPA. These permits will have stringent controls to ensure protection of this species as well as other important marine fauna;

The potential impacts relating to the proposed marina include:

- The loss of some seagrass and soft sediment habitat;
- The gain of a variety of hard surface habitats;
- Impacts to marine mammals and reptiles (including dolphin, dugong and turtle) as a result of noise, and dredge or boat strike;
- Increased suspended sediment concentrations and sedimentation as a result of dredging;
- Physical damage by anchoring;
- Increased contamination by hydrocarbons and other toxicants;
- Nutrient enrichment; and
- Increased litter.

The proponent recognises that the GBRMP has the potential to be impacted upon by the GKI Revitalisation Plan and that it must be protected against the potential for deleterious impacts. The detailed environmental assessments which will be undertaken as part of the EIS will determine in detail the full impact on the GBR and will identify solutions to protect against or mitigate impacts. This may result in a further reduction in the scale, intensity and extent of the proposed GKI Revitalisation Plan.

4.4 Inter-tidal Vegetation

Works affecting marine plants are controlled under the *Fisheries Act* and by the DERM under the *Coastal Protection & Management Act*;

Procedures of Queensland Primary Industries and Fisheries in development assessment are largely governed by the following internal policies and guidelines:

- FHMOP 001 (2002) Management and Protection of Marine Plants;
- FHMOP 004 (1998) Dredging, Extraction and Soil Disposal Activities;
- FHMOP 005 (2002) Mitigation and Compensation for Works or Activities Causing Marine Fish Habitat Loss;
- FHG 002 Restoration of Fish Habitats; and
- FHG 003 Fish Habitat Buffer Zones.

The detailed environmental assessments which will be undertaken as part of the EIS will determine in detail the full impact on inter-tidal vegetation and will identify solutions to protect against or mitigate impacts.

4.5 Acid Sulfate Soils

The Department of Environment and Resource Management produces broad scale acid sulphate soils distribution maps that are based on topography and geology.

It is proposed that a hierarchical procedure be adopted to determine the presence or absence of acid sulfate soils and if necessary, to develop management actions to ameliorate the impact of land disturbing activities in those areas with acid sulfate soils.

Comprehensive acid sulfate soil testing will be undertaken within the proposed development footprint as part of the EIS process.

5. Potential Social Impacts

5.1 Accommodation

Due to workforce requirements the project will create demands for short term accommodation, especially during the construction phase and for permanent accommodation for the operational workforce.

Some of the workforce (in both construction and operational phases) will reside on the mainland and will travel to and from GKI each working day. The availability of accommodation within the Rockhampton Regional Council area will be assessed as part of the preparation of an Environmental Impact Statement (EIS).

5.2 Recreation

The Revitalisation Plan will provide a large range of recreational facilities for resort guests and day trippers to the Island. These include a marina facility, cafes, restaurants, retail shops, swimming pools, tennis courts, golf course, day spa, beach activities and walking tracks.

5.3 Land Use

Land uses proposed for GKI are those typically associated with a large island resort. The position of these land uses have been identified having regard to existing land uses and ownership, topography, environmental values, functional requirements and land tenure.

5.4 Visual Amenity

GKI is fringed by white sandy beaches separated by rocky headlands and cliffs. The Island's beaches are undoubtedly amongst the most beautiful islands within the GBR and may be considered an outstanding natural feature. Visual amenity is therefore a consideration that must be addressed as part of any future EIS.

The proponent recognises that the natural aesthetics of GKI, although disturbed, have the potential to be further impacted upon by the GKI Revitalisation Plan and that these values must be protected and enhanced. The detailed environmental assessments which will be undertaken as part of the EIS will determine visual impacts and will identify solutions to protect against or mitigate impacts. This may

result in a further reduction in the scale, intensity and extent of the proposed GKI Revitalisation Plan.

Potential mitigation measures to be employed include:

- The height of all proposed buildings on GKI is to be kept to a maximum of 2-3 storeys in order to create a resort scale and to avoid the appearance of urban development; and
- Building materials and colours will be selected to limit visual impact. Controls will also be identified for roadworks and site earthworks and building construction to limit the extent of necessary earthworks and to remediate and screen earthworks where unavoidable.

5.5 Noise and other Amenity Impacts

The EIS process will assess the noise and other amenity impacts associated with the proposed upgraded airport, construction activities, infrastructure associated with the supply of water, solid waste and sewerage, storage and processing of construction material, boating and marina operations.

5.6 Transport

Walking and electric carts will be the primary modes of transport encouraged on the Island. Other transport between primary resort precincts will be provided by regulated resort mini-bus and taxi services to ensure equitable access.

The EIS will consider the transport impacts in detail.

6. Potential Economic Impacts

6.1 Regional Tourism Profile

GKI is located within the Rockhampton Regional Council. As at June, 2008, there were an estimated 111,528 persons living within the Rockhampton Regional Council.

GKI lies within Tourism Queensland's Capricorn Region which comprises nine former local government areas: Rockhampton, Livingstone, Fitzroy, Mount Morgan, Peak Downs, Jericho, Bauhinia, Duaringa and Emerald. As of March 2008 these Councils were amalgamated into the Rockhampton Regional Council, Emerald Regional Council and a part of the Barcardine Regional Council. As at June, 2008, there were an estimated 141,730 persons living within the Capricorn Region.

While Rockhampton is the key regional centre of both the Rockhampton Regional Council and the Capricorn Region, Yeppoon is a key service centre primarily focusing on tourism provision.

The Capricorn Region has the following economic characteristics:

- Agriculture, forestry and fishing and mining are the main 'engine rooms' for economic activity in the region, accounting for 13.3 percent of the Capricorn Region's employment (compared to 5.2 percent of Queensland's employment).
- Nearly 96 percent of all persons in the labour force in the Capricorn Region are employed - the unemployment rate is around 4 percent. As at December, 2008, 5.3 percent of the Rockhampton Regional Council labour force were unemployed (compared to 3.7 percent of the Queensland labour force). Population growth lags behind the growth rate for Queensland as a whole. For the period 2001 to 2031, forecast average annual population growth for the Capricorn Coast is 1.6 percent compared to 1.7 percent for the State. The population of the Rockhampton Regional Council is expected to grow by 1.4 percent per annum between 2006 and 2031.
- Tourism remains a great area of untapped potential. Visitation numbers, visitor expenditure and contribution to the tourism Gross State Product (GSP) lags behind most other regions in Queensland.

Refer **Appendix H – Economic Assessment Report (Foresight Partners)**.

6.1.1 Tourism

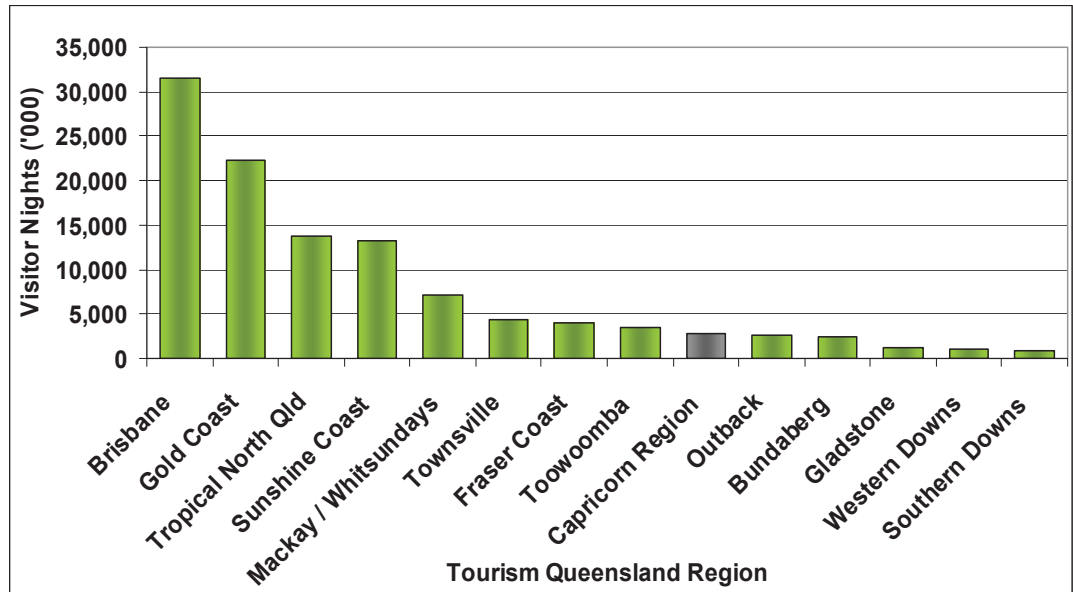
By any quantifiable measure, the Capricorn Region is not capitalising on its tourism potential:

- The Capricorn Region attracts a relatively small proportion of visitors to Queensland destinations. In the 12 months to December 2008, it received 929,000 visitors, spending 3.7 million guest nights. This was less than the number of visitors and visitor guest nights received by most other coastal regions.
- The Capricorn Region attracts 79 percent less visitor nights than Tropical North Queensland, 60 percent less visitor nights than Mackay/ Whitsundays and 28 percent less visitor nights than the Fraser Coast. Thus, in this respect the Capricorn Region's tourism industry is underperforming that of other coastal regions.
- The region has not penetrated the wider domestic and international tourist market. Less than 4 percent of international visitors to Queensland came to the area during 2008. Most visitors to the Capricorn Region (91 percent) are domestic visitors, with 76 percent of all domestic visitors from elsewhere in Queensland.
- In 2008 less than 39 percent of all visitors to the Capricorn Region visited for a holiday. This is vastly different to the Mackay/ Whitsundays region where 62 percent of all visitors were in the region for the purpose of a holiday.
- Room occupancy rates are low for the region, having only just reached an annual average rate of 60 percent. The Livingstone Shire (which covers GKI and the central coast area) has consistently recorded occupancy rates in the 50-55 percent range for the past few years.
- The region (combined with Gladstone) accounts for just 4 percent of Queensland's tourism GSP. This ranks it in the mid-range of the Tourism Regions by expenditure; however over 83 percent of state tourism expenditure is spent in the top five regions (Brisbane, Gold Coast, Tropical North Queensland, Sunshine Coast and Mackay/Whitsundays).

The chart overleaf shows the number of visitor nights spent in Queensland regions in the 12 months ending December, 2008.

Refer **Appendix H – Economic Assessment Report (Foresight Partners)**.

Table 6.1 NUMBER OF VISITOR NIGHTS SPENT IN QUEENSLAND REGIONS IN THE 12 MONTHS ENDING DECEMBER 2008



Detailed charts highlighting tourism statistics for the Capricorn Region are attached in **Appendix H**.

6.2 National Tourism Profile

Tourism is a significant and vital industry to Australia. In 2007-2008, the national tourism industry contributed over \$40 billion to Australia’s Gross Domestic Product and employs almost half a million people directly. However, the industry faces a range of short term challenges and a serious long term decline unless urgent and sustained action is taken.

In June 2009, the Federal Government’s National Long Term Tourism Strategy Steering Committee released the *Jackson Report* which highlighted that Australian domestic tourism growth has been in relative decline for ten years. In particular, the *Jackson Report* identified that between 1998 and 2008, the number of domestic overnight trips and domestic visitor nights fell by 4.5 percent and 7.4 percent respectively. However, over the same period the amount of outbound tourism has increased by a massive 84 percent.

Clearly, Australians prefer to holiday overseas rather than in Australia and a major contributing factor to this problem is the significant lack of new tourism investment.

6.3 Economic

Tower Holdings engaged Foresight Partners Pty Ltd to prepare an economic assessment of the proposed Revitalisation Plan for GKI.

Foresight Partners concluded that the proposed Revitalisation Plan would have an enormous economic benefit to the Capricorn Region and the Queensland state economy.

The Revitalisation Plan is forecast to have the following economic impacts:

- An estimated final development cost of \$592.5 million.
- Around 1,055 full time, part time and casual jobs generated in the Capricorn Region once GKI is fully operational.
- Creation of an average of 350 construction related jobs each year during the 15 year construction period, with total full time equivalent jobs generated representing 5,400 person years of employment.
- Once fully operational, an estimated base of 685 full time equivalent jobs on the Island plus additional workforce in periods of high demand.
- Through flow-on or multiplier effects, the creation of over 400 additional full time equivalent construction and operational jobs on the mainland, predominantly Rockhampton and Yeppoon.
- Privately funded infrastructure development provided at no cost to Government.
- An average of around 2,360 visitors, staff and residents on the Island each day, totaling around 860,000 person days per year.
- Tourist and residential expenditure contributing over \$82 million per annum to the local economy.
- A substantial increase in total visitor days in the Capricorn Region.
- Diversification of the Capricorn Regional economy through promoting regional tourism as an industry, and making the region less reliant on the commodity price driven mining and agricultural industries.
- Significant increases in local and state government revenue through rates, headworks charges, property transaction duties, land tax and payroll tax.

Refer **Appendix H – Economic Assessment Report (Foresight Partners)**.

7. Planning and Development Approvals Framework

7.1 State Development and Public Works Organisation Act 1971 (SDPWO Act)

Should the Queensland State government declare the proposal to be a State Significant Project following the assessment of this IAS, the Proponent will then be required to prepare an Environmental Impact Statement (EIS) in accordance with Part 4 of the SDPWO Act.

The Department of Infrastructure and Planning is the authority responsible for co-ordinating the impact assessment process, which includes the preparation of an EIS. The EIS will be made available for public and Advisory Agency review and comment.

Part 4, Division 3 of the SDPWO Act provides a formal and detailed process for the preparation and assessment of the EIS. Part 4 also provides a process for preparation of Terms of Reference which address the relevant impacts (including input by various government agencies at all levels), advertising and notification, public comment on the EIS and a report by the Coordinator-General evaluating the EIS.

The Coordinator-General must give a copy of the evaluation report to the Proponent and publicly notify the report.

The SDPWO Act recognises the need for high level public notification and consultation and the desire to avoid duplication in relation to the assessment process for significant development projects. In this regard the framework of the SDPWO Act integrates the EIS process with the Integrated Development Assessment System (IDAS) pursuant to the *Sustainable Planning Act 2009* (SPA) (refer below).

The proponent is well aware that the following matters will need to be addressed in the EIS and will identify in more detail the impacts and measures to mitigate any potential impacts.

In consideration of other State 'significant projects' the EIS Draft Terms of Reference will likely require, but not be limited to, preparation of technical reports by qualified and experienced professionals covering the following topics:-

- Infrastructure (layout, waterborne transport; road transport; energy; water supply and storage; waste (liquid waste);
- Hydrological assessment and stormwater management;
- Construction (earthworks; vegetation clearing; dredging);

- Operational impacts;
- Environmental values and management of impacts (climate, natural hazards and climate change, land use and tenure impacts, scenic amenity, iconic values, lighting impacts, topography and geomorphology impacts and land contamination);
- Nature conservation (sensitive environmental areas, terrestrial flora, terrestrial fauna, aquatic ecology, flora, fauna-turtles, benthic macro-invertebrates, fish habitat);
- Water resources (hydrology, groundwater, wastewater treatment);
- Coastal environment (geomorphologic, hydrodynamics and sedimentation, water quality, sediment quality and dredging);
- Air quality (including greenhouse gas emissions);
- Noise and vibration (including aircraft noise impacts);
- Waste (existing and potential waste generation and management);
- Transport (transport tasks and routes, infrastructure alterations, transport management strategies, road, shipping and air services);
- Indigenous cultural heritage;
- Non-indigenous cultural heritage;
- Social values (social baseline study, community engagement and workforce profile);
- Economies (local and regional economic impacts, including property values and employment);
- Sustainable Development (assessment against the objectives for 'sustainable development' under the *National Strategy for Ecologically Sustainable Development* (1992));
- Hazard and Risk (hazard and assessment, bushfire management, health and safety and emergency management plan);
- Environmental Management Plan (construction and operational phases); and
- Matters of National Environmental Significance (impacts on world heritage areas and national heritage places, wetlands of international importance, impacts on a listed threatened species and ecological communities and impacts on a listed migratory species).

7.2 Agency Involvement

The following table provides a summary of the agencies that may be involved in the approval process.

Table 7.1 SUMMARY OF AGENCY INVOLVEMENT

Department	Trigger	Agency Assessment Scope
Federal		
Department of the Environment, Water, Heritage and the Arts	<i>Environment Protection and Biodiversity Conservation Act 1999</i>	<p>The EPBC Act establishes a Commonwealth process for assessment of proposed actions that have the potential to have an impact on matters of national environmental significance or on Commonwealth land. The EPBC Act requires that actions, which have the potential to have an environmental impact on Commonwealth land, be assessed for the purpose of Commonwealth decision making. DEWHA will determine whether the proposed development is a controlled action under the EPBC Act.</p> <p>If the proposed development is declared a controlled action under the EPBC Act in addition to significant project status under the SDPWO Act, the EIS will be developed pursuant to the bilateral agreement between the Australian and Queensland governments for the purposes of the Australian Government’s assessment under Part 8 of the EPBC Act. The EIS would address potential impacts on the matters of national environmental significance (NES) that were identified when the proposed development was determined to be a controlled action. In this case the NES matters are likely to be as follows:</p> <ul style="list-style-type: none"> • Sections 12 and 15A (World Heritage properties); • Sections 15B and 15C (i.e. National Heritage places); • Sections 18 and 18A (Listed threatened species and communities); • Sections 20 and 20A (Listed migratory species); • Sections 23 and 24A (Commonwealth marine environment); and <p>Sections 24B and 24C (GBRMP Act).</p>
Great Barrier Reef Marine Park Authority	<i>Great Barrier Reef Marine Park Act 1975</i>	<p>This Commonwealth Government legislation established the Marine Park and the GBRMPA, providing it with a framework for planning and management of the Marine Park through zoning plans, plans of management and permits.</p> <p>Referral of an action under the EPBC Act is deemed to be an application under the GBRMP Act (see section 37AB, GBRMP Act). This referral will be forwarded to the GBRMPA for the GBRMPA to commence its permit processes as required under the GBRMP Regulations 1983. The Authority is responsible for assessing applications for permissions under the GBRMP Act, GBRMP Regulations and Zoning Plan. Where assessment and approval is also required under the EPBC Act, a single integrated assessment for the purposes of both Acts will apply in most cases.</p>

Department	Trigger	Agency Assessment Scope
	<p><i>Environment Protection (Sea Dumping) 1981</i></p>	<p>Australia regulates the deliberate loading and dumping of waste at sea under the <i>Environment Protection (Sea Dumping) Act 1981</i>. It applies to all vessels, aircraft or platforms in Australian waters and to all Australian vessels or aircraft in any part of the sea.</p> <p>The Act does not cover operational discharges from ships, such as sewage and galley scraps. Those are regulated by the Protection of the Sea legislation administered by the Australian Maritime Safety Authority.</p> <p>Permits from the Department of Environment, Water, Heritage and the Arts are required for all sea dumping operations. Currently, about thirty permits are issued in Australia per year, mainly for the dumping of uncontaminated dredge spoil, disposal of illegal vessels and for burials at sea.</p>
<p>Attorney-General's Department</p>	<p><i>Native Title Act 1993</i></p>	<p>The <i>Native Title Act 1993</i> which is administered by the Australian Government recognises the rights and interests over land and water by Indigenous people in Australia under their traditional laws and customs. The objects of the Act are to:</p> <ul style="list-style-type: none"> • Provide for the recognition and protection of native title; • Establish ways in which future dealings affecting native title may proceed and to set standards for these dealings; • Establish a mechanism for determining claims to native title; and • Provide for, or permit, the validation of past acts and intermediate acts, invalidated because of the existence of native title. <p>An Indigenous Land Use Agreement may need to be signed between the proponents and the Native Title claimants for parcels of State Unallocated Land which may be impacted by the proposed development.</p>
	<p><i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i></p>	<p>The purpose of the <i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i> is to preserve and protect places, areas and objects in Australia and in Australian water that are of particular significance to Aboriginals in accordance with Aboriginal tradition from injury or desecration.</p> <p>This Act has been created to cover situations that may not be covered under State or Territory legislation.</p>

Department	Trigger	Agency Assessment Scope
Civil Aviation Authority	<i>Civil Aviation Regulations 1988 and Civil Aviation Safety Regulations 1998</i>	This legislation gives power to the Civil Aviation Safety Authority (CASA) to control the height of objects, structures, buildings and plumes which may create a hazard to aircraft. It will need to be considered in the design of the airstrip extension.
State		
Department of Infrastructure and Planning	<i>State Development and Public Works Organisation Act 1971</i>	Refer 7.1 above.
	<i>Iconic Queensland Places Act 2008</i>	<i>Iconic Queensland Places Act 2008</i> (IQPA) seeks to protect places with characteristics or qualities in their natural or built environment that reflect or contribute in a substantial way to Queensland’s character. On 20th June 2008 the Central Capricorn Coast (Livingstone Localities), including the Keppel Group of Islands were declared an iconic place. The development assessment process under the IQPA follows IDAS established under the SPA. The IQPA establishes an independent Development Assessment Panel (the panel) to operate under this process. The function of the panel is to determine whether it will act as the assessment manager and decide an application instead of the local government. The EIS will identify and describe those iconic values and protected planning provisions of the Livingstone iconic place (declared under the IQPA) of relevance to the project site and surroundings.
Department of Environment and Resource Management)	<i>Coastal Protection and Management Act 1995</i>	The principal objectives of the <i>Coastal Protection and Management Act 1995</i> are the protection, conservation, rehabilitation and management of the state’s coastal resources and biodiversity by the provision, in conjunction with other legislation, of a coordinated and integrated management and administrative framework for the ecologically sustainable development of the coastal zone. The proposed development will require operational works permission under this Act for works in a tidal area. This includes of dredge material within tidal areas and construction within tidal areas.
	<i>State Coastal Management Plan 2002</i>	The <i>State Coastal Management Plan (SCMP)</i> has the effect of a State planning policy. GKI is located within the Capricorn Coast coastal management region and is identified as within the Shoalwater Coast marine bioregion. The SCMP identifies the Keppel Islands as containing relatively high-energy sandy

Department	Trigger	Agency Assessment Scope
		<p>coasts as well as scenic rocky headlands. It is also acknowledged through the Plan that a major nature-based tourism industry exists in the region, with specific emphasis on the area north of Yeppoon and the Keppel Islands.</p> <p>There is, as yet, no regional coastal plan for the Capricorn Coast. The State Coastal Plan made under the <i>Coastal Protection and Management Act 1995</i> (CP & M Act), commenced in 2002 and describes how the coastal zone is to be managed as required by the CP & M Act . Policies for managing the major coastal issues are detailed under the following topics:</p> <ul style="list-style-type: none"> • Coastal use and development • Physical coastal processes (the effects of waves, tides, currents and coastal storms) • Public access to the coast • Water quality • Indigenous traditional owner cultural resources • Cultural heritage • Coastal landscapes • Conserving nature • Coordinated management • Research and information <p>The State Coastal Plan provides coastal management policy direction and defines how these directions should be implemented government, industry and the community.</p>
	<p><i>Environmental Protection Act 1994</i> <i>Environmental Protection Regulation 2008</i> <i>Environmental Protection (Air) Policy 2008</i> <i>Environmental Protection (Noise) Policy 2008</i> <i>Environmental Protection (Water) Policy 2000</i> <i>Environmental Protection (Waste Management) Policy 2000</i> <i>Environmental Protection (Waste Management) Regulation 2000</i></p>	<p>Environmentally Relevant Activities, including but not necessarily limited to sewage treatment, water treatment and dredging will be required under the <i>Environmental Protection Act 1994</i> (EP Act). Resource Allocation for quarry material below high water mark is likely to be required under the EP Act.</p> <p>Environmental Protection Policies (EPP) nominate criteria which developments must adhere to with the intent of protecting the environment.</p>

Department	Trigger	Agency Assessment Scope
	Land Act 1994	The GKI land holding contains some parcels of State-owned land leased by various parties. The <i>Land Act 1994</i> deals with the allocation of unallocated State land, including through the granting of leases.
	Vegetation Management Act 1999 and Vegetation Management (Regrowth Moratorium) Act 2009	<p>The purpose of the <i>Vegetation Management Act 1999</i> (VMA) is to protect endangered species and regulate the clearing of vegetation in a way that conserves remnant of concern regional ecosystems.</p> <p>Under the VMA all remnant (including Endangered, Of Concern and Not of Concern Regional Ecosystems) and all native vegetation on State land regardless of conservation status is protected. Clearing of such vegetation requires a development permit under the SPA and if clearing of Endangered or Of Concern RE, the provision of vegetation offsets may also be required in line with Department and State policies.</p> <p>Under the Act, clearing certain regrowth affected by the moratorium (which includes endangered regrowth in rural areas on State leasehold land) requires approval from the Department of Environment and Resource (DERM).</p>
	State Planning Policy 2/02 – Planning and Managing Development Involving Acid Sulfate Soils	SPP 2/02 sets out the State’s interests concerning development involving acid sulfate soils in low-lying coastal areas and applies to all land, soil and sediment at or below 5 m Australian Height Datum (AHD) where the natural ground level is less than 20 m AHD.
	Nature Conservation Act 1992	<p>The <i>Nature Conservation Act 1992</i> (NC Act) is relevant to the project if any species listed as Endangered, Vulnerable or Rare under the NCWR occur or are likely to occur within the Project area.</p> <p>The NC Act was developed as a piece of legislation to conserve nature and is administered by the Environmental Protection Agency. The <i>Nature Conservation (Wildlife) Regulation 1994</i> identifies threatened species and classifies them into different categories defined in the Act. Under this Act a licence or permit is required for specific works in protected areas or that may affect protected species.</p> <p>Queensland’s NC Act includes sections pertaining to the protection of wildlife and habitat conservation. The Nature Conservation (Wildlife) Regulation 2006 (NCWR) lists wildlife (including plants and animals) protected under the NC Act that are defined as:</p>

Department	Trigger	Agency Assessment Scope
		<ul style="list-style-type: none"> • Extinct in the wild wildlife; • Endangered wildlife; • Vulnerable wildlife; • Rare wildlife; • Least concern wildlife; • International wildlife; and • Prohibited wildlife. <p>The NC Act is relevant to the project if any species listed as Endangered, Vulnerable or Rare under the NCWR occur or are likely to occur within the Project area.</p>
	Water Act 2000	<p>The <i>Water Act 2000</i> was introduced to manage water resources within Queensland. This was undertaken by establishing a system for the planning, allocation and use of water and also details a regulatory framework for the water industry. Improving the physical integrity of watercourses is a main purpose of this Act. A permit is required for destroying vegetation excavating or placing fill in a watercourse, lake or spring.</p>
	Water Supply (Safety & Reliability) Act 2008	<p>This Act relevantly regulates the provision of water services by water authorities, local governments and the owners of water infrastructure. It may potentially be applicable depending on the final arrangements for water supply for the project.</p>
	Aboriginal Cultural Heritage Act 2003	<p>The <i>Aboriginal Cultural Heritage Act 2003 (ACHA)</i> established a 'cultural heritage duty of care', which requires that a person who carries out an activity must take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage. The Act establishes a framework for the conduct of assessment of cultural heritage impact and processes to be undertaken in preparing Cultural Heritage Management Plans. It is expected that a Cultural Heritage Management Plan will be required for this project.</p>
Department of Primary Industries and Fisheries (now Queensland Primary Industries and Fisheries within the Department of Employment, Economic Development	Fisheries Act 1994	<p>The main purpose of the <i>Fisheries Act 1994</i> is to provide for the use, conservation and enhancement of the community's fisheries resources and fish habitats in a way that seeks to apply and balance the principles of ecologically sustainable development; and promote ecologically sustainable</p>

Department	Trigger	Agency Assessment Scope
and Innovation)		<p>development.</p> <p>This Act requires the proponent to seek to protect fish breeding and habitat areas. The proponent will need to seek permits for the disturbance of any marine plants.</p> <p>The principal aspects of the proposed development which are likely to be affected by this legislation are development of the marina and its precinct in the inter-tidal areas, any dredging of channels for navigation and for the removal of “marine plants” from dunes and inter-tidal areas which may be necessary to construct infrastructure.</p> <p>Works affecting marine plants are controlled under the <i>Fisheries Act</i> and by the DERM under the <i>Coastal Protection & Management Act</i>. Development assessments in coastal areas are largely governed by the following policies and guidelines:</p> <ul style="list-style-type: none"> • FHMOP 001 (2002) Management and Protection of Marine Plants; • FHMOP 004 (1998) Dredging, Extraction and Soil Disposal Activities; • FHMOP 005 (2002) Mitigation and Compensation for Works or Activities Causing Marine Fish Habitat Loss; • FHG 002 Restoration of Fish Habitats; and <p>FHG 003 Fish Habitat Buffer Zones.</p>
Department of Transport (now part of the Department of Transport and Main Roads)	<p><i>Transport Infrastructure Act 1994</i></p> <p><i>Transport Operations (Marine Safety) Act 1994</i></p>	<p>The main objective of the <i>Transport Infrastructure Act 1994</i> is to allow the Government to have a strategic overview of the provision and operation of transport (air, land and water) infrastructure.</p> <p>The following issues may impact on Maritime Safety Queensland (Department of Transport and Main Roads) and will require prior consultation and/or approval of the Regional Harbour Master:</p> <ul style="list-style-type: none"> • Waterways Management, particularly relating to anchoring, dredging, traffic management, and closures; • Maritime Infrastructure, such as temporary or permanent jetties,

Department	Trigger	Agency Assessment Scope
		<p>pontoons, barge ramps, and fender piles;</p> <ul style="list-style-type: none"> • Safety of navigation, particularly during the construction phase (temporary or permanent navigation aids, cable and pipe laying operations, Notices to Mariners etc); and • Any increases in barge operations out of Rossllyn Bay Marina and possible impacts on commercial and recreational users, moorings etc.
	<p>State Planning Policy 1/02 – Development in the Vicinity of Certain Airports and Aviation Facilities</p>	<p>The purpose of SPP1/02 is to set out the State’s interest concerning development in the vicinity of those airports and aviation facilities considered essential for the State’s transport infrastructure or the national defence system. The SPP applies in the vicinity of those civil, military and joint-use airports and aviation facilities identified in Annex 1 of the SPP including Gladstone airport, but does not apply to those airports or aviation facilities themselves.</p>
<p>Department of Emergency Services (now part of the Department of Community Safety)</p>	<p>State Planning Policy 1/03 – Mitigating the Adverse Impacts of Flood, Bushfire and Landslide</p>	<p>The purpose of SPP 1/03 is to set out the State’s interest in ensuring that the natural hazards of flood, bushfire, and landslide are adequately considered when making decisions about development.</p>
<p>Local</p>		
<p>Rockhampton Regional Council</p>	<p>Sustainable Planning Act 2009 Livingstone Planning Scheme 2005</p>	<p>A development application for material change of use will be lodged with the Rockhampton Regional Council, with copies of the EIS and the Coordinator-General’s report included in supporting information.</p> <p>Refer section 7.2.2 for Livingstone Planning Scheme 2005 summary position.</p>

7.2.1 Migratory Bird Agreements and Ramsar

Migratory bird and Ramsar agreements applicable to GKI are identified in the table below:

Agreement	Outline
<p><i>Japan-Australia Migratory Bird Agreement (JAMBA)</i> and</p> <p><i>China-Australia Migratory Bird Agreement (CAMBA)</i></p>	<p>JAMBA was formed in 1974, and CAMBA in 1986. The agreements list terrestrial, water and shorebird species which migrate between Australia and the respective countries.</p> <p>Aims to protect migratory birds by:</p> <ul style="list-style-type: none"> • Limiting the circumstances under which migratory birds are taken or traded; • Protecting and conserving important habitats; • Exchanging information; and • Building cooperative relationships <p>The JAMBA also includes provisions for cooperation on the conservation of threatened birds</p>
<p><i>Republic of Korea-Australia Migratory Bird Agreement (ROKAMBA)</i></p>	<p>Similar in content to both the JAMBA and CAMBA, the ROKAMBA agreement was signed in 2006 and formalises Australia's relationship with the Republic of Korea in respect to migratory bird conservation and provides a basis for collaboration on the protection of migratory shorebirds and their habitats</p>
<p><i>Ramsar Convention on Wetlands</i></p>	<p>Under the Ramsar Convention a wide variety of natural and human-made habitat types, including rivers, coral reefs, billabongs, lakes, salt marshes, mudflats, mangroves, or bodies of water, whether artificial or natural, permanent or temporary. The water in these areas can be static or flowing; fresh, brackish or saline; and can include inland rivers and coastal or marine water to a depth of six meters at low tide (Department of the Environment, Water, Heritage and the Arts, 2008).</p> <p>The Ramsar Convention encourages the designation of sites containing representative, rare or unique wetlands, or wetlands that are important for conserving biological diversity. Once designated these sites are added to the Convention's List of Wetlands of International Importance and become known as Ramsar sites. Countries then agree to manage the site to ensure that its ecological character is maintained over time.</p> <p>Australia currently has 65 Wetlands of International Importance listed under the Ramsar Convention covering approximately 7.5 million hectares. The nearest Ramsar site in the Shoalwater and Corio Bays area which is over 50 km from GKI.</p>

7.2.2 Livingstone Shire Planning Scheme 2005 – Living for Lifestyle

GKI is included within the Comprehensive Development Zone within the Livingstone Shire Council IPA Planning Scheme, which applies to that part of the Rockhampton Regional Council area located in the former Livingstone Shire. All areas within the Comprehensive Development Zone are subject of a detailed Structure Map and locality code; in this case these are the GKI Structure Map and the Great Keppel Island Code. The Structure Map allocates the Island into specific land uses which include Accommodation and Associated Facilities, Village Commercial, Conservation, and Aquifer.

Section (b) of the table of development for the Comprehensive Development Zone specifies the levels of assessment for various uses on GKI. Uses that are nominated in Column 2 of the Great Keppel Island Schedule (Section 3.20(3)) are:

- *Self assessable* if in the precinct nominated in Column 1 of the Great Keppel Island Schedule corresponding to the purpose nominated in Column 2 of the Great Keppel Island Schedule;
- *Code assessable* if not impact assessable or if nominated as self assessable but are unable to comply with the applicable self assessment solutions or the nominated circumstance for self assessment; and
- Impact assessable if:
 - Comprising buildings or structures higher than 7.5m above ground level; or
 - Not for a particular use nominated in Column 2 of the Great Keppel Island Schedule in Section 3.20(3).

The Great Keppel Island Schedule is quite specific in the uses it lists, and relates to the Great Keppel Island Structure Map. This map identifies only a small part of the Island as being within precincts where development can take place. As such, a large component of the proposed resort revitalisation will be classified as impact assessable.

The following Codes are applicable to GKI:

- Great Keppel Island Code; and
- Natural Features Code:
 - Protected Features Special Management Area;
 - Erosion Prone Special Management Area;
 - Acid Sulfate Soils Special Management Area;
 - Steep Land Special Management Area;
 - Wetland Special Management Area; and
 - Storm Tide Hazard Special Management Area).

7.3 Queensland Tourism Strategy (November 2006)

Relevant to the planning and development approvals framework is the Queensland Tourism Strategy which outlines the broad strategic direction for sustainable tourism development in the State over the next ten years. This Strategy brings together and builds on a number of previous government policies and establishes linkages with other whole-of-government policy initiatives.

In the Strategy document, it is acknowledged that the tourism industry is critical to Queensland's future prosperity, with tourism being the State's third largest export earner, generating domestic and international visitor expenditure of over \$18.4 billion and employing almost 140,000 Queenslanders.

The Strategy includes a framework for tourism growth using the following strategy themes:

1. Coordination, Partnerships and Community Engagement;
2. Investment, Infrastructure and Access;
3. Workforce Development;
4. Developing and Marketing a Queensland Style Visitor Experience;
5. Natural Environment and Culture; and
6. Future Insights and Research.

An action plan has been developed for each theme which represents the primary implementation mechanism of the Strategy. The action plans allocate responsibilities to each stakeholder, however generally the Strategy will be implemented through a whole-of-government approach with cooperation from Commonwealth agencies, tourism industry associations, and a variety of other coordination and consultation mechanisms at the destination and community level.

8. Mitigation, Management and Monitoring Strategies

The proponent is well aware that the following matters will be addressed in the EIS and will identify in more detail the impacts and measures to mitigate any impacts.

In consideration of other State 'significant projects' the EIS Draft Terms of Reference will likely require, but not be limited to, preparation of technical reports concerning the following:-

- Infrastructure (waterborne transport; road transport; energy; water supply and storage; waste (liquid waste); stormwater drainage);
- Construction (earthworks; vegetation clearing; dredging);
- Operational impacts;
- Environmental values and management of impacts (climate; natural hazards and climate change; land use and tenure impacts; scenic amenity; iconic values; lighting impacts; topography and geomorphology impacts; land contamination);
- Nature conservation (sensitive environmental areas; terrestrial flora; terrestrial fauna; aquatic ecology (flora, fauna-turtles, benthic macro-invertebrates, fish habitat);
- Water resources (hydrology; groundwater; wastewater treatment);
- Coastal environment (hydrodynamics and sedimentation; water quality; sediment quality and dredging);
- Air quality (including greenhouse gas emissions);
- Noise and vibration (including aircraft noise impacts);
- Waste (existing and potential waste generation and management);
- Transport (transport tasks and routes; infrastructure alterations; transport management strategies (road; shipping; air services);
- Indigenous cultural heritage;
- Non-indigenous cultural heritage;
- Social values and management of impacts (social baseline study; community engagement; workforce profile);
- Economies and Management of Impacts (local and regional economic impacts: including property values and employment);

- Sustainable Development (assessment against the objectives for 'sustainable development' under the *National Strategy for Ecologically Sustainable Development* (1992);
- Hazard and Risk (hazard and assessment; health and safety; emergency management plan);
- Environmental Management Plan (construction and operational phases);
- Matters of National Environmental Significance (impacts on world heritage areas and national heritage places; wetlands of international importance; impacts on a listed threatened species and ecological communities; impacts on a listed migratory species).

GKI will still need to be sensitive to a range of issues and employ appropriate means of mitigating these issues such as:-

- Visual impacts of development, mitigated by the scale, colour and texture of development as well as screening and landscaping;
- Retention of sufficient (and appropriate) vegetation to ensure habitat connectivity and species richness, including the protection of known habitat of threatened species;
- Revegetation of some of the disturbed non-remnant areas to offset clearing of some remnant areas;
- Protection of downslope protected or sensitive areas from the potential effects of runoff, erosion and sedimentation and contamination during construction and operational phases through use of best practice stormwater quality devices (including bio-retention swales and constructed wetlands), buffers, overall water sensitive design and construction site management ;
- Controlling the risk of sedimentation (employing erosion and sediment control measures, including scheduling of construction activities outside of the wet season period, engineering design to the Institute of Engineers Erosion and Sediment Control Plans);
- Management and rehabilitation of land outside the development footprint, to ensure that the ecological processes associated with biodiversity (on land and offshore) continue to operate largely unchanged;
- Potential revegetation offset opportunities against remnant vegetation proposed for clearing at an agreed offset ratio;
- Management of visitor impacts and resort/marina operations; and
- Impacts specifically arising from the marina, including:
 - the risk from long-term pollution from a range of toxicants as a direct result of marina construction and operation is to be managed through best practice design and management of the marina, including compliance with AS1940 (storage and handling of flammable and combustible liquids – encompassing spill containment and response protocols), and the development of specific waste management plans;
 - the risk from increased sedimentation can be significantly reduced by careful management of the dredging program by careful design of the

- channel and marina basin to minimise sediment disturbance by boats, by use and implementation of a reactive monitoring program, where dredging ceases if predetermined triggers are reached, and by the implementation of a go slow area in and around the marina;
- the risk to the environment through the disposal of dredge spoil would be comprehensively assessed prior to dredging, by analysis of the sediment and assessment of likely impacts
 - Planning and management of the proposed golf course to provide habitat and minimise water consumption;
 - The impact of nutrient and herbicide runoff specific to the proposed golf course can be mitigated through best practice design and management including:
 - The design of and adherence to a sediment and water quality management plan for construction and operational phases whose purpose is to minimise nutrient and sediment runoff;
 - Swales, bio-retention systems and wetlands to increase uptake of nutrients;
 - Designing the golf course to include irrigation, drainage and retention systems that provide water conservation, protect water quality and ensure efficient water use;
 - Planning construction activities to occur during the dry season;
 - Re-using water;
 - Creating appropriate buffer areas to sensitive receiving environments; and
 - Reducing the use of fertiliser and herbicides, by selection of species that do not require high rates of fertiliser application, and by testing and monitoring soil and vegetation conditions so that the minimum required is used.

Further, detailed environmental assessments which will be undertaken as part of an Environmental Impact Statement (EIS) process addressing the above will likely result in a further reduction in the scale, intensity and extent of the proposed GKI Revitalisation Plan.

8.1 Future Commitments

Prior to commencement of construction, an Environmental Management Plan (EMP) will be prepared. The EMP will be informed by the contents of the EIS, which will be prepared pursuant to section 26(1)(a) of the *State Development and Public Works Organisation Act 1971* (Qld).

The EMP will identify all elements of work that have a potential for adverse environmental impact and will specify for each element:

- Performance requirement – what limits of impact shall apply;
- Monitoring – what monitoring or measurements shall be undertaken to ascertain whether this is a problem, what the magnitude of problem is and how effective the corrective action is;

- Reporting – what reports will be prepared and who they shall be addressed to; and
- Corrective Action – what action shall be taken to alleviate any adverse impacts.

Items to be addressed in the EMP for both the construction and operational phases will include, but not be limited to:

- Air Quality Management;
- Buffer Zone Design and Maintenance Plan
- Bushfire Control;
- Conservation and Biodiversity Protection Plan;
- Contaminated Land Remediation Plan;
- Cultural Heritage Management Plan;
- Dredging Management Plan;
- Dune Protection Plan;
- Emergency Service Planning;
- Environmental Park Management;
- Erosion and Sediment Control;
- Fauna Protection;
- Fuel Storage Management;
- Landscaping and Rehabilitation/Regeneration Plan;
- Noise and Vibration Control;
- Offset Management Plan;
- Pest Control;
- Research Management Plan;
- Sewerage Disposal;
- Stakeholder Consultation;
- Stormwater Management Plan (including water sensitive design);
- Sustainability Management Plan;
- Tidal Flows and Storm Surge Controls;

- Tourism Management Plan;
- Transport and Traffic Management;
- Vegetation Management;
- Visual Amenity Planning;
- Waste Management Plan;
- Water Quality Management;
- Water Supply Management;
- Weed Treatment Program;
- Wetlands Protection Plan; and
- Workforce Management Plan.

All these plans will be developed by specialists as part of the EIS process. These plans will be based on best practice initiatives with consideration of what has worked well for other similar developments, particularly within or near the GBRMPA. The specialists will work with conservation groups, the community, government agencies and the community to ensure the plans are workable and outcomes effective. The overall EMP will encompass all recommended mitigation measures.

If necessary, an offset management plan will be developed as a part of the EIS process in consultation with relevant government agencies and conservation groups.

9. Consultation, References and Studies

9.1 Consultation

It is expected that the terms of reference for the EIS will require significant consultation with the Central Queensland residents, the current Rockhampton Regional Council and other GKI stakeholders.

9.1.1 Indigenous Consultation

As a result of consultation to date with the Ganomi-Woppaburra people the GKI Revitalisation Plan does not involve any of the land owned by the Woppaburra Land Trust. Notwithstanding, formal consultation with the Ganomi-Woppaburra people will be undertaken as part of the EIS process.

Cultural heritage surveys of the site will be conducted as part of the EIS to confirm locations of cultural heritage sites and to develop agreed cultural heritage management plans.

Consultation will take place with the registered Native Title Claimants (Darumbal People) with the intent to develop an Indigenous Land Use Agreement (ILUA) for those parcels of land within the development footprint that are subject to Native Title.

9.2 Studies

Investigations in relation to the airstrip capacity, water, wastewater, solid wastewater and transport were undertaken by Tower Holdings in preparation of this Initial Advice Statement.

Additionally, an Economic Assessment Report was prepared by Foresight Partners Pty Ltd (March 2010) (**Appendix G**).

9.3 References

The following reference material was consulted in preparation of this IAS document:

The following reference material was consulted in preparation of this document:

1:100,000 Geological Series Rockhampton Sheet 9051 (map), Department of Natural Resources, Mines and Water.

- Australian Government (2010) Protected Matters Search Tool, Department of the Environment, Water, Heritage and the Arts (www.environment.gov.au/erin/ert/epbc/index.html).*
- Australian Government (2010) Actions on, or impacting upon, Commonwealth land, and actions by Commonwealth agencies: Significant Impact Guidelines 1.2: Environmental Protection and Biodiversity Conservation Act 1999. Department of the Environment, Water, Heritage and the Arts.*
- Australian Government (2009) Jackson Report. On behalf of the Steering Committee Informing the National Long-Term Tourism Strategy: Tourism Australia.*
- Australian Government (2009) Matters of National Environmental Significance: Significant Impact Guidelines 1.1: Environmental Protection and Biodiversity Conservation Act 1999. Department of the Environment, Water, Heritage and the Arts.*
- Australian Heritage Database (2010) 'Great Barrier Reef, Townsville, QLD, Australia' (www.environment.gov.au)*
- Capricorn Regional Update (2005), Tourism Queensland.*
- Capricorn Region Tourism Strategy (1995), Strategy and Background Report by Kinhill Cameron McNamara.*
- Coastal Habitat Resources Information System – Custom Map Project (2001), Department of Primary Industries and Fisheries.*
- Coastal Protection and Management Act 1995, Queensland Government.*
- Coastal Protection and Management Regulation 2003, Queensland Government.*
- Coastal Services data report No 2005.1 – Queensland wave climate summary for season 2003-2004, Environmental Protection Agency.*
- Draft Queensland Tourism Strategy: A 10-Year Vision for Sustainable Tourism (2006), Department of Tourism, Fair Trading and Wine Industry Development.*
- Economic Profile: The Rockhampton and Capricorn Coast Region (2005), Office of Economic and Statistical Research.*
- Environmental Protection and Biodiversity Conservation Act 1999, Commonwealth of Australia.*
- Environmental Protection (Waste Management) Policy 2000, Queensland Environmental Protection Agency.*
- Erosion Prone Area Great Keppel Island (map) (1991), Department of Environment and Heritage Beach Protection Authority.*

Exploring the Keppel Group Great Barrier Reef Marine Park, prepared by Davie & Groundwater for Queensland National Parks and Wildlife Service and GBRMPA.

Fisheries Act 1994, Queensland Government.

Great Barrier Reef Marine Coast Park (2005), Environmental Protection Agency / Queensland Parks and Wildlife Service website (http://www.epa.qld.gov.au/parks_and_forests/marine_parks/gbr_coast_marine_park/).

Great Barrier Reef Marine Park Act 1975, Commonwealth of Australia. (www.comlaw.gov.au)

Great Barrier Reef Marine Park Zoning Plan 2003: MPZ17 – Gladstone (2003), Environmental Protection Agency / Queensland Parks and Wildlife Services and GBRMPA. (www.gbrmpa.gov.au)

Great Keppel Island Development Control Plan (1993), Livingstone Shire Council.

Great Keppel Island Visitor Surveys, Tourism Queensland.

Integrated Planning Act 1997, Queensland Government (www.legislation.qld.gov.au)

Keppel Bay Islands: National Park Visitors Guide (March 2005), Queensland Parks and Wildlife Service.

Keppel Island Cultural Heritage Management Plan (1998), Coastcare and Woppaburra Aboriginal Corporation.

Keppel Islands (December 2005), Environmental Protection Agency / Queensland Parks and Wildlife Services website (http://www.epa.qld.gov.au/cultural_heritage/heritage_tourism/keppel_islands/).

Land Act 1994, Queensland Government.

Leeke Homestead (2005), Environmental Protection Agency / Queensland Parks and Wildlife Services website (<http://www.epa.qld.gov.au/projects/heritage/index.cgi?place=601216&back=1>).

Livingstone Shire Council Planning Scheme 2005 – Living for Lifestyle, Livingstone Shire Council (LSC) (www.rockhamptonregion.qld.gov.au)

Mercure Resort Great Keppel Island Capricorn Coast, Accor Hotels.

Ministerial Media Statements – “Longest Marine Park will Protect Reef, Regional Jobs & Fishing” (20 October 2004), Queensland Government website (<http://statements.cabinet.qld.gov.au/cgi-bin/display-statement.pl?id=3655&db=media>)

My Capricorn Coast: Self Guided Tour Book (2000), Ros and Bob Muir.

Myths and Non-Myths: Frontier 'Massacres' in Australian History – The Woppaburra of the Keppel Islands, Michael Rowland.

Nature Conservation Act 1992, Queensland Government.

North Cliff to Port Clinton Aus 820 (map), Commonwealth of Australia Australian Hydrographic Service.

Population and economic data: Department of Local Government and Planning (DLGP) and the Office of Economic and Statistical Research (OESR).

Proposed Transferable Land under the Aboriginal Land Act 1991 (Great Keppel Island) (map) (February 2005), Department of Natural Resources and Mines / Native Title and Indigenous Land Services.

Queensland Herbarium Abbreviated HERBRECS Database Search, Environmental Protection Agency / Queensland Herbarium.

Queensland Heritage Register (www.epa.qld.gov.au)

Regional domestic and international visitor expenditure data: Tourism Research Australia (TRA).

Regional Ecosystem Map centred on point position: Latitude -23.176 Longitude 150.961 (decimal degrees) (2001), Environmental Protection Agency / Queensland Herbarium.

Small area labour market data: Department of Employment & Workplace Relations (DEWR).

Small area tourist accommodation data: the Australian Bureau of Statistics (ABS).

State Coastal Management Plan – Queensland's Coastal Policy (2002), Environmental Protection Agency.

State Development and Public Works Organisation Act 1971, Queensland Government. (www.legislation.qld.gov.au)

State Planning Policy 1/02: Development in the Vicinity of Certain Airports and Aviation Facilities (2002), Queensland Government.

State Planning Policy 2/02: Planning and Managing Development Involving Acid Sulfate Soils (2002), Queensland Government.

State Planning Policy 1/03: Mitigating the Adverse Impacts of Flood, Bushfire and Landslide (2003), Queensland Government.

Tjapukai: Aboriginal Cultural Park (website) (<http://www.tjapukai.com.au>)

Transport Infrastructure Act 1994, Queensland Government.

Transport Operations (Marine Safety) Act 1994, Queensland Government.

Wildlife Online Extract 27 February 2006, Environmental Protection Agency,
Queensland Parks and Wildlife Service.

*Great Keppel Island – Creating Australia’s Most Exciting Tourism Resort in Central
Queensland*, (2009) www.gkiresort.com.au .

Appendices

APPENDIX A – GREAT KEPPEL ISLAND RESORT REVITALISATION PLAN 2010

APPENDIX B – LAND TENURE MAP

APPENDIX C – AERIAL PHOTOGRAPH

APPENDIX D – CONTOUR PLAN (1m)

APPENDIX E – GEOLOGICAL MAP

APPENDIX F – REGIONAL ECOSYSTEM MAP

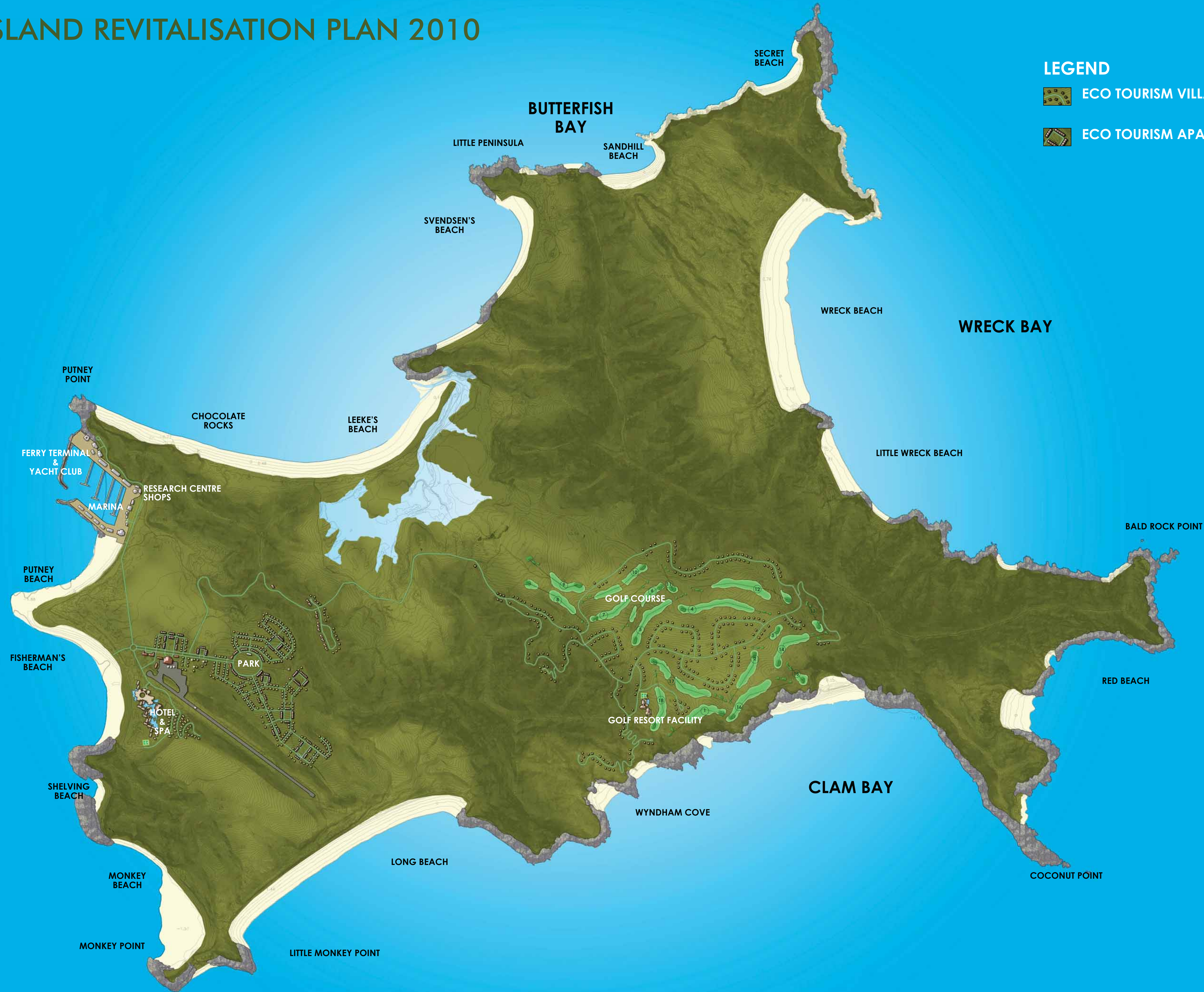
APPENDIX G – UTILITIES INVESTIGATION CORRIDOR

APPENDIX H – ECONOMIC ASSESSMENT REPORT

Appendix A

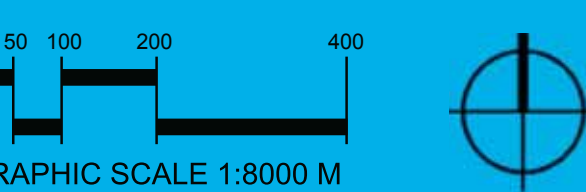
GREAT KEPPEL ISLAND RESORT REVITALISATION PLAN 2010

GREAT KEPPEL ISLAND REVITALISATION PLAN 2010



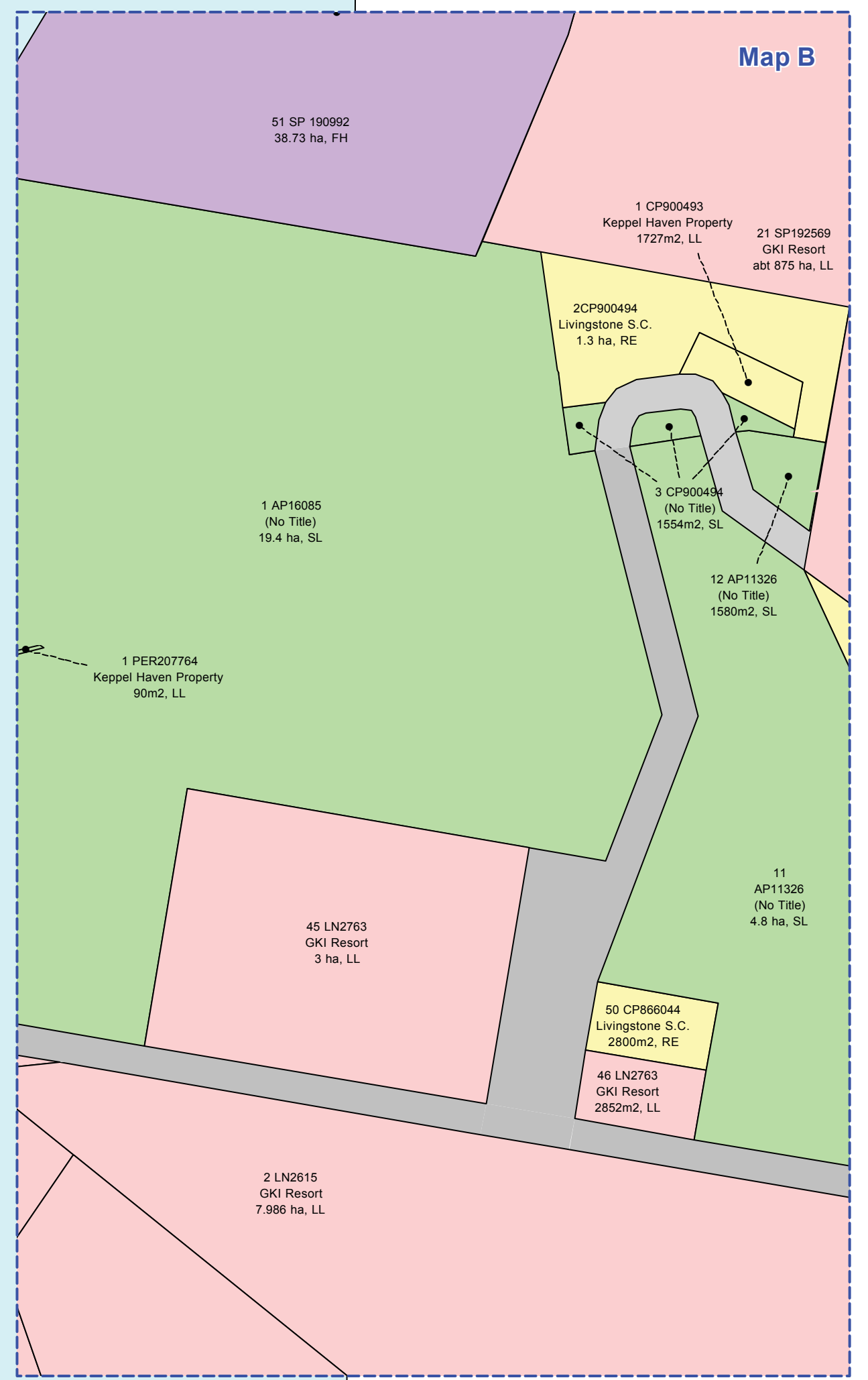
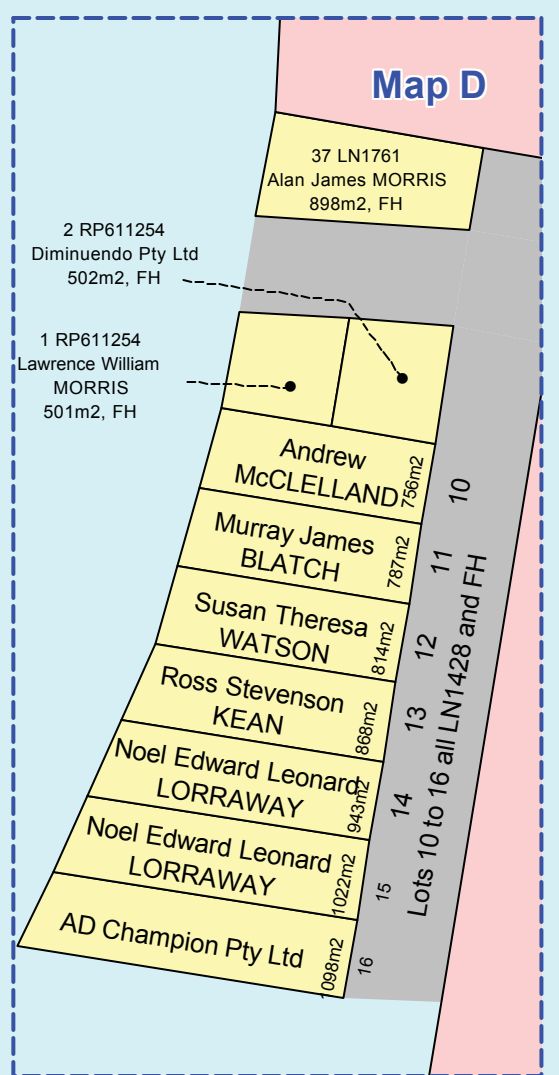
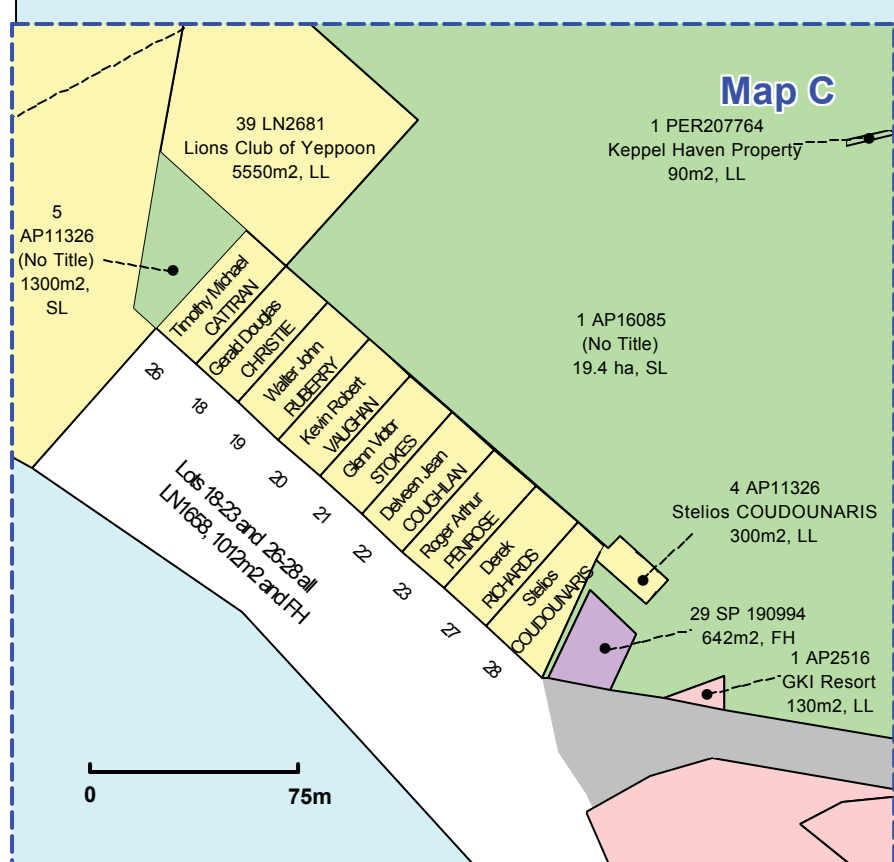
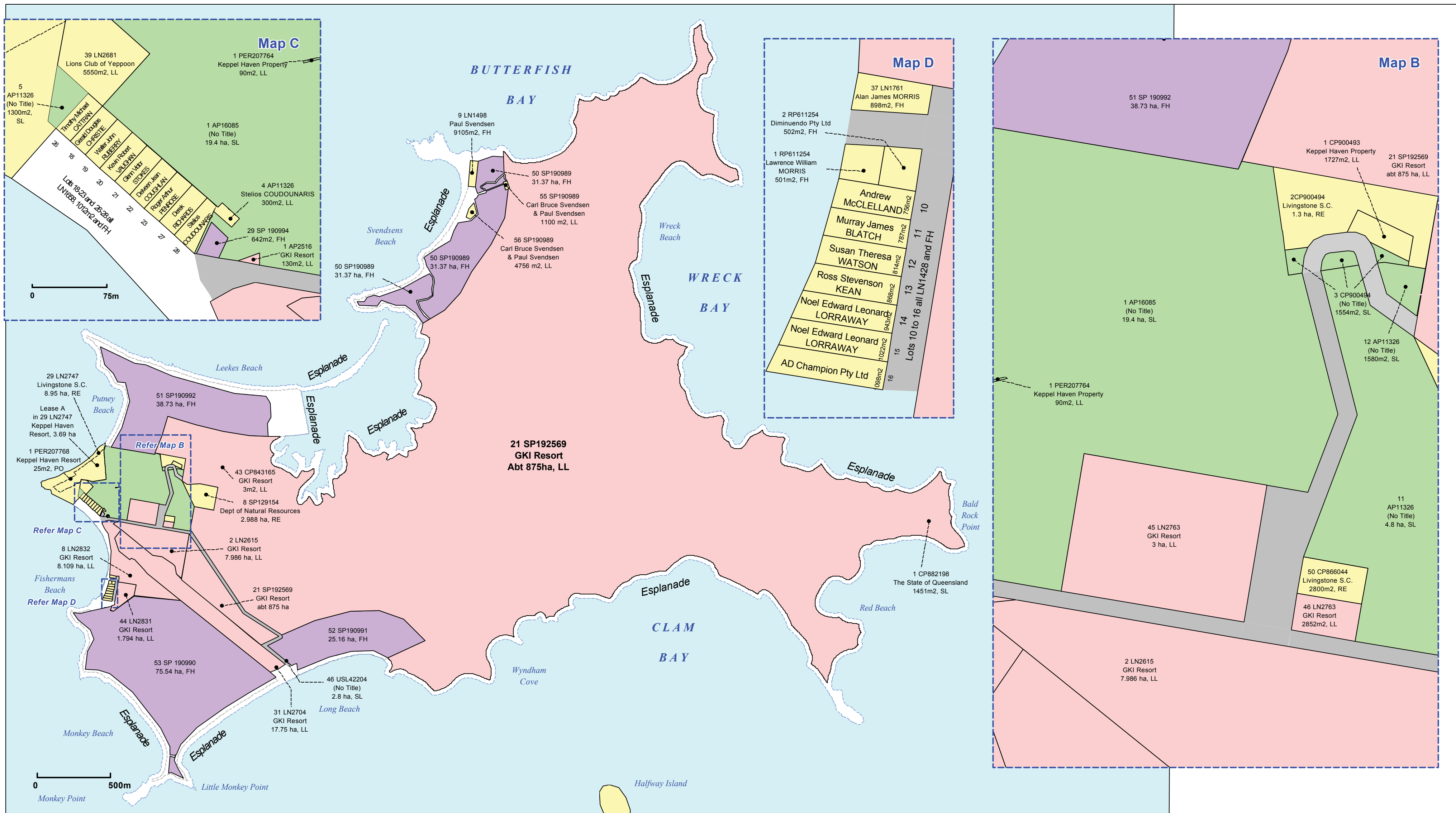
LEGEND

-  ECO TOURISM VILLA
-  ECO TOURISM APARTMENT



Appendix B

LAND TENURE MAP



NOTES:
 This map was created to assist with identifying the registered owners and property descriptions for allotments on Great Keppel Island, and it should not be used for any other purposes without the written consent of Schlencker Surveying.
 This information is not regarded as survey accurate. Area figures shown are estimates only.
 These notes are an integral part of this map.

SOURCE INFORMATION:
 This map was prepared using the Digital Cadastral Database (DCDB). This DCDB data was supplied under licence by the Queensland Department of Natural Resources, Mines and Energy, and is current to January 2006.
 Plan amended on the 28/07/2009 to amend for SP192569, SP190992, SP190989, SP190990 & SP190994

OWNERSHIP LEGEND:

	Woppaburra People		No Title
	GKI Resort		Road Reserve
	Other Land		Esplanade

Great Keppel Island Registered Owners and Property Descriptions (including Woppaburra land)

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 SURVEYING, MAPPING & DEVELOPMENT CONSULTANTS

 181 East St., ROCKHAMPTON
 Ph: (07) 49 271744
 Fax: (07) 49 223164
 Also at BRISBANE & GOLD COAST

Drawn:	KMD / MWK	Scale:	As shown
Date:	29-07-2009	Parish:	KEPPEL
Checked:		County:	Livingstone
Date:		Ref:	5341-19

Appendix C

AERIAL PHOTOGRAPH

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NOAA
 The National Oceanic and Atmospheric Administration
 Department of Commerce
 Washington, DC 20543-0001
 Date: 06/2011

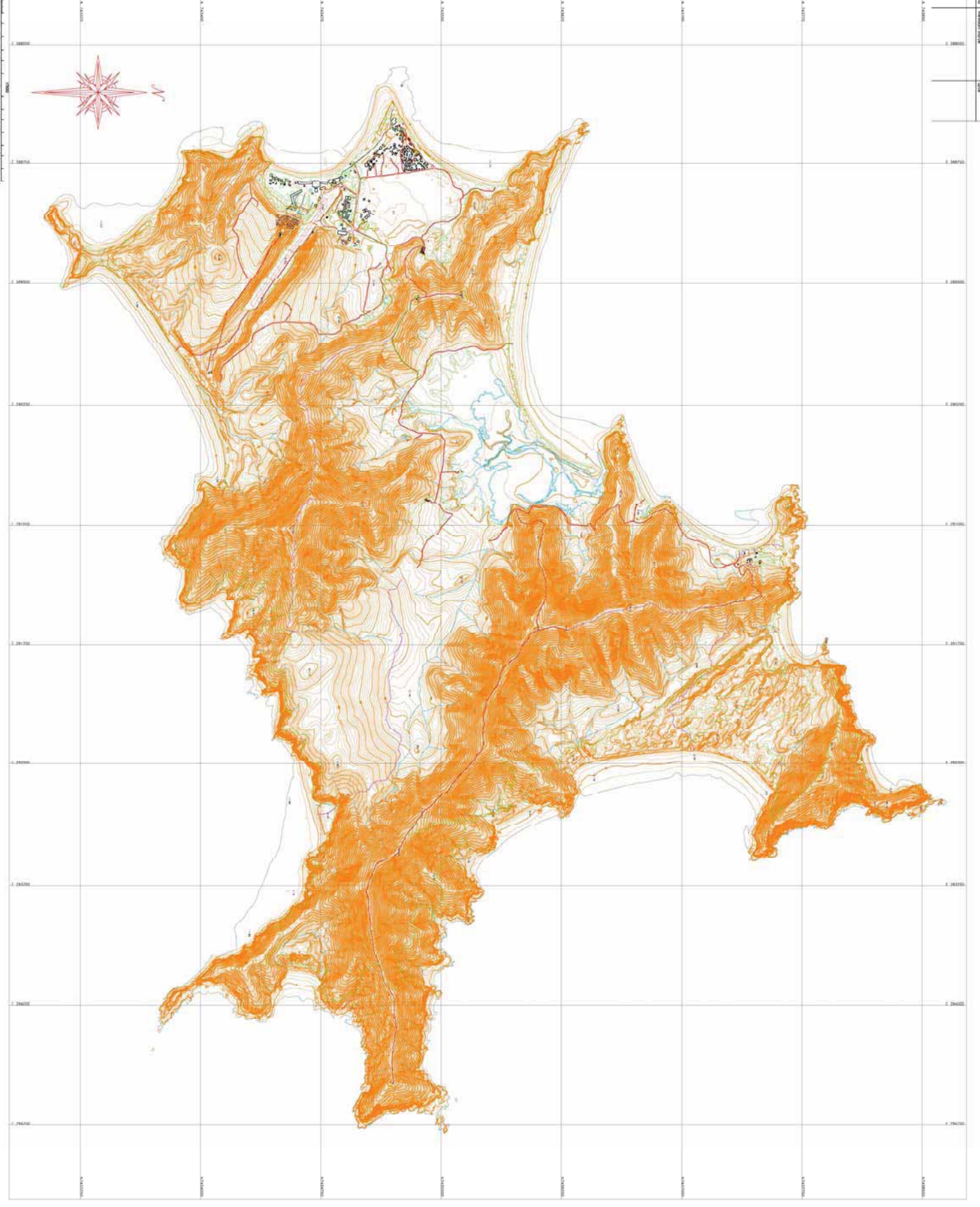
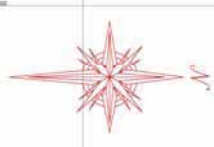
Part of
KEPPEL ISLAND
 MGA
 1:25000
 0652011

SCIENCE & TECHNOLOGY CENTER
 1200 EAST AVENUE
 SUITE 100
 DENVER, CO 80202
 TEL: 303.733.8000
 FAX: 303.733.8001
 WWW: www.noaa.gov

Product Name: **1:25000**
 Order No: **0652008**
 Date: **06/2011**

Appendix D

CONTOUR PLAN (1m)



Notes:
 The data are unprocessed 1:5000 scale topographic maps for the island of Keppel.

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 401, WEST STREET, #04-01/02, SINGAPORE 120853
 Tel: 65-6339-8888
 Fax: 65-6339-8889
 Email: info@scienceking.com.sg

Project Name	065201	Scale	1:7500
Client		Drawn	
Drawn		Checked	
Project No	065201	Date	05/05/2008
Drawn By		Checked By	
Scale		Project No	065201

Project Name: **KEPPEL ISLAND**
 Project No: **MCA**
 Drawn By: **AHD**
 Checked By:

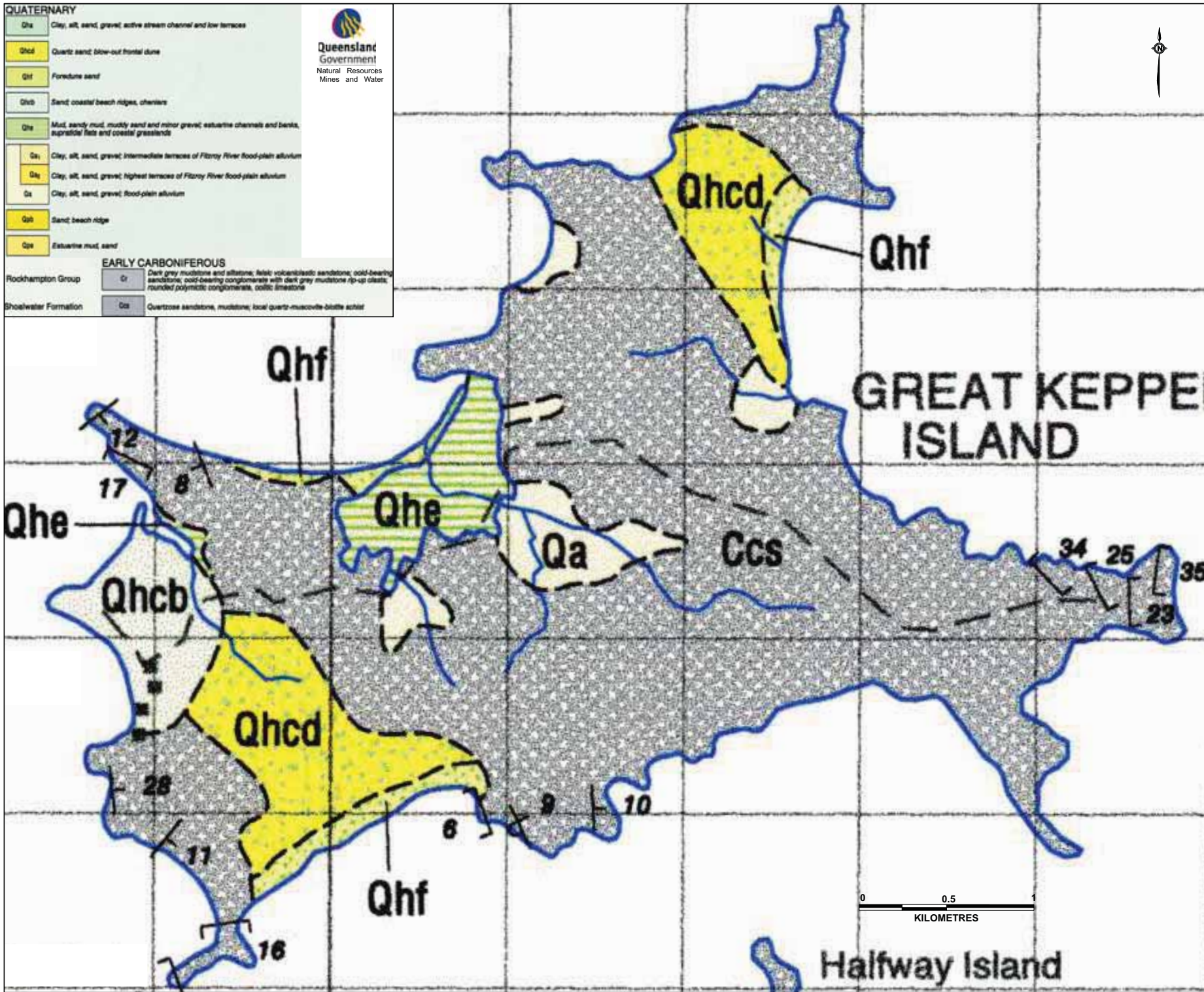
Appendix E

GEOLOGICAL MAP

QUATERNARY	
Qh	Clay, silt, sand, gravel; active stream channel and low terraces
Qhcd	Quartz sand; blow-out frontal dune
Qhf	Foredune sand
Qhcb	Sand; coastal beach ridges, cheniers
Qhe	Mud, sandy mud, muddy sand and minor gravel; estuarine channels and banks, supratidal flats and coastal grasslands
Qa1	Clay, silt, sand, gravel; intermediate terraces of Fitzroy River flood-plain alluvium
Qa2	Clay, silt, sand, gravel; highest terraces of Fitzroy River flood-plain alluvium
Qa	Clay, silt, sand, gravel; flood-plain alluvium
Qbr	Sand; beach ridge
Qe	Estuarine mud, sand
EARLY CARBONIFEROUS	
Rockhampton Group	Cr Dark grey mudstone and siltstone; felsic volcanoclastic sandstone; coal-bearing sandstone; coal-bearing conglomerate with dark gray mudstone rip-up clasts; rounded polymictic conglomerate; oolitic limestone
Shoalwater Formation	Ccs Quartzose sandstone, mudstone; local quartz-muscovite-biotite schist



NOTES
 Drawing Reference:
 QDNRM&W
 1:100,000 Geological Series
 Rockhampton Sheet 9051
 Drawing Scale 1:20,000 @ A3



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 Email mail@maxwinders.com.au

PROJECT
GREAT KEPPEL ISLAND
 REVIEW OF ENVIRONMENTAL
 PLANNING ISSUES

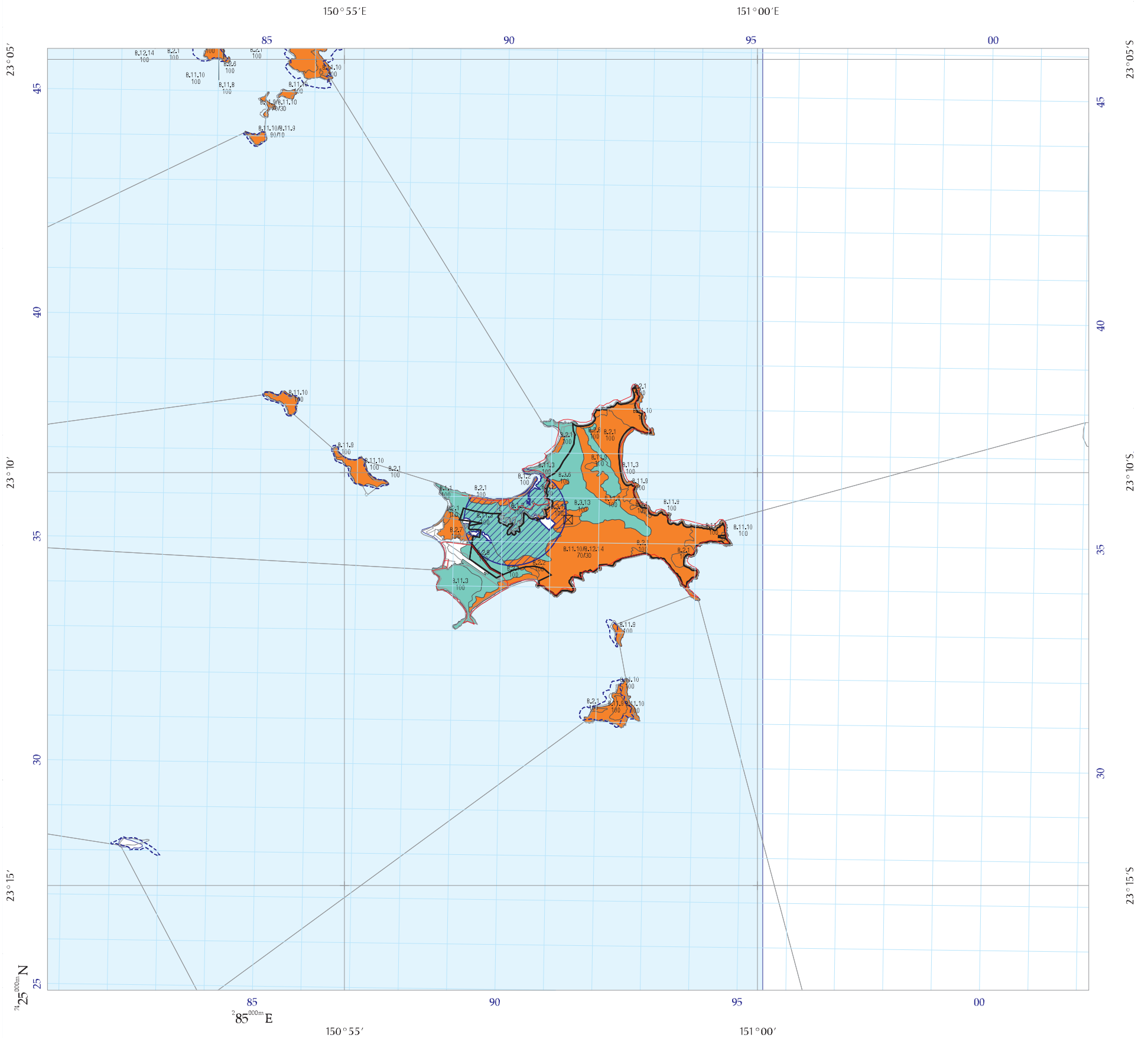
CLIENT
 TOWER HOLDINGS PTY LTD

TITLE
GEOLOGICAL MAP

JOB	GREAT KEPPEL	FIGURE 3
JOB NO.	06-020	
DATE	03 March 2006	DRAWING NUMBER
REV		06-020-03

Appendix F

REGIONAL ECOSYSTEM MAP



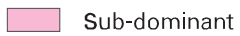
Vegetation Management Act Regional Ecosystem and Remnant Map-Version 6

Remnant vegetation containing endangered regional ecosystems

Based on 2006 Landsat TM imagery



Dominant

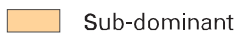


Sub-dominant

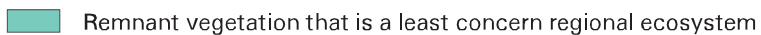
Remnant vegetation containing of concern regional ecosystems



Dominant



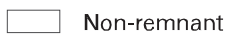
Sub-dominant



Remnant vegetation that is a least concern regional ecosystem



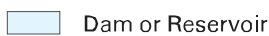
Remnant vegetation under Section 20AH of the VMA



Non-remnant



Plantation Forest



Dam or Reservoir



Remnant Vegetation



PMAV Category X area



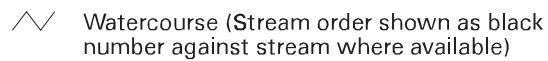
Great Barrier Reef Wetlands



Vegetation Management Act Essential Habitat
For further information on VMA Essential Habitat, please see the attached VMA Essential Habitat map.



Subject Lot



Watercourse (Stream order shown as black number against stream where available)



Bioregion boundary



Roads © MapInfo Australia Pty Ltd 2009



National Park, Conservation Area State Forest and other reserves



Cadastral line

The maximum spatial error of parcels extracted for this map from the Digital Cadastral Data Base (DCDB) range from: 14m to 251m at a 95% confidence level. Property boundaries shown are provided as a locational aid only.



Towns



Coordinate entered

Requested By: DOMINIC.HAMMERSLEY@HRPPC.COM.AU

Date: 17 Mar 10 Time: 11.43.06

Centered on point position:

Latitude: -23.1761 Longitude: 150.9618 (decimal degrees)

Bioregion: Brigalow Belt

A remnant map covers areas not covered by a regional ecosystem map.

Defined map areas are labelled with the regional ecosystem (RE) code along with the percentage breakdown if more than one RE occurs within the area. Detailed definitions of regional ecosystems are available from www.derm.qld.gov.au/REDD. Defined map areas smaller than 5ha may not be labelled.

Regional ecosystem linework has been compiled at a scale of 1:100 000, except in designated areas where a compilation scale of 1:50 000 is available. Linework should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100 000 is +/-100 metres. The extent of remnant regional ecosystems as of 2006, depicted on this map is based on rectified 2006 Landsat TM imagery (supplied by the Statewide Landcover and Trees Study (SLATS), Department of Environment and Resource Management (DERM)).

Some watercourse lines are derived from GeoScience Australia 1:250 000 mapping.

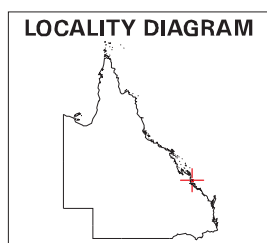
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All datasets are updated as they become available to provide the most current information as of the date shown on this map.

Additional information is required for the purposes of land clearing or assessment of a regional ecosystem map or PMAV applications. For further information go to the web site: www.derm.qld.gov.au/vegetation or contact the Department of Environment and Resource Management.

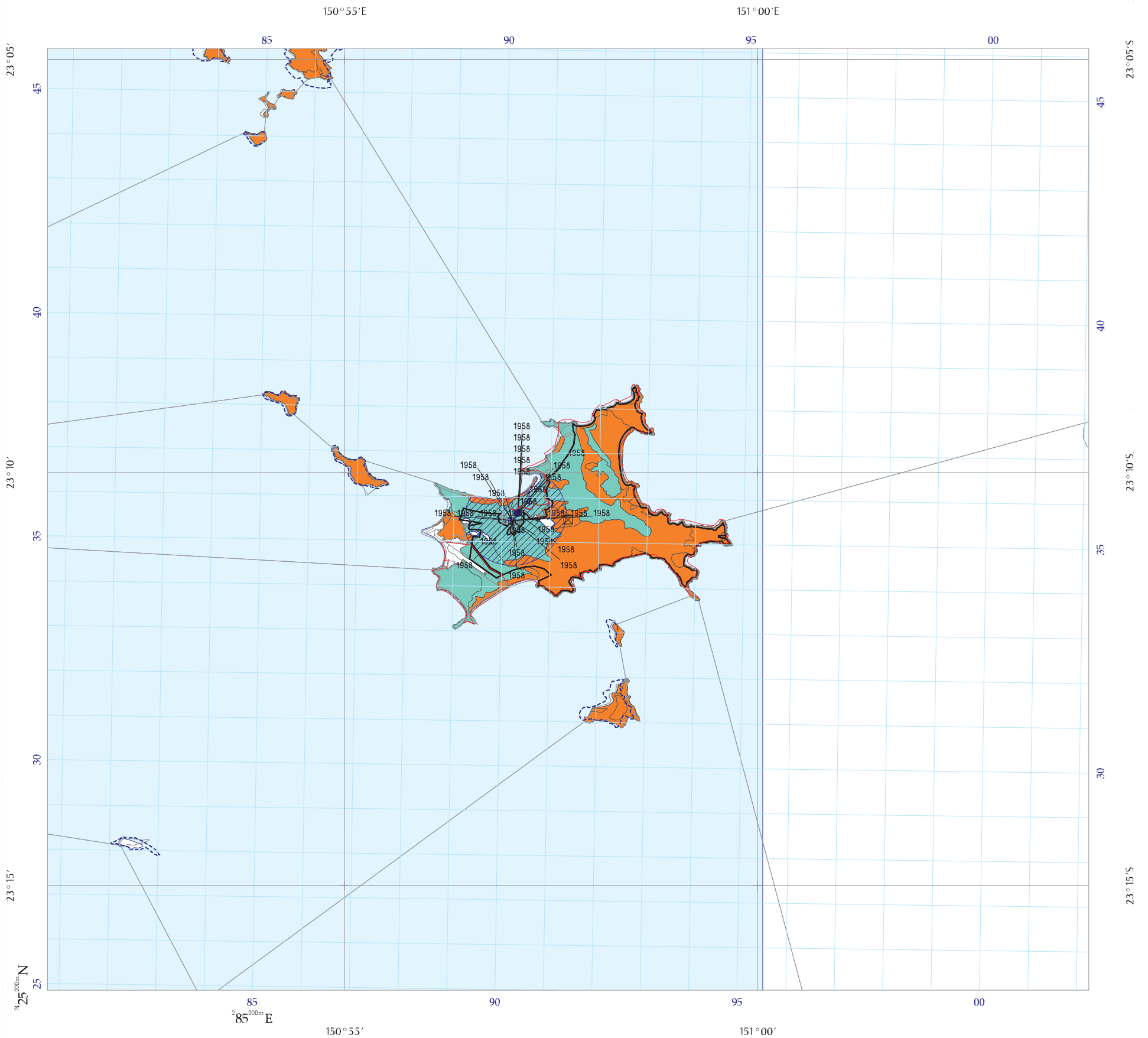
Digital regional ecosystem data is available in shapefile format, for Lot on Plans from www.derm.qld.gov.au/REDATA or from DERM for larger areas.



2000 0 2000 m

Horizontal Datum: Geocentric Datum of Australia 1994 (GDA94)

© The State of Queensland, 2010

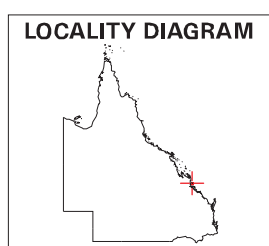


Vegetation Management Act Essential Habitat Map Version 3.0

- Remnant vegetation containing endangered regional ecosystems
- Dominant
- Sub-dominant
- Remnant vegetation containing of concern regional ecosystems
- Dominant
- Sub-dominant
- Remnant vegetation that is a least concern regional ecosystem
- Remnant vegetation under Section 20AH of the VMA
- Non-remnant
- Plantation Forest
- Dam or Reservoir
- Remnant Vegetation
- PMAV Category X area
- Vegetation Management Act Essential Habitat
- Vegetation Management Act Essential Habitat Species Records
- Subject Lot
- Roads © MapInfo Australia Pty Ltd 2009
- National Park, Conservation Area State Forest and other reserves
- Cadastral line
- The maximum spatial error of parcels extracted for this map from the Digital Cadastral Data Base(DCDB) range from: 14m to 251m at a 95% confidence level. Property boundaries shown are provided as a locational aid only.
- Towns
- Coordinate entered

Requested By: DOMINIC.HAMMERSLEY@HRPPC.COM.AU
Date: 17 Mar 10 Time: 11.43.08

Centered on point position:
Latitude: -23.1761 Longitude: 150.9618 (decimal degrees)



2000 0 2000 m

Labels for the Vegetation Management Act Essential Habitat are centred on the subject lot (1.1km surrounding and including a Lot on Plan). Labels correlate to the label field in the attached essential habitat database.

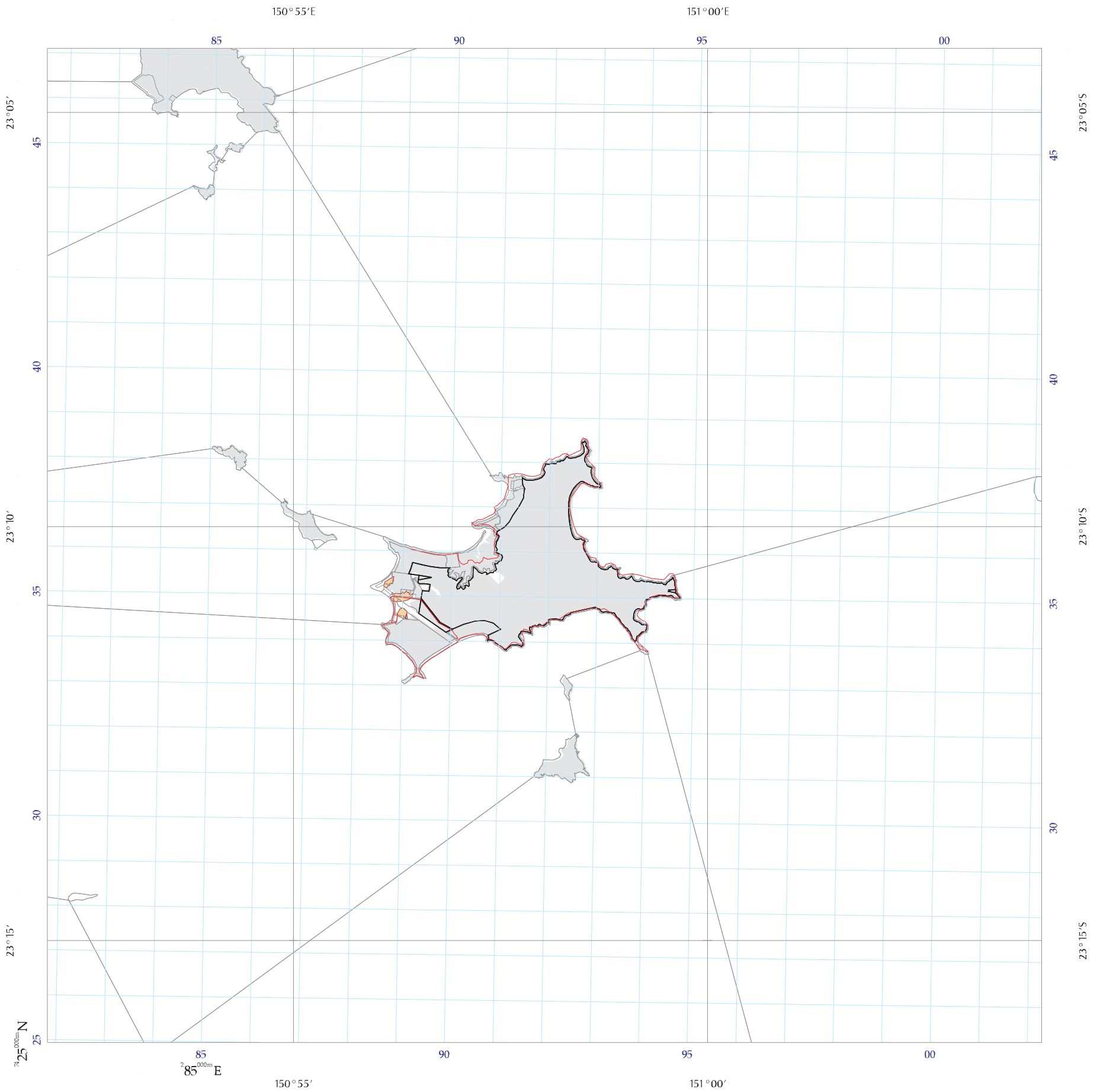
Regional ecosystem linework has been compiled at a scale of 1:100 000, except in designated areas where a compilation scale of 1:50 000 is available. Linework should be used as a guide only. The positional accuracy of RE data mapped at a scale of 1:100 000 is +/-100 metres. The extent of remnant regional ecosystems as of 2006, depicted on this map is based on rectified 2006 Landsat TM imagery (supplied by SLATS, Department of Environment and Resource Management).

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







All datasets are updated as they become available to provide the most current information as of the date shown on this map.

Additional information is required for the purposes of land clearing or assessment of a regional ecosystem map or PMAV applications. For further information go to the web site: www.derm.qld.gov.au/vegetation or contact the Department of Environment and Resource Management.

Digital regional ecosystem data is available in shapefile format, for Lot on Plans from www.derm.qld.gov.au/REDATA or from DERM for larger areas.



REGROWTH VEGETATION MAP - Version 2.0

-  Vegetation Management Act Essential Regrowth Habitat with example label number
-  Great Barrier Reef Wetland Protection Area
-  High value regrowth vegetation containing Endangered regional ecosystems
-  High value regrowth vegetation containing Of Concern regional ecosystems
-  High value regrowth vegetation that is a Least Concern regional ecosystem
-  Remnant Vegetation
(Refer to the Vegetation Management Act Regional Ecosystem and Remnant Map also available from the Department of Environment and Resource Management website for further information on these areas)
-  Non-remnant
-  PMAV Category X area
-  Regrowth watercourse (Stream order shown as black number against stream)
-  Other watercourse (Stream order shown as black number against stream where available)
-  Subject Lot
-  Roads
-  Cadastral line
The maximum spatial error of parcels extracted for this map from the Digital Cadastral Data Base (DCDB) range from: 14m to 251m at a 95% confidence level. Property boundaries shown are provided as a locational aid only.
-  Towns

Requested By: DOMINIC.HAMMERSLEY@HRPPC.COM.AU
Date: 17 Mar 10 Time: 11.08.16

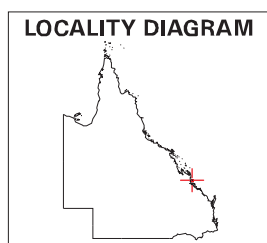
Centered on Lot on Plan:
21 SP192569

Labels for Vegetation Management Act Essential Regrowth Habitat are centred on the subject lot. Labels correlate to the label field in the attached essential regrowth habitat database.

The high value regrowth, regrowth watercourse, other watercourse, Great Barrier Reef wetland protection area and essential regrowth habitat data shown on this map are representations of the preliminary data.

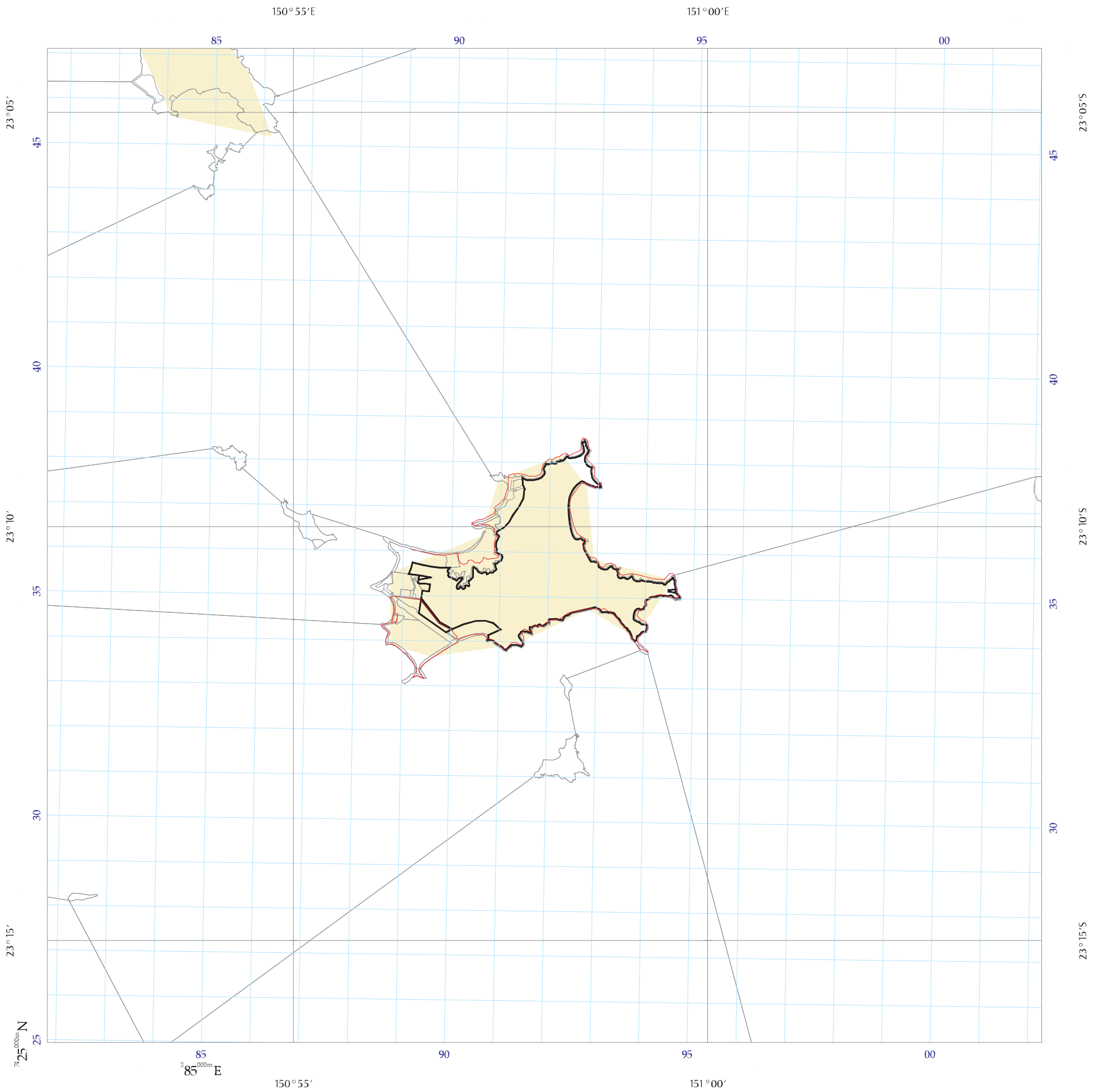
Some watercourse lines are derived from GeoScience Australia 1:250 000 mapping.

For further information go to the website:
<http://www.derm.qld.gov.au> or contact Vegetation Management, Department of Environment and Resource Management.



2000 0 2000 m

Areas covered by a Property Map of Assessable Vegetation (PMAV) are represented on the map attached as Page 2 to this Regrowth Vegetation Map and provided with it.



Property Maps of Assessable Vegetation (PMAVs)

Requested By: DOMINIC.HAMMERSLEY@HRPPC.COM.AU
Date: 17 Mar 10 Time: 11.08.17

Centered on Lot on Plan:
21 SP192569

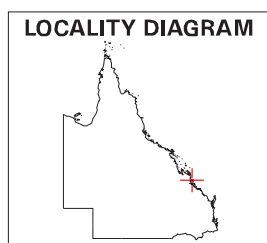
The PMAV data shown on this map are a representation of the data used to create certified PMAVs. Variations may occur between PMAV boundaries and cadastral boundaries. PMAV data incorporates cadastral boundary data as at the time of certification of the PMAV. The cadastral boundaries shown on this map may have shifted relative to the PMAV boundaries as more accurate cadastral boundary data have become available.

All datasets are updated as they become available to provide the most current information as of the date shown on this map.

For further information go to the website:
<http://www.derm.qld.gov.au/vegetation/index.html>
or contact Vegetation Management, Department of Environment and Resource Management.

Property Map of Assessable Vegetation Vegetation Category Area

- Category A area
- Category B area
- Category C area
- Category X area
- Area that is subject to other PMAVs or, if no PMAV exists, a regional ecosystem map, remnant map or regrowth vegetation map
- Subject Lot
- Roads
© MapInfo Australia Pty Ltd 2009
- Cadastral line
The maximum spatial error of parcels extracted for this map from the Digital Cadastral Data Base(DCDB) range from: 14m to 251m at a 95% confidence level. Property boundaries shown are provided as a locational aid only.
- Towns

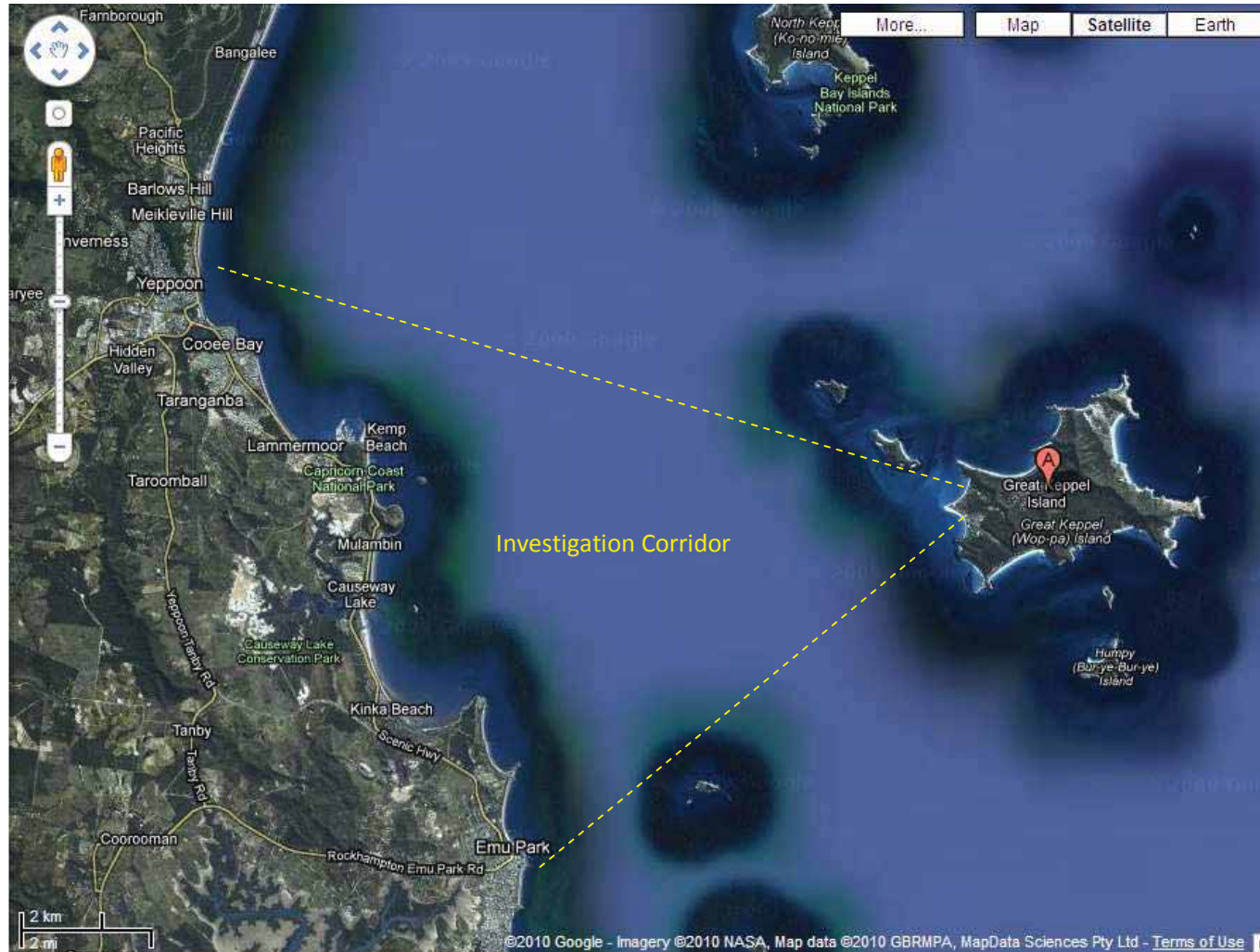


2000 0 2000 m

Appendix G

UTILITIES INVESTIGATION CORRIDOR

Utilities Investigation Corridor



Appendix H

ECONOMIC ASSESSMENT REPORT (FORESIGHT PARTNERS PTY LTD)

FORECAST ECONOMIC IMPACTS

PROPOSED REVITALISATION OF GREAT KEPPEL ISLAND

Client:

Tower Holdings Pty Ltd

Prepared by:



ABN 59 111 542 673

Level 1, 22 Sanders Street
UPPER MT GRAVATT QLD 4122

Ph: (07) 3422 2011

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March 2010

06039/09 Rev 3

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3 GREAT KEPPEL ISLAND	6
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4.1.1 Construction jobs	8
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Disclaimer

The sole purpose of this report is to provide Tower Holdings Pty Ltd with information in accordance with Foresight Partners Pty Ltd's scope of services set out in its proposal to the Client.

Foresight Partners has relied upon information relevant to this report provided by government agencies, the Client and others. Except as otherwise stated in the report, Foresight Partners has not attempted to verify the accuracy or completeness of such information.

The assumptions underlying the findings, observations, forecasts and conclusions presented in this report are subject to significant uncertainties and contingencies. Therefore, actual results may differ significantly from forecast results. Foresight Partners do not make or imply any warranty or guarantee with respect to the data reported or to the findings, observations, forecasts and conclusions expressed in this report. Foresight Partners cannot confirm or guarantee achievement of any forecast growth or performance, as future events, by nature, are not amenable to independent confirmation or substantiation.

Executive Summary

Tower Holdings Pty Ltd proposes a \$592.5 million revitalisation of the tourism resort on Great Keppel Island. The proposal includes a 4 or 5 star hotel, apartment and villa accommodation, a 250-slip marina, an 18-hole championship golf course, an air strip, plus associated leisure, restaurant, café, bar and retail facilities. The variety of services planned are designed to attract a significantly greater number and range of visitors than at present, and encourage them to stay longer.

The Greater Capricorn Region lags behind most other Queensland regions in terms of visitor numbers and contribution to the State's tourism industry. Only 4% of international visitors to Queensland come to the Capricorn Region (as at December 2008). Most visitors to the region (76%) are from within Queensland itself, with only a small portion from outside the State. Unemployment in the Capricorn Region is higher than the State average.

Great Keppel Island's competitiveness as a tourist destination has declined in recent years and this has impacted on local economic activity. Tower Holdings' proposed revitalisation is intended to develop the island as a one of Australia's premier tourist destinations, much more accessible to prospective holiday makers and residents, and fitting for a facility located close to the iconic Great Barrier Reef. It is forecast to have the following impacts:

- An estimated final development cost of \$592.5 million.
- Around 1,055 full time, part time and casual jobs generated in the Capricorn Region once Great Keppel Island is fully operational.
- Creation of an average of 350 construction-related jobs each year during the 15-year construction period, with total full time equivalent jobs generated representing 5,400 person years of employment.
- Once fully operational, an estimated base of 685 full-time equivalent jobs on the Island plus additional workforce in periods of high demand.
- Through flow-on or multiplier effects, the creation of around 400 additional full-time equivalent construction and operational jobs on the mainland, predominantly at Rockhampton and Yeppoon.
- Privately-funded infrastructure development provided at no cost to Government.
- An average of around 2,360 visitors, staff and residents on the Island each day, totalling around 860,000 person days per year. This is comparable to the peak daily visitation of the Island in the early 1990s.

- Tourist expenditure contributing over \$82 million per annum to the local economy.
- A substantial increase in total visitor days in the Capricorn Region.
- Diversification of the Capricorn Regional economy through promoting regional tourism as an industry, and making the region less reliant on the commodity price-driven mining and agricultural industries.
- Significant increases in local and state government revenue through rates, headworks charges, property transaction duties, land tax and payroll tax.

In summary, the redevelopment of Great Keppel Island is forecast to deliver \$592.5 million in development expenditure, add over \$82 million to the local economy in the form of expenditure on the Island (plus additional expenditure off the Island while in transit) and create around 1,500 full time, part time and casual jobs during construction and operation.

1 Introduction

Tower Holdings proposes a comprehensive revitalisation of Great Keppel Island that will realise its potential as a world class visitor destination located near the Great Barrier Reef. Foresight Partners have been commissioned to provide this economic impact analysis of the proposal. In undertaking this work, it is pointed out that the Great Keppel proposal is currently at the master planning stage. The information and opinions therefore provided in this report are indicative only. They will be refined as the proposed project details are finalised and as changing economic and market conditions dictate.

In addition to information provided by Tower Holdings (cost estimates, room numbers, forecast occupancy rates etc), a number of resources have been used in compiling this analysis. These are listed in Appendix A. Economic impacts and forecasts provided in this report are based on benchmarks provided by the Australian Bureau of Statistics (ABS) and the Office of Economic and Statistical Research (OESR), plus analysis of similar tourist development projects in Queensland.

2 Profile of the Capricorn Region

Great Keppel Island is located within the Rockhampton Regional Council (comprising Rockhampton City and the former Livingstone, Fitzroy and Mount Morgan Shires). As at June 2008 there were an estimated 111,528 persons living within the Rockhampton Regional Council.¹

Great Keppel Island lies within Tourism Queensland's Capricorn Region which comprises nine former local government areas: Rockhampton, Livingstone, Fitzroy, Mount Morgan, Peak Downs, Jericho, Bauhinia, Duaringa and Emerald (Figure 1). As of March 2008 these Councils were amalgamated into the Rockhampton Regional Council, Central Highlands Regional Council and a part of the Barcaldine Regional Council. As at June 2008 there were an estimated 141,730 persons living within the Capricorn Region.²

While Rockhampton is the key regional centre of both the Rockhampton Regional Council and the Capricorn Region, Yeppoon is a key service centre primarily focusing on tourism provision.

The Capricorn Region has the following economic characteristics:

- Agriculture, forestry and fishing and mining are the main 'engine rooms' for economic activity in the region, accounting for 13.3% of the Capricorn Region's employment (compared to 5.2% of Queensland's employment).
- Nearly 96% of all persons in the labour force in the Capricorn Region are employed – the unemployment rate is around 4%. As at December 2008 5.3% of the Rockhampton Regional Council labour force was unemployed (compared to 3.7% of the Queensland labour force).³
- In 2007 there were nearly 2,400 businesses registered for GST purposes within the Livingstone Shire (excluding government, charities and unions). Only three businesses within the Shire employed over 200 persons.⁴
- Forecast population growth in the Capricorn Coast Region is similar to that of Queensland. For the period 2001 to 2031, forecast average annual population growth for the Capricorn Coast is 1.6% which is comparable to the forecast growth of 1.7% per annum across Queensland.

¹ Source: ABS Regional Population Growth, Australia.

² Ibid.

³ Source: Small Area Labour Markets Australia, Department of Education, Employment and Workplace Relations, December 2008.

⁴ Source: ABS Counts of Australian Businesses, including Entries and Exits June 2003 June 2007.

- However, the population of the Rockhampton Regional Council is expected to grow by a lower 1.4% per annum between 2006 and 2031.⁵
- Tourism remains an area of untapped potential. Visitation numbers, visitor expenditure and contribution to the tourism Gross State Product (GSP) lags behind most other regions in Queensland.

Figure 1: Capricorn Region, Queensland



Tourism

By any quantifiable measure, the Capricorn Region is not capitalising on its tourism potential.

The Capricorn Region attracts a relatively small proportion of visitors to Queensland destinations. In the 12 months to December 2008, it received 929,000 overnight visitors, spending 3.7 million guest nights. This was less than the number of visitors and visitor guest nights received by most other coastal regions (Figure 2).

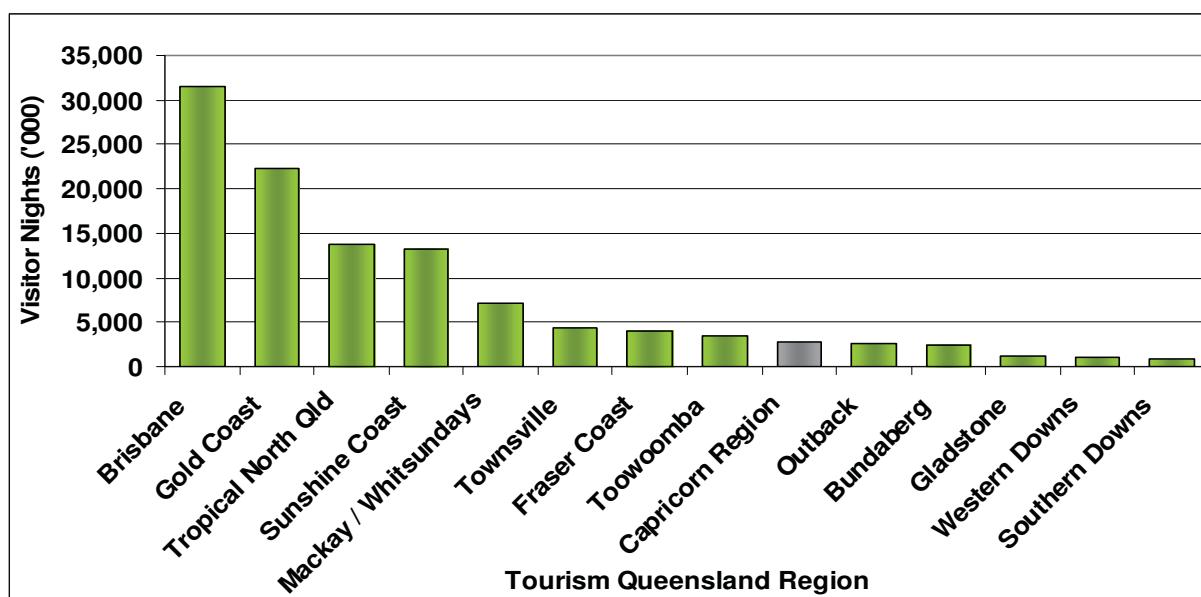
As shown in Figure 2 the Capricorn Region attracts 79% less visitor nights than Tropical North Queensland, 60% less visitor nights than Mackay/Whitsundays and 28% less visitor nights than the Fraser Coast. Thus, in this respect the Capricorn Region's tourism industry is underperforming that of other coastal regions.

⁵ Source: Planning, Information and Forecasting Unit, Department of Infrastructure and Planning, 2008.

The region has not penetrated the wider domestic and international tourist market. In 2008, less than 4% of international visitors to Queensland came to the area. Most visitors to the Capricorn Region (91%) are domestic visitors, with 76% of all domestic visitors from elsewhere in Queensland.

In 2008 less than 39% of all visitors to the Capricorn Region visited for a holiday (visitors are counted as persons who stay for less than 364 days in a Region). This is vastly different to the Mackay/Whitsundays Region where 62% of all visitors were in the Region for the purpose of a holiday.

Figure 2: Number of visitor nights in selected Queensland Tourism Regions in the 12 months ending December 2008



Region	Domestic Visitor Nights ('000)	International Visitor Nights ('000)	Total Visitor Nights ('000)
Brisbane	14,939	16,664	31,603
Gold Coast	14,173	8,179	22,352
Tropical North Queensland	7,427	6,402	13,829
Sunshine Coast	10,870	2,333	13,203
Mackay / Whitsundays	5,585	1,534	7,119
Townsville	3,025	1,244	4,269
Fraser Coast	3,069	887	3,956
Toowoomba	2,849	570	3,419
Capricorn Region	2,302	534	2,836
Outback	2,176	385	2,561
Bundaberg	1,904	532	2,436
Gladstone	846	431	1,277
Western Downs	977	96	1,073
Southern Downs	661	125	786

Source: Tourism Research Queensland, Capricorn Regional Snapshot 2008.

- Average room occupancy rates in the region are low, having only just reached an annual average rate of 60%. The Livingstone Shire (which covers Great Keppel Island and the central coast area) has consistently recorded occupancy rates in the 50–55% range for the past few years.
- The Fitzroy Tourism Region (which includes the Capricorn and Gladstone Regions) accounts for just 4% of Queensland’s tourism GSP. This ranks it in the mid–range of the Tourism Regions by expenditure; however over 83% of state tourism expenditure is spent in the top five regions (Brisbane, Gold Coast, Tropical North Queensland, Sunshine Coast and Mackay/Whitsundays).⁶

Appendix B provides further Capricorn Region tourism data.

Previous research and analysis indicates that the main reasons for the relatively poor tourism industry performance in the region and Great Keppel Island specifically, are:

- There is no strong overall image for the Capricorn Region;
- Roads and public facilities provision are of relatively poor quality;
- Many tourist facilities are outdated and in need of rejuvenation; and
- Great Keppel Island in particular needs significant upgrading, improved accommodation and a wider variety and higher quality of services and facilities (particularly retail). Accessibility from interstate and overseas visitor markets, and the time and cost involved with transfers, is also an issue.

⁶ Source: Regional Tourism Profiles 2007, Tourism Research Australia.

3 Great Keppel Island

3.1 CURRENT STATUS

Great Keppel Island is a 1,454 hectare island, the best known of the Keppel group which lies off the Capricorn Coast near Yeppoon, Central Queensland. Much of Great Keppel Island is crown land where tourist-related development leases have previously been granted. Until recently the Island has been occupied by a number of different commercial accommodation facilities ranging from camping ground style accommodation to resort level accommodation. The resort facilities have been closed in order to facilitate the proposed refurbishment and redevelopment of Great Keppel Island. The Island is currently occupied by two backpackers facilities, ten commercial premises and ten residential dwellings.

There are 17 beaches on Great Keppel Island and its pristine natural environment offers a wide range of activities including swimming, diving, snorkelling and bushwalking. Access to the island is via ferry and cruise ship services from the Rosslyn Bay/Keppel Bay Marina on the mainland.

In the 1990s, the latest data available, the average daily population on the island (staff, residents, overnight and day visitors) was approximately 765, with an occupancy rate for accommodation units in the low 50% range. The maximum possible daily population, given accommodation stocks and day tripper potential, was around 2,600.

Anecdotal evidence suggests these visitation figures deteriorated sharply while the Resort was operating. Great Keppel Island has been widely perceived as a declining tourist destination for a number of years.

3.2 PROPOSED DEVELOPMENT

A major revitalisation is therefore proposed by Tower Holdings to realise the potential of the island as a major tourist destination. It proposes a suite of facilities and pursuits offering natural synergies. Plans at this stage envisage a \$592.5 million development program over a 15 year period, which will establish:

- a 4 or 5 star hotel containing 250 room units;
- 300 tourism resort apartments;
- 750 tourism resort villas;
- a 250-slip Marina, yacht club and harbour master;
- a staff accommodation facility of 105 units;
- one 18-hole championship golf course, and country club style facilities such as tennis, spa and fitness facilities;

- sporting ovals and beach club;
- 3,000 m² of retail, restaurant, café, club and bar facilities; and
- an upgrade to the existing airstrip and airport terminal with capability to accommodate Dash 8 aircraft of up to 100 seats.

The proposed variety of facilities, supported by improved air and sea transport links, provides the opportunity to attract significantly more visitors – particularly from interstate and overseas markets. The revamped Great Keppel Island will appeal to a much broader range of visitors than at present and, importantly, encourage visitors to stay longer. It will add to the variety of Queensland's Great Barrier Reef and coastal island attractions.

4 Economic Impacts

The Great Keppel Island re-development has a projected redevelopment cost of approximately \$592.5 million over 15 years. None of this cost will be borne by the government. The forecast major economic impacts are as follows:

4.1 EMPLOYMENT

4.1.1 Construction jobs

An immediate impact will occur during the construction stage. Jobs required for the Great Keppel Island project will include those from the professional, manual and service occupations.

Using the Residential Construction and Other Construction sectors of a regional specific input-output model⁷ it is estimated that there are approximately 8 jobs created per \$1 million in construction expenditure. Therefore, an estimated 3,340 person years of direct employment will be created as a result of the redevelopment of Great Keppel Island. This equates to an average of 220 jobs each year over a 15 year period. The number of jobs created by construction is expected to vary across the project lifespan with employment levels forecast to peak at around 360 full time equivalent (FTE) positions in the latter stages of the project.

At the end of the construction phase, a residual number of construction workers will remain in the Capricorn Coast region as a result of increased building activity generated by additional residents and visitors to the locality.

4.1.2 Operational jobs

Many permanent jobs will be created to support operation of the hotel, marina, residential, leisure activity, golf, airport, retail and associated facilities. Based on Australian Bureau of Statistics (ABS) research on accommodation industry employment and hotel employment levels, as well as Foresight Partners' experience, it is estimated that the redevelopment of Great Keppel Island will result in an average base of 485 FTE employees per annum once complete.

Due to the tourism sector's high reliance on casual and part-time workers, and the seasonality of the tourism industry, it is likely that there will be a significantly higher total number of persons employed on the Island. Indicative estimates are that approximately 685 persons per annum will be employed on the Island in full time, part time and casual jobs. Once operational, the Island

⁷ The 1996–1997 Fitzroy Statistical Division Input–Output Table, OESR released in 2004. As these calculations are completed based on the construction costs of the proposed project, subsequent inflationary effects have been discounted.

will be one of the largest employers within the former Livingstone Shire given that as at 2007 there were only three businesses with more than 200 employees (excluding the Government).

4.2 VISITATION AND EXPENDITURE

In the early 1990s, before it began to experience a significant downturn, Great Keppel Island had an average daily population of 765 visitors, residents and employees, equivalent to around 280,000 annual person days.

Following re-development, visitation will greatly expand and come from a variety of sources. Set out below in Table 1 are the forecast sources of visits along with estimated expenditure.

As a result of a combination of overnight and day visitors to the Island, staff, residents and visitors to the marina, it is estimated that the Great Keppel re-development will generate nearly 860,000 annual visitor days. This is equivalent to an average daily population of 2,356 on Great Keppel Island, more than three times the total of over a decade ago.

Expenditure by future residents and visitors on the island will inject over \$82 million each year into the local economy.

Table 1: Great Keppel Island – Forecast Persons and Day Expenditure

	<i>Units</i>	<i>Avg. Annual Occupancy Rate</i>	<i>Persons / Occupied Unit</i>	<i>Annual Person Days</i>	<i>Avg. Spend/ Person Day</i>	<i>Total Expenditure (\$m)</i>
Hotel rooms	250	65%	2.2	130,488	\$195	25.4
Villas and Apartments	1,050	50%	2.5	479,063	\$100	48.1
Marina berths	250	20%	2.2	40,150	\$70	2.8
Day visitors	N/A	N/A	N/A	36,500	\$70	2.6
Staff accommodation	105	95%	1.3	47,331	\$40	1.9
Staff commuting	N/A	N/A	N/A	126,446	\$10	1.3
Annual total				859,978	\$95	82.1
Average per Day				2,356		0.22

Source: National Visitor Survey December 2008, International Visitor Survey December 2008, Capricorn Regional Snapshot December 2008, Foresight Partners estimates.

Note: Hotel room expenditure includes spending on hotel room, retail, food & beverage services attractions and local transport. Excludes purchase of dwellings.

Note: Based on similar developments, daily average occupancy/usage rates for villas, apartments and marina berths are lower than for hotel accommodation. Marina berths are typically used for storage purposes and not regular occupancy.

4.3 REGIONAL IMPACT AND MULTIPLIER EFFECTS

Full Time Equivalent Jobs

In addition to the above direct impacts, the Great Keppel Island redevelopment project will provide a variety of indirect or flow-on economic benefits to the local region. These are often referred to as ‘multiplier’ effects and include:

- Benefits derived as inputs/supplies are purchased from businesses not directly involved in the development project; and
- Wages and salaries paid to local employees, who then spend their earnings locally.

Based on similar projects and previous research undertaken, it is estimated that approximately 70 additional full-time equivalent jobs per annum will be created offsite as a result of construction activity on Great Keppel Island. Consumption induced expenditure by these construction-related businesses and workers will generate a further 70 full-time equivalent jobs per annum. During the construction phase, therefore, it is estimated that 3,300 person years of direct employment and a further 2,100 person years of indirect employment will be created, most of which will be in the Capricorn Region.

Once fully operational, the resort, leisure and retail facilities on Great Keppel Island are estimated to generate approximately 140 FTE jobs offsite, with consumption induced expenditure creating a further 120 FTE jobs. This means the operational phase will generate total direct and indirect employment of 7,450 full-time equivalent jobs. It is important to note that the multiplier effects of operational jobs may be understated as the 745 direct jobs created could be higher in times of high tourism demand.

Table 2: Summary of Forecast Full Time Equivalent Jobs Created – Great Keppel Island Re-development

<i>Phase of project</i>	<i>Est. no. of direct FTE jobs created</i>	<i>Est. no. of FTE jobs created through initial multiplier effect</i>	<i>Est. no. of FTE jobs created through additional consumption-induced expenditure</i>	<i>Total no. of FTE jobs created from each phase</i>
Construction *	220	70	70	360
Operational #	485	140	120	745

* Average number of full-time equivalent jobs required each year over a 15 year period.

Full time equivalent jobs created on completion.

Total Jobs

In view of seasonal variations and expected levels of part time and casual employment, the number of jobs created will exceed the forecast number of FTE jobs shown in Table 2.

It is estimated that on average, over 500 full time, part time and casual jobs will be created each year over the 15 year construction period. Moreover, a forecast 1,055 full time, part time and casual jobs will be created each year when the redeveloped Great Keppel Island is fully operational. Subsequent additional redevelopment of the Island will likely further increase the number of jobs created within the Capricorn Region.

On-going Impacts

In addition to job and income generation for the Island, the proposed Great Keppel Island re-development presents other benefits to the Capricorn Coast Region. It is likely that there will be a significant increase to the local economy which will benefit a range of industries including tourism, retail and transport. For example, it will likely:

- substantially increase regional visitation. If half of the visitor days generated by Great Keppel are new to the region, it will increase total visitor days in the Capricorn Region by around 15%;
- enhance the image of the locale;
- address the issue of outdated and lower quality accommodation and facilities in the region; and
- provide for new training and skill opportunities for the additional workers and businesses.

The redevelopment of the Great Keppel Island resort is also a crucial component of development across the entire Capricorn Region. It has significant benefits such providing local tourism facilities for persons employed in the region's mining areas (i.e. the Bowen and Galilee Basins), which will increase the proportion of tourism dollars retained within the region. It will also assist the wide range of small business operators such as dive operators and cruise boat operators who were detrimentally affected by the closure of the original resort. It is anticipated that these small businesses, as well as those currently on the Island, will receive the greatest positive impact from the redevelopment of the Island.

The redevelopment of Great Keppel Island will increase the utilisation of existing intrastate and interstate infrastructure such as the Rockhampton airport (which currently has approximately 240 flights per week), the rail system and the highways. The utilisation of the existing infrastructure will benefit the local community through the provision of additional jobs and through the increase in passing traffic.

4.4 BENEFITS TO THE STATE ECONOMY

The State economy as a whole will also derive benefits from the proposed Great Keppel Island re-development through:

- boosting the tourism portfolio of the State by adding a high-profile and high-quality resort-based attraction, complementing current attractions at Great Barrier Reef and coastal-based locations. The project will address the acute lack of facilities in the Capricorn Region to attract interstate and overseas visitors, and will increase the region's contribution to tourism Gross State Product (GSP). Great Keppel Island will also be more accessible as a holiday destination due to the airstrip and marina developments on the island;
- diversifying the Capricorn Regional economy and adding to its agriculture and mining strengths;
- targeting relatively high unemployment in the region, including creating over 1,000 jobs when operational; and
- providing an ongoing boost to local and State Government revenue, through rates, headworks charges, property transaction duties, land tax and payroll tax.

Appendix A: Resources used in analysis

Capricorn Region — Regional Snapshot (2008), Tourism Queensland.

Capricorn Region Tourism Strategy (1995), Strategy and Background Report by Kinhill Cameron McNamara.

Economic Profile: The Rockhampton and Capricorn Coast Region (2005), Office of Economic and Statistical Research.

Ella Bay North Queensland Economic Impact Statement (2005), The 20/20 Group Australia Pty Ltd, Cairns.

Great Keppel Island Visitor Surveys, plus various Fact Sheets, Tourism Queensland.

Development Control Plan, Livingstone Shire Council.

Population and economic data: Department of Local Government and Planning (DLGP) and the Office of Economic and Statistical Research (OESR).

Queensland Update (2006), Tourism Queensland.

Regional domestic and international visitor expenditure data: Tourism Research Australia (TRA).

Regional Tourism Profiles 2007, Queensland. Tourism Research Australia.

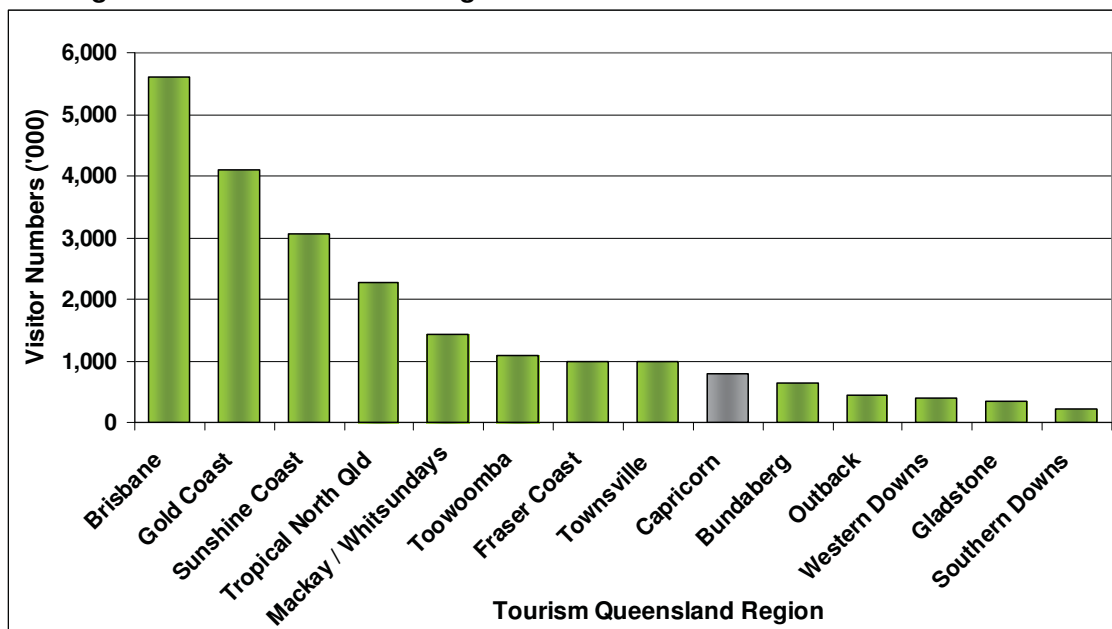
Small area labour market data: Department of Employment & Workplace Relations (DEWR).

Small area tourist accommodation data: the Australian Bureau of Statistics (ABS).

State Development and Public Works Organisation Act 1971.

Appendix B: Capricorn Region – additional tourism data

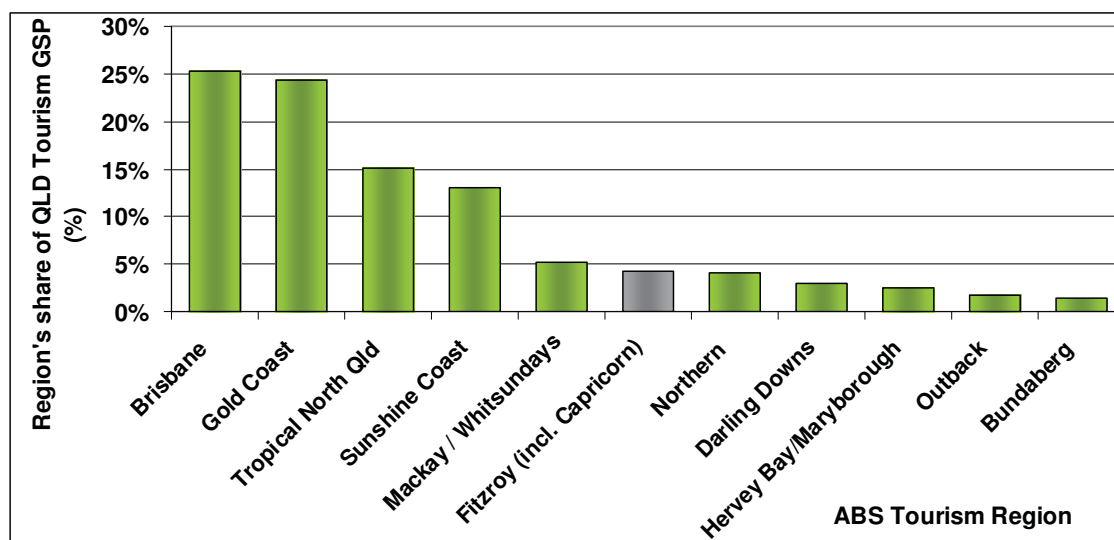
Chart B1: Domestic and international visitors to selected Queensland Tourism Regions in the 12 months ending December 2008



Region	Domestic Visitors ('000)	International Visitors ('000)	Total Visitors ('000)
Brisbane	4,706	897	5,603
Gold Coast	3,316	795	4,111
Sunshine Coast	2,792	279	3,071
Tropical North Qld	1,512	757	2,269
Mackay / Whitsundays	1,172	271	1,443
Toowoomba	1,060	36	1,096
Fraser Coast	800	200	1,000
Townsville	837	145	982
Capricorn	726	74	800
Bundaberg	591	41	632
Outback	421	32	453
Western Downs	387	12	399
Gladstone	284	55	339
Southern Downs	220	6	226

Source: Capricorn Regional Snapshot 2008.

Chart B2: Contribution by regions to Queensland tourism Gross State Product (GSP) expressed as a percentage of Queensland's tourism GSP



Region	Value of Tourism Gross Regional Product (\$m)	Region's share of Queensland's tourism GSP (%)
Brisbane	4,725	25%
Gold Coast	4,535	24%
Tropical North Qld	2,818	15%
Sunshine Coast	2,418	13%
Mackay / Whitsundays	956	5%
Fitzroy (incl. Capricorn)	794	4%
Northern	761	4%
Darling Downs	569	3%
Hervey Bay/Maryborough	459	2%
Outback	335	2%
Bundaberg	276	1%

Source: Regional Tourism Profiles 2007, Fitzroy Region. Tourism Research Australia.