

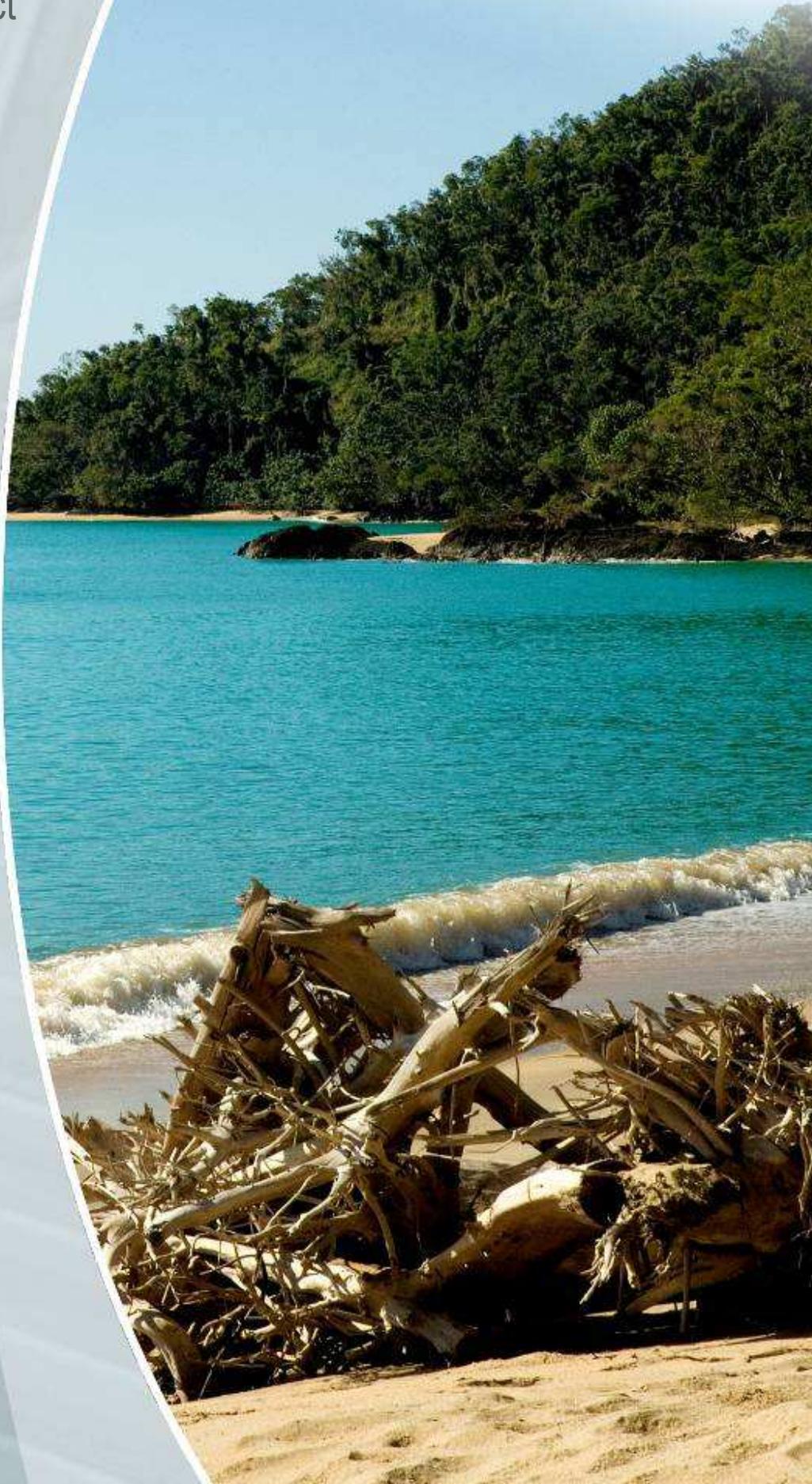
# Ella Bay Integrated Resort Proposal

Environmental Impact  
Statement

Executive Summary



ELLA BAY



## Executive Summary

Ella Bay Developments Pty Ltd proposes to transform an existing 450-hectare operating cattle station into a fully master-planned, integrated tourism and residential lifestyle community, proceeding in stages over a ten to fifteen year period at an estimated cost of \$1.81 billion.

With the opportunity to set new benchmarks for sustainable development worldwide, the proposed development will incorporate:

- 540 residences with ocean or rainforest views located around an 18-hole golf course,
- four five-star resort precincts with prime ocean frontage and beach access,
- a village precinct comprising mixed retail, professional services, offices, and restaurants and dining,
- an educational precinct comprising a proposed St Peter's Lutheran College international school, sports centre and church,
- a proposed sustainable development research institute in partnership with James Cook University and The University of Queensland,
- a 'signature' championship 18-hole golf course, and
- associated public infrastructure.

Designed to promote self-sufficiency (particularly in relation to energy, water and sewerage management), it is proposed that all infrastructure will be delivered in a manner which sets new standards in ecologically sustainable development and will be decentralised to facilitate the pre-sales and staging process.

A key aspect of the conservation/mitigation measures is the protection of fauna movement corridors and habitat. The presence of wildlife, including vulnerable and endangered species (including the endangered southern cassowary) within the Ella Bay site means that the Ella Bay Development Proposal aims to incur no negative impacts upon the native fauna population and, through an extensive re-vegetation and rehabilitation program, including the net expansion of potential habitat and the protection and widening of east-west and north-south movement corridors, the development proposal aims to achieve a net positive impact throughout the development.

The Ella Bay site is located in the Johnstone Shire, 75 to 80 km south of Cairns and 10 km north east of Innisfail (Figure ES.1).



Figure ES.1 Regional context of the Ella Bay site

Located approximately 3 km to the south, the closest centre to Ella Bay is Flying Fish Point (Figure ES.2).



Figure ES.2 Local context of the Ella Bay site

Ella Bay is recognised as one of the last available significant beachfront development sites on the Queensland Coast between Hervey Bay and Port Douglas. The Ella Bay site is located in a natural amphitheatre, surrounded on three sides by World Heritage tropical rainforest, and hemmed by 4 km of pristine Coral Sea coastline (Figure ES.3). (For more information see Section 3.1)



Figure ES.3 Aerial view of the Ella Bay site

## Objectives and philosophy

The key objectives of the proposed development were:

- to create a unique eco-resort and residential lifestyle community that sets new benchmarks for future master-planned communities throughout Australia and around the world;
- to provide a complete destination where tourists and residents alike can experience many of the benefits and attractions of tropical north Queensland and the Great Barrier Reef;
- to focus on best-practice design and engineering to protect and preserve the natural environment, while developing the largest master-planned sustainable community of its kind in Australia;
- to maintain a high level of integrity and quality in the design throughout the entire project;
- to develop (through research) new technologies in sustainable development and protection of the environment that can be used in other communities around Australia and the world;
- to assist in the revitalisation of the Cyclone Larry affected area of the Johnstone Shire, assisting in the development of the region and enabling the Shire to diversify away from its predominantly agrarian-based industries;
- to enhance the degraded / altered landscape adjacent to National Park and World Heritage Area through re-vegetation and establishment / improvement of wildlife corridors;
- to create an environmentally self-sufficient community, managing its own energy, water and sewerage treatment, making the community independent of any reliance on outside utilities;
- to create a socially self-sufficient community, providing commercial, retail, recreational and education facilities, making the community independent of any reliance on outside amenities, while being 'connected' to the world via state-of-the-art communications systems;
- to create a community designed in harmony with its surrounds with carefully planned eco-style architecture and sustainable housing; and
- to generate jobs, income and tourism in the Johnstone Shire.

The Ella Bay Development has been broken down into a number of communities and sub-communities, making the project ideal for staging. The staging approach reduces the impact on the environment, enables improvement through research into the environment, facilitates long term employment benefits and local industry opportunities, avoids resource overheating, and improves the economic model (inc cashflow).

In order to construct a modern, sustainable community, the restoration and rehabilitation of existing degraded land, together with the preservation of existing remnant vegetation forms a key component of the Ella Bay design philosophy. (For more information see Volume 3).

The Masterplan of the proposed development is shown in Figure ES.4.



*Figure ES.4 Masterplan of the proposed development*

## Legislative framework

The proponent for the development is Ella Bay Developments Pty Ltd (formerly P3), a special purpose company formed to develop and manage the proposed Ella Bay master-planned community. Established in July 2003, Ella Bay Developments Pty Ltd is owned by Warren William Witt of the Witt Property Group, who, together with John Holland Services Pty Ltd, a subsidiary of John Holland Pty Ltd, proposes to transform the agricultural site into a fully integrated tourist and residential lifestyle community.

The Ella Bay proposal was declared a 'significant project' on 15 September 2005. This requires the preparation of an Environmental Impact Statement (EIS) for the project pursuant to the *State Development and Public Works Organisation Act 1971* (SDPWOA).

The statutory impact assessment process under the SDPWOA is also the subject of a bilateral agreement between the Queensland and the Commonwealth Governments in relation to environmental assessment under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The Commonwealth Minister decided, on 4 July 2005, that the Proposal did constitute a controlled action under Section 75 of the EPBC Act, with the controlling provisions being World Heritage (sections 12 and 15A) and Listed threatened species and communities (sections 18 and 18A).

Subsequent to meetings with several government departments, extensive consultation has taken place, including the completion of a new masterplan of the Development in June 2006.

Numerous meetings with the then Federal Department of the Environment and Heritage and Queensland Environmental Protection Agency, Johnstone Shire Council, Coordinator-General and other Government Departments were held, with weekly calls discussing the issues, impacts and alternatives of the proposal.

During the preparation of the EIS, members of the local community in proximity to the Ella Bay Development Proposal site had the opportunity to attend two public consultation meetings regarding the proposed development. These meetings were held at Flying Fish Point and Innisfail with notification given in the local newspaper, *The Innisfail Advocate*. The public meetings allowed interested individuals and groups to gain information on the Ella Bay Development, and ask questions relating to the proposal and to provide feedback on the proposed Ella Bay community.

The following EIS has been prepared for the Coordinator-General, Queensland Government, Federal Department of the Environment and Water Resources, the Johnstone Shire Council and the community.

The overarching objective of this EIS is to provide information on the Ella Bay integrated residential and tourism community development and the processes undertaken to identify and evaluate all relevant environmental, social, cultural and economic issues associated with this proposal. (For more information see Volume 1.)

## Project Need and Alternatives

The Ella Bay Development proposal is environmentally significant in both a state and national context, particularly due to its proximity to two national parks (Ella Bay National Park and the Great Barrier Reef Marine Park). The \$1.8 billion project will provide extensive employment opportunities, infrastructure, tourism and population to the region.

The current proposed usage of the Ella Bay site has been arrived at after considerable examination of such alternatives and aims to provide integrated education, recreational, retail and commercial facilities in order to create a lifestyle community rather than simply a tourist location. At the same time, the proposal seeks to achieve the maximum environmental protection possible. Viable alternatives were considered and are outlined in Volume 2.

If the project does not proceed, it is unlikely that programs aimed at eradicating introduced pest species (plant and animal) would be undertaken, thus increasing the likelihood of further incursions of invasive species to surrounding natural areas. Retaining the Ella Bay site as agricultural land / cleared pasture, subdivided by fences, is likely to have a comparative negative impact on populations of endangered wildlife, particularly the southern cassowary, at a cost to native ecosystems.

The developers of the project will be required to make significant contributions in upgrading Johnstone Shire Council roads, including the Ella Bay Road, benefiting other members of the community, particularly those in the nearby Flying Fish Point communities. (For more information see Volume 2.)

## Nature conservation

In development planning, the Proponent has largely avoided areas currently supporting remnant vegetation, with the exception of some relatively small locations in the south-eastern portions of the subject site.

The area of vegetation proposed for rehabilitation is approximately 261,000 m<sup>2</sup> with the total development footprint restricted to the order of 5% of the total site.

Areas of particular sensitivity associated with the proposed development are located within the northern, south-eastern and eastern portions of the subject site. These areas support Regional Ecosystems (REs) listed under State legislation (*Vegetation Management Act (VMA) 1999*) and species listed under the EPBC. In addition, a drainage line bisects the site within its central portion, in an east-west direction. The associated riparian vegetation constitutes a protected community under the Queensland VMA.

While the majority of the planned development falls outside of these significant REs, there is a relatively small node of development partially within 'Of Concern' and 'Not of Concern' REs in the south-eastern portion of the property

The proposed development will seek to preserve and enhance these locations through provision of:

- physical barriers (fences), with wildlife crossing/access points,
- weed management,
- remediation/rehabilitation of adjacent areas in order to improve habitat integrity, and
- linkage of remnant areas through the construction of corridors to re-establish and/or improve habitat connectivity.

Subject to negotiations with relevant government authorities and suitable development offsets, the Proponent proposes that generally the areas outside development zones and adjoining the National Park will revert to national park and conservation covenants and suitable buffer zones will be negotiated.

As part of the re-vegetation philosophy, it is proposed that approximately 500,000 rainforest trees will be planted; thickening the current movement corridors and serving to both enhance the visual amenity and increase the area of possible habitat in the area.

The proposed wildlife corridors will link the Ella Bay National Park on three sides of the property so that wildlife can move between different habitats. This includes four main corridors and a series of sub-corridors which generally follow small gullies. Areas of particular sensitivity associated with the proposed development are located within the northern, south-eastern and eastern portions of the subject site. These areas support RE's (REs) listed under State legislation (Vegetation Management Act (VMA) 1999) and species listed under the EPBC. In addition, a drainage line bisects the site within its central portion, in an east-west direction. The associated riparian vegetation constitutes a protected community under the Queensland VMA.

The *Terrestrial and Freshwater Flora and Fauna Impact Assessment* was completed by BAAM in February 2007. BAAM's findings and recommendations integrate impacts and mitigation solutions / recommendations to address the potential effects of the development and the planning, design, construction and operational responses to impact management on the terrestrial and freshwater flora and fauna (including the southern cassowary).

Species of significance recorded during the survey or likely to occur within the subject site or nearby were discussed in detail in the BAAM Terrestrial and Freshwater Flora and Fauna Impact Assessment (2007). Classified under the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999* as 'endangered' the Common Mist Frog and the Southern Cassowary are the two fauna species of greatest significance that inhabit the proposed development site.

***Litoria rheocola* (Common mist frog)**

Loss of habitat will be largely restricted to streamlines along the access road. This area was not surveyed, but *L. rheocola* is expected to occur and *N. dayi* may occur. Road widening is likely to require the alteration of streamside vegetation adjacent to the existing road. The loss of this area however, is not likely to be a significant proportion of suitable habitat upstream of the roads and within the Seymour Range. Consequently, impacts are likely to be relatively low in the local context. Clearing of vegetation should be minimised. The long-term survival of the species in the local area is unlikely to be threatened by the development. It is proposed that road crossings over drainage lines will be of a suitable design to allow the safe movement of these frog species, preferably bridging streams and leaving stream-banks in tact.

***Casuaris casuarius* (Southern Cassowary)**

Southern Cassowaries have been recorded several times within and surrounding the development site. Furthermore, vegetation surrounding the development area is mapped as essential habitat for this species by the EPA.

The potential impacts of developing the Ella Bay Property on the Cassowary population include:

- Loss of 'essential' and 'general' Cassowary habitat within the development footprint;
- Loss of safe access to retained remnants of Cassowary habitat within the development;
- Interactions with people including habituation due to feeding;
- Interactions with domestic animals including dogs;
- Collision with vehicles.

The following mitigation proposals are inherent in the current proposal and have been identified in discussions with the developers and through an ecological appraisal of the Ella Bay Master Plan:

- All lost or compromised habitat will be compensated for by revegetation and remnant enhancement, with the aim of increasing the total amount of essential Cassowary habitat above what currently exists at the site.
- All declared weed species currently exploited by Cassowaries i.e., pond apple *Annona glabra*, will be removed from the property in a weed-control program.
- Approved Cassowary and people-proof fencing will be erected to mitigate interactions between the Cassowary(s) and the Integrated Resort.
- All pedestrian walkways through Cassowary corridors will be elevated above the forest floor to separate Cassowaries and people, and to provide unhindered Cassowary use of the creek and associated vegetation.

- Such pedestrian walkways will be strategically located to minimise any disturbance to the normal behaviour of the Cassowary(s) and may serve as a focal point for ecological interpretation.
- A strict dog control program will be enforced.
- There will be limited vehicle use within the grounds of the Integrated Resort.
- Existing cattle fences will be removed to improve access to the vegetated corridors.

The Cassowary Assessment (Appendix 6.4) recommends an additional northern corridor (Figure ES.5). This recommendation will be implemented subject to suitable offset negotiations with relevant authorities.

It should be noted that the existing narrow corridors are highly degraded from cyclone damage and resulting from the existing land use of a cattle property (see Appendix 6.1, 6.2, 6.3, 6.4). The movement of fauna is also restricted by the location of barbed wire fences dividing the property.



Figure ES.5 The proposed fauna network corridors

It is possible that certain areas identified for conservation may eventually be returned to the National Park, retaining a buffer to separate the residential areas from the National Park and World Heritage Area. These conservation proposals have not yet been fully finalized, as final details are subject to negotiations regarding offset arrangements however an indicative plan showing proposed conservation covenant areas and new National Park can be shown on Figure ES.6.

An important advantage of this indicative plan is the joining together of the currently separated Ella Bay National Park. The plan also shows the extensive re-vegetation along the existing degraded creek lines, which will form the main fauna corridors through the site.



Figure ES.6 Indicative National Park and Conservation Covenant Plan, and re-vegetation of conservation corridor plan.

The proposed development at Ella Bay will have no direct disturbances on marine plants or tidal lands, and nor will it impact directly on existing freshwater habitats or wetlands. Development is set back from creeks and the highest astronomical tide mark. (For further information see Section 4.7)

## Transport Infrastructure

It is evident that the existing capacity of Ella Bay Road will not be of adequate standard to carry the traffic from the proposed development and an alternative means of road access is required to support the project. During initial stages, Ella Bay Developments Pty Ltd studied several options to provide for the total development traffic including:

- Upgrading of Ella Bay Road,
- Mountainous Road Option,
- Tunnel Option, and
- Inland Option.

After extensive analysis and discussions with the relevant stakeholders and government departments, it was concluded that the upgrading of Ella Bay Road was the best option for Ella Bay Developments Pty Ltd to pursue (for further information see Section 2.2.4).

A number of alternatives for possible transport routes through Flying Fish Point were considered. Ella Bay Developments Pty Ltd is currently in the evaluating process in determining the best environmental, social and economic option for the road development.

**Option 1:** A route through the Flying Fish Point urban area was specified in accordance with the development approval of the existing development, Ella Bay Little Cove. The route required intersection upgrading and channelisation works to the Ruby/Judy St and Judy/George St intersections. The entire route involved the use of Elizabeth, George, Judy and Ruby Streets before connecting onto Ella Bay Road (see Figure 2.7).

**Option 2:** Option 2 involves the construction of a new road on the western side of the existing urban area (see Figure 2.8a). This option provides the benefit of reducing through traffic in the local streets within Flying Fish Point by diverting or bypassing traffic directly to Ella Bay Road. This option does not directly affect existing properties, although it does pass the back of some sites.

**Option 3:** This option allows all traffic to enter the start of the urban area and then diverts through traffic onto an esplanade road. At the northern end of the urban area the new road would divert west, passing below the existing aquaculture farm, to join Ella Bay Road. The section of Ella Bay Road from the connection point south to Ruby St will be closed. Previously an esplanade road had existed along the full length of beach front before it was washed away. The dedicated road reserve for that road still exists. This section of beach front has in recent years become very unstable and rock protection walls have been installed in an attempt to manage the problem (with limited success). The road has been fully constructed along the top of this rock wall between George St and Ruby Street but the remainder of the road will need reconstruction. Currently beach erosion directly affects approximately 34 residential lots that are on the eastern side of the un-constructed section of the esplanade.

**Option 4:** This option uses the same route through Flying Fish Point as Option 3, but instead of constructing a connection road along the southern boundary of the aquaculture farm, it is proposed to extend the esplanade road north along the remainder of the road reserve up to Heath Point. This option has many of the benefits of option 3. Additionally, it allows for more of the existing Ella Bay Road to be closed, thus restoring environmental connectivity.

Based on information regarding the positive and negative impacts of these options (see Section 2.2.4), a critical analysis of the options was able to be carried out:

- Due to a number of significant environmental issues, Option 2 at this stage of the investigation is the least favourable option.
- Option 3 and 4 may marginally reduce the impact on the existing urban area but also require significant works to be carried out along the beach foreshore. This would mean that significant coastal management and environmental issues need to be resolved.
- Option 1 is an existing road system and while the use and upgrade of this system will impact on the local community, it appears to provide the best environmental outcome.

As such it is recommended that Option 1 should be investigated and developed in the most detail for further discussion / approval. Option 3 and 4 should not be totally discounted for further investigation if all stakeholders agree that these options may be viable from approval, construction, operation, environmental, social and economic view points. Biodiversity Assessment and Management Pty Ltd (Flora and Fauna) and Les Moore (Cassowary) are currently in the process of reviewing these options in terms of their effects on flora, fauna and cassowary environments (For more information see Section 3.5.1).

## **Waste management**

An assessment of the waste generation from the proposed Ella Bay Proposal was undertaken as part of the EIS. This included the solid and liquid waste from construction activities and operational waste. The waste generated from the project can be effectively managed through the implementation of good practice, the development of new infrastructure and the use of existing infrastructure for waste disposal. (For more information see Section 3.6)

## **Land Use, Geology and Soils**

The subject site was largely cleared in the late 1960's, and has been utilised mainly for pastoral purposes since that time. The utilised land is generally degraded with significant areas of exotic weed infestations within paddocks of introduced pasture grasses namely Signal Grass (*Brachiaria decumbens*) and Humidicola (*Brachiaria humidicola*). A vegetated buffer of approximately 300m is proposed to be retained

on the northern boundary adjacent to the National Park, and a fairly extensive and irregular natural buffer is proposed to be retained along the national park boundary in the south.

The current (1997) and the draft Planning Schemes for Johnstone Shire designate the proposed land, in part, Rural and, in part, Rural Conservation. This reflects the existing land use activity of cattle grazing and the environmentally significant wetland area in the northern part of the site.

The proposed site is predominantly flat with existing drainage consisting of natural gully lines that traverse from the west of the site to the east and enter the bay. The catchments for the development are well defined and are heavily vegetated. There are two main creeks that cross the site with catchment areas that extend beyond the site boundary to the west and south. These creeks join near the centre of the Site and flow eastwards and discharge into a swale area behind the beachfront of Ella Bay. Periodically this swale breaks through to the sea.

The catchment areas of other minor drainage pathways are predominantly located within the Site and flow in a generally north eastwards direction towards the alignment of the two main creeks.

The preliminary geotechnical report produced by Golder Associates (Appendix 6.3) indicates that soil erosion is not considered to be of risk as development is proposed to the flat areas of the site. The building locations are predominantly in the flat areas where possible but if problems are encountered during construction, extra soil stabilisation treatments such as fabrics, soil retaining structures and reestablishment of plant cover are to be used to minimise the impact. As the design has a relatively small works footprint, the potential for erosion will be limited. Sediment Erosion Control and Storm Water Management plans will be in place to assess and mitigate any likely erosion effects due to the removal of vegetation in development precincts, access roads, recreational areas, waterways and designated infrastructure precincts. The implementation of staging and development over 10 to 15 years, will also reduce impacts. (For more information see Section 4.1.)

## **Water and Energy**

Surface water on the proposal site is predominantly limited to two creeks. A western-flowing creek crosses the entire site, and a northerly-flowing creek traverses the southern section of the site and joins the western-flowing creek at the approximate geographical centre of the site. As they are coastal, both creeks are fed solely by run-off from the adjacent Seymour Range and localised rainfall events.

There is limited existing information on underlying groundwater conditions. Experience within similar conditions in surrounding areas indicate that groundwater would generally be intersected within 5 m depth across areas of the site underlain by alluvial soils with surface levels less than 10m AHD. Groundwater movement within soils and rock is anticipated to be in generally eastwards direction in

sympathy with site topography, discharging into creeks and the back swamp area behind the Ella Bay beachfront.

The stormwater drainage system will be designed using best practice engineering based on the principles of Water Sensitive Urban Design (WSUD). This will incorporate elements to manage not only the quantity of storm water runoff but also provide quality treatment to ensure that the development has no negative impacts on receiving waters. Where possible natural drainage paths within the development will be kept or enhanced.

A core value and main objective in the development of the Ella Bay Community is that it will set new standards in sustainable development and design. In the terms of energy use, generation and management, achieving this objective requires a very high level of self-sufficiency and for electricity to be generated from green resources. To achieve this, each building will be designed to minimise energy use and the major electricity supply will be provided by a combination of Standalone Power Supply systems, solar power with a back-up supply provided by a grid connection at Flying Fish Point (For more information see Volume 3).

Sewerage will be treated on-site and treated waste water will be recycled throughout the community through a dual reticulation water supply system. Treated waste water will be used for golf course irrigation, hose wash down, toilet flushing and fire fighting purposes.

Rain water tanks, rain harvesting, and recycling will all form part of the community's water strategy. A back up trickle feed will however be supplied from Flying Fish Point to on site reservoirs.

## **Noise and Vibration**

Construction and operation of Ella Bay is likely to produce an increase in background noise levels. However, as the Ella Bay site is at least 3 kilometres from the nearest township (Flying Fish Point), it is unlikely that noise is likely to impact on the community, with the exception of noise associated with commuting and construction vehicular traffic and Ella Bay Rd upgrade works.

At this stage in the design / planning of the development, no blasting works have been identified and are not anticipated to occur during the construction or operation of the development. (For more information see Section 4.6)

## **Cultural Heritage**

Mamu Aboriginal Corporation represents the Traditional Owners for the Innisfail area. Five clan groups are recognised within the Mamu-speaking group, with the Bagirgabara clan located in the Ella Bay area (see Simmons 1993). Discussions have been held with Victor Maund, Chair of the Mamu Aboriginal Corporation,

and Wanyurr Majay have been contacted and notified of the development proposal, as their interest in some of the area currently claimed by Mamu was confirmed by the North Queensland Land Council.

Ella Bay Developments Pty Ltd is in the process of conducting a Cultural Heritage Study in collaboration with Victor Maund, Chair of the Mamu Aboriginal Corporation, Wanyurr Majay, and other interested parties.

A Cultural Heritage Study, involving a survey for Aboriginal cultural sites will be conducted across the entire property, or at least over a representative sample of it. This will occur before any construction work begins, and will involve representatives of the interested Aboriginal groups. (For more information see Section 4.8)

## Social

The Ella Bay proposal does not seek to actively alter the social values of either Innisfail or Flying Fish Point, however as the project is likely to increase the local population by 21% over its staged construction timeline of up to 15 years (Initial Advice Statement, Appendix 6.13), it is inevitable that the presence of Ella Bay will have some direct and indirect impacts on these communities. (For more information see Section 4.9)

## Economic

The size of the proposed Ella Bay Community compared to the relatively small Shire of Johnstone will mean that Ella Bay will have a significant impact on the local community, bringing benefits such as increased employment and training opportunities, population growth, increased economic activity arising from spending by new workers and residents

The economic benefits include:

- An estimated total development value of \$2.05 billion over ten years.
- 9100 person years of direct employment during construction, peaking at 2090 jobs in year 7.
- Wages and salaries of \$364 million for the construction workforce.
- Once fully operational, 760 jobs for the operation of the new resorts, golf course, retail and associated facilities, with salaries and wages of \$23 million per annum.
- An additional 3300 people permanently living in the Shire, an increase of 17% on the current population, or 1.6% growth per annum.
- An average of 1135 visitors staying at the resorts at any one time, adding 414 000 guest nights stayed in the Shire.
- A sixfold increase in expenditure by visitors staying in the Shire to \$166 million per annum.
- A major boost to the critical mass of the Shire in terms of tourism infrastructure and commercial accommodation, filling a spot at the quality end of the market.

- A new source of visitors for tourist attractions in the region, which currently rely on visitors travelling from other centres such as Cairns.
- Community benefits that include greater training and job opportunities for local people, particularly for younger people.
- An increase in the Johnstone Shire rates base by \$9 million per annum.
- \$86 million paid in State Government taxes and \$261 million in Federal taxes over ten years.
- During construction, multiplier effects will include an average of 516 support jobs offsite, plus 610 jobs arising from consumption induced expenditure.
- Once fully operational, multiplier effects will include 175 support jobs offsite, plus a further 195 jobs from consumption induced expenditure. (For more information see Section 4.11)

## Conclusion

Ella Bay Developments Pty Ltd aims to create a unique eco-resort and residential lifestyle community; the largest master-planned township of its kind in Australia. In both a State and National context, Ella Bay represents a unique opportunity set new standards for environmentally sustainable development, creating a self-sufficient lifestyle community in a coastal location without compromising the environmental values of the surrounding area.

The proposal sets new standards in terms of water conservation and minimising energy usage. By harvesting water, treating and recycling effluent and generating electricity on-site, Ella Bay is likely to become a prototype for all future developments in both coastal and non-coastal areas. Additionally, by combining human habitation and tourism with active wildlife conservation and enhancement measures, Ella Bay sets a new direction in the long-term investment of communities in their surroundings and establishes a management and stewardship component. The Environmental Management plan (see Volume 5) provides management plans to mitigate potential environmental impacts, and these plans will continually be updated and revised through a process of continuous research and evaluation. Through ongoing research in collaboration with the University of Queensland and James Cook University, Ella Bay Developments Pty Ltd will continue to develop new technologies in sustainable development that can be used in other communities around Queensland, Australia and the World.

In a State, National and even global context, Ella Bay is likely to become a template for similar sustainable projects into the future.