



ELLA BAY

executive  
**summary**



# 1.0 Introduction

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

The Ella Bay Integrated Resort will:

- revitalise the Cassowary Coast economy, providing diverse employment and training opportunities and attracting quality tourism to the region;
- deliver a net positive local and regional environmental outcome; and
- become a model for developing sustainable townships for the 21st Century.

This Report has been prepared as supplementary to the Ella Bay Integrated Resort Proposal Environmental Impact Statement (EIS), dated February 2007, which was publicly advertised in April 2007. The document has been prepared in response to submissions received from the members of the public; local, state and federal government agencies; and other organisations. The Ella Bay Integrated Resort Supplementary EIS should be read in conjunction with the EIS. The Supplementary EIS has been prepared for the Office of the Coordinator-General, the Queensland Government Department of Infrastructure and Planning, as well as various other government agencies assessing the Ella Bay Integrated Resort Proposal. The Report comprises four volumes:

- Volume 1: Submission Response
  - responds to submissions received during the EIS public consultation period.
- Volume 2: Key Issues: Refined and Improved
  - sets out key issues identified during the EIS public consultation period that have since been refined and improved. There have been no significant changes to the Proposal since the submission of the EIS in February 2007.
- Volume 3: Drawing Folder
  - set of architectural and engineering drawings for the proposal (A3)
- Volume 4: Appendices
  - includes specialist consultants' reports.

This Executive Summary outlines the concepts, philosophies and benefits for both the Environmental Impact Statement (Feb. 2007) and the Supplementary Environmental Impact Statement (Nov. 2007).

"Ella Bay is the most exciting sustainable community project, possibly anywhere in the world today.

It will set new standards with regard to environmental management and will help both preserve and enhance the wonderful surrounding World Heritage Area. We would be privileged to build such an innovative integrated township for the 21st Century."

**Rod Lamb**

Chairman, Satori Resorts Australia Pty Ltd



*Aerial view of the Ella Bay site looking south.*



## 2.0 Location & Access

The Ella Bay site is located in the Johnstone Shire, 75 to 80 km south of Cairns and 10 km north east of Innisfail. The Ella Bay site is located in a natural amphitheatre, surrounded on three sides by World Heritage tropical rainforest, and hemmed by 2.5 km of pristine Coral Sea coastline. Located approximately 3 km to the south, the closest centre to Ella Bay is Flying Fish Point.

Access to the site is via the existing 2.84 kilometre long Ella Bay Road which will require upgrading and is proposed to include a 900 metre by-pass road around Flying Fish Point. The existing road traverses through approximately 2 kilometres of the Ella Bay National Park which is World Heritage listed.



- 1 Local context of the Ella Bay site
- 2 Regional context of the Ella Bay site
- 3 View of the existing Ella Bay access road
- 4 View north towards Ella Bay from the existing Ella Bay access road



## 3.0 The Integrated Resort Community

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

- four five-star resort precincts with prime ocean frontage and beach access comprising 860 units and villas,
- a village precinct comprising mixed retail, professional services, offices, and restaurants and dining,
- 540 residences with ocean or rainforest views located around an 18-hole golf course,
- a proposed sustainable development research institute in partnership with James Cook University and The University of Queensland,
- an educational precinct comprising a proposed St Peter's Lutheran College international school, sports centre and church,
- a Welcome Centre
- a 'signature' championship 18-hole golf course,
- free public swimming facilities, and
- 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.



*Aerial view of the existing cleared cattle property with contours*



*Aerial view of the site indicating precinct locations*



*The development overlayed on a Google Earth image*



## legend

1. existing approved development
2. coastal access road
3. village centre - retail/commercial precinct/pedestrian plaza
4. eco day spa facilities
5. public pool facility
6. protected public swimming zone
7. community centre
8. village green
9. welcome centre
10. education facility/institute of sustainability/private school
11. rainforest rehabilitation nursery
12. sports oval
13. core utilities site
14. golf clubhouse
15. car parking
16. detached dwelling residential lots
17. special purpose residential apartment lots
18. 3 storey residential units apartment blocks
19. beach front resort development parcel
20. pedestrian beach connection paths
21. driving range
22. medium density eco beachfront resort development parcel
23. low density eco beachfront resort development parcel
24. village/beach pedestrian connection spine
25. neighbourhood recreation facility - pool, multipurpose room etc.
26. existing vegetation preserved
27. watercourses preserved, rehabilitation and/or enhanced
28. rehabilitation fauna corridor
29. infrastructure zone - including sewer
30. minimum 110m wide foreshore protection zone
31. ella bay beach
32. coral sea
33. world heritage listed national park
34. 18 hole championship golf course
35. community recycle centre
36. access control point
37. water infrastructure/tanks





## 4.0 Village Precinct

It is envisaged that the Ella Bay Village Precinct will become the mixed-use hub for community and visitor activities and interactions.

The Village Precinct is strategically placed at the southern edge of the site and is designed to give an immediate indication of the community nature and spirit of Ella Bay. A strong sense of place will be shaped throughout this precinct through a series of communal and commercial facilities, green spaces and a plaza spine linking the educational and Welcome Centre, and core community, retail and commercial zones through to the safe swim area on the eastern beach. Also integrated within this precinct are two resorts. These spaces and facilities are carefully linked through a network of pedestrian friendly connections and human scale streetscapes and plaza spaces.

The Ella Bay Village Precinct will provide a cosmopolitan community centre that will service the needs of both the visiting and resident population. Rather than compete with existing businesses in the local and regional area, the Village Precinct at Ella Bay is designed to serve the immediate needs of the resident and tourist populations. As such, it is envisaged that the commercial areas at Ella Bay will feature specialised businesses that are generated by the resident's particular skills and interests.

In order to reduce the need for extensive private automobile use, the Ella Bay Community is designed to be largely self-sufficient, minimising the number of automobile trips to be taken both within and outside the Ella Bay area. As such, basic retail and commercial lifestyle provisions will be required to service both the residential and resort precincts. The majority of car parking for the entire community is to be located within the Village Precinct, where people will make use of greener modes to reach other destinations.



*The Ella Bay Village Precinct*

### legend

- |  |  |   |                                       |  |   |
|--|--|---|---------------------------------------|--|---|
| 1. coastal access road   | 7. community centre  | 14. access control point  | 21. sports & fitness centre           | 29. golf clubhouse   | 36. coral sea                                   |
| 2. village centre - retail/commercial precinct/ pedestrian plaza | 8. medium density eco beachfront resort development parcel | 15. 3 storey residential unit/apartment blocks                    | 22. rainforest rehabilitation nursery | 30. driving range  | 37. sports oval                                 |
| 3. public pool & facility  | 9. resort units  | 16. eco day spa facilities  | 23. core utilities site               | 31. 18 hole championship golf course   | 38. minimum 110m wide foreshore protection zone |
| 4. village/beach pedestrian connection spine                     | 10. resort swimming lagoons & facilities                   | 17. carpark 3 to 4 levels   | 24. power                             | 32. neighbourhood recreation facility - pool, playground, multipurpose room etc. |   |
| 5. protected public swimming zone                                | 11. single level carpark                                   | 18. welcome centre & temporary carpark                            | 25. fuel cell                         | 33. detached dwelling residential lots   |   |
| 6. resort units with retail/commercial at ground level           | 12. village green  | 19. community recycle centre                                      | 26. laundry                           | 34. special purpose residential apartment lots                                   |   |
|  | 13. community garden plots                                 | 20. education facility/institute of sustainability private school | 27. sewer                             | 35. existing vegetation preserved  |   |
|  |  |   | 28. gas                               |  |   |



# 5.0 Resort Precincts

Four distinct resort precincts are identified within the Ella Bay Development. These are located (a) in the northeast corner; (b) the central foreshore area; (c) integrated within the Village Precinct and (d) the Country Club Resort within the Golf Course Precinct. Each resort is likely to be of five-star standard and comprise self-contained apartments and/or villas typically ranging from one to three bedrooms. Also proposed are a small number of penthouses, with a total number of 860 dwellings.

The visitors to the Resorts and Country Club Precincts will be predominantly tourists, however, some dwellings may have a mix of permanent 'lifestyle living' residents. Each of the Resort Precincts has been designed to service the immediate residential areas, with facility sharing agreements established between the Resorts and the surrounding lots. In this way, all Ella Bay residents will be able to share resort facilities, conserving valuable resources while enjoying the associated resort lifestyle.

## Resort Precinct within Village Precinct

It is proposed that this Resort Precinct will be integrated into the Village Precinct and will comprise up to four-storey beach-front apartments with rooftop terraces. It is anticipated that this Resort Precinct will include conference facilities, and it is expected that meetings and incentives market will comprise a significant proportion of visitors.

## Central Foreshore Resort Precinct

The Central Foreshore Resort Precinct will consist of two-storey eco-beachfront apartments with rooftop terraces and half-basement car/buggy parking. This Precinct will include a restaurant, day spa and pool, intended to service both the tourist and residential populations.

## Northern Foreshore Resort Precinct

The Northern Foreshore Resort Precinct will comprise single-storey eco-beachfront villas, with a centralised parking area. This Precinct will also include a restaurant, day spa and pool, intended to service both the tourist and residential populations.

## Country Club Resort Precinct

The Country Club Resort area is likely to consist of up to three-storey country club-style apartments with direct access to the golf course, clubhouse and facilities. It is proposed that a distinctive clubhouse design will be adopted, incorporating a bar, restaurant, conference facilities and a pool.



- legend**
- |  |   |  |
|--|---|--|
| 1. coastal access road                                     | 6. resort swimming lagoons & facilities   | 12. prominent vegetation/fauna corridor              |
| 2. medium density eco beachfront resort development parcel | 7. resort carpark   | 13. pedestrian beach connection paths                |
| 3. resort villas   | 8. 18 hole championship golf course   | 14. existing vegetation preserved                    |
| 4. ella bay beach  | 9. neighbourhood recreation facility - pool, playground, multipurpose room etc. | 15. indicative infrastructure zone - including sewer |
| 5. minimum 110m wide foreshore protection zone             | 10. detached dwelling residential lots  | 16. coral sea  |
|  | 11. special purpose residential apartment lots                                  |  |

The Central and Northern Foreshore Ella Bay Resort Precincts



## 6.0 Residential/Golf Precincts

It is proposed that there will be a total of 540 residential lots within the Ella Bay Development. Given the natural sloping topography of the site, many lots will enjoy ocean views, with many having direct golf course frontage. Other lots will enjoy pristine rainforest views, overlooking the World Heritage listed Ella Bay National Park.

In keeping with the environmental philosophies of Satori Resorts, policy and statutory measures will be put in place to ensure sustainable housing design is adopted throughout the Ella Bay site, with the intention to minimise the disturbance to the natural environment throughout the life of the development. To achieve this, Satori is in the process of establishing a comprehensive set of Design and Environmental Codes.

The benefit of having strong Design and Environmental Codes is that they offer the potential to deliver consistency in quality and to raise standards in built form design. It is a legal document that ensures buyers of land take on very specific, binding responsibilities. This will include a commitment to reducing their ecological footprint and impacts on the environment at Ella Bay.

The Design and Environmental Codes will cover a wide range of policies, procedures, rules, benchmarks and guidelines in three critical areas:

- The Built Environment; including site orientation, building envelope and setbacks; slope analysis and building height considerations; building appearance considerations, roof form guidelines and materials guidelines.
- The Natural Environment; including landscape considerations, acceptable species, fencing and lighting.
- Ecologically Sustainable Development; including energy, waste and water supply considerations.

A proposed 18 hole golf course will provide recreational open space, scenic amenity and environment benefit to the community. The golf course will commence midway through the project and should it not proceed for whatever reason, much of the land the course occupies will be reallocated to open space.



### Legend

- |  |  |
|--|--|
| 1. neighbourhood roads   | 6. 18 hole championship golf course  |
| 2. neighbourhood recreation facility - pool, playground, multipurpose room etc.        | 7. infrastructure zone - including sewer   |
| 3. shared neighbourhood recreation facility - pool, playground, multipurpose room etc. | 8. prominent vegetation/fauna corridor   |
| 4. pedestrian/buggy connection path  | 9. existing vegetation community   |
| 5. detached dwelling residential lots  | 10. water infrastructure/tanks   |
|  | 11. restricted access connection link - shuttle bus, pedestrian, buggys & bicycle access |

*Residential precinct in the north-east corner of the Ella Bay Integrated Resort*



## 7.0 The Proponent — Objectives & Philosophies

The Proponent, Satori Resorts Ella Bay Pty Ltd is a member of the Satori Group of Companies led by Satori Resorts Australia Pty Ltd. It is headed by Company Directors Rod Lamb and Philip Ham. Satori's core business is targeted at building integrated townships for the 21st Century. With over 30 years experience in the property development and construction industry, Directors of Satori have seen many successful projects through from the initial planning phase to completion.

Satori's operational aim is to create a collection of properties that are visionary in nature, and are carefully and sensitively developed to maintain the ecological balance between nature and the built environment. Satori's approach to the Ella Bay Integrated Resort Proposal will be to adopt a clearly planned, eco-caring environment, which will set new standards in energy, water and conservation management. All Directors and senior management of Satori are deeply committed to the vision for the Ella Bay Proposal — to deliver a sustainable community within the region. In delivering upon this vision, Satori will adopt a holistic and integrated approach, based on a core set of values that informs every aspect of Satori's business. These core values are set out opposite.

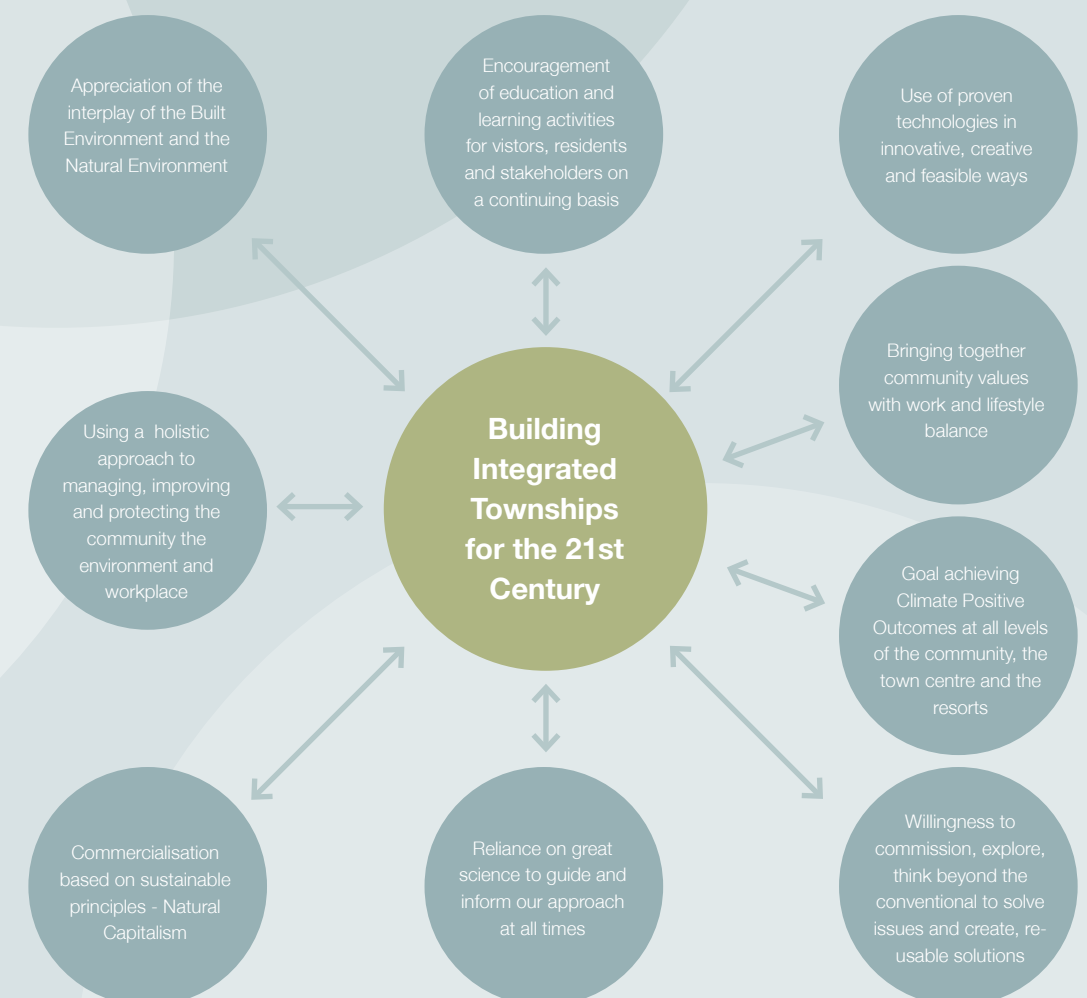
The key objectives of the Proposal are to:

- create a unique eco-resort and residential lifestyle community that sets new benchmarks for future master-planned communities throughout Australia and around the world and provides a net positive benefit to the environment;
- enhance the degraded/altered landscape adjacent to National Park and World Heritage Area through revegetation and establishment/improvement of wildlife corridors;
- 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;
- 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;
- maintain a high level of integrity and quality in the design throughout the entire project;
- 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;
- 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;
- create an environmentally self-sufficient community, managing its own energy, water and sewerage treatment, making the community less dependent on outside utilities;
- 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;

- create a community designed in harmony with its surrounds with carefully planned eco-style architecture and sustainable housing; and
- generate jobs, income and tourism in the Johnstone Shire.

The Ella Bay Integrated Resort 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 (including cash flow).

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.



*Satori Resorts core values diagram*



## 8.0 Key Issues

Throughout the development of the Environmental Impact Statement, public consultation and submission periods and discussions with key stakeholders and government agencies a number of key issues have emerged to be of most importance in relation to the proposed development of the Ella Bay Integrated Resort Proposal. These key issues are:

- Access to the site;
- Endangered and vulnerable species;
- World Heritage values;
- Water quality;
- Vegetation and habitat;
- Land protection and conservation;
- Existing degraded cattle property and other threatening processes; and
- Regional environmental impacts.

A brief synopsis of each issue is provided within this Executive Summary

### 8.1 Access to the Site

Satori Pty Ltd will adopt an Ella Bay access road solution that will produce positive outcomes for the environment and the local community. The revised Access Road Strategy takes into account the potentially competing needs of the community at Flying Fish Point and the Coconuts and the natural environment.

After extensive examination of the entry road options and alternatives, it was resolved that the best option (which was determined from a multi criteria analysis of all road options) will be to upgrade the existing Ella Bay Road and create a Flying Fish Point bypass

In an attempt to balance both social and environmental concerns, the proposed road option:

- protects the lifestyle of Flying Fish Point and the Coconuts;
- takes into account the safety of children;
- reduces the impact of noise, dust and pollution to a minimum;
- solves the issue of congestion at Flying Fish Point; and
- looks after the interests of local wildlife.

The proposed road option will incorporate a number of mitigation measures and offsets to address potential environmental impacts and concerns. These measures include:

- a Fence and Funnel Strategy (comprising fauna corridors, fencing, fauna bridges and associated road ecology initiatives);
- a Traffic Management Strategy (for traffic calming, speed reduction, surveillance and ways to reduce and restrict the use of private vehicles at Ella Bay);
- a Cassowary Management Strategy (to reduce conflict with traffic and thereby promote the conservation of this species);

- a Road Runoff Strategy (to document the approach to road drainage and pollution control);
- the use of green verges, special retaining walls and embankments;
- incorporate fauna underpasses and canopy bridges (to provide safe connectivity);
- the building of adequate and appropriate sight lines at crossing points, signage and appropriate speed limits;
- the building of a cut and cover tunnel and fauna overpass at Flying Fish Point; and
- a comprehensive offset program including 14 hectares of revegetation, research programs, and strategic regional planning and corridor protection.

### 8.2 Endangered and Vulnerable Species

Satori seeks to achieve an overall improvement in local biodiversity on the Ella Bay site and an enhanced habitat for endangered and vulnerable species including the Southern Cassowary, Common Mist-frog, Spectacled Flying Fox and a number of flora species.

A key strategy for protecting endangered and vulnerable species is the extensive revegetation and rehabilitation program. This program will involve 84.71 hectares of revegetation and rehabilitation works creating an extensive network of vegetation conservation corridors that link currently fragmented World Heritage habitat. Vegetation loss will be kept to a minimum with built form located predominantly in existing cleared areas, allowing clearing to be limited to 3.55 hectares onsite and offsite.

A comprehensive package of offsets and additional environmental investments has also been prepared to address potential impacts upon endangered and vulnerable species that cannot be fully mitigated. This package takes the idea of offsets beyond its role as a compensatory mechanism to include additional environmental investments in achieving an overall environmental improvement.

#### Southern Cassowary

The key risk areas that have been identified for the Southern Cassowary include the impact of feral animals and pets (particularly dogs and feral pigs), road design, traffic movements, hand feeding, disease, the impact of storm disturbances and the movement and presence of people.

A Cassowary Management Strategy has been developed that takes an integrated, holistic approach to mitigate key risk areas identified for the Southern Cassowary. The purpose of this Strategy is to:

- be a catalyst in saving the endangered Southern Cassowary from possible extinction;
- make Ella Bay a safe environment for the Cassowary and for people at all times; and
- help slow the rate of decline of the Cassowary and ultimately reverse it.



Access road with fauna protection measures



Fauna friendly road overpass



A range of solutions are proposed as part of the Cassowary Management Strategy. These solutions include a combination of management and education measures to minimise the impact of human activity, fauna over and under passes, fencing to exclude cassowaries from high risk areas, and improving habitat quality and connectivity.

### Common Mist Frog

Issues relating to the Common Mist Frog have generally involved habitat connectivity, traffic collision and water quality concerns. Fauna surveys did not locate the species onsite however habitat and connectivity improvements may re-establish the species within the Ella Bay area. The proposed rehabilitation of onsite riparian strips and Water Sensitive Urban Design (WSUD) techniques will significantly improve habitat quality and connectivity in comparison to that currently offered by the degraded cattle property. Strategies to mitigate the risk of traffic collision will also be implemented, with bridges over watercourses to be incorporated onsite and along the access road.

### Spectacled Flying Fox

An extensive program of revegetation and rehabilitation, with the establishment of strategic environmental corridors will significantly improve onsite habitat quality and connectivity for the Spectacled Flying Fox. In addition a 'dark sky' lighting policy is to be enforced through the Design and Environmental Codes. These measures will minimise the key potential impacts on the Spectacled Flying Fox in relation to habitat loss, habitat connectivity and light pollution, providing the opportunity for the species to become more abundant within and around the site.

### Flora Species

Onsite and offsite clearing is to be kept to a minimum (3.55 hectares) and an extensive revegetation and rehabilitation program of endemic species (84.71 hectares) will limit the potential impacts caused by the minimal habitat loss. These measures, and the proposed Weed Management Plan to eradicate pest species from the currently weed infested site, will provide a significantly improved habitat for endangered and vulnerable flora species, and are likely to prevent weed species spreading into World Heritage areas, which is currently a concern.

## 8.3 World Heritage Values

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. The World Heritage listed Great Barrier Reef is also located just 36 kilometres offshore. The proximity and impacts of the proposal on these pristine and sensitive natural environments has required careful consideration. Some of the key issues with regard to World Heritage Values are outlined below.

### Endangered Species

As discussed previously Satori seeks to achieve an overall improvement in local biodiversity on the Ella Bay site, and an enhanced habitat for endangered and vulnerable species that inhabit the site and adjacent World Heritage Areas.

### Visual Amenity

Visual analysis has determined that the Ella Bay Integrated Resort will have minimal impact on the scenic values of adjacent World Heritage Areas. The retention of existing vegetation will conceal the predominant areas of the development and additional extensive revegetation and rehabilitation works will further improve natural screening. The increase in onsite habitat incorporating an extensive network of vegetation corridors will result in a substantial visual improvement to the currently degraded cattle property. The Design and Environmental Codes will ensure that built form is appropriate for the Ella Bay site and the natural surrounds thereby mitigating visual impacts upon the scenic values of the surrounding World Heritage Areas. Indeed, the Ella Bay Integrated Resort provides the opportunity to showcase the scenic World Heritage Values of the Ella Bay region.

### Habitat Connectivity

Satori proposes rehabilitation and revegetation works totaling 84.71 hectares which will significantly enhance existing ecosystem quality and quantity and provide an extensive habitat network to link currently fragmented World Heritage habitat. Safe fauna connectivity will be provided across roadways with the incorporation of measures such as the 'cut and cover' tunnel, fauna underpasses and canopy bridges, adequate sight lines, signage and appropriate speed limits.

### Water Quality

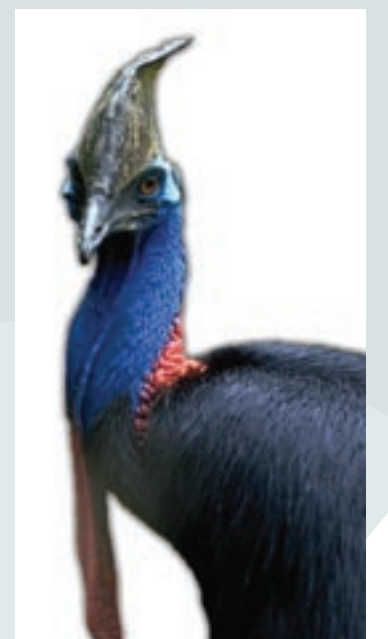
Hydrological connectivity between the Ella Bay site and the Wet Tropics Queensland World Heritage Area Wetlands was found to be minimal and any potential run-off impacts have been mitigated with refinements to the Master Plan and the incorporation of a number of organic golf-course fairways. Water quality management and planning for the Proposal has been primarily based upon the protection of immediate adjacent wetland areas within the Northern Freehold Area and the Farm Wetland Swale. The protection of these potentially more sensitive on-shore wetland ecosystems will in turn provide suitable protection for the adjacent area of the Reef Lagoon and the Great Barrier Reef World Heritage Area. With the proposed water quality management techniques the development provides the opportunity to substantially rectify and improve run-off and stream quality.

### Clearing

Clearing of vegetation within the World Heritage Area is limited to the minimal amount required to upgrade the existing Ella Bay access road that traverses the World Heritage Area, calculated to be 0.44 hectares. This vegetation loss will be offset with onsite revegetation works calculated on the ratio of 1:4—one of the highest recommended under the Vegetation Management Act.



Fauna corridor plan





### Cultural Heritage Protection and Management

A Cultural Heritage Management Plan has been agreed, in collaboration with the Mamu local indigenous community with the development site surveyed, and significant sites identified and protected. This will ensure cultural values of the World Heritage area are retained and the capacity for the Mamu community to manage cultural heritage enhanced.

### 8.4 Water Quality

The Ella Bay Integrated Resort Proposal involves rehabilitation of degraded ecosystems, providing buffer zones and corridors, establishing new vegetation communities throughout the Site and implementing a number of water management strategies and Water Sensitive Urban Design techniques. These measures will result in an overall improvement in water quality and habitat value. This improvement will allow a greater opportunity for species such as the endangered Common Mist Frog to increase in abundance throughout the site, based on habitat and water quality enhancements.

The current state of water quality throughout the Ella Bay site is generally poor. This is a result of run-off pollution from on-site cattle and agricultural practices, with waterways found to contain high levels of nutrients and sediment. With the proposed water quality management techniques the development provides the opportunity to substantially rectify and improve run-off and stream quality.

Research and modeling indicates that there is no mechanism for groundwater flow between the Ella Bay site and the northern Wet Tropics Queensland World Heritage Area Wetlands. Furthermore, only ten percent of the site is located within the catchment of the Wetlands, incorporating less than five percent of the southern portion of the Wetlands catchment area. The impact of runoff into the Wetlands in the north of the Site has been mitigated with a 300 metre vegetated buffer and the repositioning of the northern-most residences and three fairways of the golf course.

Specialist studies have found that a well planned, constructed and operated development at Ella Bay will have minimal impact upon surface water and groundwater hydrology and quality, adjacent wetland areas and the Reef Lagoon. Water quality management and standards of the Proposal are to be in accordance with the Queensland Water Quality Guidelines (EPA, 2006) to ensure the protection of terrestrial and aquatic fauna and flora. Through ongoing monitoring of water quality and biodiversity throughout construction and operation any adverse impacts can be identified and responded to appropriately.

### 8.5 Vegetation and Habitat

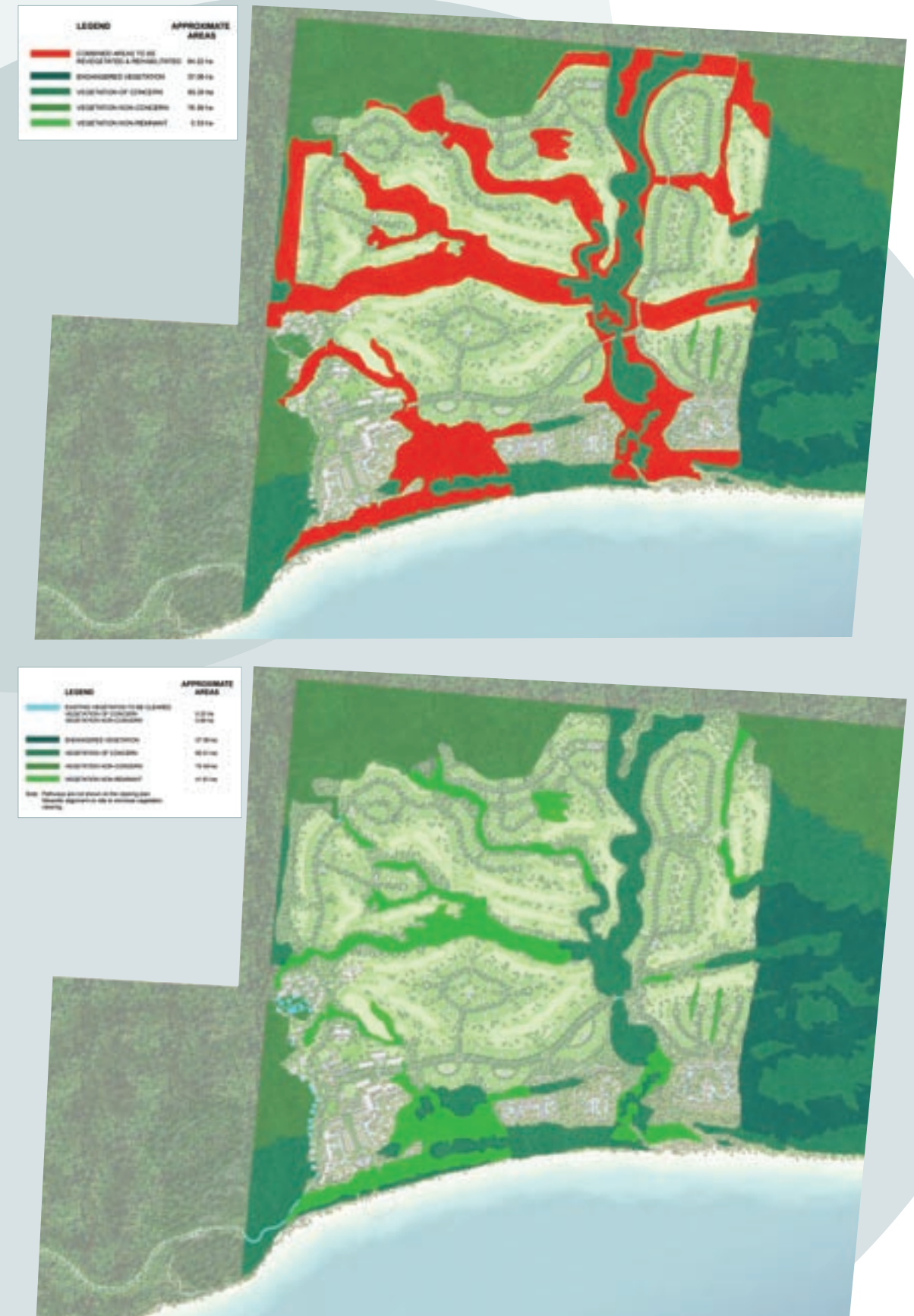
A large proportion of the Ella Bay property is currently degraded and cleared as a result of the existing cattle and agricultural use. In an effort to minimise vegetation clearing it is proposed that the Ella Bay Integrated Resort will be constructed predominantly within these existing cleared areas, with only minor areas of clearing to be conducted. Clearing

required for the Proposal will amount to a total of 1.11 hectares onsite and 2.44 hectares along the access road alignment.

Satori proposes to rehabilitate and revegetate 84.71 hectares. With regard to the minimal clearing proposed, the Ella Bay Integrated Resort offers a significant 'net gain' in vegetation cover and potential habitat of 81.16 hectares. This will significantly enhance existing ecosystem quality and quantity and provide extensive habitat connectivity within and beyond the site.

The clearing required for the proposal including the access road and associated Flying Fish Point bypass is to be offset. The integrated package of Regulated Offsets and Additional Environmental Investments (refer to Volume 4, Appendix A.2.11) provides a detailed set of works and actions that deal with impacts that can not be totally mitigated. In terms of vegetation clearing and habitat loss, the regulated offset is to include 14.2 hectares of onsite revegetation. This is calculated using one of the highest ratios under the Vegetation Management Act of 1:4.

This package takes the idea of offsets beyond its role as a compensatory mechanism to include additional environmental investments in achieving an overall environmental improvement. For example, the proposed substantial revegetation and rehabilitation program will provide an additional 80 hectares over the regulated offset amount of 14.2 hectares of revegetation. This will significantly improve onsite ecosystem value and establish crucial links between currently fragmented World Heritage habitat.





## 8.6 Land Protection and Conservation

The Ella Bay Integrated Resort Proposal should be seen in the context of existing and potential vegetation and revegetation. The existing Ella Bay property is a freehold pastoral grazing property and clearing of non-remnant regrowth is an exempted practice for the landholder under the Vegetation Management Act and Vegetation Management Regulations. The landholder could potentially clear all the non-remnant vegetation on the property, resulting in a net loss of over 41 ha of regrowth between the north and south of the property.

While much of the non-remnant vegetation is weed-infested, many native rainforest and related species still occur in these areas, and it nevertheless provides a good basis for a corridor habitat for local species, including the Cassowary.

The Ella Bay Integrated Resort Proposal contains a suite of measures for the protection, conservation and management of vegetation and habitat:

- 188 hectares of onsite vegetation will be protected and managed under Conservation Covenant.
- Minor fauna movement corridors will be protected and managed under the Local Area Plan.

## 8.7 Degraded cattle property and removal of other threatening processes

A large proportion of the Ella Bay property is currently degraded, cleared and weed infested as a result of the existing cattle and agricultural use. This results in a site that provides minimal ecosystem value, and conflicts with and threatens the World Heritage Values of the surrounding natural environment. The Ella Bay Integrated Resort seeks to rectify much of the damage done to the property by removing many of these threatening processes and incorporating a number of protection and conservation measures to achieve a net positive environmental outcome.

### *Revegetation and Rehabilitation Program*

This program will involve 84.71 hectares of revegetation and rehabilitation establishing an extensive network of conservation corridors that links currently fragmented World Heritage habitat.

### *Biodiversity Value*

In addition to the establishment of conservation corridors, landscaping for golf courses, backyards and around resort areas will be of endemic species and will add to the habitat quality and biodiversity of the site.





### *Improved Water Quality*

With the proposed Water Quality Management Strategy and incorporated Water Sensitive Urban Design (WSUD) measures, the development provides the opportunity to substantially rectify and improve run-off and stream quality.

### *Land Protection*

The landholder could clear all non-remnant vegetation on the property, resulting in a net loss of over 41ha of regrowth. Satori proposes to protect significant areas of onsite and offsite vegetation through mechanisms such as National Park, Conservation Covenant and Local Area Plans to ensure the long-term viability of these ecosystems.

### *Weed Management and Eradication Program*

This program will involve eradication works throughout the weed-infested site and along the access road, including the removal of pond apple, to significantly improve habitat quality and prevent the spread of existing weeds into the World Heritage Area and Ella Bay National Park.

### *Existing Ella Bay dirt road to be sealed and overpasses provided*

Sealing the existing Ella Bay Road and incorporated WSUD measures will substantially improve water runoff quality and sediment control into watercourses. Fauna overpasses and underpasses will reduce the current traffic risk along the existing Ella Bay Road.

### *Removal of pest animal species*

A Pest Animal Management Plan will be developed to remove current onsite pest species including wild pigs, that impact upon local endemic flora and fauna.

### *Removal of existing fences and associated agricultural practices*

The removal of cattle, fences and associated agricultural practices in combination with the proposed revegetation and rehabilitation works will significantly improve onsite habitat value, connectivity and water quality.

## 8.8 Regional Environmental Impacts

Satori recognises that it is important to consider the impacts and influence of the Ella Bay Integrated Resort in a regional context, beyond those impacts that affect the area within and immediately surrounding the site.

With this regional context in mind, Satori seeks to be a significant contributor to a localised target to secure the Graham and Seymour range sub-population of the Southern Cassowary.

Strategically, Satori proposes to influence positive conservation outcomes for the Southern Cassowary at the regional level by collaborating with Terrain NRM in the development of a landscape-scale Local Area (or Habitat Network) Plan for Cassowaries.



*South facing aerial view of the Ella Bay site*



*The existing Ella Bay site characterised by agricultural use, weed infestation and cattle fences.*



*The existing Ella Bay dirt road with weed infested verges.*



# 9.0 Benefits of the Proposal

## 9.1 Environmental Benefits

At Ella Bay, Satori will implement a holistic approach to manage, protect and significantly improve the natural environment within the Ella Bay region. The objective is to enhance the degraded/altered landscape adjacent to the Ella Bay National Park and World Heritage Area and establish a community in harmony with its surrounds, thereby providing an overall positive environmental outcome.

A number of environmental benefits resulting from the Ella Bay Integrated Resort are outlined below.

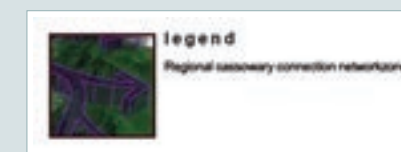
- The proposed substantial revegetation and rehabilitation program will provide an additional 84.71 hectares of essential habitat.
- The revegetation and rehabilitation works will provide an extensive network of environmental corridors establishing critical habitat connectivity between currently fragmented areas of World Heritage habitat. This will establish critical corridors and habitat connectivity for a range of local endemic flora and fauna species including the Common Mist Frog and the Southern Cassowary.
- The proposed Water Quality Management Strategy incorporating Water Sensitive Urban Design techniques, revegetation and rehabilitation of riparian strips and ongoing hydrological monitoring will substantially improve the health and discharge of onsite watercourses.
- Landscaping in golf courses, backyards and around resort areas will be restricted to endemic species and will add to and enhance the habitat quality and biodiversity of the site.
- Significant improvements to currently degraded habitat and watercourses may allow for species such as the Common Mist Frog, Southern Cassowary and Spectacled Flying Fox to become more abundant within and around the site.
- Approximately 188 hectares of onsite vegetation will be protected and managed under Conservation Covenant.
- Remaining vegetation corridors will be protected and managed under the Local Area Plan.
- A Weed Management Plan will involve eradication works throughout the weed infested site, including the removal of pond apple, to significantly improve onsite habitat quality and reverse the spread of existing weeds into the World Heritage Area and Ella Bay National Park.
- Sealing the existing Ella Bay Road and incorporated water sensitive urban design measures will substantially improve water runoff quality and sediment control into watercourses.
- A Pest Animal Management Plan will be developed to remove current onsite pest species including wild pigs, that adversely effect local endemic flora and fauna.
- The removal of cattle, fences and associated agricultural practices and revegetation and rehabilitation works will significantly improve onsite habitat value, connectivity and water quality.
- A comprehensive offsets and additional environmental investments package with an estimated value of over \$6 million.

## 9.2 Economic Benefits

Ella Bay will have a significant impact on the local and regional economies, bringing benefits such as increased employment and training opportunities, population growth, increased economic activity arising from spending by new workers, residents, and tourists, and significant contributions resulting from rates and taxes at local, state and national level.

Economic benefits resulting from the Ella Bay Integrated Resort are outlined below.

- The estimated total development value of the Proposal is \$2.05 billion over ten years.
- It is expected that 9100 person years of direct employment will result from the construction process, peaking at 1500 jobs in year seven of the construction phase.
- Wages and salaries for the construction workforce are estimated at \$364 million.
- Once fully operational, 760 jobs will be provided for the operation of the new resorts, golf course, retail and associated facilities, with salaries and wages to total approximately \$23 million per annum.
- An additional 3300 people will be permanently living within the Johnstone Shire. This is an increase of 17% on the current population, or 1.6% growth per annum.
- An average of 1135 visitors will be staying at the resorts at any one time, which will add approximately 414 000 guest nights stayed in the Johnstone Shire.
- A sixfold increase, to \$166 million per annum, is expected in expenditure by visitors staying in the Shire.
- There will be a major boost to the critical mass of the Shire in terms of tourism infrastructure and commercial accommodation, which will fill a opportunity at the quality end of the market.
- A new source of visitors will be provided for tourist attractions in the region, which currently rely on visitors travelling from other centres such as Cairns.
- Assistance in the economic development of the region, will enable the Shire to diversify away from its predominantly agrarian-based industries.
- There will be an expected increase in the Johnstone Shire rates base by \$9 million per annum.
- An estimated \$86 million will be paid in State Government taxes over ten years
- An estimated \$261 million will be paid 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.





### 9.3 Social Benefits

The Ella Bay Integrated Resort Proposal has been developed with consideration to the social and cultural needs of the existing residents and visitors to the Region, as well as the potential residents and visitors to Ella Bay. As well as addressing the physical aspects of the Proposal, Satori has implemented a holistic approach with the objective to establish a healthy, prosperous community with social, economic and cultural links with the local Mamu people, as well as residents of Flying Fish Point and the Coconuts.

A number of social benefits resulting from the Ella Bay Integrated Resort are outlined below.

- Community recreation facilities, including a golf course, swimming pools, a safe beach swimming area (including a stinger net) and networks of walking and cycling trails, will allow multiple opportunities for social interaction and physical activity.
- The Proposal aims to be self-contained, with shops, basic services, restaurants and dining providing in the Village Precinct, as well as serviced offices and education facilities provided.
- A Cultural Heritage Protection and Management process is being undertaken to protect the Cultural Heritage of the local indigenous people. The Ella Bay site has been surveyed, with significant sites identified and protected. From this process, a Cultural Heritage Management Plan has been formulated in partnership with the Mamu people.
- A collaborative partnership is being discussed with the Mamu local indigenous community to broaden education, training and employment opportunities.
- Staffing at the Welcome Centre, Resort and Golf Precincts and Village Precinct will provide employment and training opportunities for local people, particularly young and indigenous people.
- The expected population increase to the Johnstone Shire of 17%, or 1.6% per annum, will reverse the slowing population growth trends in the region, injecting a further \$9 million per annum into the local Johnstone Shire Council rates base. This will in turn be passed back to the local community via improved infrastructure and community services.
- A bus service has been proposed, providing links between the Ella Bay site, Flying Fish Point and Innisfail. This service will provide environmentally responsible access for school students, employees, visitors and tourists.
- The proposed road option eliminates negative impacts on the Flying Fish Point community that may have resulted from previously considered road options. The proposed option bypasses Flyish Fish Point, and so noise, amenity, safety and health impacts resulting from increased through road traffic, and road widening works will be avoided.





## 10.0 Conclusion

Ella Bay is situated in a magnificent location for a tourism focused community being just over one hour south of Cairns International Airport and surrounded by World Heritage rainforest. This is an opportunity to showcase the creation of a self sufficient lifestyle community in a coastal location, without compromising the environmental values of the surrounding area. The Ella Bay Integrated Resort Proposal will deliver a net positive outcome for the Ella Bay community and environment, and the wider region.

Given the opportunity to proceed on the Ella Bay Integrated Resort Proposal, all the necessary resources, skills and expertise are in place to deliver an outstanding township development for the region.

Ella Bay represents a truly unique opportunity to set new standards for ecologically sustainable development, energy usage and the long term investment in communities and their surrounds.

