

Ella Bay Integrated Resort Proposal

Supplementary Environmental Impact Statement

Submission Response:
1.8 DEWHA, EPA &
WTMA December
2007 (Addenda A)



ELLA BAY



1.8 DEWHA, EPA & WTMA December 2007 (Addenda A)

1.8.1 Introduction

A Draft copy of the Supplementary Environmental Impact Statement (SEIS) was submitted to the Department of Environment, Water, Heritage and the Arts (DEWHA), Environmental Protection Agency (EPA) and Wet Tropics Management Authority (WTMA) in December 2007 for their review and comments prior to the document being formally advertised.

This section (Addenda A) is additional to the December submission and responds to the agencies' comments made in relation to the Draft SEIS. These comments have been collated into the following key areas:

- *Access Road;*
- *Fencing;*
- *Water Quality;*
- *Vegetation Corridors and Setbacks;*
- *National Park*
- *Dog Control;*
- *Offsets;*
- *Public Review;*
- *Storm Surge; and*
- *Golf Course.*

Since the initial release of the Draft SEIS a number of additional studies have also been conducted in response to agency feedback. These include the following:

THG Resource Strategists have complemented the onsite Water Quality Management Strategy, completed in August 2007, with a specific Access Road Water Quality Management Strategy (see Volume 4, Appendix A.2.15). The report provides detail in relation to potential water pollutant sources, impacts and recommended mitigation measures.

Golder Associates Pty Ltd were engaged to supplement previous monitoring and hydrological studies, and Water Quality Management Strategies with a Water Quality Monitoring Program (see Volume 4, Appendix 2.16). The program includes performance requirements, water quality parameters and compliance limits, monitoring points, frequency of monitoring and appropriate corrective measures to be undertaken in the event of unacceptable monitoring results.

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The Missing Link Resource Strategists have produced an Internal and External Fencing Strategy to investigate and analyse potential cassowary fencing options (see Volume 4, Appendix 2.17). The report builds upon the initial Fencing Strategy (located in Volume 2, Section 2.2.9.3) with comparisons of actual fencing alternatives, resulting in recommended options for different elements of the site to meet different conservation and management criteria.

1.8.2 Access Road

1.8.2.1 Targeted flora and fauna surveys

The Department considers it important that targeted surveys be undertaken for all listed flora and fauna species likely to occur along the access route to enable implementation of appropriate mitigatory measures to protect the species and their habitat.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

The proponent agrees that targeted surveys of flora and fauna species should be conducted along the access road alignment so that appropriate flora and fauna protection procedures are undertaken. The proponent believes that these targeted surveys should be conducted immediately prior to detailed road design and road construction, and during both a Wet and Dry season. The results provided will be more relevant allowing appropriate specific mitigation measures to be implemented.

Biodiversity Assessment and Management Pty Ltd (BAAM) prepared a report (Volume 4, Section A.2.6) to describe flora and fauna values present within the area of the proposed Ella Bay access road between Flying Fish Point and Heath Point and to provide an assessment of the client's preferred option for the access road. This report involved desktop assessment, site inspection and ground-truthing to establish and assess flora and fauna values, impacts and mitigation strategies. The recommendations made in the BAAM Pty Ltd report were devised based on the assumption that all listed species potentially present are actually present.

Furthermore, the Environmental Management Plan (EMP) (EIS Volume 5, Section 5.4.7) outlines identification, mitigation and conservation measures and procedures in relation to 'Landscapes and Habitat', to ensure the protection of existing natural vegetation and wildlife and to reinforce habitat where possible.

The EMP requires that areas proposed to be cleared are inspected by a qualified ecologist or botanist for protected plant species prior to vegetation removal. If significant plant species are identified in areas to be cleared, action where feasible will be undertaken to preserve the plants.

1.8.2.2 Northern Quoll

The project/study area also provides suitable habitat for the listed endangered Northern Quoll. The Department is of the view that further investigations are needed to confirm the presence or otherwise of this species.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

Targeted surveys proposed to be conducted prior to road construction will be undertaken to determine the presence of the Northern Quoll within the road alignment, and if required specific mitigation and conservation measures will be implemented during the detailed design phase.

A number of the mitigation measures proposed for cassowaries and other fauna will also be applicable to the Northern Quoll. It should also be noted that the Access Road Strategy and the recommendations made in the BAAM Pty Ltd report were devised based on the assumption that all listed species potentially present are actually present.

1.8.2.3 Clearing

According to the fauna and flora report, an additional area of approximately 12 hectares of potentially suitable habitat for EPBC listed species will be cleared to facilitate the access road construction.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

The figure indicated in correspondence dated 18th January, 2008 of 12 hectares of clearing is a misinterpretation. Table 7.4 in the Access Road Strategy (BAMM Section) should not be used to calculate a total clearing figure. The table indicates the area of potential habitat for each individual flora species that may be subject to clearing and therefore these clearing areas overlap.

The following table from Volume 1, Section 1.2.6 indicates the total onsite and offsite remnant vegetation to be cleared.

Any vegetation clearing is to be offset and is indicated in further detail in the offset report (currently under negotiation with government environmental agencies).

Remnant Vegetation to be Cleared				
	<i>Not of Concern</i>	<i>Of Concern</i>	<i>Endangered</i>	TOTAL
<i>Ella Bay Site</i>	0.86 ha	0.25 ha	0	1.11 ha
<i>Access Road</i>	1.86 ha	0.58 ha	0	2.44 ha
TOTAL	2.72 ha	0.83 ha	0	3.55 ha

Table 1.8.1: Remnant vegetation to be cleared

The following figures (Figure 1.8.1 and 1.8.2) indicate the approximate areas to be cleared along the road alignment and onsite.

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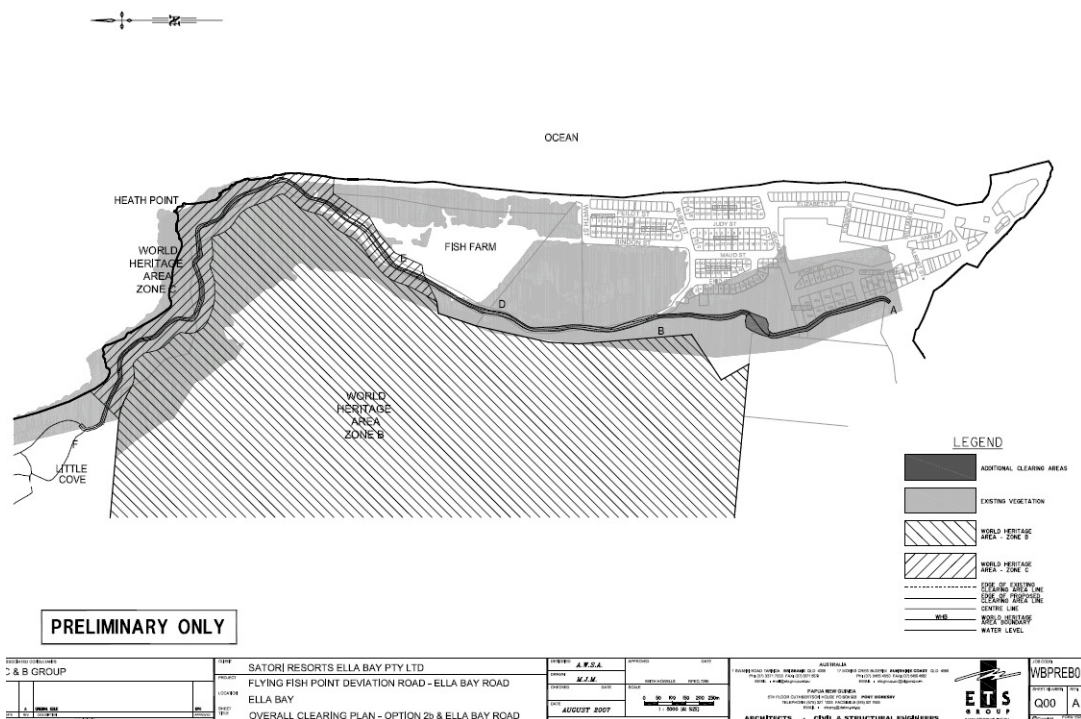


Figure 1.8.1: Access Road clearing plan (located in Volume 3, Section 3.2).



Figure 1.8.2: On-site clearing plan (located in Volume 3, Section 3.1).

1.8.2.4 Additional road options

Additional road options suggested by government environmental agencies exist that require detailed examination:

- An alignment that passes through a cut and cover tunnel along the foot of the hill-slope, then runs east on Ruby Street, north along Bindon Street, continuing to the boundary of the Fish Farm and then running north-northwest.
- A new route should be discussed in the SEIS which skirts around lots 18USL35566 and 246NR3550 (some clearing on the eastern and southern margin of the rainforest block may be necessary to provide a buffer to existing residential development, however this would be offset by closing and revegetating the existing road to the west). A bridge to facilitate wildlife movement should be provided on this road alignment option, on the north-eastern side of lot 246NR3550

Submitter reference:

Department of Environment, Water, Heritage and the Arts, Environmental Protection Agency, Wet Tropics Management Authority

Proponent Response

Background

This section provides further discussion on access route options to the Ella Bay site after consideration of comments and recommendations from the Department of Environment, Water, Heritage and the Arts (DEWHA), Wet Tropics Management Authority (WTMA) and the Environmental Protection Agency (EPA) received in relation to the Supplementary Environmental Impact Statement.

The above environmental agencies requested that the proponent consider a modification to the preferred access route outlined in the Draft Supplementary Environmental Impact Statement (SEIS) submitted to them in November 2007.

The proponents Draft SEIS preferred access route, bypassing Flying Fish Point is shown in the following diagram.

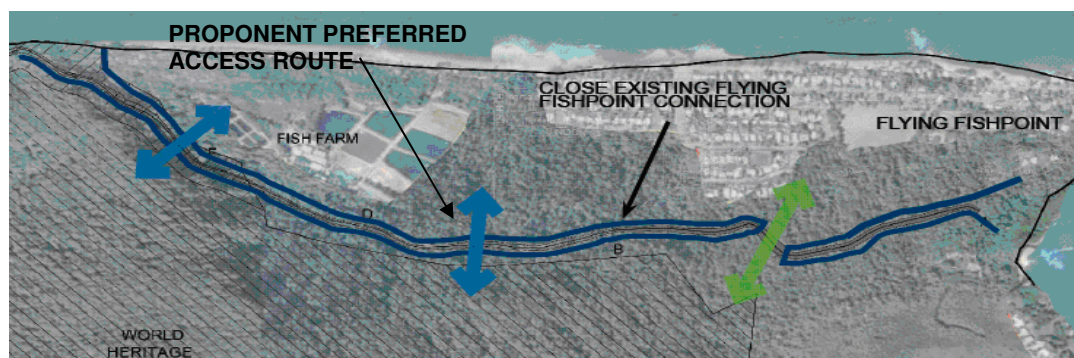


Figure 1.8.3: Draft SEIS preferred access route (Volume 3, Section 3.1)

Some of the key features of this route are as follows:

- The township of Flying Fish Point is bypassed therefore eliminating many of the issues associated with increased traffic.
- Environmental concerns are mitigated through proposed measures such as the construction of a tunnel, fauna fencing, fauna over and underpasses, green retaining structures, and offsetting vegetation loss.

Government environmental agencies requested that the proponent examine a modification to the preferred option that involves the route running east on Ruby Street, north along Bindon Street, continuing to the boundary of the Fish Farm and then north-northwest before joining the existing Ella Bay access road. This access route alignment is indicatively shown in Figure 1.8.4 and has been nominated as Option RB1.

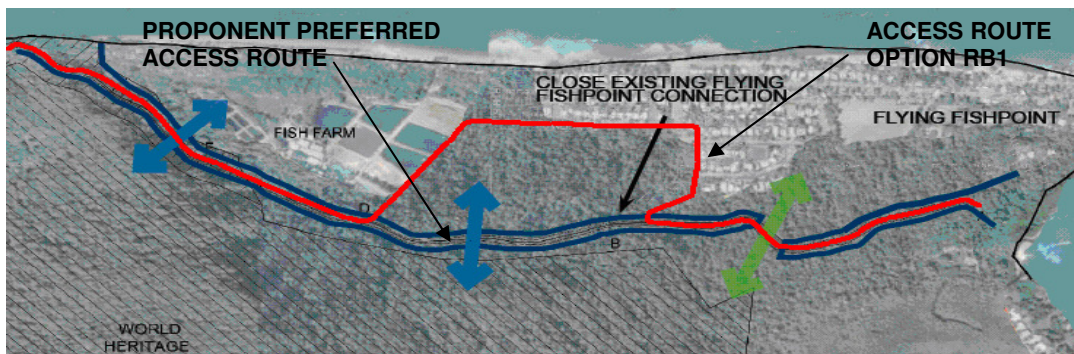


Figure 1.8.4: Preferred access route and Option RB1

The Queensland Environmental Protection Agency also suggested the proponent examine a similar option that involves setting the road back from existing residents at Flying Fish Point, providing a vegetated buffer to mitigate possible social issues. EPA has suggested a 20 metre vegetated setback. This access route alignment is indicatively shown in Figure 1.8.5 and has been nominated as Option RB2.

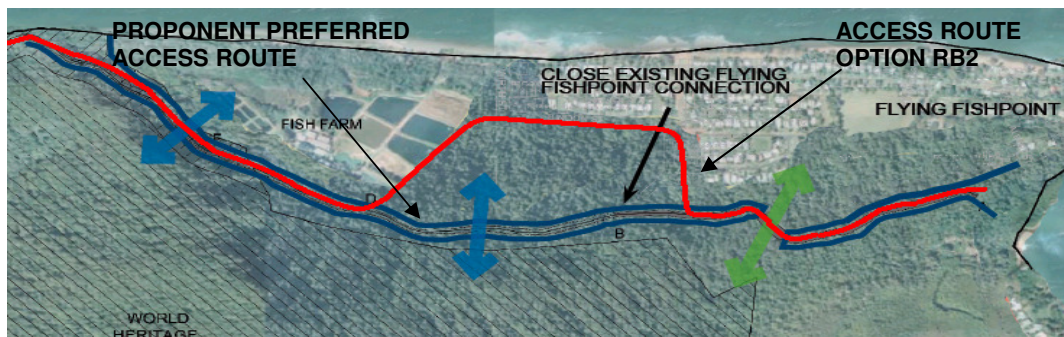


Figure 1.8.5: Preferred access route and Option RB2

Key Objectives and Issues

The key objective is to mitigate or eliminate the impacts of the access route on both the local community and the environment. Establishing an outcome that balances both of these interests is a complex task as often, some measures that provide positive environmental outcomes may not be preferred by the community and vice versa.

A multi-criteria analysis that examines these often competing issues is used later in the *Access Road Strategy* (Volume 4, Appendix A.2.6), and addresses both social and environmental issues in analysing the different options.

Key considerations associated with this analysis are as follows;

- The preferred route follows the existing Ella Bay Road which is already a dedicated road reserve. The existing road currently segments the Ella Bay National Park to the west and an environmental reserve to the east.
- Fauna including the cassowary move across the existing Ella Bay Road to the environmental reserve.
- The environmental reserve is known cassowary habitat.

Option Analysis Summary

The following is a summary analysis of the three possible road sub-options between Flying Fish Point and the Fish Farm.

Preferred Route (Option D)

The preferred route follows the existing Ella Bay Road and is approximately 640 metres long between Flying Fish Point and the Fish Farm. This is the most direct route and is fairly straight in alignment.

With increased traffic flow as a consequence of the Ella Bay project, a fauna underpass was proposed to be constructed to maintain connectivity between the Ella Bay National Park and the environmental reserve (see Volume 1, Section 1.4). A fence and funnel strategy would reduce the risk of collision between fauna and vehicles, and by following an existing road alignment this option will involve minimal clearing.

Social impacts on the Flying Fish Point community are negligible as the existing road will be closed where it meets Ruby Street and the proposed road is to be well away from existing residences.

Option RB1

The option RB1 suggested by the Wet Tropics is somewhat similar to the option proposed by the EPA at the EIS stage, but avoids the route passing through the major residential area of Flying Fish Point.

However, this road option would still directly pass more than twenty existing residential dwellings and three intersections creating noise, pollution, safety, congestion and other adverse residential amenity issues. It

would also be difficult to control vehicles entering the Flying Fish Point local road network resulting in further social impacts upon the wider community.

In regard to transport efficiency, this route rates poorly because of the number of sharp bends, intersections, increased distance, slower speed, increase travel time, and reduced safety to road users and pedestrians. The total length of this road option between Flying Fish Point and the Fish Farm is approximately 1140 metres, which is approximately 500 metres longer than the preferred route.

This route performs well environmentally as it would allow for the existing Ella Bay Road to be closed and revegetated, providing better connectivity between the Ella Bay National Park and environmental reserve. Some clearing would still be required along the Fish Farm boundary. However, socially and from the local community's perspective this option rates poorly and somewhat defeats the purpose of building a bypass around Flying Fish Point.

Features of this route are indicated in the following figure (Figure 1.8.6).



Figure 1.8.6: Access route option RB1

Option RB2

The option RB2 is a variant of option RB1 and was suggested by the EPA. It follows a similar alignment to RB1 but includes a 20 metre vegetated buffer to existing residents along Ruby and Bindon Streets, and the

Fish Farm. The total length of this option between Flying Fish Point and the Fish Farm is approximately 1020 metres which is approximately 380 metres longer than the preferred route.

This road option would pass through the vegetated environmental reserve and require approximately 1.02 hectares of clearing of 'of concern' vegetation. However, the clearing would be partially offset by closing and revegetating the existing Ella Bay Road. A vegetated buffer may partially mitigate some of the social impacts on the Flying Fish Point community that were associated with option RB1. The vegetation would provide a visual screen to the road, however noise may still impact upon residents.

Option RB2 is marginally better in terms of transport efficiency and safety compared to option RB1, however the road now divides the environmental reserve and partially segments habitat. A fauna underpass between Flying Fish Point and the Fish Farm could mitigate some environmental impacts, however the area on the eastern side of the road would be long and narrow and of reduced environmental value. This route also passes through wet areas which raise further environmental, constructability and cost issues.

While relocating the Ella Bay Road eastward towards Flying Fish Point may improve and consolidate currently segmented habitat, social amenity impacts on the local community must be considered.

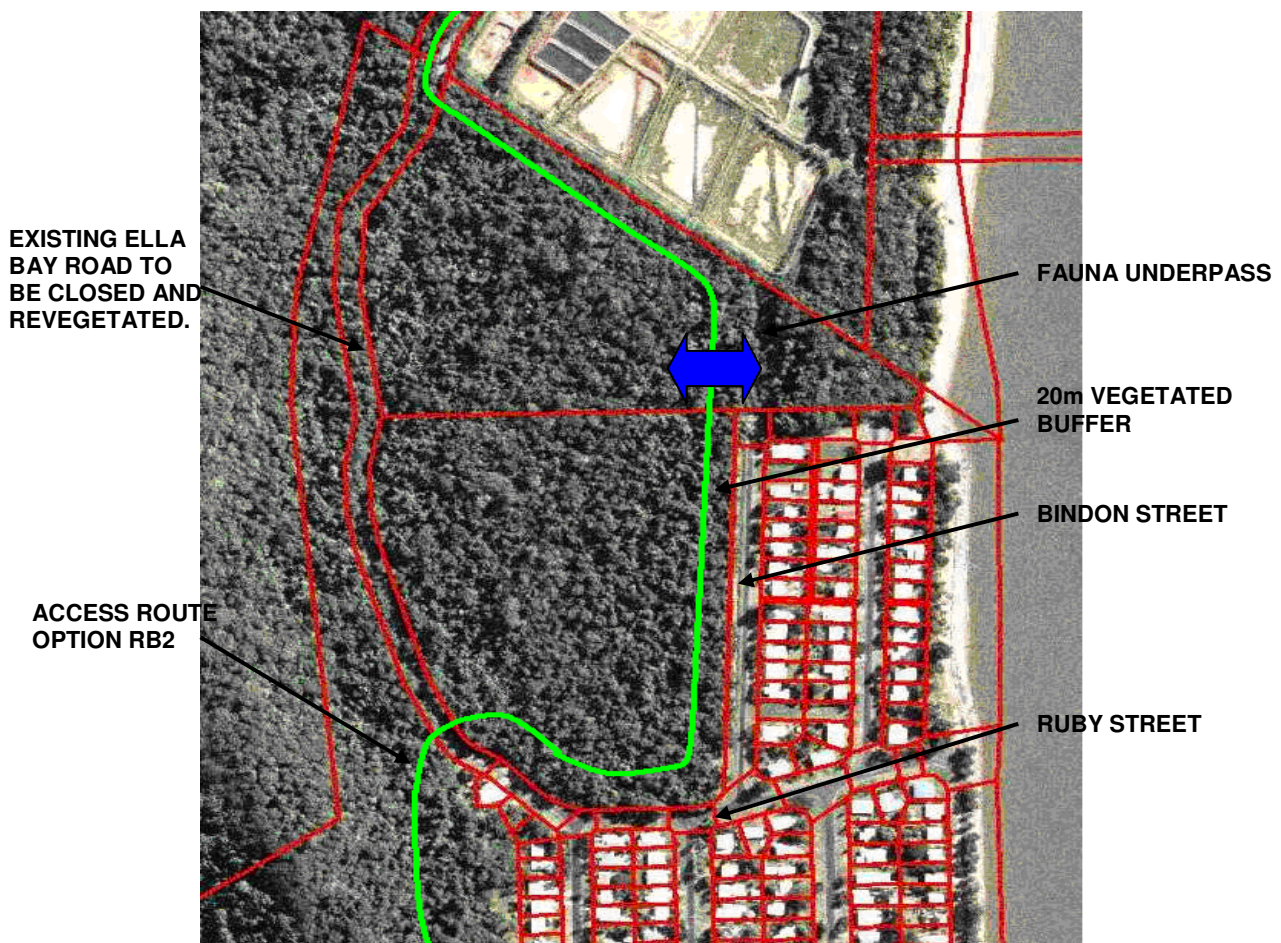
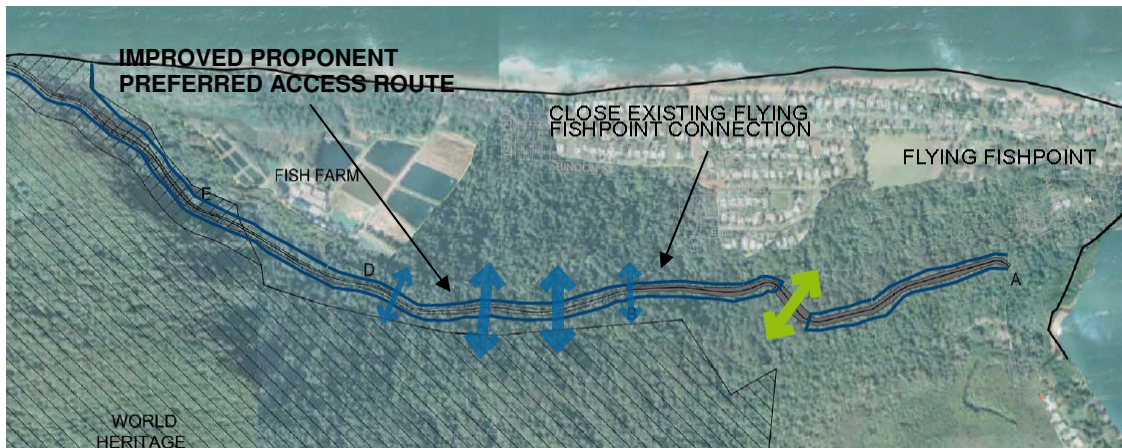


Figure 1.8.7: Access route option RB2

The addendum re-runs the road multi criteria analysis to include the two additional options RB1 and RB2 and analyses in more detail the different road sub-options

The route is now proposed to include four fauna underpasses that will enhance connectivity and reduce the risk of potential road kill. The crossing points are indicated in the following figure (Figure 1.8.8).



Note: vertical and horizontal scales are different

To Heath Point

To Flying Fish Point

Further detail on the proposed fauna underpasses are provided in Environment North report located in Volume 4, Section A.2.6.



Conclusion

The final route selection involves balancing often competing environmental and social issues. In summary:

- Option RB1 scores poorly socially and perhaps defeats some of the purpose of a bypass, but may be better for the environment.
- Option RB2 presents issues of constructability with alignment through a wet area, although an improvement on Option RB1 may still impact upon the amenity of local residents, and may not gain significant environmental benefits over the preferred Option D.
- The preferred Option D provides the advantage of following the existing Ella Bay Road, is located well away from existing residences, and with a number of further enhanced fauna underpasses will ensure safe connectivity to the environmental reserve.

Therefore Option D remains, in the proponents view, the best and most appropriate route and preferred option.

1.8.2.5 Little Cove Road Strategy

The proposed road alignment to the north of Little Cove should be provided with strategies that are proposed to mitigate the impact of traffic on fauna between Little Cove and the proposed Ella Bay Integrated Resort

Submitter reference:

Department of Environment, Water, Heritage and the Arts, Environmental Protection Agency, Wet Tropics Management Authority

Proponent Response

The proponent has prepared a Draft Little Cove Road Strategy as follows.

Purposes and Objectives

The purposes and objectives of the Little Cove Road Strategy are to:

- Ensure safe and efficient access to the Little Cove and Ella Bay communities whilst mitigating possible risks to the environment.
- Ensure that the risk of collision between traffic and fauna is negligible.
- Provide a safe environment for both people and animals.
- Protect the cassowary from the risk of interaction with people, vehicles and other risks associated with human habitation.

Strategy

The Little Cove entry road contains varying terrain from relatively flat to steeply sloping areas around the headland. A suite of mitigation measures are required.

The southern entry of the property to the creek (bridge to bridge) of approximately 400 metres is relatively flat and cassowaries are known to frequent this area. Cassowary exclusion fencing will be installed on both sides of the road to the bridge. The bridges will have handrails and by their nature will be Cassowary exclusive. The entry road will have Cassowary warning signs and traffic calming measures to reduce speed. The traffic calming in this area will be a combination of speed humps and curved roadway. This area due to the mitigation measures will have an initial signposted speed of 60km/h slowing to 40 km/h approaching the second bridge near the resort. The roadway will have two lanes of 3.5m width and a 2m bicycle/walking lane and a vegetated verge on either side to allow any trapped birds to move off the pavement.

The area from the bridge over the creek to the resort is characterised by a cutting through the northern bank of the creek gully, road intersections and pedestrian movements of the resort. The fencing will be contiguous between the bridge and the infrastructure area. The infrastructure area will be fenced to 1.8m

height with a combination of chain wire fencing (or similar) and shade cloth to give the impression of a solid wall. The shade cloth will be on the exterior of the fence to prevent possible Cassowary entanglement.

The zone from the infrastructure area to the resort will have frequent car and truck turning movements into and out of these areas to access the resort, residential and back of house central facilities. This zone will have traffic calming which does not generate excess noise to resort residences. Traffic calming will comprise a combination of speed signs, localized road narrowing and chicanes required to slow the traffic to 20km/hour. The road will also have split lanes where required to retain the major trees. The alignment shown in Figure 1.8.11 is indicative as detailed surveying of the trees and route have not been completed. The road from the hilltop residences will be gated above the resort entrance to prevent any Cassowary movement from the hill top to the resort and roads.

The western side of the road will not be fenced as the hillside above the resort is considered too steep for Cassowary movement except for Cassowary fencing of the gully between the steep ridges as the road winds around the point to the Ella Bay property. It is proposed to fence only the gully on the western side of the road between the steep roadside with Cassowary exclusion fencing. The Gully is short and quite steep in upper reaches and Cassowary movement would be unlikely. The western side of the road around the point to the Ella Bay property to the North is too steep for Cassowary movement.

Cassowary Signs

Cassowary crossing signs will be used to alert drivers and people to the possibility of cassowaries on the road.



Figure 1.8.10: Examples of cassowary signage

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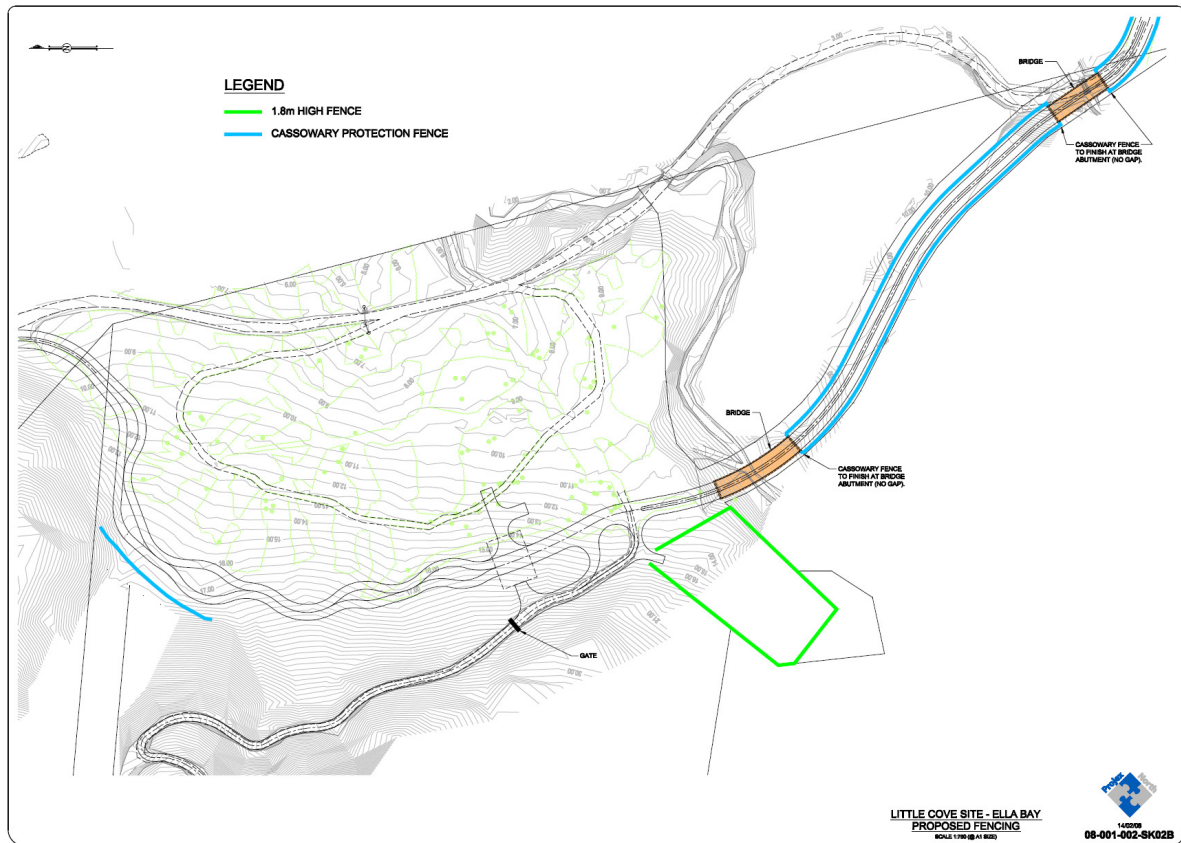


Figure 1.8.11: Little Cove Access Road Strategy



1.8.2.6 Road Construction Timing

Further detail should be provided regarding the anticipated timing for the construction of the Flying Fish Point bypass.

Submitter reference:

Department of Infrastructure

Proponent Response

In the initial phases of the project it is proposed to use the existing route through Flying Fish Point. As traffic demand increases and detailed designs are completed the Flying Fish Point bypass will be constructed. It is anticipated that this will mostly likely be on completion of the second resort. The proponent seeks to enter into discussions with Department of Infrastructure regarding exact timing and this will likely be linked to a date and Ella Bay traffic numbers.

1.8.3 Fencing

1.8.3.1 Fencing design and maintenance

Further detail on fences is required including the extent, type and nature of fencing to be used, construction methodologies, responsibilities for construction and long-term maintenance of fences. The responsibilities for fence maintenance outside of Satori's holdings should also be identified.

Submitter reference:

Department of Environment, Water, Heritage and the Arts, Environmental Protection Agency, Wet Tropics Management Authority

Proponent Response

The Missing Link Resource Coordinators Pty Ltd have developed an Internal and External Fencing Strategy for the Ella Bay Resort (Volume 4, Appendix A.2.17) with the objective of establishing outline specifications, performance criteria and recommended styles of fencing to meet the requirements of each area.

This document builds upon the Fencing Strategy produced within the Draft SEIS (see Volume 2) with comparisons of actual options for fencing, resulting in recommended options for different elements of the site to meet different conservation and management criteria.

The long term maintenance of onsite fencing will be the responsibility of the body corporate for the development. Offsite the fence will run adjacent to a Council road, therefore long term maintenance will be controlled by the local Council; however a maintenance agreement between the proponent and Council will be established. Further details regarding maintenance and management of fences are provided within the Internal and External Fencing Strategy.

The Ella Bay Fencing Strategy aims to:

- *establish an effective solution to ensure the safe co-existence of the Ella Bay community with the local fauna and, in particular the Cassowary;*
- *provide reasonable levels of personal security and privacy and be aesthetically pleasing for all Ella Bay residences and visitors;*
- *use fencing effectively to separate people from fauna; and*
- *direct fauna away from residential areas, centres of human activity and roads using fencing and funneling strategies.*

The Fencing Strategy recommends preferred types of fencing and the effectiveness of these types of fencing will be monitored to assess their performance.

1.8.3.2 Fencing and revegetation timing

The timing for construction of fences and revegetation should be discussed. Ideally, such works would occur up front to facilitate growth of endemic rainforest plants and secure wildlife corridors prior to other works taking place.

Submitter reference:

Department of Environment, Water, Heritage and the Arts, Environmental Protection Agency

Proponent Response

It is proposed that the development be staged over 15 years. It is proposed to revegetate and fence precincts prior to construction. The revegetation and rehabilitation areas will also require fencing from destruction by fauna, in particular the agile wallaby. It is proposed to establish the revegetation and rehabilitation areas in a fenced patchwork quilt pattern to enable the survival of the revegetation and allow fauna movement in the unfenced areas. Priority will be given to establishing revegetation in the conservation covenants and major riparian areas.

The fencing will be a combination of the following:

- *Permanent Cassowary fencing of precinct boundaries as detailed in the fencing strategy report in Volume 4, Appendix A.2.17.*
- *Temporary Cassowary and Wallaby fencing around revegetation areas which will consist of multi strand plain wire fences electrified where necessary with shade cloth visual barrier to Cassowary food source.*

The proponent will establish a nursery on site as soon as feasible to enable propagation of locally sourced natives. Indicative staged fencing and revegetation plans are provided in Volume 3, Section 3.1.

1.8.4. Water Quality

1.8.4.1 Access road water quality management

Appendix A.2.2 (THG) of the SEIS provides a proposed water quality management strategy. It would appear that a similar study for the access road development has not been undertaken.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

A Water Quality Management Strategy specific to the access road has been developed by THG Resource Strategists and is included in Volume 4, Appendix A.2.15. This strategy provides detail in relation to potential water pollutant sources, impacts and recommended mitigation measures. It includes specific road design measures, construction and operational practices and maintenance procedures to mitigate any potential water quality impacts.

Water Quality management issues along the access road are also addressed in the Environment North *Access Road Strategy* (Volume 4, Section A.2.6) and specific water quality monitoring points, parameters and procedures are provided in the Ella Bay Water Quality Monitoring Program by Golder (Volume 4, Section A.2.16).



1.8.4.2 Water quality monitoring program

Although the THG report provides some detail in relation to potential water pollutant sources, impacts and recommended mitigatory strategies, the report lacks a water quality monitoring program.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

In response to the Departments comments Golder Associates Pty Ltd have developed a water quality monitoring program for the Ella Bay site and access route (refer to Volume 4, Appendix A.2.16 for further detail). This Program includes performance requirements, water quality parameters and compliance limits, monitoring points, frequency of monitoring and appropriate corrective measures to be undertaken in the event of unacceptable monitoring results. The report incorporates monitoring programs both onsite and along the access route, including specific monitoring procedures and management measures during construction and ongoing operation.

1.8.5. Vegetation Corridors and Setbacks

1.8.5.1 Western and southern boundaries

Minimum setback along the western and southern boundaries should be increased to at least 100m.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

In consideration of the Department's comments the following changes have been made to the master plan as submitted as part of the Draft SEIS:

- The setback of residences on the western boundary has been increased from 50 metres to 100 metres.
- The three storey apartments indicated in the EIS and Draft SEIS Master Plan have been relocated from the western boundary and will now be incorporated as villas in the northern resort.
- The setback of the residential allotments on the southern boundary have been increased from 50 metres to 100 metres.

The setback of the units behind the golf clubhouse has remained unchanged due to economic reasons. Cassowary fencing in this location will greatly reduce any edge effects into the adjoining rainforest. There is also increased body corporate control of the day-to-day activities of units in comparison to individual residential lot owners.

The proposed changes outlined above are indicated in the following figures and are now reflected in the new master plan.

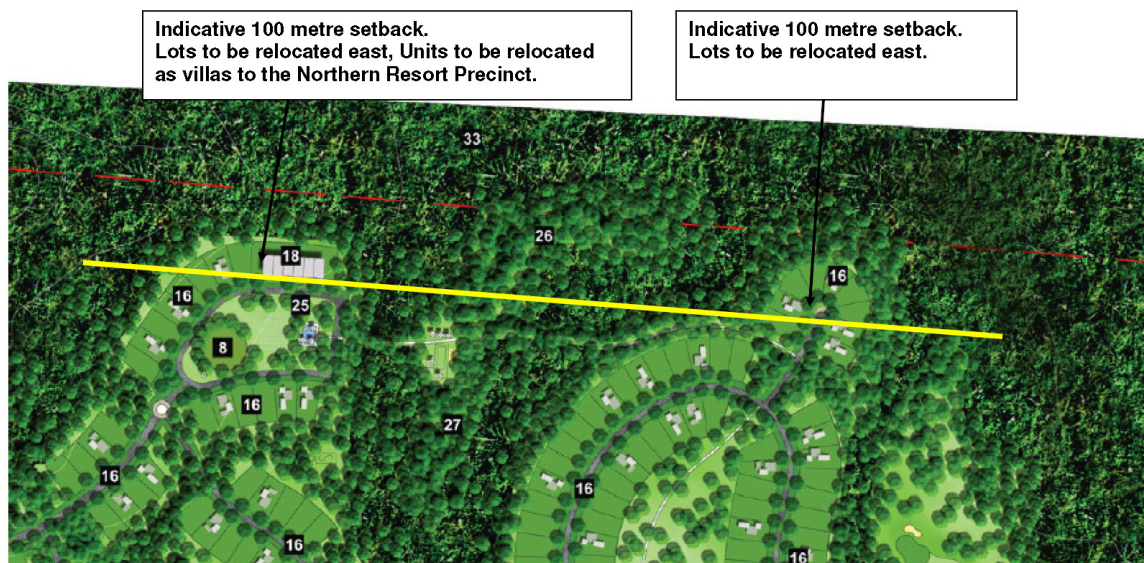


Figure 1.8.12: Draft SEIS master plan indicating changes to the western boundary

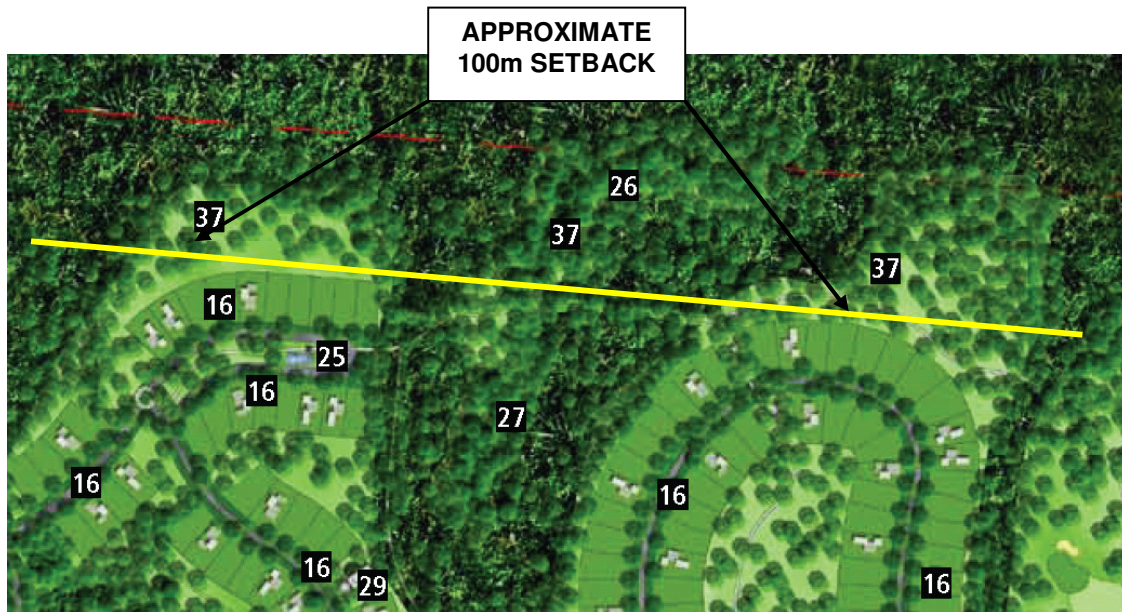


Figure 1.8.13: Revised master plan showing changes made to the western boundary (Volume 3, Section 3.1)

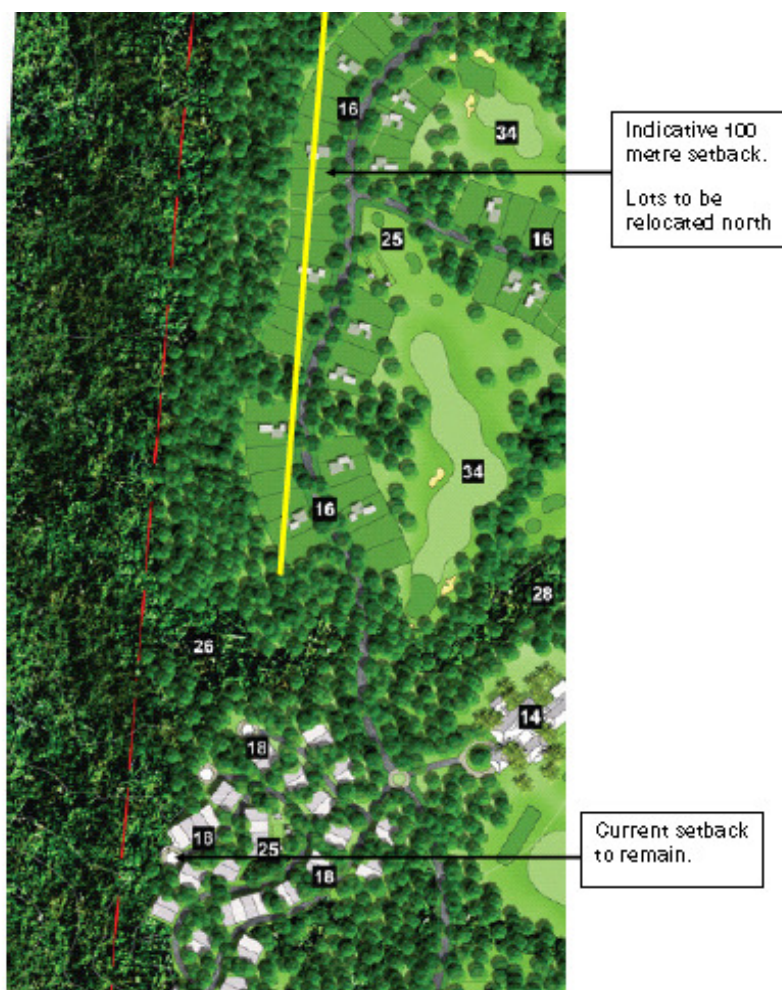


Figure 1.8.14: Draft SEIS master plan indicating changes to the southern boundary



Figure 1.8.15: Revised master plan showing changes to the southern boundary (Volume 3, Section 3.1)

1.8.5.2 Barbeque facility

The barbeque facility within the bifurcated vegetated area to the west should be relocated.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

The proponent confirms that the bifurcated area between the fork of the north-south running creek will be revegetated and the barbeque and recreational facilities will be removed. These changes have now been incorporated into the current master plan as indicated in the following images.



Figure 1.8.16: Draft SEIS master plan indicating the location of the BBQ area

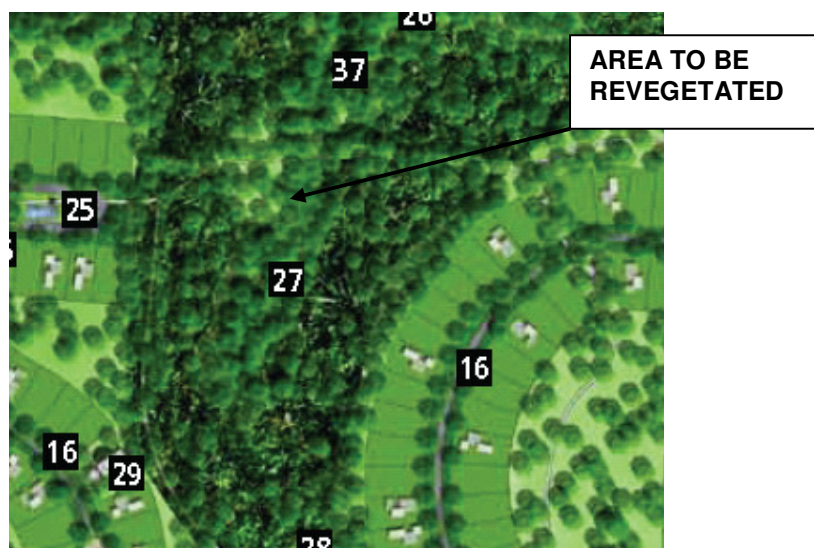


Figure 1.8.17: Revised master plan showing the BBQ area removed (Volume 3, Section 3.1)

1.8.5.3 North-south fauna corridor

Northern part of the north-south fauna corridor should be expanded to 100 metres.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

The north-south corridor has now been expanded to 100 metres. The following figures show the original EIS master plan with no northern corridor (Figure 1.8.18), the Draft SEIS master plan with a 50 metre wide northern corridor (Figure 1.8.19), and now the current SEIS master plan with a 100 metre wide corridor (Figure 1.8.20).



Figure 1.8.19: EIS without major northern fauna corridor



Figure 1.8.20: Draft SEIS with 50m wide northern fauna corridor

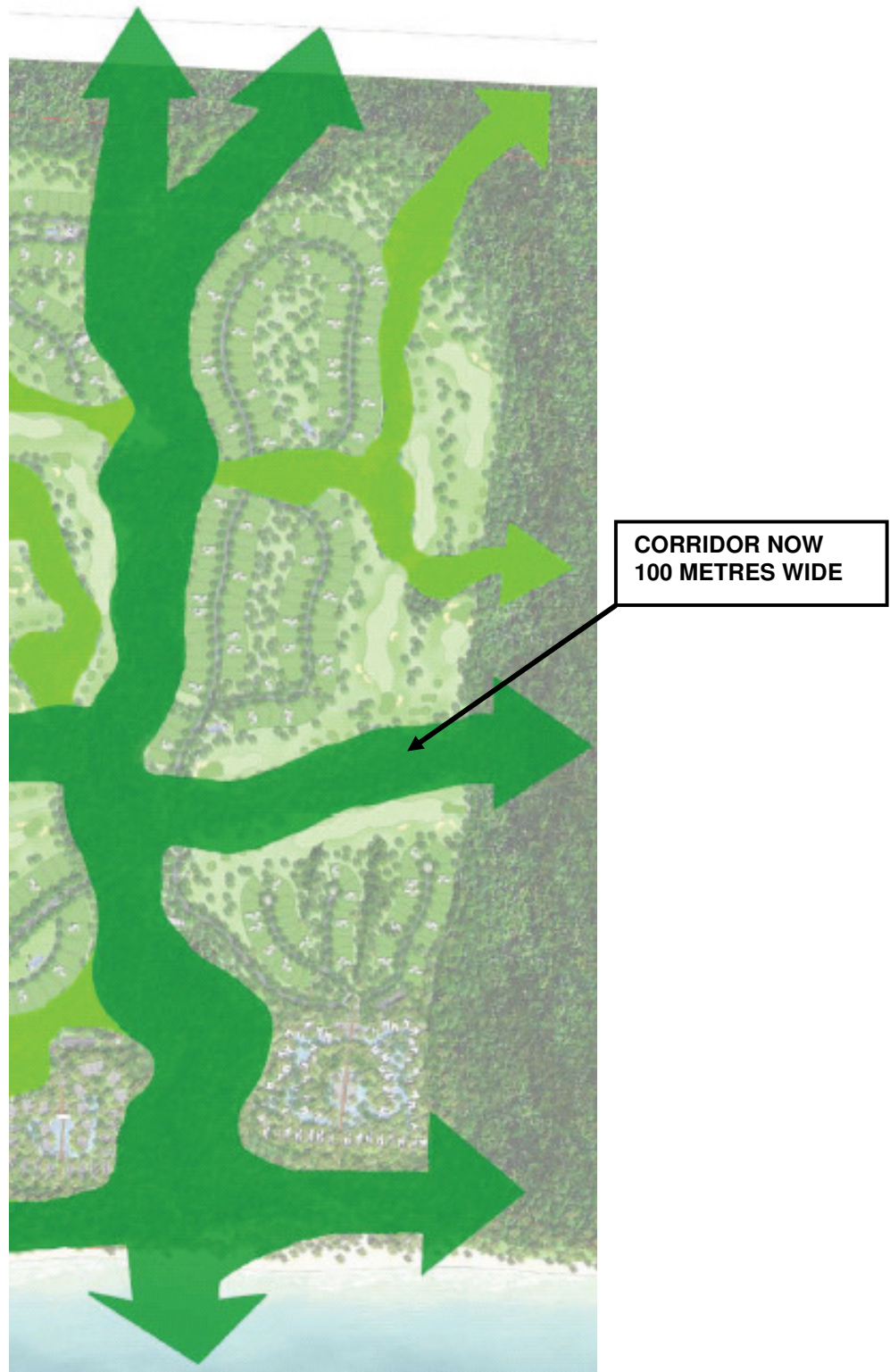


Figure 1.8.21: SEIS with 100m wide northern fauna corridor

1.8.5.4 Infrastructure and cycle/pedestrian paths

It is the Departments view that all infrastructure including cycle paths and pedestrian access roads, service infrastructure must be located outside all fauna corridors and set back areas.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

A functional cycle and pedestrian network is a fundamental component to Ella Bay's ecological sustainable development strategy. The proponent believes it essential that residents and visitors are encouraged to cycle and walk rather than use motorised transport. Crossing points will be required through proposed conservation corridors to provide better access and to reduce travel times and distances to the beach, resorts and village precinct. Special designated pathways will also help prevent people making their own pathways through vegetated corridors.

The proponent seeks to facilitate appropriate ways for tourists and residents to experience the rainforest which includes designated pathways. Educating residents and visitors about the rainforest and natural environment is central to the proposal and allowing them to experience its beauty will encourage people to become involved in conservation. Furthermore, the local tropical climate creates the issue of people walking in the sun and it is much cooler, safer and pleasant to walk in the protection of a shaded rainforest.

Since the EIS and Draft SEIS, pathways have been modified where possible to be on the extremity of the fauna corridors and setback areas. Some of these pathways will also be required to enable practical functioning of the golf course. The final location and extent of these pathways will be determined to minimise impact and provide efficient connectivity at the detailed design phase. This could be conducted in consultation with EPA prior to Operational Works approval.

An indicative layout of the proposed pathways is shown in the following figure (Figure 1.8.22). The majority of pathways are in cleared areas or in vegetation that is non remnant. Boardwalks will be constructed over wet areas and paths will avoid or divert around significant trees or sensitive environmental areas (i.e. endangered and vulnerable plant species)

It should also be noted that underground service infrastructure will need to pass through areas under Conservation Covenant to link essential services throughout the development, however above ground physical infrastructure such as water tanks will be located outside of these covenanted areas.

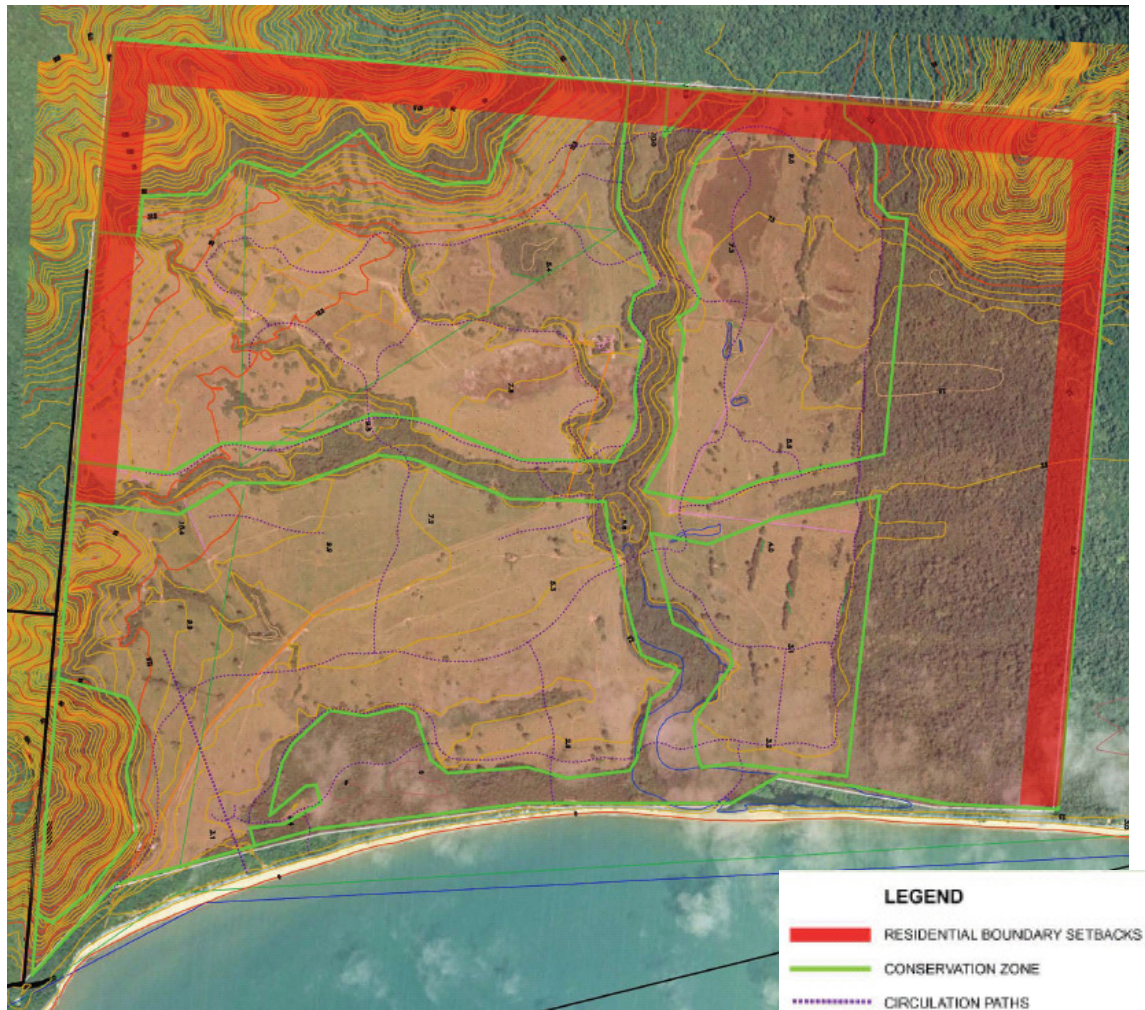


Figure 1.8.22: Aerial photograph with circulation paths and conservation covenant areas overlaid (Volume 3, Section 3.1)

1.8.5.5 Visual Amenity

The SEIS lacks the following information:

- Analysis of visual amenity does not refer to views towards the development from the Great Barrier Reef
- The road strategy documentation does not include a visual impact assessment.
- Colours and materials of buildings do not seem to be addressed in the future design and environment code
- Proposed fauna underpasses for the access road are likely to have a more visual impact than tunnels

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

- Relevant visual amenity sections from the SEIS have been sent to the DEWHA including visual impact assessment of the access road and views from the Great Barrier Reef (see Volume 1, Sections 1.4.4 & 1.7.5).
- A draft colour palette was sent to the DEWHA and is to be incorporated in the Ella Bay Design and Living Principles (see Volume 2, Section 2.6.2).
- The proposed fauna underpasses located along the access road run through dense vegetation, over creek crossings in rainforest areas and therefore visual impact is expected to be minimal. The rainforest canopy is approximately 15 metres high, which will be well above the maximum height of the highest passing vehicle. The proposed underpasses would be approximately three metres high.

1.8.5.6 Wildlife corridor in south-east corridor

Options for a wildlife corridor in the south-eastern corner should be explored, to provide for wildlife movement to the coast there and along the entire frontage.

Submitter reference:

Environmental Protection Agency

Proponent Response

A wildlife corridor in the south-eastern corner will be provided. The fence in the Draft SEIS will be moved back from the beach in line with the more northerly fencing. The following figure indicates the proposed changes and has been incorporated into the revised master plan (see Volume 3, Section 3.1).

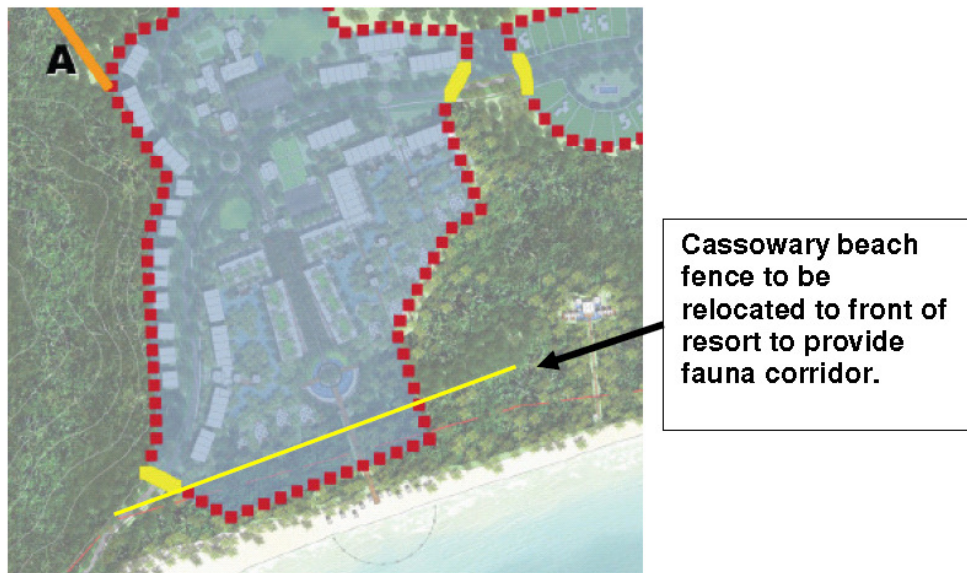


Figure 1.8.23: South east corner of the development site (Volume 3, Section 3.1)



1.8.6. National Park

1.8.6.1 Areas to be allocated to National Park

Boundaries and extent of these areas to be allocated (as National Park) as well as details of the mechanism and responsibility of long-term maintenance of these areas, will need to be provided.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

The proponent's preference is for the best mechanism for management of the areas for revegetation and weed management. The proposed areas are part of an existing farm and while retaining predominant remnant vegetation, weed infestation is rife. Additionally the proponent would like to retain ecological and environmental interest in these areas as a feature of the development with pathways to educate residents and visitors to their local environs.

The proponent has had recent discussions with EPA and the current proposal is for the areas in the south-west corner and northern boundary to be initially converted to conservation covenant with a later transfer to National Parks after 5 years. The benefit of this proposal is that the proponent will manage the areas to remove weeds and rehabilitate while under conservation covenant. Any weed control and possible rehabilitation would be undertaken through Terrain NRM as an independent third-party broker. A 20 metre buffer to the development area is proposed to remain under conservation covenant and be maintained by the body corporate to control edge effects and weed infestation into the National Park.

1.8.6.2 Ella Bay Road Alignment

Does any section of the Ella Bay Road pass through National Park?

Submitter reference:

Environmental Protection Agency

Proponent Response

To the proponents knowledge none of the existing Ella Bay Road passes through National Park, as the road is contained within an infrastructure zone. Although a short section of the proposed Flying Fish Point bypass may encroach on a small portion of National Park (see Figure 1.8.24). The proponent has indicated an alternative route that can avoid the National Park, however this option involves passing closer to existing Flying Fish Point residences.

The two possible options are shown in the following figure.

The area of road shown in Figure 1.8.24 that may be located within the National Park is approximately 0.09 hectares. The proponent intends to donate over 180 hectares to National Park and proposes a land swap with Queensland National Parks and Wildlife for this small section of road.

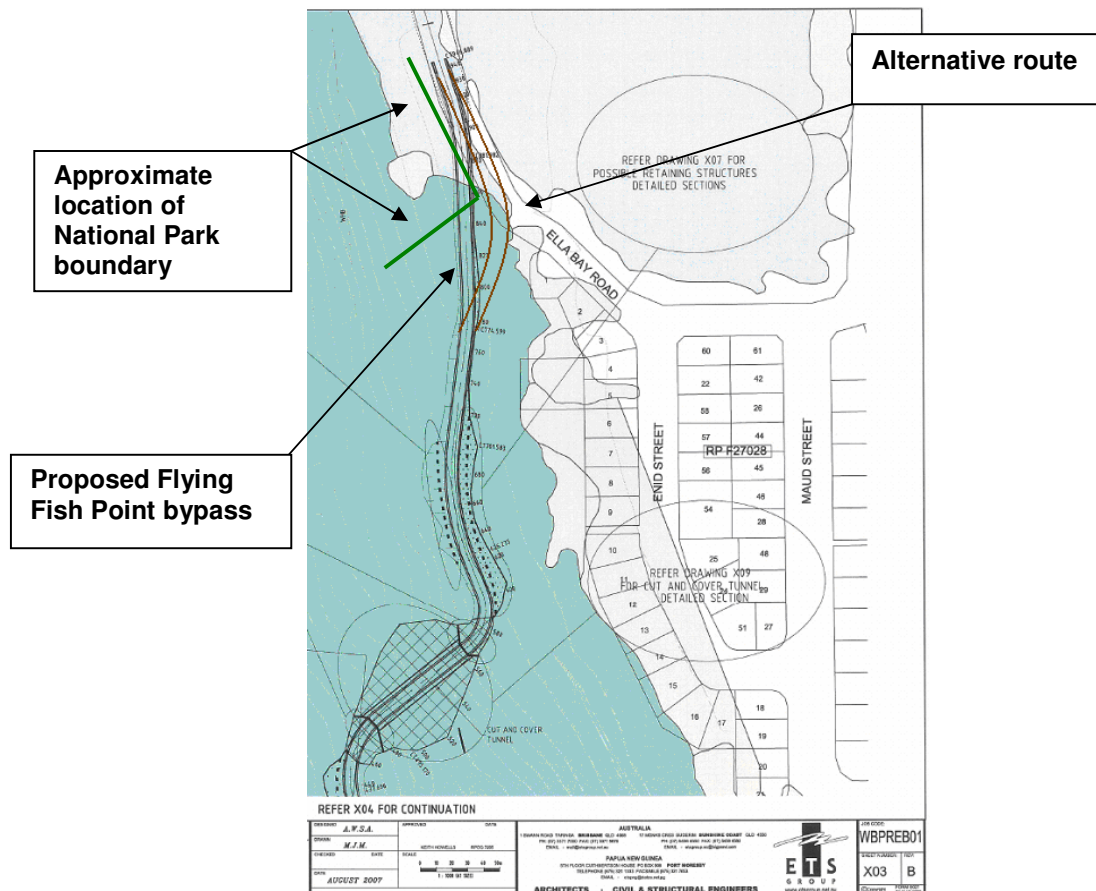


Figure 1.8.24: Flying Fish Point bypass to Ella Bay Road connection



1.8.7. Dog Control

1.8.7.1 Dog control

The Department believes that dogs and cats must be prohibited from the site to ensure protection of wildlife, in particular cassowaries, within the site and in the surrounding area.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

Cats will be prohibited from the community and this was stated in the EIS. The social benefit of owning a pet is well documented and the proponent still believes an effective dog management strategy can be implemented. Dogs are to be prohibited from all resort and unit complexes and limited to special allocated fenced residential areas. The number of potential dogs is therefore greatly reduced and restrictions are to be placed on dog breeds relating to aggressiveness and physical size. Collars with monitoring devices will enable each dog to be tracked and allow enforcement of the Ella Bay Dog policy (Volume 2, Section 2.2.9.4).

The proponent believes that this responsible management will reduce the likelihood of harm, in particular to Cassowaries, to negligible yet retain desirable social benefits of pet ownership.



1.8.8. Offsets

1.8.8.1 On-ground maintenance and improvement of habitat

A substantial offset aimed at on-ground maintenance and improvement of habitat or landscape values to cassowaries must be provided.

Submitter reference:

Department of Environment, Water, Heritage and the Arts, Environmental Protection Agency

Proponent Response

The proponent has engaged Terrain to broker suitable land for Conservation Covenant and/or rehabilitation management. A draft offset policy has been submitted to the Department of Environment, Water, Heritage and the Arts (DEWHA), Environmental Protection Agency (EPA) and Wet Tropics Management Authority (WTMA) and is currently under negotiation.



1.8.9. Public Review

1.8.9.1 Advertising

A second advertised phase should be conducted.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

The proponent has agreed with the Department of Infrastructure to an advertising period of 20 working days. In conjunction with the Department of Infrastructure the proponent will also be conducting further public consultation with the local community during the advertising period. Previous community feedback has indicated the road as the key community issue, and a focus of the public consultation will be the different road options.



1.8.10. Storm Surge

1.8.10.1 Storm Tide Inundation

A study needs to be conducted to show the “Natural Hazard Management Area” for the site. If resort development is proposed within the Natural Hazard Management Area it would have to be demonstrated that there is a low risk of inundation.

Submitter reference:

Department of Environment, Water, Heritage and the Arts

Proponent Response

Preliminary investigations have indicated that storm tide inundation presents a low risk for the Ella Bay Resort Precincts. However further analysis is currently being undertaken by WBM Pty Ltd who are preparing a Coastal Inundation Study. This report will be submitted during the advertising period (as Addenda B) for environmental agency review.



1.8.11. Golf Course

1.8.11.1 Golf Course

The proponent has received comments about the marketability of the golf course. How would the proponent manage the deletion of the golf course?

Proponent Response

It is the proponent's intention to construct the golf course generally in accordance with the concept master plan. The proponent proposes to construct the golf course and associated infrastructure during the mid-phases of the project.

Should the golf course not proceed, the proponent proposes to allocate some of the golf course space to open space conservation and some to larger, lower density residential lots. The total number of residential lots and units would remain the same. Therefore total built form would remain unchanged. An indicative diagrammatic layout is provided in Volume 3, Section 3.1.

A summary of the potential differences of this plan in comparison to the concept master plan are as follows:

- wider corridors;
- more separation of residences;
- less use of pesticides and fertilizers;
- reduced water consumption; and
- opens additional areas for active and passive recreation.