



# **CONCEPT PLAN**

**Eco – Tourist Site**

**Lot 5 DP 25886**

**Rainbow Beach**

**Design Concepts**

**June 2010**



***L** u k e & **C** o m p a n y*

## **Design Concepts for Consideration – Eco Tourist Site**

The design concept for the Eco-Tourism site at Rainbow Beach considered a number of elements in the evaluation of the land. This included the principles of ecotourism, which involves the harmonising of social, economic, environmental and educational goals, when assessing a suitable site development.

In determining a suitable scale for the development, both horizontal and vertical elements needed to be considered. The horizontal limits of the built form must consider the existing vegetation on site and also on the adjoining backdune and foredune areas. The vertical limitations require a determination of the height of existing vegetation, and the impacts of any development on views from public areas – particularly Rainbow Beach. The visual impact of development on coastlines is a major concern for seaside areas.

***Figure 1: View looking along Rainbow Beach adjoining the Eco-Tourist Site. Dunal Vegetation presents a visual and physical barrier to the subject land.***

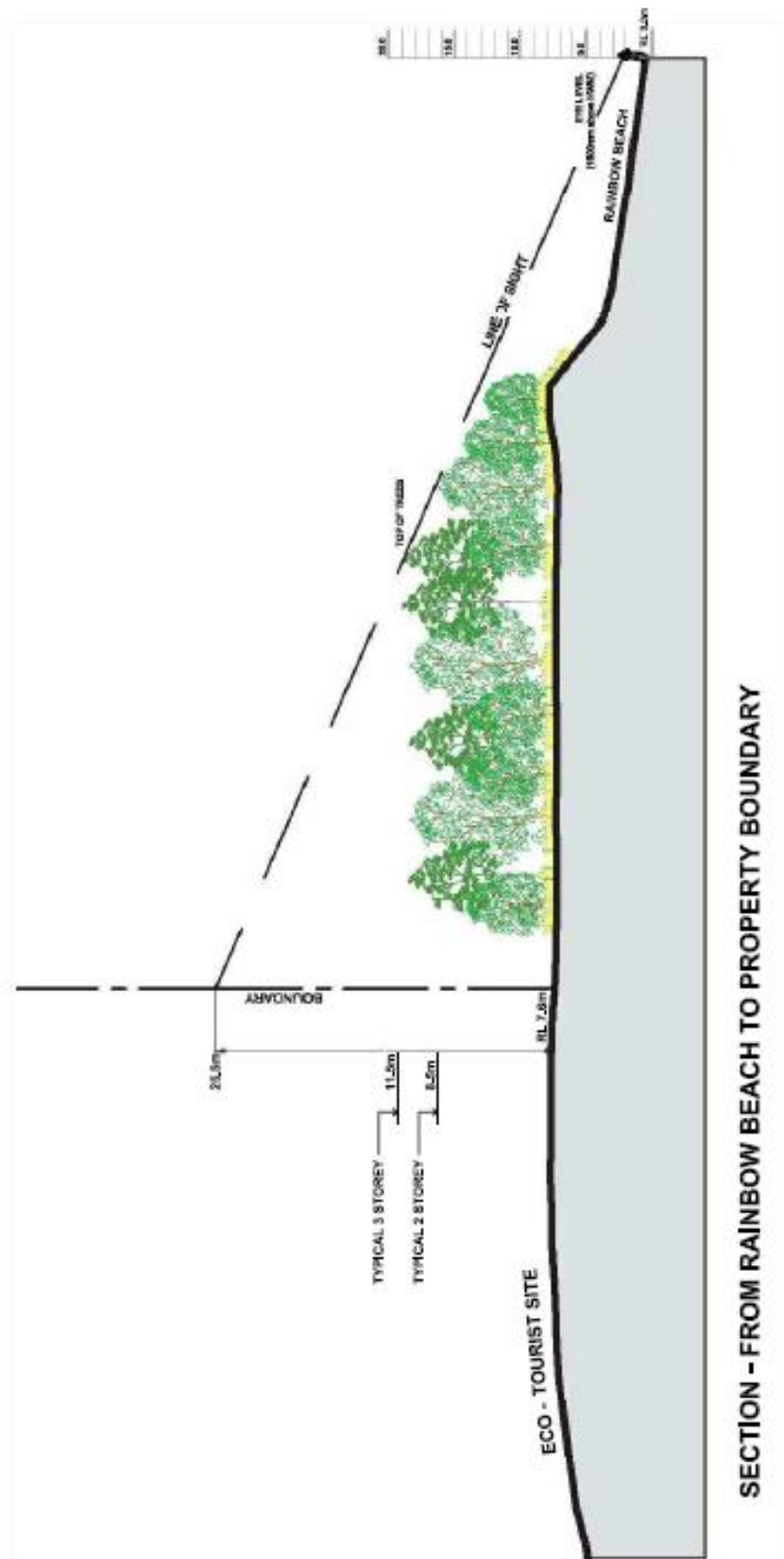


## **Vertical Limitations**

There are existing powerlines on the site, and it was noted that these are not visible from Rainbow Beach. However, in order to define this visual limit, additional site survey work was undertaken to determine the view of the site from Rainbow Beach. The survey work undertaken shows that a building with a height in excess of 20 metres, if constructed on the eastern boundary, would not be visible by pedestrians on Rainbow Beach. Buildings setback further west, could actually be greater in height, and still not be visible from Rainbow Beach.

However, such a height limit would enable a development much higher than is desired by the current property owners. In order to minimise the impact of the built form, there is a need to limit the height to a maximum of three storeys. It is noted that the definition of height in the standard planning instrument (and draft LEP 2010) is based on metres, not storeys. In addition, the coastal location of the site does not enable any variation of the height limit under the current planning rules, hence whatever limit is set, will be the maximum that could occur on the land.

Therefore, the maximum preferred height for development on the EcoTourist site is a height below the eastern treeline, such that the buildings are not visible from the beach by pedestrians. A height of three storeys would readily achieve this criterion; however the final height, measured in metres, should be determined when the detailed project or development application for this site is prepared.



## Horizontal Limitations

The built footprint is controlled by a number of factors. The site is bound to the east by coastal vegetation on the adjoining land. The western boundary is controlled by the vegetation along a drainage line, which is mapped as Brushbox Dry Sclerophyll Forest. The northern boundary adjoins land which is the subject of a current rezoning application for residential development and an associated Part 3A application.

The southern portion of the site contains vegetation described as dunal scrub directly south, and part of a Blackbutt Dry Sclerophyll Forest to the southwest. This vegetation links with the forest around the Bonny Hills Sewage Treatment Plant.

The vegetation may be seen in this photo taken of the site, looking south. The eastern property boundary is defined by the vegetation on the left of the photo. The forest vegetation to the south and west of the property is also visible, particularly on the right side of the photo.



Having regard to these natural boundaries provided by the adjoining vegetation, it is appropriate that the footprint of any future development on site, sits within the boundaries of this vegetation. This is based on the assumption that an ecodesign is a form of design which integrates with the existing surrounding ecosystem and minimises its negative environmental impacts.

In addition, the built form should sit back from the vegetation to ensure buildings have a bushfire setback from the vegetation. It would be appropriate for this setback to incorporate a perimeter road or firetrail to ensure both the buildings and vegetation may be accessed to provide protection should fire occur.

The southern boundary of the built form will also be controlled by possible habitat areas. The most recent fauna study did not identify any endangered animals on the site, however an earlier study some years ago, did find evidence of such. Therefore, an investigation at the time of the development will be required to determine whether or not any endangered species have returned to the site. For the purposes of developing a conceptual footprint for the site, additional setback has been provided to the south. However, it is noted that the buffer to the STP results in a 200 metre setback from the adjoining property for any accommodation buildings regardless of the outcome of future investigations.

## **Public Access**

There has long been recognition of the need to ensure buildings adjoining the coast, do not impinge on the public's right to access our coastal areas. The current beach access from the Eco-Tourist site is not formalised and has no public right of entry. The concept design for the Eco-Tourist site aims to provide both vehicular and pedestrian / cycle access to the area.

The coastal walkways provide a connection to the site of the existing beach access, and the future road network will provide for a formalised public carpark adjoining the beach access. The pedestrian walkway down onto the beach will be formalised and a pathway which resists erosion and controls public access to a single point, will be required.

These design elements should be provided for in the future development of the Eco-Tourist site.

## **Conclusion**

At the Concept Plan stage, this is about as much detail as can be provided for future development of the Eco-Tourist site. The aerial and artist's impression included in this appendix, and the above description, are to be used as a guide for future development of the site. This will assist in ensuring the objectives of the various current guidelines for coastal development, are achieved.