

SUMMARY ASSESSMENT REPORT

Applicant Name: Barlings Beach Community Pty Ltd
Land under application Lot 2 DP 1016146
Parish Bateman County St. Vincent
Registered Number: BR0305
Proposed development: Clearing native vegetation on 18 hectares for a 162 lot residential subdivision.
Total area of property: 33.55 hectares

Description of Proposal
The land under application is located adjacent to George Bass Drive at Tomakin, approximately 15 km south of Batemans Bay on the New South Wales south coast. It extends between George Bass Drive on the east side to Red Hill Parade on the west. The proposal is to clear native vegetation from 18 hectares to allow establishment of a 162 lot residential subdivision, including roads, services, and dwelling sites. The land is owned by Eurobodalla Shire Council.

Description of site
The Barlings Beach property is 33.5 hectares in area. It is located adjacent on George Bass Drive, adjacent to the township of Tomakin, approximately 15 km south of Batemans Bay on the New South Wales south coast.

The property is zoned "Urban expansion Zone No. 10". The DIPNR Legal Branch resolved this zone was not excluded from operation of the NVC Act and therefore clearing of native vegetation on the property required consent under this Act, except where exempt or excluded.

Topographically, the property varies from 0 and 20 metres above sea level, and is characterised by a generally flat sand plain lying between a well developed fore dune to the south and an escarpment to the north. The escarpment rises steeply to 15 metres and provides a backdrop to the site. A low ridge in the centre of the site also provides some elevation within the flat area. An area of wetland lies at the north east corner of the site and drains into a creek running near the eastern boundary of the site into the adjacent Barlings Beach Caravan Park to the ocean.

Vegetation proposed to be cleared is predominantly secondary grassland, derived from clearing of the original coastal scrub dominated by *Acacia* and *Banksia* species. Clearing of some areas of regenerating coastal scrub is also proposed, together with a small area of mature coastal forest.

Relevant Legislation associated with the Subdivision Development

The proposed subdivision development consists, in legislative terms, of 2 separate developments. One is the clearing of native vegetation, and the approvals required for this are described in the following section. The other is for establishment of the subdivision including development consent for the subdivision of land and construction of subdivision infrastructure.

The subdivision component required development consent in accordance with the Eurobodalla Local Environmental Plan (LEP). On the 5 February 2002 the Minister for Planning determined that all urban and/or tourism development on the property under application (Lot 2 DP 1016146) is State significant development under section 76A(7) of the *Environmental Planning and Assessment Act 1979*. This was due to the following factors:

- Unique geomorphological units (carbonate sands)
- SBPP 26 littoral rainforest and associated 100 metre buffer zone
- Visual sensitivity of the development area
- Potentially significant and irreversible environmental impact(s) that could occur with urban and/or tourism development (Dept of Planning File No: W01/00162, Feb 2002).

Being state significant development the Department of Planning is the consent authority for the development application for subdivision on this site, rather than Eurobodalla Council.

Legislation relevant to the clearing of vegetation

Clearing of native vegetation on the Batlings Beach property is subject to a number of different legislative approvals, depending on where on the property the vegetation proposed for clearing occurs. These are:

- Approval under Part 3A of the *Rivers and Foreshores Improvement Act 1948* (RFI Act). An unnamed creek occurs on the eastern part of the property. Clearing of vegetation associated with any excavation of soil or placing of fill within 40 metres of this watercourse (ie. "Protected Land") requires approval under this Act. A road and creek crossing, and parts of a number of subdivision allotments are proposed within this area of Protected Land. The consent authority is the Department of Natural Resources. General Terms of Approval (GTA) have been issued on 7 March 2003 for a permit under Part 3A of the RFI Act for proposed works in this area.

- Development consent under SBPP 26 - Littoral Rainforests. A small area on the north of the property is mapped as SBPP 26 Littoral Rainforest. Clearing of vegetation within this area, and within 100 metres of the edge of this area requires consent under SBPP 26. While only a small area of the mapped SBPP 26 Littoral Rainforest occurs on site, the surrounding 100 metre buffer occupies a large part of the northern side of the proposed development area, covering all or parts of 15 proposed subdivision lots. While Council is usually the consent authority for SBPP 26, the declaration of the development as State significant development makes the Department of Planning the consent authority.
- Development consent under the *Native Vegetation Conservation Act 1997* (NVC Act). Clearing of native vegetation that is not covered by SBPP 26 - Littoral Rainforests, or requiring a permit under Part 3A of the RFI Act requires consent under the NVC Act. The majority of vegetation clearing proposed over the property requires approval under this Act.

The Department of Natural Resources (DNR) is the consent authority, and this document is the assessment summary of an application to clear native vegetation under the NVC Act.

In summary, approvals required for clearing of native vegetation for the proposed subdivision are as follows:

- 3A permit under the RFI Act will be required for clearing native vegetation on 6 part lots 139-144 and the south western third of lot 162 and the subdivision access road and creek crossing within Protected Land along the creek;
- Consent under SBPP 26 - Littoral Rainforests will be required for clearing native vegetation on 8 part lots 41-47 & 56 and 8 full lots 48-55 located within the 100m buffer zone around the area of SBPP 26 rainforest.
- Consent under the NVC Act will be required for clearing native vegetation on 140 full lots and 15 partial lots. Note that proposed lot sizes vary across the subdivision, with smaller lot sizes generally occurring within the area subject to the NVC Act.

Outline of application history

The original development application under the NVC Act was submitted to the Department of Land and Water Conservation, and was dated 26 May 2003. This was assessed to near completion, and then suspended until significant Aboriginal cultural heritage issues were resolved by the applicant and the then National Parks and Wildlife Service.

Significant Aboriginal cultural heritage sites occur on areas proposed for clearing on the Barlings Beach property. Heritage must be considered and addressed under section 79C(1)(b) of the *Environmental Planning and Assessment Act 1976* and forms a part of the assessment protocol for NVC Act clearing applications. The heritage issues were of such significance as to determine whether the proposed development could proceed or not. Therefore, assessment of all other heads of consideration was undertaken, and then suspended pending the granting or refusal of General Terms of Approval (GTA) by the Department of Environment and Conservation under section 90 of the *National Parks and Wildlife Act 1974*.

DBC is the consent Authority for the legal protection of Aboriginal Heritage sites under the *National Parks and Wildlife Act, 1979* (NPW Act) and are responsible for assessing applications to destroy relics and places under section 90 of the NPW Act.

After negotiations between the proponent, DBC and the local Aboriginal community resulting in a modified subdivision proposal, these issues were resolved and General Terms of Approval granted by DBC on 22 July 2005. The modifications included a reduced development footprint, and relocation of an entry road off George Bass Drive, and required an amendment to the NVC Act application to reflect the changes in areas proposed to be cleared of vegetation.

An amended development application was submitted to the Department of Infrastructure, Planning and Natural Resources (DIPNR) on 14 March 2005. This generally resulted in a reduced area of proposed clearing, however there were also several small areas of additional clearing proposed. Significant re-assessment of the application was not required as a result of the modifications since the additional areas of proposed clearing were small in area, and contained vegetation similar to those areas assessed in the original application.

Subsequently the proponent has made some further changes to the design of the proposed subdivision, but has advised (email of 30/9/2005) these have no impact on the areas of native vegetation proposed to be cleared. Therefore no further modification of the NVC Act development application was necessary.

Lot Numbers used in this report

The lot numbers referred to throughout this report are those used in the latest subdivision plan available at the time of finalising this assessment. This is Plan Reference Number 140374G15, dated 12/09/2005.

Decision Summary

Based on assessment of the social and economic benefits likely to accrue if the proposed subdivision development proceeds, and the environmental losses caused by the clearing of native vegetation, consent will be granted for clearing the majority of the area under application (95.4%), consistent with the specified conditions of consent.

Specifically, consent is proposed to be given to clearing native vegetation in the following areas in accordance with the attached Diagram 1 and the conditions of consent. Lot numbers used below are taken from the amended Subdivision Layout Plan, Map Reference 140374G15, dated 12/9/2005, Coomes Consulting:

- Consent is granted to clear native vegetation on Lots 1-40 and associated access roads and sewer/drainage lines.
- Consent is granted to clear native vegetation on the open areas adjacent to lots 88-90, and at the southern end of the property beside Red Hill parade, opposite Sun Patch Parade. A condition of consent will prevent any clearing over areas of Aboriginal Archaeological Significance, which are not covered by a Section 90 Licence to destroy under the *National Parks and Wildlife Act, 1974*.

- Consent is granted to clear native vegetation on Lots 110-128.
- Consent is refused for clearing any native vegetation on the fore-dune, and in a strip along the south side of lots 110-128 at the landward toe of the fore-dune, an area of slightly less than 0.5 hectare. Vegetation growing on the dune is critical for conserving the structural integrity of the sand dune and must be protected from clearing and other disturbances such as uncontrolled pedestrian access and vehicles. An undisturbed buffer zone 10 metres wide, extending from the landward toe of the dune is also required to help protect dune integrity, and provide some space for future dune migration without damaging subdivision structures.

- Consent is granted to clear native vegetation on the southern half of lots 139-144. Clearing vegetation on the remaining northern part of these lots requires approval under the *Rivers and Foreshores Improvement Act 1948*.
- Consent is granted to clear native vegetation on lots 57-83, 84-109, 129-138 & 145-160, and adjoining access roads.
- Consent is granted to clear native vegetation on the majority of Integrated Housing lot 161. Clearing on the balance of this lot requires approval under the *Rivers and Foreshores Improvement Act 1948*, and SEPP 26 – Littoral Rainforests.
- Consent is granted to clear native vegetation on the southern part of Integrated Housing lot 162. Consent is refused for clearing native vegetation on the northern approx. 40% of lot 162, an area of slightly less than 0.5 hectare.

Vegetation in this area consists of Coastal Swamp Forest (listed as an Endangered Ecological Community under the *Threatened Species Conservation Act 1995*), and Mature Dune Complex. Both vegetation types are structurally and floristically intact and in very good condition, and are considered to be areas of biodiversity richness. The Mature Dune Complex also provides a protective buffer zone between impacts from the proposed development and the Coastal Swamp Forest vegetation.

- Consent is granted to clear native vegetation on the majority of Lot 163. Clearing on the balance of this lot requires approval under the *Rivers and Foreshores Improvement Act, 1948*.

The following discussion summarises the relevant areas of assessment under s79C of the *Environmental Planning and Assessment Act 1979*.

Biodiversity significance assessment

There are a number of key factors in determining the biodiversity significance of any area. The following discussion summarises the main points of the assessment. The general flora and fauna survey report undertaken by Nicholas Graham Higgs Pty Ltd provides a comprehensive description of vegetation over the area, which was confirmed with field inspections by DNR.

Vegetation types and condition

There are eight main vegetation types found over the area, their condition and description are given below. For consistency the vegetation community names adopted by Graham Higgs (2002) are used.

1. **Open pasture** – consisting predominantly of native grasses, but with some patches of exotic grasses. This vegetation community is found extensively over the southern two thirds of the area under application, with the exception of the dune scrub located on the sand dune behind the beach. It occupies most of the flat areas on sand close to the sea and is the majority of the area proposed for development. The main species present are Couch grass (*Cynodon dactylon*), an unidentified species of Lovegrass (*Eragrostis* sp.), Blady grass (*Imperata cylindrica*) and Kangaroo grass (*Themeda triandra*). These species tend to occur in patches where only one of the four species is dominant, rather than mixed stands. There are also small occurrences of exotic grasses including Kikuyu (*Pennisetum clandestinum*), Yorkshire Fog (*Holcus lanatus*), Parramatta Grass (*Sporobolus africanus*), Raspalum (*Paspalum dilatatum*) and Cocksfoot (*Dactylus glomeratus*). At the landward side of the area, the open pasture merges into regenerating dune complex forest, with scattered clumps of Banksia (*Banksia integrifolia*) and Coast wattle (*Acacia sophorae*) in the transition zone. This vegetation appears to be a disturbed secondary grassland resulting from clearing of the previous forest or scrub vegetation. This vegetation is therefore highly modified and of low conservation value.

2. **Regenerating dune complex forest** – Consists of regenerating low scrub-like vegetation dominated by coast wattle (*Acacia sophorae*) and Banksia (*Banksia integrifolia*), and is found adjoining the north side of the Open Pasture vegetation, forming a band approximately 100 metres wide. Weeds can be found throughout. The early growth stage, density and even-age structure of this vegetation indicates it is regenerating from previous clearing. The southern portion of this vegetation is in poor to moderate condition and has low to moderate conservation value.

The vegetation to the north side has better condition and integrity, showing greater structural and species diversity. This vegetation has moderate to good conservation value.

3. **Mature Dune Complex** - adjoins the regenerating dune complex in the north-east of the site near George Bass Drive. This scrub and forest vegetation is in various stages of advanced succession to maturity. It is dominated by Bangalay (*Eucalyptus botryoides*) and Banksias (*B. integrifolia*) with ground cover including Bracken (*Pteridium esculentum*) and Blady grass (*Imperata cylindrica*). The regenerating banksia shrub land in the north east section contains some weeds in isolated stands including Tobacco bush (*Solanum mauritianum*), Bitou bush (*Chrysanthemoides monilifera* ssp. *rotundata*), Asparagus fern (*Prolasparagus aethiopicus*) and Bridal creeper (*Asparagus asparagoides*). Overall, weeds and other disturbances are minor. Structurally, this vegetation is in good condition as a sample of its type. During field inspection it was observed that this community extended further south than shown on the proponents vegetation map (as mapped by Graham Higgs). This could have been due to the difficulty of accurately locating the boundary between vegetation types. DNR used a GPS in the field to locate the boundary between the vegetation types. This vegetation type is in good condition and has high conservation value. Consent for clearing this vegetation type where it occurs on the northern part of lot 162 will not be given.
4. **Moist Sclerophyll forest** - is located in two isolated sections on the northern boundary of the site, on the escarpment within the area mapped as SHRP 26 Littoral Rainforest and the surrounding 100 metre wide buffer. It is not under NVC Act application to clear. This vegetation is in good condition and has high conservation value.
5. **Sclerophyll forest** - this occurs on the upper edge of the escarpment (on adjacent properties) and on a ridge which runs down to the east of the existing residential development located to the north of the site. It is located within the SHRP 26 Rainforest and its associated 100 metre buffer zone, and is not proposed for clearing. This forest is located on Ordovician metasediments rather than sand. Canopy species are Spotted gum (*Corymbia maculata*), Bangalay and Grey ironbark (*E. paniculata*), with occasional smaller trees of Forest oak (*Allocasuarina littoralis*) and Hickory (*Acacia implexa*). Shrubs which are mostly confined to this community include Rough guinea flower (*Hibbertia aspera*), *Daviesia wilcifolia*, Lance beard-heath (*Leucopogon lanceolatus*) and Black-thorn (*Bursaria spinosa* ssp. *lasiothylla*), but many shrubs typical of more sheltered forest on the site are also present. Many vines are also present but less dominant than in the moist sclerophyll forest on the escarpment face. Grasses dominate the groundcover, with Blady grass (*Imperata cylindrica*), Kangaroo grass (*Themeda triandra*) and Basket grass (*Opismenus imbecillis*) being the most common species. This vegetation is in good condition with high conservation value, but lacks old growth components.
6. **Coastal Swamp Forest** - has a closed canopy of Swamp she-oak (*Casuarina glauca*), with occasional eucalypts on the drier fringes and Gahnia dominant as a shrub. It is located at the upper end of the drainage line through the north-east corner of the site. A small area is under NVC Act application to clear, on lot 162. This vegetation is in good condition and has high conservation value. This vegetation community is also listed as an Endangered Ecological Community under the *Threatened Species Conservation Act, 1995*. Consent for clearing this vegetation type where it occurs on the northern part of lot 162 will not be given.

7. **Reedbeds** - Occur in areas of more permanent deep water/soaks, and are located in a narrow strip within the Coastal Swamp Forest in the watercourse immediately downstream from the culverts under George Bass Drive, and in the drainage line downstream from the Swamp Forest in the open pasture area. It is not under NVC Act application to clear. Within the Coastal Swamp Forest the reedbeds are in good condition. Within the area of open pasture the reedbeds are disturbed by weed invasion along the dry margins.
8. **Dune scrub** - This vegetation community occurs on the sand dunes directly adjoining the beach to the south of the site and is dominated by the shrubs Coast wattle (*Acacia sophorae*) and Coastal beard-heath (*Leucopogon parviflorus*). The sand stabilising groundcover on this site is mostly provided by Couch grass (*Cynodon dactylon*) with patches of Pigface (*Carpobrotus glaucescens*). Many old vehicle tracks cross the dunes, and there is some degree of weed invasion, which is greatest at the western end close to Tomakin. The dunes are now fenced off from vehicles, and the vegetation is recovering. Bitou bush (*Chrysanthemoides monnifera* ssp. *rotundata*) has been abundant in some areas of the dunes, but most bushes have been sprayed and now appear dead. This community is not under NVC Act application to clear. This vegetation has suffered significant degradation by weed invasion and ground disturbance by people, rabbits and vehicles. However it has significant value in stabilising the sand dune from wind erosion.

Conservation Status Significance

Vegetation mapping in the Southern CRA Region (Thomas, Gellie & Harrison, 2000) has modelled three vegetation associations as occurring over the area under application. The first is the Southern Coastal Dune Scrub complex, found on the southern edge of the property (and generally aligned with the Dune Scrub vegetation mapped by Graham Higgs). There was a correlation with two of the dominant species described in the Southern CRA mapping to species found during the site inspection (*Acacia sophorae* & *Banksia integrifolia*). The conservation status significance of Southern Coastal Dune Scrub Complex is low, with an estimated 75% of this community remaining.

The other two Southern CRA vegetation associations modelled to occur over the site are South Coast Swamp Forest complex and Coastal Wet Heath Swamp Forest. Both of these associations share dominant species, and were generally modelled to occupy the northern quarter of the site. Field inspections confirmed that vegetation on site had a reasonable correlation with these two modelled vegetation types. One or two dominant vegetation species found on site correlated with those in the modelled vegetation types. Both of the modelled vegetation associations align with the vegetation mapped as Coastal Swamp Forest by Graham Higgs (2002).

The Wet Heath Swamp Forest has been 53% cleared so is not considered to have high conservation status significance. The South Coast Swamp Forest, however, does have high conservation status significance, as over 78% of this vegetation type has been cleared. In addition this vegetation type has also recently been listed as an Endangered Ecological Community (EEC) under the *Threatened Species Conservation Act 1995* in late 2004, as 'Swamp Oak Flood Plain Forest'. This is discussed in more detail under the threatened species section of this report. This vegetation association is also listed as a 'vulnerable eco-system' (titled as South Coast Swamp Forest) in the vulnerable eco-system mapping for Eurobodalla Shire.

A small area of this vegetation type is under application to clear in the northern edge of Lot 162. Consent will not be given for any clearing of the Coastal Swamp Forest vegetation type under NVC Act application, due to its high conservation value.

An area of Mature Dune Complex vegetation adjoins the Coastal Swamp Forest. As noted above in the section on 'Vegetation types and condition' this vegetation will also be refused consent to clear. This will provide a buffer between the development and the Coastal Swamp Forest, providing protection from degrading edge effects.

There will be no impact on the coastal escarpment area comprising of SEPP 26 Littoral Rainforest and the adjoining moist sclerophyll forest adjacent to George Bass Drive. These areas are outside the proposed development footprint.

Connectivity

Clearing of native vegetation associated with this NVC Act application will not impact on the existing connectivity of vegetation within the region. No significant areas of vegetation will become segregated from each other.

Biodiversity richness/uniqueness

The property contains some areas of considerable biodiversity richness. The areas of Coastal Swamp forest and Mature Dune Complex vegetation in the north-east part of the site are in good condition, display good floristic and structural diversity, and adjoin a large wetland area. This indicates these areas are likely to support a high level of plant and animal species diversity i.e. areas of biodiversity richness. Other areas likely to support good biodiversity richness include the SEPP 26 Littoral Rainforest and adjacent areas of Moist Sclerophyll Forest, and the areas of Sclerophyll Forest. In addition, the more mature areas of Regenerating Dune Complex found on the north side of this band of vegetation also have good species and structural diversity, and are likely to provide habitat for a range of species, particularly nectar and seed dependant fauna. The understorey in these areas would also provide valuable habitat for small birds, which use these areas for foraging, protection and nesting.

Most of the areas of high biodiversity richness are not under NVC Act application for clearing, either being contained within reserved areas or falling within the SEPP 26 buffer zone.

Within the areas of biodiversity richness under application for clearing, consent is refused to clear an area of Mature Dune Complex vegetation on the northern half of lot 162 - Integrated Housing block.

Migratory Species

In close proximity to the area under application are coastal and estuarine water bodies likely to be important sites for migratory species. For example, the Bevilan Swamp (SEPP 14 wetland) located immediately adjacent to the Barlings Beach property, directly across George Bass Drive.

It is likely that habitat within the property would be utilised by migratory bird species, but such habitat does not occur within the area under NVC Act application to clear. No migratory bird species listed under the CAMBA and IAMBAs migratory bird treaties were recorded either within the area under application or elsewhere on site by Nicholas Graham Higgs Pty Ltd. It is unlikely that any migratory species will be affected by this clearing proposal as it does not involve the clearing of riparian or estuarine habitat utilised by these species.

Isolated and Disjunct Populations

The effect of the NVC Act clearing proposal on isolated and disjunct populations of threatened species is considered within the 8 Part Test below. No isolated or disjunct populations of other species are known to occur either on the property or within the area under this NVC Act application. Those areas containing good quality habitat will be retained by conditions of consent. The rest of the area under application generally consists of poor quality habitat, of which the majority has been subjected to previous clearing.

The proposed clearing is unlikely to affect isolated and disjunct populations, nor will it increase the likelihood of isolated populations of plants and animals becoming locally extinct.

Threatened Species

Part 5A of the *Environmental Planning and Assessment Act 1979* requires that the consent authority take into account the effect of the proposed development on threatened species. The following discussion is a summary of the assessment based on section 5A of the *Environmental Planning & Assessment Act, 1979*.

Ecological consultant Nicholas Graham Higgs completed a flora and fauna assessment, which included a study of threatened species. An eight part test was conducted on those threatened species considered to have similar distributions and habitats to the area under application. These are listed in Table 1.

DNR also conducted a search of threatened species using the Terrestrial and Aquatic Threatened Species database (TATS), and the National Parks and Wildlife Service Threatened Species Database recorded sightings within a 10 km radius (NPWS, 2001). This search found an additional 7 fauna species that were not investigated by Graham Higgs 2002. These are included in Table 1 and are marked with an asterix.

An Endangered Ecological Community listed under the *Threatened Species Conservation Act 1995* occurs within the area under NVC Act application for clearing. This is the Swamp Oak Floodplain Forest, which aligns with the CRA vegetation type of South Coast Swamp Forest complex, and the Graham Higgs (2002) Coastal Swamp forest. A small area of this vegetation type (less than 1 hectare) is under application to clear in the north eastern portion of the proposed development, on the northern edge of lot 162. DNR will not give consent for any clearing of the South Coast Swamp Forest under NVC Act application as it considered an area of biodiversity richness.