



global environmental solutions

Lot 3 in DP 568613 and Lot 384 in DP 755952  
George Evans Road, Mundamia

Proposed Residential Estate

Flora & Fauna Issues & Assessment Report

24<sup>th</sup> November 2012

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**PART A**

**INTRODUCTION & INFORMATION BASE**

**1 INTRODUCTION**

**1.1 Background**

The land that is the subject of this *Flora & Fauna Issues & Assessment Report* (the “*subject land*”) consists of Lot 3 in DP 568613 and Lot 384 in DP 755952 George Evans Road at Mundamia (Figure 1). The subject land is located within the Local Government Area (LGA) of Shoalhaven City Council, and occupies a total area of approximately 43.29 hectares.

The subject land is located to the west of the township of Nowra and to the south of the Shoalhaven River (Figures 1 and 2), between:

- private land south of the Shoalhaven River (located to the immediate north);
- the main part of the town of Nowra to the east (across the forested valley of Flat Rock Creek);
- private land north of Yalwal Road (to the immediate south); and
- a Crown Road Reserve and other private land (to the immediate west).

The subject land occupies a total area of approximately 43.29ha, and is characterised by a mosaic of remnant and regrowth native vegetation (in the north and east), and substantial areas of cleared agricultural land (Figure 2). The western and southern parts of the site, which are predominantly cleared and disturbed, are the focus of development activities.

Surrounding lands are predominantly forested or contain other native vegetation (variously disturbed), although there are small areas of farmed land, occasional dwellings and formed roads, particularly to the west and north (Figures 1 and 2).

The subject land is currently zoned predominantly 1(d) – *General Rural* (Figure 3), with a strip of land up to approximately 125m wide along the eastern boundary zoned 7(d1) – *Scenic Protection*, pursuant to *Shoalhaven Local Environmental Plan 1985* (LEP 1985). The existing *Rural* land zoning occupies approximately 37.93ha (or 88% of the site), and the existing *Scenic Protection* land zoning occupies approximately 5.36ha (or 12% of the site).

## 1.2 Definitions

The definitions of relevant terms employed in this *Report* are:

- “*subject land*” Lot 3 in DP 568613 and Lot 384 in DP 755952 George Evans Road, Mundamia (Figures 1, 2 and 3)
- “*subject site*” the area proposed for the residential development and associated *Asset Protection Zones*
- “*locality*” an area of 10km radius around the “*subject site*”

Other terms used in this *Report* (listed in the *Glossary*) conform to the definitions contained in the relevant legislation and planning instruments (see Chapter 1.4).

## 1.3 Proposed Development

As noted above, the subject land at George Evans Drive, Mundamia is currently zoned predominantly 1(b) – *General Rural*, with a strip along the eastern boundary which is zoned 7(d1) – *Scenic Protection* (Figure 3).

The proposal for the land, which is the subject of this *Report*, is:

- the rezoning of the majority of the subject land (30.94ha or 71.5% of the site) for residential purposes, in accordance with the *Nowra-Bomaderry Structure Plan* (2008) and the *Draft Shoalhaven Local Environmental Plan 2009* (SLEP 2009);
- the creation of two areas to be dedicated for biodiversity conservation and (in small part) as *Asset Protection Zones* (APZs), occupying approximately 9.49ha (or 21.9% of the land);
- a residue lot of approximately 2.86ha (or 6.6% of the land); and
- the subsequent subdivision of the land and the construction of a substantial residential subdivision (of 312 Lots) with associated roads and other infrastructure (Figure 4).

Specific elements of the proposal include:

- the subdivision of the land into roads, open space and residential allotments, within a 13 stage development program;
- the retention of a single large lot with an existing residence in the eastern part of the subject land (Stage 1A);
- the provision of a peripheral road system to provide access in the event of a bushfire and to provide a management interface between retained vegetation and the residential subdivision;
- the provision of stormwater controls and management features designed *inter alia* to protect adjoining habitats and resources (as detailed in the *Report* by Martens 2011);
- the identification and dedication of land in the northern and eastern parts of the subject land for biodiversity conservation and environmental protection purposes; and
- the provision of *Asset Protection Zones* (APZs) around the proposal, which will be used for the peripheral roads, a bioretention swale system designed to maintain downslope hydrological regimes, and areas of managed native vegetation.



The area proposed for residential development (30.94ha or 71.5% of the subject land) is predominantly cleared or highly degraded agricultural land (69% of the development area), and a large residue lot (of approximately 2.86ha) is to be retained in the eastern part of the *land* (containing the existing residential dwelling). The remainder of the subject land (*ie* the northeastern and southeastern portions of the land, occupying approximately 9.49ha) is to be retained and managed for conservation purposes (in the proposed E2 – *Environmental Conservation Zone*), and for APZ purposes (Figure 4).

The proposed residential subdivision on the subject land at Mundamia has been re-designed specifically to reduce impacts on the Nowra Heath-myrtle. This has involved a reduction in the development in the northern part of the land, which significantly reduces the area of habitat for, and the number of specimens of, the Nowra Heath-myrtle which will need to be removed or affected.

#### 1.4 Scope and Aims of this Report

The scope of this *Flora & Fauna Issues & Assessment Report* with respect to the subject land at George Evans Drive, Mundamia includes:

- the collation of any available existing relevant information regarding the subject land and adjoining lands;
- undertaking a search of the *Atlas of NSW Wildlife* (Appendix C) maintained by the then Department of Environment, Climate Change & Water (DECCW)<sup>1</sup>;
- collating information obtained in ecological surveys of the subject land and of surrounding lands, conducted by BES for Shoalhaven City Council for the *Nowra-Bomaderry Structure Plan*, and the supplementary data collected by Environmental InSites on the subject land itself and on adjoining lands (see Chapter 2);
- incorporating data from surveys undertaken by Council *inter alia* on the subject land for the Spring Tiny Greenhood orchid;
- collating and integrating information from other relevant sources (see Chapter 2).
- considering the likely impacts of future development of the subject land on the natural environment in general, and on threatened biota and their habitats in particular; and
- addressing the following relevant statutory requirements:
  - the *Environment Planning & Assessment Act 1979* (EP&A Act);
  - the *Threatened Species Conservation Act 1995* (TSC Act);
  - relevant *Matters of National Environmental Significance* (Appendix D) listed in the Commonwealth *Environmental Protection & Biodiversity Conservation Act 1999* (EPBC Act); and
  - *State Environmental Planning Policy No. 44 – Koala Habitat Protection* (SEPP 44).

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<sup>1</sup> The DECCW (Department of Environment, Climate Change & Water) includes the National Parks & Wildlife Service (NPWS), and was previously the Department of Environment & Climate Change (DECC). The DECCW has subsequently (in early 2011) been incorporated into the Office of Environment & Heritage (OEH) within the Department of Premier & Cabinet.

The aims of this *Flora & Fauna Assessment Report inter alia* are:

- to provide an appropriate data base for the site to form the basis for addressing the potential impacts of the proposal;
- to provide input into the final subdivision design, with respect both to its footprint and its associated elements (APZs and stormwater treatment features);
- to identify a development design and footprint that satisfies both development aspirations and biodiversity conservation goals;
- to assist in designing a project that satisfies the goals of *Ecologically Sustainable Development* (ESD), as required by the legislation;
- to identify appropriate management measures which should be implemented within the conservation area on the subject land to facilitate biodiversity conservation; and
- to facilitate the realisation of the goals and planning outcomes identified in SLEP 2009.

This *Report* is based on the subdivision design illustrated in Figure 4, and assumes that all vegetation within that portion of the land proposed as *R1 – Residential Zone* (ie the “*subject site*”) will be removed. Conversely, vegetation along the eastern and northern sides of the subject land, in the proposed *E2 – Environmental Conservation Zone*, would be retained and managed primarily for biodiversity conservation purposes.

## 1.5 DEC Guidelines

The proposal has been assessed with respect to two sets of draft *Guidelines* prepared by the then Department of Environment & Conservation (DEC 2004, 2005):

- the *Draft Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities* (2004); and
- the *Draft Guidelines for Assessment of Impacts on Threatened Species under Part 3A* (2005).

The 2004 *Draft Guidelines* were addressed in the undertaking of investigations for this *Report* and in determining threatened biota of likely potential relevance. The 2005 *Draft Guidelines* (with respect to impacts on threatened biota) have been addressed in detail in Chapter 13 of this *Report*.

It should be noted that both sets of *Guidelines*:

- remain draft *Guidelines*, notwithstanding the 7-8 year time period between their drafting and the present time; and
- are “*Guidelines*”, and therefore open to interpretation and/or application to various extents depending on circumstances. Significantly, neither constitutes “*standards*” which must be applied, but rather provide guidance as to what may be applied under relevant circumstances.

Notwithstanding the draft nature of these documents, and their inherent limitations, this *Report* has taken those *Guidelines* into account, to the extent relevant to the proposal at Mundamia.