

FLORA AND FAUNA IMPACT ASSESSMENT

MASTER PLAN

BUILDING ENVELOPE AND MASSING FOR LOTS 22 TO 28, DP 1082382

ANSON STREET, ST. GEORGES BASIN NSW

a report prepared by

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This report was prepared for Mr David Debattista in accordance with their instructions. The report must only be used by the previously named and only for the stated purpose and not for any other purpose.

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ANSON STREET, ST. GEORGES BASIN NSW**

1 INTRODUCTION

This flora and fauna report concerns land located around Anson Street, St Georges Basin in the City of Shoalhaven. This report was commissioned by the owner of the land, Mr David DeBattista, who is submitting the Development Application to Shoalhaven City Council for a concept Masterplan for the proposed buildings as shown in **Figure 1**.

This land has been investigated on several occasions since 2000. Kevin Mills & Associates (KMA) (2000) prepared a report with a detailed description of the flora, fauna, ecological communities and habitat on Lot 1. KMA (2006a, 2006b) later prepared a supplementary report and a targeted survey report for the Yellow-bellied Glider and Glossy Black-Cockatoo, respectively. The presence of the threatened plant *Melaleuca biconvexa* has been investigated on several occasions (KMA 2001, 2010a, 2010b), and a similar Masterplan was assessed by KMA (2012).

2 THE SUBJECT LAND

The subject land straddles Anson Street, on the eastern side of Island Point Road, in the township of St Georges Basin. The land extends from Island Point Road eastwards to the back of houses surrounding Anson Street and Durnford Place. **Figure 1** shows the subject land (study area) and the proposed development concept plan. The area of the subject land is about 3.59 hectares; this includes the road reserves within the borders of the land.

This assessment is based upon the condition of the land as it is today and as it will be once the removal of timber debris and grassing by seed has been completed, as previously approved by Council.

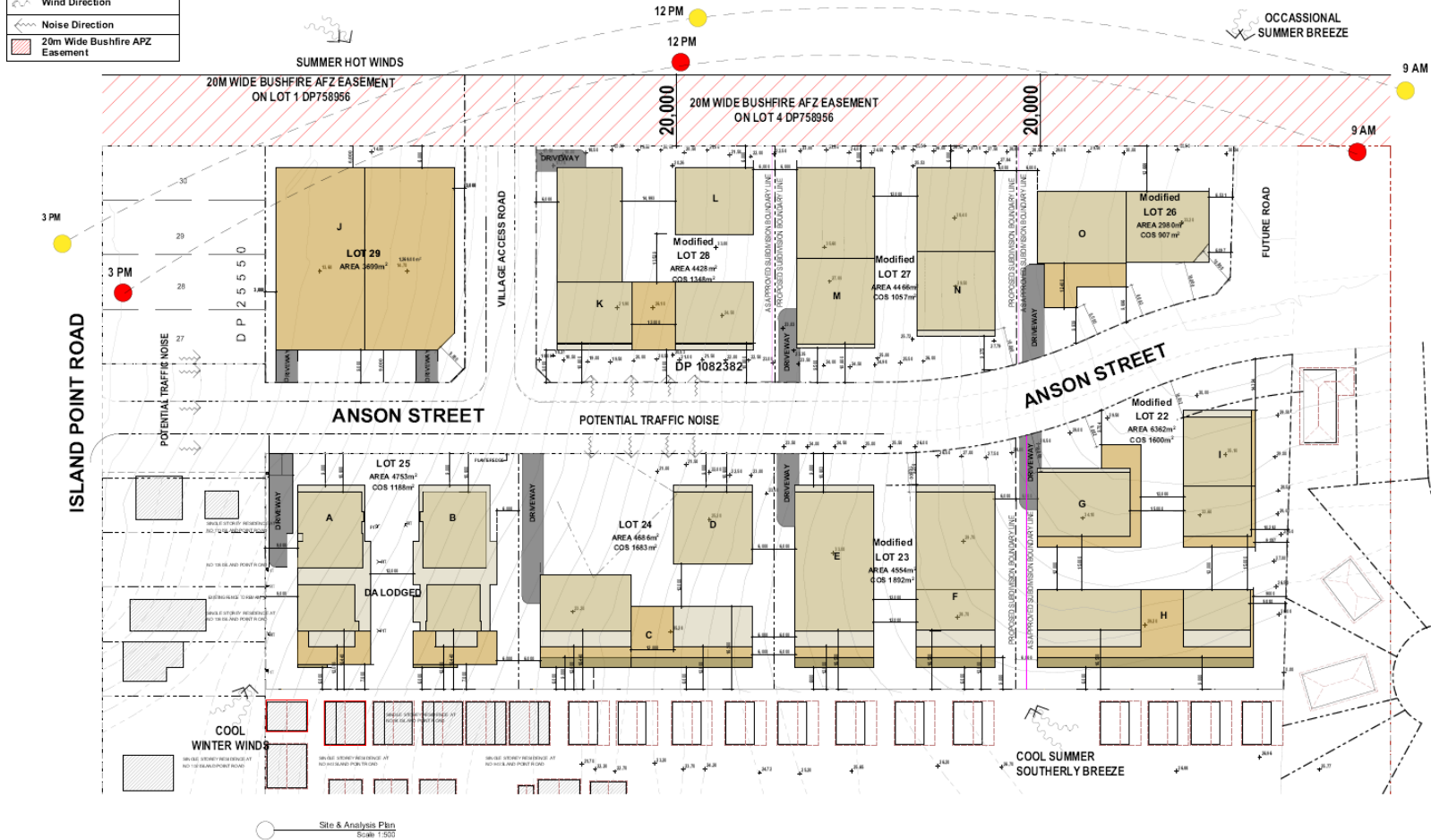
The application seeks to gain consent for a concept Masterplan for the proposed buildings on the lots within the approved subdivision as shown on **Figure 1**.

3 VEGETATION AND HABITATS

The original natural vegetation on the subject land was previously described in the reports by the consultant noted above. Most of this vegetation has, with approval from Shoalhaven City Council, been removed in the intervening years. Today, little vegetation occurs on the land; see **Photographs 1 to 4**.

The land is characterised by much bare earth following clearing. Regrowth vegetation and weeds occurs across parts of the land, while in the west and south some trees remain, north and south of the road. Removal of these trees is part of the current application. The small patch of vegetation around the *Melaleuca biconvexa* plants remains mostly natural. The proposed development would require all trees from the site, other than those in the *Melaleuca* stand, to be removed.

LEGEND	
	Hot Summer Sun
	Low Winter Sun
	Wind Direction
	Noise Direction
	20m Wide Bushfire AFZ Easement



SHOBHA DESIGNS ARCHITECTS & URBAN DESIGNERS Suite 101, 1-7 Jamboree St, St Georges NSW 2257 PHONE: 02 8010 2277 EMAIL: info@shobhadesigns.com.au	PROJECT MASTER PLAN - BUILDING ENVELOPE AND MASSING FOR LOTS 22 TO 28, DP 1082382, ANSON STREET, ST. GEORGES BASIN NSW	DRAWING TITLE MASTER PLAN - SITE & ANALYSIS PLAN	DATE 10/11/2023	DRAWN BY R. BATTISTA	CHECKED BY W. JONES	SCALE 1:500	SHEET NO. 01
	CLIENT David De Battista	DRAWN BY R. BATTISTA	CHECKED BY W. JONES	DATE 10/11/2023	DRAWN BY R. BATTISTA	CHECKED BY W. JONES	SHEET NO. 01

Figure 1. Master Plan, Anson Street, St Georges Basin



Photograph 1. View looking west across the land on the northern side of Anson Street.



Photograph 2. View looking east across the land on the northern side of Anson Street.



Photograph 3. View looking west across the land on the southern side of Anson Street.



Photograph 4. View looking east across the land on the southern side of Anson Street.

In summary, as evident in the photographs above, the site is or will be in the near future cleared of all of its natural vegetation, except for the small patch around the *Melaleuca biconvexa*. The land will therefore have no significant habitat for native biota. The only significant feature will be the handful of plants of the threatened species *M. biconvexa*.

4 IMPACT ASSESSMENT

General Assessment

A few trees remain in the west and south of the land. These trees are not important habitat trees; they are isolated from forest, have no hollows and are not especially important for any threatened species.

NSW Threatened Species Conservation Act

Under the provisions of the *Threatened Species Conservation Act 1995*, the impact of a proposed action, development or activity on species, populations and communities (and their habitats) is assessed by applying various factors set out under Section 5A of the New South Wales *Environmental Planning and Assessment Act 1979* (EPA Act). Commonly referred to as the "assessment of significance", these factors assist the proponent and the determining authority to decide whether the impact is likely to be significant and whether a Species Impact Statement (SIS) should be prepared.

The "assessment of significance" set out under Section 5A of the EPA Act has been applied, below, to assist in determining whether the proposed development is likely to have a significant effect on species, populations and communities (and their habitats) listed under the TSC Act. The assessment is carried out as if the development proceeds as illustrated on the Masterplan or something close to that layout.

In addressing the assessment of significance, consideration is given to those matters discussed in the document titled "Threatened Species Assessment Guidelines. The Assessment of Significance" prepared by the Department of Environment and Climate change in August 2007. Extracts from that document are provided below where relevant to clarify interpretation of the significance assessment. The Guidelines use two important terms when discussing assessment procedures.

The 'action proposed' at this stage is removal of a few trees remaining following earlier approved clearing and approval of a Masterplan. In making the assessment, we assume that the Masterplan is developed.

Subject site means the area directly affected by the proposal.

Study area means the subject site and any additional areas which are likely to be affected by the proposal, either directly or indirectly. The study area should extend as far as is necessary to take all potential impacts into account.

(a) in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction

The Guidelines define the following relevant terms:

Life cycle: the series of stages of reproduction, growth, development, ageing and death of an organism.

Viable: the capacity to successfully complete each stage of the life cycle under normal conditions.

Local population the population that occurs in the study area. The assessment of the local population may be extended to include individuals beyond the study area if it can be clearly demonstrated that contiguous or interconnecting parts of the population continue beyond the study area, according to the following definitions:

- The *local population* of a threatened *plant* species comprises those individuals occurring in the study area or the cluster of individuals that extend into habitat adjoining and contiguous with the study area that could reasonably be expected to be cross-pollinating with those in the study area.

- The *local population of resident fauna* species comprises those individuals known or likely to occur in the study area, as well as any individuals occurring in adjoining areas (contiguous or otherwise) that are known or likely to utilise habitats in the study area.
- The *local population of migratory or nomadic fauna* species comprises those individuals that are likely to occur in the study area from time to time.

In cases where multiples populations occur in the study area, each population should be assessed separately.

Risk of extinction: the likelihood that the local population will become extinct either in the short-term or in the long-term as a result of direct or indirect impacts on the viability of that population.

As noted above, there is a small stand of the tree *Melaleuca biconvexa* on the site, at the location shown on **Figure 1**. The retention of this stand within the area outlined on the plan is a previous consent condition from Shoalhaven City Council. The population consists of 22 stems, covering about 32m², as determined in February 2017. Some are root suckers so the actual number of genetically distinct individuals is unknown but somewhat less than 22. As we have posited before, this is a very marginal site for this species. Over the eight years (2009 to 2017) that we been looking at this site the plants have only grown in size marginally and have not increased in number; the latter partly due to the root suckering habit mentioned above. These plants have never been observed to produce fruit, another indication of their marginal situation.

This site is at the centre of the core area of occurrence of this species on the south coast; it also occurs on the central coast. Thin an area of about seven kilometres by 13 kilometres there are 100,000's of plants along the creek and across floodplains north of St Georges Basin (NSW Wildlife atlas; pers. obs. K. Mills). Plants occur within one kilometre to the east and west of the site and many many more within two kilometres of the site to the west and north.

The development of the proposed subdivision retains the stand of *Melaleuca biconvexa*, as required by Council. The development will not cause the extinction of this population of this species, although we question its long term survival chances given the environment in which it is growing.

(b) in the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction

The Guidelines note that:

This factor is essentially identical to factor (a) except that it refers only to endangered populations listed in Part 2 of Schedule 1 of the TSC Act and Part 2 of Schedule 4 of the FM Act, whereas factor (a) refers to species.

No endangered populations have been declared on, or adjacent to, the subject land.

(c) in the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:

(i) is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction

(ii) is likely to substantially and adversely modify the composition of the ecological community such that its occurrence is likely to be placed at risk of extinction

The Guidelines define the following important terms:

Local occurrence: the ecological community that occurs within the study area. However the local occurrence may include adjacent areas if the ecological community on the study area forms part of a larger contiguous area of that ecological community and the movement of individuals and exchange of genetic material across the boundary of the study area can be clearly demonstrated.

Risk of extinction: similar to the meaning set out in factor (a), this is the likelihood that the local occurrence of the ecological community will become extinct either in the short term or in the long-term as a result of direct or indirect impacts on the ecological community, and includes changes to ecological function.

Composition: both the plant and animal species present, and the physical structure of the ecological community. Note that while many ecological communities are identified primarily by their vascular plant composition, an ecological community consists of all plants and animals as defined under the TSC and FM Acts that occur in that ecological community.

No such communities occur on the subject land; the proposed development is therefore not likely to have an adverse effect on the extent any endangered ecological community to the extent that it is likely to place this local occurrence of the community at risk of extinction,.

(d) in relation to the habitat of a threatened species, population or ecological community:

(i) the extent to which habitat is likely to be removed or modified as a result of the action proposed

(ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action

(iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality

The Guidelines define the following relevant terms:

Habitat: the area occupied, or periodically or occasionally occupied, by any threatened species, population or ecological community and includes all the different aspects (both biotic and abiotic) used by species during the different stages of their life cycles.

Extent: the physical area removed and/or to the compositional components of the habitat and the degree to which each is affected.

Importance: related to the stages of the species' life cycles and how reproductive success may be affected.

Locality: the same meaning as ascribed to local population of a species or local occurrence of an ecological community.

The habitat occupied by *Melaleuca biconvex* will be not removed; it is being retained. Isolation of the habitat would not be exacerbated; the site is already separated from other stands of the species, although pollination can probably occur if this population ever fruited. The long term survival of the population at St Georges Basin relies on retaining the large stands along the main creeks in the area, not on this handful of plants growing on marginal habitat.

(e) whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly)

The Guidelines note that:

This factor is aimed at assessing whether the proposal is likely to affect (directly or indirectly) areas of critical habitat present in the study area. Critical habitat refers only to those areas of land listed in the following registers:

- The Register of Critical Habitat kept by the Director General, DECC
[www.nationalparks.nsw.gov.au/npws.nsw/content/critical+hjabitat+protection]
- The Register of Critical Habitat kept by the Director General, DPI
[www.fisheries.nsw.gov.au/threatened_species/general/register_of_critical_habitat]

Critical habitat refers only to those areas of land listed in the Registers of Critical Habitat. No critical habitat has been declared on the subject land.

(f) whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan

In regard to this factor, the *Guidelines* note that

When deciding whether the proposal is consistent with the objectives or actions of a recovery plan or threat abatement plan, applicants/proponents must consider all relevant approved recovery plans and threat abatement plans.

In 2004 amendments were made to the TSC Act and the FM Act that remove the mandatory requirement to prepare recovery plans and threat abatement plans, and instead requires the preparation of a *threatened species priorities action statement* (TSC Act s. 90A and FM Act s. 220ZVA).

The priorities action statements will set out the measures required to promote the recovery of each threatened species, population and ecological community to a position of viability in nature and for managing each key threatening process. In applying this factor, consideration should be given to measures outlined in the priorities action statements as well as existing recovery plans and threat abatement plans which will remain in place.

A recovery plan has not been prepared for this threatened species and no relevant threat abatement plans have been prepared.

(g) whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The Guidelines state that:

In addition to deciding whether the action/activity constitutes a KTP, consideration must also be given to whether the proposal is likely to exacerbate a KTP. Species listed in the determination as being 'at risk' warrant particular consideration if these species are known or likely to occur within the study area of the development or activity.

Key threatening processes in New South Wales are listed under the *Threatened Species Conservation Act 1995* (TSC Act) and the *Fisheries Management Act 1994* (FMA Act). Key threatening processes are those things that threaten, or could threaten, the survival or evolutionary development of species, populations or ecological communities. The key threats, tabulated below, fall into the following major categories.

Pest animals. Introduced (feral or pest) animal species can compete with, prey upon and/or impact upon the habitat of, native animals.

Weeds. Weeds (exotic plants) compete with native plants for resources such as light and nutrients. These species can aggressively invade natural areas, displacing native plants and animals.

Diseases. Exotic fungal infections, viruses and other pathogens can weaken and kill native species.

Habitat loss/change. From large-scale land clearing to the gathering of bushrock for suburban gardens, humans have degraded many native environments across the state.

Given the previous approval to clear the vegetation from the site, the development will not involve any key threatening processes.

Conclusion of Significance Assessment

The Guidelines make the following comments in regard to forming a conclusion about the significance of the potential impact on threatened species, etc.

The threatened species assessment of significance should **not** be considered a 'pass or fail' test. Instead, consideration of the factors will inform the decision-making process of the likelihood of significant effect. Where necessary, the process will trigger further assessment in the form of a species impact statement.

All factors should be considered as well as any other information deemed relevant to the assessment. The assessment of significance should not be used as a substitute for a species impact statement. Application of the precautionary principle requires that a lack of scientific certainty about the potential impacts of an action does not itself justify a decision that the action is not likely to have a significant impact. If information is not available to conclusively determine that there will not be a significant impact on a threatened species, population or ecological community, or its habitat, then it should be assumed that a significant impact is likely and a species impact statement should be prepared.

Proposed measures that mitigate, improve or compensate for the action, development or activity should not be considered in determining the degree of the effect on threatened species, populations or ecological communities, unless the measure has been used successfully for that species in a similar situation.

In our opinion, the proposed development at Anson Street set out in the Masterplan is not likely to have a significant effect on any threatened species, populations or communities listed under the *Threatened Species Conservation Act 1995*, or their habitats, and the preparation of a Species Impact Statement (SIS) is not warranted.

Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

The impact of a proposed action on matters of national environmental significance is assessed under the provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Matters of national environmental significance includes threatened species and ecological communities.

An "action" is a project, a development, an undertaking, an activity or a series of activities, and an alteration of any of the above. An action can be on Commonwealth land, State land council land, private land, or water. Approval is required from the Commonwealth Environment Minister for actions that are likely to have a significant impact on a matter of national environmental significance; these are called "controlled actions". A proposed action is a "controlled action" if:

- is likely to have a significant impact on a matter of national environmental significance,
- is likely to have a significant impact on the environment of Commonwealth land,
- is to be undertaken on Commonwealth land and is likely to have a significant impact on the environment anywhere, and
- is an action to be taken by the Commonwealth that is likely to have a significant impact on the environment anywhere.

Only the Commonwealth can advise definitively whether a proposed action is a controlled action; however, the Department of the Environment and Heritage has prepared guidelines to facilitate a self-assessment process to help proponents decide whether an action is likely be a controlled action that should be referred to the Minister for assessment and approval. The *Significant Impact Guidelines: Matters of National Environmental Significance* (DEH May 2006) is used to assess the impact on matters of national environmental significance under the EPBC Act.

The following questions in the *Significant Impact Guidelines* (DEH 2006) must be addressed when deciding whether or not to refer a proposed action to the Commonwealth Minister for the Environment:

1. Are there any matters of national environmental significance located in the area of the proposed action (noting that 'the area of the proposed action' is broader than the immediate location where the action is undertaken; consider also whether there are any matters of national environmental significance adjacent to or downstream from the immediate location that may potentially be impacted)?

Response: The occurrence of *Melaleuca biconvexa* is the only matter of national environmental significance in the area of the proposed action. The location and number of plants is set out above.

2. Considering the proposed action at its broadest scope (that is, considering all stages and components of the action, and all related activities and infrastructure), is there potential for impacts, including indirect impacts, on matters of national environmental significance?

Response: Considering the proposed action in its broadest scope, the proposal will likely have a direct impact on 22 stems of *Melaleuca biconvexa* in the long term, assuming full development of the Masterplan. The handful of stems to be removed as a result of the proposed action could not seriously impact upon the population at St Georges Basin.

3. Are there any proposed measures to avoid or reduce impacts on matters of national environmental significance (and if so, is the effectiveness of these measures certain enough to reduce the level of impact below the 'significant impact' threshold)?

Response: The proposed development avoids the area occupied by the plants of *Melaleuca biconvexa* on the site.

4. Are any impacts of the proposed action on matters of national environmental significance likely to be significant impacts (important, notable, or of consequence, having regard to their context or intensity)?

Response: The proposed retention of the plants of *Melaleuca biconvexa* avoids any direct impact. The long term prognosis is poor for their survival given the marginal habitat to begin with and the existing surrounding site condition.

Conclusion, EPBC Act

In our opinion, the proposed action is not likely to have a significant impact on matters of national environmental significance listed under the *Environment Protection and Biodiversity Conservation Act*. Referral to the Commonwealth Minister for the Environment for assessment and approval is therefore not warranted.

5 CONCLUSION

This study has assessed a development scenario shown on a Masterplan for a site around Anson Street, St Georges Basin. The land is essentially cleared of natural vegetation and habitats, with only a few scattered trees remaining in the west and south; see photographs above. These trees are not important habitat trees; they are isolated from forest, have no hollows and are not especially important for any threatened species. The remaining tiny area of natural bushland containing *Melaleuca biconvexa* is to be retained within the proposed development.

Based on the current condition of the site, cleared following an earlier approval from council, we believe that the *Melaleuca biconvexa* plants will not survive into the long term. The stand is partly composed of root suckers and the number and size of the plants has changed little in the nine years that we have been looking at it. Additionally, the plants are not flowering or producing seed. This stand of plants in our view is not significant to the long term survival of the species in the locality, where 100,000s of plants are known to occur.

Neither the preparation of a Species Impact Statement nor referral to the Commonwealth for assessment are, in our opinion, warranted.

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