

M03 Vegetation site visit (Rev B)

|          |                       |               |                   |
|----------|-----------------------|---------------|-------------------|
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## Smiths Beach Stage 2 Approvals – Vegetation site visit

### 1. Background

Strategen-JBS&G were engaged by Smiths 2014 Pty Ltd to conduct a site visit to confirm the presence and extent of two Priority Ecological Communities (PEC) within Lot 4131, Smiths Beach Road, Yallingup (the Site). This memorandum presents the results of the site visit and assessment.

### 2. Scope and Methods

#### 2.1 Scope

The scope of work conducted was as follows:

- Undertake a site visit to confirm boundaries and condition of vegetation, specially focussing on significant vegetation
- Prepare updated mapping and supporting technical memorandum summarising the outcomes of the site visit.

#### 2.2 Methods

##### 2.2.1 Report review

A review of the two most recent technical flora and vegetation survey reports, Emerge (2019) and ATA (2012) was undertaken prior to the site visit to understand the level of survey undertaken within the project area and the extent of conservation significant vegetation.

##### 2.2.2 Site visit

A site visit was undertaken on 16 September 2020 by Tristan Sleigh (Lead Botanist) from Strategen-JBS&G who has over 13 years of experience within the south-west region of Western Australia, to conduct the following:

- Provide context to the site with respect to landforms and surrounding vegetation
- Review the boundaries of the vegetation type and conservation significant vegetation community mapping
- Review the vegetation condition mapping.

### 3. Results

#### 3.1 Report review

On review of the two most recent technical flora and vegetation survey reports, a number of differences between the two were noted. These are outlined in Table 3.1 below.

**Table 3.1: Summary of major differences between Emerge (2019) and ATA (2012)**

| Description  | Reasoning   |
|--|---|
| Absence of PEC definition                          | Both the 'Melaleuca lanceolata forests, Leeuwin Naturaliste Ridge' PEC and 'Low shrublands on acidic grey-brown sands of the Gracetown soil-landscape system' PEC were listed after the ATA (2012) report was finalised.  |
| Differences in vegetation types mapping boundaries | The selection of quadrat location in each report is the likely cause of the differences in vegetation type definition and mapped boundaries. Emerge have a larger density of quadrats within the Melaleuca lanceolata communities allowing for a better definition of this vegetation unit. |
|  | The regrowth of vegetation within the central part of the site is also likely to have influenced the definition and mapping of vegetation types.  |

### 3.2 Vegetation Types

From the data collected during the site visit and on review of recent aerial imagery, some minor changes to the vegetation type mapping conducted by Emerge (2019) were made. Overall, the accuracy of the Emerge vegetation mapping was excellent, with the minor change observed likely due to quadrat placement and areas traversed during the survey. The changes and explanatory notes are outlined in Table 3.2 below and shown in Figure 1. These changes largely reflected differences in the structure and dominant species composition.

**Table 3.2: Summary of vegetation type mapping changes**

| Description  | Change  | Reasoning   |
|--|---|---|
| Western boundary of KcSg along interface with AsDc       | Minor changes to the boundary                   | Based on vegetation structure and dominant species observed along this interface.   |
| Southern boundary of KcSg along interface with MIDr      | Reclassification of small area of KcSg to MIKc  | This area has a larger proportion of Melaleuca lanceolata, which is absent from the vegetation type KcSg. This community likely represents an ecotone between the KcSg and MIDr vegetation types. |
| South-eastern boundary of AfPe along interface with CcHh | Reclassification of small area of CcHh to AfPe  | This area represents a continuation of the AfPe vegetation type in both structure and composition.  |
| South-eastern corner of KcSg along interface with MhGl   | Reclassification of small area of KcSg to MhGl. | This area is considered to represent the vegetation type MhGl based on composition and structure.   |
| Western boundary of AfPe along interface with MhGl       | Reclassification of small area of MhGl to AfPe  | This area represents the vegetation type AfPe based on composition and structure.   |

### 3.3 Vegetation condition

No changes in vegetation condition were observed during the site visit. The condition mapping conducted by Emerge (2019) accurately reflects the vegetation condition within the site.

### 3.4 PEC Extent

The changes to PEC mapping, based on the vegetation type mapping changes are described in Table 3.3 and shown in Figure 2, with the final suggested PEC mapping shown in Figure 3. Changes were minor and reflected the structure and dominant species composition as per the vegetation type changes.

**Table 3.3: Summary of PEC mapping changes**

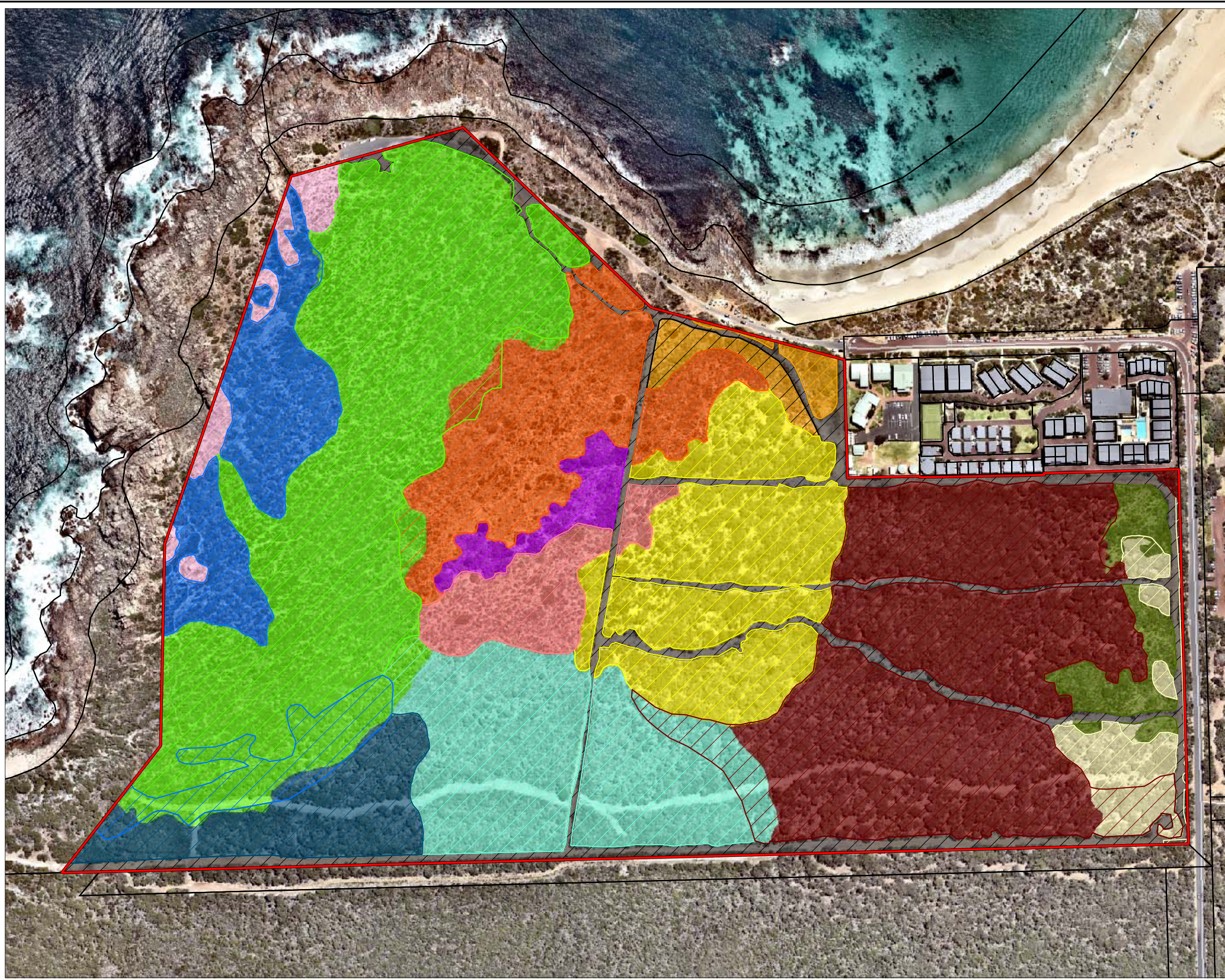
| Description  | Change                        | Reasoning   |
|--|-------------------------------|---|
| Western boundary of 'Low shrublands on acidic grey-brown sands of the Gracetown soil-landscape system' PEC | Minor changes to the boundary | Based on vegetation structure and dominant species observed along this interface. |

| Description   | Change  | Reasoning   |
|---|---|---|
| Southern boundary of 'Low shrublands on acidic grey-brown sands of the Gracetown soil-landscape system' PEC | Reclassification to 'Melaleuca lanceolata forests, Leeuwin Naturaliste Ridge' PEC | This area has a larger proportion of Melaleuca lanceolata, which is absent from the vegetation type KcSg. Also, structurally this vegetation is not considered to be a low shrubland. |

Based on the site visit and review of the analysis conducted by Emerge (2019), the presence of both PEC's is considered to be correct.

The species present within vegetation type KcSg are consistent with those described as common within the 'Low shrublands on acidic grey-brown sands of the Gracetown soil-landscape system' PEC. While the site is not mapped as occurring within the Gracetown soil-landscape system, the soils within this site can be described as acidic grey-brown sands and are therefore considered to be consistent with the description. Similarly, the structure and species present within vegetation types MLKc and MIDr are consistent with those described as common within the 'Melaleuca lanceolata forests, Leeuwin Naturaliste Ridge' PEC.

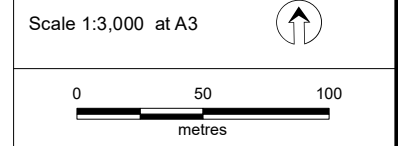
Given the low proposed impact to the PEC by the development, the extent of regional survey conducted by Emerge (2019) is considered adequate to provide context to the minimal impacts on the community. Should the planned development encroach further into the mapped PEC boundary, further regional survey work may be required to quantify the extent of the regional PEC location identified. This would provide further context to support environmental impact assessment.



- Legend**
- Project area (Lot 4131)
  - Cadastral boundary
  - Roads (MRWA)
- Vegetation type (Strategen 2020)**
- AfPe
  - AhHe
  - AsDc
  - AsHh
  - BmMrXp
  - CcHh
  - DciDcL
  - KcDcPp
  - KcSg
  - MhGl
  - MIDr
  - MIKc
  - NfCcXp
  - CL
- Vegetation type (Emerge)**
- AfPe
  - AhHe
  - AsDc
  - AsHh
  - BmMrXp
  - CcHh
  - DciDcL
  - KcDcPp
  - KcSg
  - MhGl
  - MIDr
  - MIKc
  - NfCcXp
  - Non-native



Job No: 59550  
 Client: Linc Property  
 Version: A      Date: 14-Oct-2020  
 Drawn By: hsullivan      Checked By: CT



Coord. Sys. GDA 1994 MGA Zone 50

**Lot 4131, Busselton, WA**

**VEGETATION TYPE**

**FIGURE 1**

File Name: \\008pmpm004v001\jbsg.aust\JBS Perth\Projects\1\Open\Linc Property\59550 Smiths Beach Stage 2 Approvals\GIS\Maps\D01\_Rev\_A\59550\_01\_VegTypeChange.mxd  
 Image Reference: www.nearmap.com - Imagery Date: 10. January 2020.



- Legend**
- Project area (Lot 4131)
  - Cadastral boundary
  - Roads (MRWA)
- Priority Ecological Communities (Strategen-JBS&G 2020)
- WA PEC 'Low shrublands on acidic grey-brown sands of the Gracetown soil-landscape system'
  - WA PEC '*Melaleuca lanceolata* forests, Leeuwin Naturaliste Ridge'
- Priority Ecological Communities (Emerge)
- WA PEC 'Low shrublands on acidic grey-brown sands of the Gracetown soil-landscape system'
  - WA PEC '*Melaleuca lanceolata* forests, Leeuwin Naturaliste Ridge'



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Scale 1:3,000 at A3

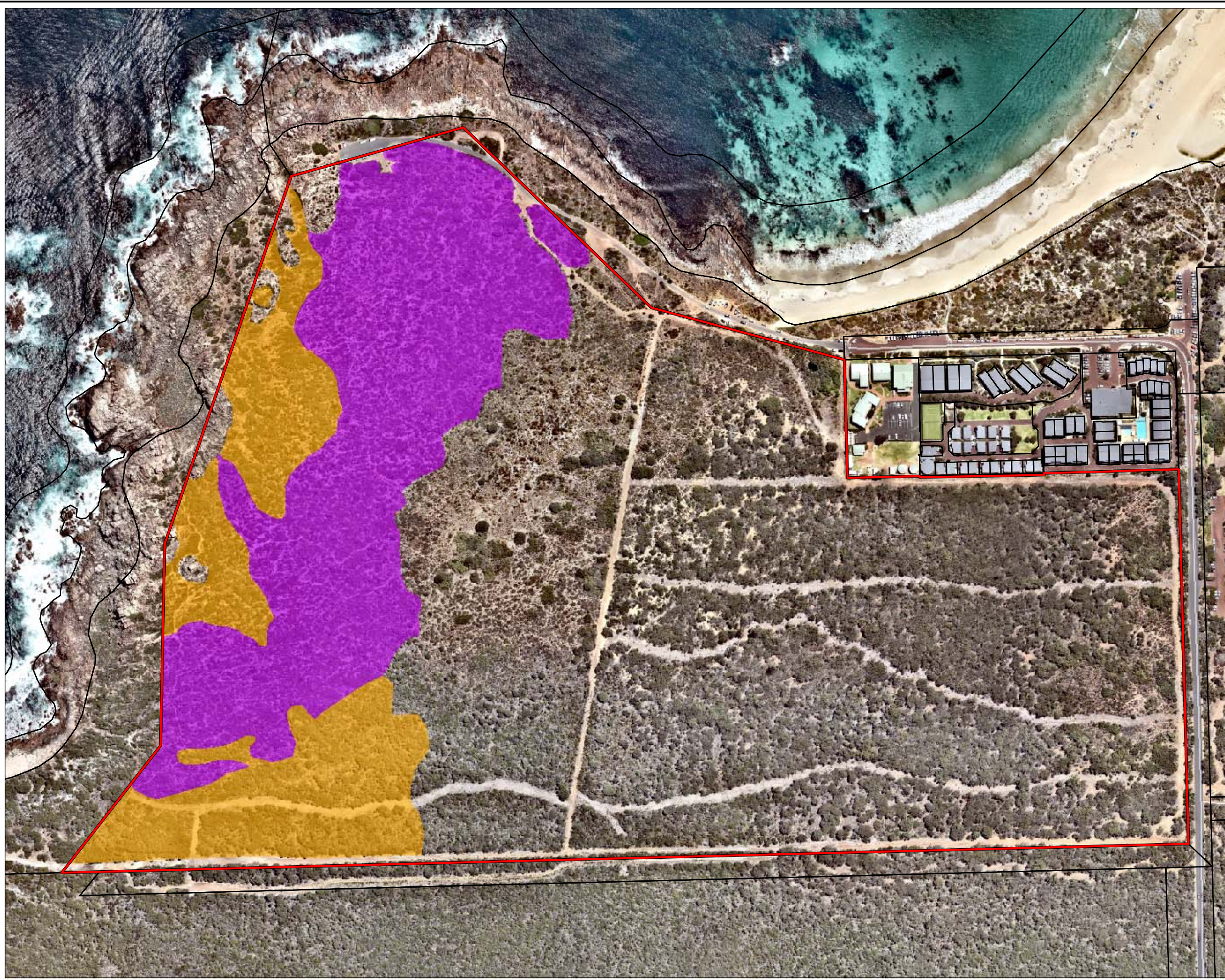
0      50      100  
metres

Coord. Sys. GDA 1994 MGA Zone 50

**Lot 4131, Busselton, WA**

**PRIORITY ECOLOGICAL COMMUNITIES**

**FIGURE 2**



- Legend**
- Project area (Lot 4131)
  - Cadastral boundary
  - Roads (MRWA)
- Priority Ecological Communities (Strategen-JBS&G 2020)
- WA PEC 'Low shrublands on acidic grey-brown sands of the Gracetown soil-landscape system'
  - WA PEC '*Melaleuca lanceolata* forests, Leeuwin Naturaliste Ridge'



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Scale 1:3,000 at A3

Coord. Sys. GDA 1994 MGA Zone 50

**Lot 4131, Busselton, WA**

**PRIORITY ECOLOGICAL COMMUNITIES**

**FIGURE 3**