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EPA ASSESSMENT NO. 1597

SUSSEX LOCATION 413, YALLINGUP, SMITHS BEACH STRATEGIC ENVIRONMENTAL ASSESSMENT RESPONSE TO SUBMISSIONS

Prepared for:

Chairman
Environmental Protection Authority
Locked Bag 33, Cloisters Square
Perth Western Australia 6850

Report Date: 6 October 2008
Project Ref: 2008/026, V3

Written/Submitted by:

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6 October 2008

Chairman
Environmental Protection Authority
Locked Bag 33, Cloisters Square
Perth Western Australia 6850

Attention: Paul Vogel

Dear Paul

RE: EPA Assessment No 1597 SUSSEX LOCATION 413, YALLINGUP, SMITHS BEACH STRATEGIC ENVIRONMENTAL ASSESSMENT

Please find attached a copy of the revised response to submissions report for the Smiths Beach Strategic Environmental Assessment (Version 3). The report includes a response to all of the issues listed under technical headings, plus a summary of the issues contained in each submission.

Also attached is a table showing the comments received from the EPASU on Version 2 of the report (3 September 2008) and our response to these comments. A table showing the response to comment on Version 1 of the file report is also attached as this was not provided previously.

Additional information provided in this response includes the Environmental Offset report. The Environmental Offset has been worked through with the Department of Environment and Conservation as well as the Commonwealth Department of the Environment, Heritage, Water and the Arts as part of the assessment under the EPBC Act. We believe that the one environmental offset satisfies the principles of environmental offsets for both the State EPA and Commonwealth DEWHA.

Please let me know if you require any further clarification of issues to assist you in assessing the proposal.

For and on behalf of Coffey Environments Pty Ltd

Dr Paul van der Moezel

cc Neill Stevens, NS Projects

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LIST OF ATTACHMENTS

Appendices

Appendix 1: Letter from Department of Environment (now Department of Water)

Appendix 2: Response to submitter 33

Appendix 3: Environmental Offset.

Appendix 4: Fire Management Plan (June 2008)

Appendix 5: Landscape Commitment Plans

Appendix 6: Revised Appendix 2 table from Vertebrate Fauna Assessment report

Appendix 7: Results of January 2008 Western Ringtail Possum Survey

Appendix 8: Department of Planning and Infrastructure Response to Landscape Study report

Appendix 9: Smiths Beach Design Guidelines (draft)

Appendix 10: Western Section of Cape to Cape Track With Views of Development

Appendix 11: Comparison of visual model results for the 85% and 100% development from Torpedo Rocks and the Beach node

Appendix 12: Aerial Photograph – Eagle Bay

Appendix 13: Aerial Photograph – Yallingup

Appendix 14: Smiths Beach - Sussex Location 413 – Possum Management Strategy

RESPONSES TO PUBLIC SUBMISSIONS ON ENVIROMENTAL MATTERS

1. FLORA AND VEGETATION

1.1. Further discussion with the DEC regarding Priority Ecological Communities (PECs) may be required by the consultant / proponent to investigate whether further survey is required to determine whether examples of these PECs are located within the site. Several PECs have been identified by DEC in the region, including:

- ***Melaleuca lanceolata* forests, Leeuwin Naturaliste Ridge – Priority 2**
- **Low shrublands on acidic grey-brown sands of the Gracetown soil-landscape system – Priority 2**
- **Granite community dominated by the shrubs *Calothamnus graniticus subsp. graniticus, Acacia cyclops, A. saligna, Hakea oleifolia, H. prostrata* and *Jacksonia furcellata* (Sugar Loaf Rock) – Priority 1**

As requested by the submission, the Department of Environment and Conservation's Threatened Species and Communities Unit has been contacted with respect to the PECs mentioned above. DEC provided information on each PEC including a description of the typical plant species that occur in the PEC, the soils and landform on which they occur, a broad map of the distribution, and for two of the PECs a photograph. Our assessment of the information provided in relation to whether the PECs might occur on Location 413 is as follows.

The pure stands of *Melalueca lanceolata* vegetation that occur in the south-west corner of the site on limestone soils closely match the description of the *Melaleuca lanceolata* forests, Leeuwin Naturaliste Ridge PEC. The other vegetation types on Location 413 in which *Melaleuca lanceolata* occurs in association with other species on granitic soils does not match the description of this PEC. The *Melaleuca lanceolata* vegetation in the south-west corner that is considered highly likely to be a PEC will be retained in its entirety in the Principal Ridge Protection Area which will be retained in its natural condition. The other vegetation types that contain *Melaleuca lanceolata* on granitic soils will also be retained in their entirety in the PRPA in their natural condition.

A comparison of the typical species occurring in the low shrublands on acidic grey-brown sands of the Gracetown soil landscape system Priority Ecological Community gives a close match with quadrat SB1 with 7 of the 12 species in that quadrat being typical of this PEC. Quadrat SB1 contains *Kunzea ciliata/Hakea trifurcata/Spyridium globulosum* Low Closed Heath on shallow sand over granite in the western end of the site. This vegetation type on Location 413 is considered likely to be this PEC. None of the other quadrats located in granite or shallow granite soils have a close match with this PEC and are therefore not considered to be the PEC. The *Kunzea ciliata/Hakea trifurcata/Spyridium globulosum* Low Closed Heath on the site will be retained in its entirety within conservation areas in the proposed development and managed for its conservation values.

The Granite community dominated by the shrubs *Calothamnus graniticus subsp. graniticus, Acacia cyclops, A. saligna, Hakea oleifolia, H. prostrata* and *Jacksonia furcellata* (Sugar Loaf Rock) does not occur on the site. While a number of the typical species that occur in this PEC occur on the granite and shallow granite soils on Location 413, the most dominant species in the PEC, *Calothamnus graniticus subsp. graniticus,* does not occur at all on Location 413. Other typical species of this PEC are either absent at Location 413, eg *Acacia cyclops* or do not occur on the granitic soils that this PEC occurs on,eg *Hakea oleifolia, Jacksonia furcellata, Corymbia calophylla*. On this basis it is considered that this PEC does not occur on Location 413.

As a general comment, and to repeat statements made in the Flora and Vegetation Survey for Location 413, in the absence of a comprehensive floristic computer analysis of vegetation types it is extremely difficult to assign floristic community types in the first place and to determine whether particular quadrat data match described floristic community types. When the community type is used to assess Threatened Ecological Communities and Priority Ecological Communities, this is an extremely important point to recognise. A comprehensive floristic analysis of all the vegetation in the Leeuwin-Naturaliste Ridge and associated conservation reserves should be undertaken by DEC in the future to more accurately determine FCTs and their conservation status.

1.2. The draft development guide plan shows that apart from a small number of plants, most of the approximately 65 *Dryandra sessilis var cordata* within the site will be lost and does not provide an indication of the likely proportion of *Dryandra sessilis var cordata* impacted by development

The Strategic Environmental Assessment (SEA) records that there are approximately 84 plants of the Priority 4 species *Dryandra sessilis var cordata* on the development site, not 65 as suggested in the submission. It is acknowledged that there may be one more plant on the site as indicated in the submission that was not recorded in the SEA making the total number of plants approximately 85. The SEA identifes four other areas within the Leeuwin-Naturaliste Ridge National Park where *Dryandra sessilis var cordata* is known to occur and have been visited by the author of the report. At one site alone, ie. the upper ridges to the south of Location 413, the number of *Dryandra sessilis var cordata* plants would number in the high thousands. The species is also abundant at the Torpedo Rocks and Injidup Beach locations with abundance likely to be at least 1,000 individuals. Therefore, the proportion of plants on Location 413 is highly likely to be far less than 1% of the total within secure reserves in the region.

1.3. Information on the proportion of *Kunzea ciliata / Hakea trifurcata* Low Closed Heath and the *Kunzea ciliata / Melaleuca lanceolata* Low Closed Heath that will be impacted by the development is unclear, and needs further detail.

There is approximately 7.5ha of *Kunzea ciliata / Hakea trifurcata* Low Closed Heath and approximately 1.5ha of the *Kunzea ciliata / Melaleuca lanceolata* Low Closed Heath on Location 413. All of this vegetation will be protected in conservation reserves within the development The *Kunzea ciliata / Hakea trifurcata* Low Closed Heath is likely to be a Priority Ecological Community (see point 1.1). The Flora and Vegetation Survey that was undertaken as part of the SEA process assessed the occurrence of *Kunzea ciliata* – dominated vegetation types elsewhere in the Leeuwin-Naturalister National Park and considered that this vegetation type also occurred at Torpedo Rocks, Moses Rock and Gracetown where a population of approximately 3ha was recorded.

The importance of the *Kunzea ciliata / Hakea trifurcata* Low Closed Heath will require management to ensure that it is retained in its current high quality condition. The proponent has committed to preparing a management plan for this area that will address and fencing, access, weed control, and fire management issues.

1.4. A *Eucalyptus* specimen tentatively considered to be *E. marginata* collected at the site during a recent DEC site visit requires further identification work. This species is of an unusual low mallee form that was found in several large uniform clumps, which may indicate that it is clonal. Expert advice is being sought regarding the identification of

the specimen, and will be provided as soon as possible, but it should be considered potentially significant.

Noted.

1.5. A number of scientific names have been misspelt or not italicised:

- **Page 4 *Xanthorrhoea pressii* is misspelt**
- **Page 6 *Nuytsia floribunda* is misspelt**
- **Pages 6, 18, 19 a number of scientific names are not italicised**
- **Pages 20, 21 *Morethia lineoocellata* is misspelt**
- **Page 24 *Tyto novaehollandiae* is misspelt**
- **Page 25 formerly is misspelt**
- **Appendix 2 *Anthochaera carunculata, Tringa nebularia*, and *Melanodryas cucullata* are misspelt**
- **Appendix 3 *Quinetia urvillei* is misspelt in quadrats SB5 and SB6, and is noted incorrectly as an introduced species in quadrats SB2, SB5, and SB6.**
- **Appendix 3 *Ficinia nodosa* is misspelt in quadrat SB5**
- **Appendix 3 *Cryptandra arbutiflora* is misspelt in quadrat SB6**
- **Appendix 3 *Hypochaeris glabra* is misspelt in quadrat SB6 and SB10**
- **Appendix 3 *Isolepis* sp. Requires corrections in quadrat SB8**
- **Appendix 3 *Hypochaeris radicata* is misspelt in quadrat SB12**
- ***Calothamnus sanguineus* is misspelt on page 66 of the SEA**

Noted. Names in the Strategic Environmental Assessment (SEA) are unable to be changed as the report has been published, however we will endeavour to correctly spell and italicise the names in any further management plans, etc. that will be prepared as part of the proposal.

1.6. The amount of clearing of near pristine vegetation on the site and for road verges is of concern. Trees will inevitably be destroyed

The land has been identified for development in the Leeuwin Naturaliste Ridge SPP and zoned for development in the Shire of Busselton District Town Planning Scheme No 20 (DTPS 20). Whilst some clearing is naturally a consequence of development proceeding pursuant to these zonings, a range of controls, management strategies and other land use planning initiatives at a range of levels are to be implemented. This is to ensure development proceeds in a manner which will ensure retention of as much vegetation as is both possible and practical within the development area itself, on the periphery and elsewhere.

In particular the following should be noted;

- 9.6ha will be protected in a Principal Ridge Protection Area

- 5.63ha of the western heathland vegetation will be protected in a Privately Managed Conservation Area
- A substantial number of native trees will be protected on private lots via a conservation covenant
- Approximately 2.35ha is proposed to be set aside for a low key Camping and Chalet Area near the Cape Spur Lodge which will protect native vegetation including trees
- A 30m restricted building area on the southernmost lots will preclude any clearing in that high area of the site
- A 20m building setback along the Smiths Beach Road frontage of the site to preserve vegetation in that area
- Trees will be protected, and substantial new planting will be established, in Public Open Space to be set aside as part of the development
- The proponent will implement a Vegetation Management Plan to govern and control clearing through each phase of development, and which will commit to detailed design of roads and building envelopes etc based on a 'tree by tree' site assessment aimed at maximum preservation.
- Clause 27 of District Town Planning Scheme 20 requires prior approval of the Shire of Busselton to any clearing anywhere on the land
- The Fire Management Plan for the proposal incorporates measures to minimise clearing for fire protection purposes, including provision of a reticulated water supply and installation of fire hydrants at 200m intervals throughout the site.
- Planning Policy Statement 15 on the Development Guide Plan (DGP) prohibits boundary fencing of private lots.
- In addition, the proponent has committed to planting Peppermint and Marri trees on approximately 25ha of 'replacement habitat' at Gunyulgup Brook and Mount Duckworth.

See also 1.9 regarding road verges.

To offset the clearing of the vegetation within the development the proponent has committed to revegetating 22.7ha of completely degraded land within the Leeuwin-Naturaliste National Park at Gunyulgup and Mt Duckworth (see Appendix 3). The revegetation will largely consist of planting Peppermint and Marri trees to create a dense forest but will also include other species such as *Banksia sessilis var cordata* (previously *Dryandra sessilis var cordata*) and *Hakea oleifolia* on the shallower sandy sites with shallow limestone. The offset will also provide habitat for the Western Ringtail Possum and Baudin's Cockatoo. In this regard the offset if also being negotiated with the Commonwealth Department of Environment, Heritage, Water and the Arts as part of their assessment under the EPBC Act.

1.7. Proposal intrudes into the western heathland

All of the western heathland on granite outcrops will be retained either in the Principal Ridge Protection Area or the Privately Managed Conservation Area.

1.8. Best part of the site with wildflowers being kept

This is acknowledged by the proponent and reflected in the proposal's design.

1.9. Planting of natives will help preserve biodiversity and the area's natural state / replanting with natives supported

This is acknowledged by the proponent and reflected in the proposal's design. The proposal aims to minimise the number of trees required to be cleared by retaining trees in road reserves and in private lots. In addition, the proponent has committed to planting Peppermint and Marri trees on approximately 25 hectares of 'replacement habitat' at Gunyulgup Brook and Mount Duckworth. Also, the proponent commits to a Vegetation Management Plan, to be approved by the Shire of Busselton and Department of Environment and Conservation, as a component of the implementation process and which will require 'tree by tree' site assessment at engineering design stage.

1.10. Foreshore reserve replacing carpark supported

This is acknowledged by the proponent and reflected in the proposal's design.

1.11. Retention of areas of native vegetation supported

This is acknowledged by the proponent and reflected in the proposal's design.

1.12. Loss of communities that are unusual, important and restricted at both local and regional scale

1.12.1. W2 complex at 21.1% of pre-clearing extent, with 8.9% of remaining area in reserves (1.9% of pre-clearing extent)

The accuracy of the Regional Forest Agreement mapping as it pertains to Location 413 is questioned in the Strategic Environmental Assessment (SEA) (see pages 62-64). The occurrence of the W2 vegetation complex on the site was considered to be inaccurate due to very different landform and the absence of *Allocasuarina decussata* as a dominant. The vegetation was considered in the SEA to be more likely the G3 complex. The G3 complex has 2,469 or 49% of its original extent in conservation reserves.

1.12.2. We complex may meet criteria for a Threatened Ecological Community due to its pre-European extent of only 136ha, with 67ha in conservation reserve. The proposal will clear 18-20ha of the 90ha that currently exists. It also conforms to the Federal criteria for a TEC in that it has less than 1000ha total occupancy.

The accuracy of the Regional Forest Agreement mapping as it pertains to Location 413 is questioned in the Strategic Environmental Assessment (see pages 62-64). The diverse array of vegetation types on Location 413 that are mapped as the We vegetation complex do not match the description of the We complex given in the RFA report. The vegetation more easily fits the description of the WE complex which is a "Mosaic of coastal heath and low woodland to woodland of *Corymbia calophylla-Eucalyptus marginata* subsp. *marginata* – *Banksia* species on westward slopes in hyperhumid to humid zones". The WE complex has 196ha or 80% of its original extent in conservation reserves. The WE complex is not identified by DEC as a Threatened Ecological Community or Priority Ecological Community.

1.12.3. SH9 vegetation type only known from 2 locations, both of them small, and over half will be cleared in the development area

The SH9 vegetation type is one of the vegetation types described by Keating and Trudgen for the Forrest Beach to Woodlands area. These vegetation types were used by Maunsell & Partners to map the vegetation on Location 413. The Strategic Environmental Assessment (SEA) identified some concerns with the application of these vegetation types to Location 413, namely the limited extent of the original Keating and Trudgen survey which did not survey the whole of the Leeuwin-Naturaliste National Park, the lack of computer analysis undertaken to determine the relationships of the different vegetation types, and also the accuracy of the Keating and Trudgen vegetation types in describing the vegetation on Location 413.

Nevertheless, an attempt was made in the Flora and Vegetation Survey report of ATA Environmental (Appendix 5 to the SEA) to correlate the vegetation associations mapped by ATA on the site with the vegetation type descriptions of Keating and Trudgen. It was considered that there were five vegetation associations that were similar to the SH9 vegetation type (see Table 1 in Appendix 5 of the SEA). The vegetation associations most similar to the SH9 vegetation type occur between the outcropping granite heathlands and the Banksia woodland and below the limestone scrub vegetation. This area is partly within the proposed privately managed conservation area and also in the area designated for camping and chalets. Some of the vegetation would be cleared to accommodate the camping and chalet areas and walkways, however the extent of this has not been calculated as it is subject to detailed design. Submissions state that about 50% of this vegetation will be removed. We consider this a high estimate and it is likely to be only about 25% or less. The remainder will be retained and managed in its natural state.

1.12.4. Large number of priority species *Dryandra sessilis* will be lost, and other populations are not considered in detail as to their security

The proportion of plants on Location 413 is highly likely to be far less than 1% of the total secure within reserves. See response 1.2 for further detail. The proponent has also committed to planting *Dryandra sessilis* (now *Banksia sessilis*) within the Leeuwin-Naturaliste National Park at Mt Duckworth as part of the conservation offset package (see Appendix 3).

1.12.5. *Kunzea ciliata* is endemic to the national park, and only known from a small handful of locations. Communities dominated by this species have only been found in two other locations with a total area of 3ha

All the *Kunzea ciliata* dominated vegetation will be retained in the Principal Ridge Protection Area and the Privately Managed Conservation Area. See also responses 1.1 and 1.3.

1.13. There is misrepresentation of vegetation to be retained in the development as the Fire Management Plan is in complete conflict with the vegetation retention plan. An updated vegetation plan presented as an alternative analysis (by the submitter) shows there would be extensive clearing of vegetation on the site with minimal opportunity to retain existing vegetation between buildings or replant following development.

The interpretation of the fire management plan by the submitter is incorrect. The focus on managing fire hazards within the development is to reduce the groundcover fuel load. In this regard, whilst the immediate perimeter of buildings will be managed to achieve a groundcover of 100mm and beyond that

much of the understorey will be preserved. It should be noted that the dense canopy of Peppermint and Banksia has resulted in a sparse understorey in its current natural condition. Future rehabilitation of the area with low-fuel species, such as pig-face, will enhance the understorey. In the granite heath area there is no requirement to disrupt understorey as ground fuel loadings (in their natural state) in that area are below the prescribed levels.

The Fire Management Plan for the proposed development is included in Appendix 4. The Fire Management Plan in Appendix 4 has been revised slightly from the one included in the advertised SEA. The changes were made to describe the impact of the fire management requirements more accurately to avoid the misinterpretations evident in some of the submissions.

In accordance with contemporary bush fire planning, the plan for Location 413 does not require the clearing of all trees and shrubs within either the Building Protection zone or the Hazard Separation Zone. For the Building Protection Zone which is the area from 5-20m around any building, trees are permitted either with 5m spacing between canopies or as clumps with touching crowns or canopies. In the Hazard Separation Zone, trees may remain without restrictions on continuous canopy.

Refer to Landscape Commitment Plans in Appendix 5 of this response for details of the anticipated final outcome with respect to tree retention and understorey species within the development. The Landscape Commitment Plans have been verified by the FirePlan WA to accurately represent the requirements of the Fire Management Plan.

1.14. Clearing required is in conflict with LNRSPP, principle (v) of the clearing principles (Environmental Protection Act, 1986), National Biodiversity Targets and Town Planning Scheme No 20)

Clearing for development within an identified development node is clearly recognised and anticipated by the Leeuwin Naturaliste Ridge Statement of Planning Policy (LNRSPP). PS2.3 for example states that:

“Clearing of native vegetation will require planning approval and may be supported where:

- The need has been established for safety or for specific building requirements; or
- Removal is for the establishment of horticulture or viticulture within areas defined as Agricultural Protection under this LNRSPP; and
- Removal of native vegetation does not threaten the presence of rare and threatened flora fauna and ecological communities.”

The designation of the site for tourism and residential development under the LNRSPP clearly anticipates the establishment of buildings. Therefore, under PS2.3 clearing would be supported for the specific purpose of building requirements. In addition, the clearing does not threaten any rare flora, fauna or ecological communities. The significant fauna that occur on the site will not be adversely affected in the region. Any local impacts will be mitigated on-site by creating linkages and habitat within the retained vegetation and offset nearby by planting of habitat trees on degraded parts of the Leeuwin-Naturaliste National Park.

The proponent will clear in accordance with the provisions of the EP Act and the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004* (WA)

The Strategic Environmental Assessment explains on pages 68 and 69 why the clearing is not inconsistent with the National Biodiversity Targets.

See also 11.3.

1.15. The botanical survey of Bennett (2001) should have included a species list of the area in order to investigate more fully

The survey of Bennett was commissioned to provide clarification on the identification of specific Keating and Trudgen vegetation types on the site, specifically the identity of the LH3 and LH6 vegetation types. Bennett was not commissioned to undertake a flora survey as this had already been done by Maunsell and Partners initially and by ATA Environmental subsequently.

1.16. The density of development should be adjusted so as to enable natural vegetation corridors to be incorporated into the proposal and retain habitat trees on individual properties, while allowing compliance with the Fire Management Plan

Within the development, the proposal protects the entire western portion of the site (approx. 15ha) which has links to the National Park to the south. The design of the settlement area incorporates both formal and informal corridors traversing the site both north-south and east-west linking to the proposed conservation areas within the development to the National Park to the south. Development controls under District Town Planning Scheme 20 require specific and individual approval for removal of vegetation.

The retention of trees within the development is shown on the Landscape Commitment Plans provided in Appendix 5. A substantial number of trees will be retained within the development footprint in public open space, building envelopes and road reserves.

1.17. Retention of granite heath communities supported

The retention of the granite heath communities is acknowledged by the proponent and reflected in the proposal's design.

1.18. Note that no DRF was found on site

This is acknowledged by the proponent.

1.19. DRF (some critically endangered) in road reserves at risk from clearing for services , and destruction of roadside vegetation will destroy the visual amenity of tourist drives

The proposed alignment/route for the provision of scheme water and connection to the Water Corporation's wastewater treatment plant at Dunsborough are not subject to this environmental assessment process and will be subject to a separate referral under s.38 of the *Environmental Protection Act 1986* if the route is likely to have a significant impact on the environment" We can then add "The likely alignments are shown in Figure 12a and 12b of the SEA and are proposed to be constructed under one half of the road carriageway in such a way that none of the vegetation in the road verge will be impacted.

2. NATIVE FAUNA

2.1. Statements about limited habitat potential for the Rainbow Bee-Eater appear to be incorrect. Inspection of the study area by DEC officers in October 2007 indicated a range of habitat types within the study area that provide suitable breeding areas particularly along the tracks and fire breaks and the more open habitats.

Rainbow Bee-eaters use sandy substrate to breed throughout may areas of Western Australia. Although the Rainbow Bee-eater may be recorded on site the habitats available at Smith's Beach are not limiting to the breeding or feeding needs of the Rainbow Bee-Eater. The Bee-Eater has been recorded in surveys in many locations across the south-west, and in many different habitat types.

2.2. The Grey Butcherbird is found in the area, not the Pied Butcherbird

This is noted by the proponent.

2.3. The Red-Capped Robin does not occur in the area

This is noted by the proponent.

2.4. The Sacred Ibis and the Australian White Ibis are the same species

This is noted by the proponent.

2.5. Sites listed as comparable in Appendix 2 regarding fauna species do not appear similar enough. Data from closer areas should be included.

Data from the Hart *et al.* survey of Meelup Regional Park has been added to the table in Appendix 2 of the Vertebrate Fauna Assessment report (see Appendix 6 for updated table).

2.6. Bandicoots are likely to disappear

No bandicoots have been recorded on the site during both the *ecologia* Environmental Consultants fauna survey in 2001 or the ATA Environmental fauna survey of 2005. Both surveys included a trapping programme that would have recorded bandicoots if they occurred on the site. No diggings or scratchings of bandicoots were recorded on site during either of the fauna surveys.

2.7. Species of birds, lizards and snakes will disappear from loss of habitat and attraction of foxes and cats

Foxes and cats already exist in the area. The proponent will consult with the Department of Environment and Conservation and the Department of Agriculture to determine the most appropriate method to control introduced species. The proponent proposes that the site be declared a prohibited area for the keeping of cats under the Shire of Busselton's Local Law for the Keeping and Welfare of Cats.

The development will cause some local loss of individuals due to clearing for roads and buildings. However, habitats that are typical of the region are available in the nearby Leeuwin-Naturaliste National Park.

2.8. Development and increased traffic will negatively affect wildlife

There is not expected to be any significant impact of vehicle movement on ground-dwelling fauna as the roads are designed to be a low speed environment.

2.9. Retaining native bushland and peppermints will maintain the habitat of native fauna

This is acknowledged by the proponent and reflected in the site's design, particularly in the retention of trees in road reserves and private lots and the retention of conservation areas

2.10. Loss of habitat for threatened fauna

The development will retain a significant number of Peppermint trees as well as Marri trees which are known to provide habitat for Western Ringtail Possums and Baudin's Cockatoos, respectively. The development also includes a plan to strengthen the linkages between the peppermints on the development site and the National Park through the planting of trees in road islands. In addition, the potential use of artificial habitat for ringtail possums within the peppermint trees on site will be researched.

The proponent has also committed to revegetation of approximately 25ha to create off-set habitat in the National Park at Gunyulgup and at Mount Duckworth. These areas contain peppermint trees which are suitable for Western Ringtail Possum habitat and Marri trees that Baudin's Cockatoo use as a feeding resource. This revegetation program will be carried out in the early stages of the development whereas the project itself will be implemented on a staged basis over an estimated 15 years, thus allowing the revegetation programs both within the site and the National Park to become effective concurrent with phased development.

See also 1.5

2.11. Conflicts with principle 2 of the clearing principles – native vegetation should not be cleared if it is significant habitat for fauna:

The development will retain a significant number of Peppermint trees as well as Marri trees which are known to provide habitat for Western Ringtail Possums and Baudin's Cockatoos, respectively. The proponent has also committed to revegetation of approximately 25ha to create off-set habitat in the National Park at Gunyulgup and at Mount Duckworth.

See also responses 1.14, 2.9 and 2.10.

2.11.1. Western Ringtail Possum – schedule 1

See response 2.10.

In addition, the Smiths Beach and Yallingup areas have not been included as significant habitat areas in the recently released Commonwealth Environmental Protection and Biodiversity Conservation Act Policy Statement on Western Ringtail Possums (DEHWA, 2007).

2.11.2. Baudins Black Cockatoo – schedule 1

The site is not considered significant habitat as there are numerous areas of feeding habitat principally containing Marri trees and Banksia woodlands in the nearby National Park, reserves and rural landholdings. See also 2.10.

2.11.3. Chuditch (roadkill and photographic evidence) – schedule 1

The Chuditch has not been recorded on the site during both the *ecologia* Environmental Consultants fauna survey of 2001 or the ATA Environmental fauna survey of 2005. Both surveys included a trapping programme that would have recorded Chuditchs if they had occurred on the site.

2.11.4. Carpet Python – schedule 4

The Carpet Python has been recorded on the site and is expected to also occur in the National Park to the south where the habitat is abundant and in very good condition.

2.11.5. Southern Brush Tailed Phascogale – priority 3

Only one individual of the Phascogale has been recorded on the boundary of the site and the National Park and it was considered that the sighting was of a transient rather than an individual that lived on the site due to the lack of suitable habitat.

2.11.6. Forest Red-tailed Black Cockatoo (anecdotal evidence within 5km) – schedule 1 and vulnerable

The forest Red-tailed Black Cockatoo has not been recorded on the site during both the *ecologia* Environmental Consultants fauna survey of 2001 or the ATA Environmental fauna survey of 2005. Suitable feeding habitat for this species is abundant in the National Park, reserves and rural landholdings in the region.

2.12. Size and density of current plan will remove significant fauna entirely from the site

The development will retain a significant number of Peppermint trees as well as Marri trees which are known to provide habitat for Western Ringtail Possums and Baudin's Cockatoos, respectively. The development also includes a plan to strengthen the linkages between the peppermints on the development site and the National Park through the planting of trees in road islands. In addition, the potential use of artificial habitat for ringtail possums within the peppermint trees on site will be researched.

Surveys for Western Ringtail Possums undertaken on the site in 2005 and 2008 confirm that there is a low number of possums on the site with only 6 recorded in January 2008 (Appendix 7). Evidence from other developed areas within Busselton and Dunsborough indicates that Western Ringtail Possums are able to live in Peppermint trees within developed areas. It is anticipated that the possums would also be highly likely to survive in the long-term within the Smiths Beach development given the amount of habitat trees proposed to remain on site.

See also response 2.10.

2.13. Baudins Black Cockatoo recorded feeding at site and majority of feeding habitat to be cleared

See response 2.10 and 2.11.2

2.14. Significant clearing of habitat for the Western Ringtail Possum and Baudins Black Cockatoo

See response 2.10, 2.11.1 and 2.11.2

2.15. Finds the developer's undertakings for native fauna management and protection satisfactory

This is noted by the proponent.

2.16. Particular attention needs to be paid to possum habitat

See response 2.10

3. PEPPERMINT TREES AND POSSUMS

3.1. The likely impact on Western Ringtail Possums may be considerably greater than inferred, since the status and likely impact of the proposal on the EPBC Act and WA Wildlife Conservation Act Schedule 1 listed species, is not comprehensively addressed in the SEA. The survey for Ringtail possums relied on spotlighting on nights when inclement weather was likely to lead to few individuals being recorded. No survey was undertaken of the occupancy rate of the high numbers of possum dreys recorded and no survey seems to have been conducted of abundance and distribution of scats in the project area to assess distribution/presence in different habitats and comparative abundance in different habitats. Inspection of the study area by DEC officers in October 2007 indicated three Ringtail Possums in three dreys examined. Comments in the fauna report in relation to likely impacts of the proposal are likely to be underestimates of the impacts on this threatened species. This underestimate of impact is reinforced by the statement on page 34 of the fauna report that "Smiths Beach had approximately 0.2 Western Ringtail Possums per hectare. This, however, may be a low estimate due to the suboptimal weather experienced during the November/December spotlighting assessment". A major limitation of the survey is that no additional survey was conducted in more suitable weather conditions and no other methods were adopted to determine possum abundance. An appropriate method would be to determine how many dreys were actually occupied of the large number of dreys recorded. The majority of the dreys recorded were located in areas of the project area that are proposed for development.

An additional survey was conducted between 21 and 23 January 2008 by Dr Jessica Oates, a qualified zoologist with Coffey Environments (Appendix 7). The survey followed the methodologies used for the original survey conducted in November/December 2005 as well as an additional method of tree-tapping suggested by Mr John Dell of the EPASU to detect possums during the day.

The results of the January 2008 survey were very similar to those of November 2005 with only 5 possums sighted (compared to six in 2005) and a high number of dreys (41) recorded. As the survey was undertaken by a different zoologist than in 2005, using a similar but slightly different methodology, and at optimal weather conditions, we strongly believe that the results are a real count of the number of possums on the site.

3.2. A survey of food plants used by Western Ringtail Possums in the project area has not been conducted. As stated in comments on the fauna report, the assumption that Agonis is the main food tree of this species is not correct as it is known to feed on a number of species (including Kunzea , Nuytsia, Banksia, Acacia, Eucalyptus) many of which are present in the study area. The reality is that the study area is likely to contain a number of food plants for this species and some of these could occur in habitats outside the areas where dreys are located.

The Western Ringtail Possum is considered a specialised arboreal folivore that feeds predominantly on a few select species (Wayne *et al.*, 2005). The literature states that for coastal populations of Western Ringtail Possums the common canopy species *Agonis flexuosa* constitutes 79-100% of the species diet (Jones *et al*. 1994). Studies in regions where Peppermint is not common, the major dietary

components were Jarrah (*Eucalyptus marginata*), which constituted 90-98% and Marri (*Corymbia calophylla*) (Jones *et al.*, 1994; Shepherd *et al*., 1997). The study by Shepherd *et al.* (1997) found that Western Ringtails only ate forest canopy species. Jones *et al.* (1994) found that less than 21% of the WRP's diet was made up of other species. Therefore, the assumption that *A. flexuosa* is the main food source for this species within the project area is likely to be correct, given the dominance of this species within the area that the Western Ringtail Possums were found. It is acknowledged, however, that other species including Jarrah and Marri which is found within the study area, may be food plants for this species.

In dense coastal Peppermint forest home ranges for Western Ringtail Possums are 0.5-1.5ha and in Eucalypt forests up to 2.5ha (Jones *et al.*, 1994). Given the small home ranges, it is considered that the area where the dreys were located, which contain the vegetation types *Agonis flexuosa* Low Open Forest, *Banksia attenuata/A. flexuosa* Low Woodland and *Eucalyptus marginata/Corymbia calophylla/A. flexuosa* Low Open Woodland, is also likely to be the limit of the home ranges for the majority of the possums within the study area. The habitats outside the areas where dreys are located are unlikely to be commonly utilised for foraging habitat by the Western Ringtail Possums.

3.3. The contractor was not thorough in determining numbers, accurate information on the size of the population has not been provided (i.e.: scat scoring)

The focus on protecting ringtail possums is to protect their habitat. The habitat was identified in the ATA Environmental fauna survey in 2005. The development retains peppermint trees in a way that will enable ringtail possums to remain within the development area and to move between the site and the adjacent National Park. Three surveys for Western Ringtail Possums have been undertaken, the most comprehensive ones in November/December 2005 and again in January 2008. The methodology for the January 2008 survey was agreed by the fauna specialist in the EPA Service Unit prior to carrying out the survey.

See also 3.1.

3.4. Density of site will lead to clear-felling of peppermint trees

The development will retain a significant number of Peppermint trees as well as Marri trees which are known to provide habitat for Western Ringtail Possums and Baudin's Cockatoos, respectively. The development also includes a plan to strengthen the linkages between the peppermints on the development site and the National Park through the planting of trees in road islands. In addition, the potential use of artificial habitat for ringtail possums within the peppermint trees on site will be researched.

Also the proposal is for minimum site disturbance to be achieved by measures including:

- Roads designed to run along contour to minimise cut to fill earthworks;
- Design guidelines, enforced by covenants and Shire approval processes, requiring structures that respond to topography (i.e. not requiring flat sites) and which utilise undercroft parking and similar measures to minimise site impacts.
- The population will remain in the area on site as well as the adjacent National Park. The proponent has committed to revegetating approximately 25ha of ringtail possum habitat in the National Park nearby at Gunyulgup and Mt Duckworth which will result in an increase in the amount of ringtail possum habitat in the region.

- A Possum Management Plan has been prepared by the proponent which ensures there are possum linkages within the site and increases the linkage to the adjacent National Park through planting of peppermint trees in road islands (see Appendix 14).
- Tree by Tree survey at Engineering Stage
- Vegetation, Flora and Fauna Management Plan
- Construction Environmental Management Plan

3.5. Relocation of possums is not very successful

The development proposal does not include a proposal to relocate possums off-site.

3.6. Habitat reduction means population reduction, not redistribution

The proponent has committed to revegetating approximately 22.7ha of ringtail possum habitat in the National Park nearby at Gunyulgup and Mt Duckworth which will result in an increase in the amount of ringtail possum habitat in the region (see offset proposal in Appendix 3).

3.7. Level of clearing should be such that possums can co-exist with the development, which requires reduced density

Density of development, at R16 for Residential and R25 for Tourist as opposed to R25 and R30 respectively under the Leeuwin Naturaliste Ridge Statement of Planning Policy and District Town Planning Scheme 20, is significantly lower than the standards set for this site by Western Australian Planning Commission and the Shire of Busselton.

3.8. Large number of peppermint trees are being kept, and possums are happy to live in developed areas

A large number of submissions (11) were from people who were pleased to see the number of peppermint trees being kept in the development, and saw it as a positive step in the preservation of the possum population in the area.

This is acknowledged by the proponent and reflected in the proposal's design.

3.9. Survival in old, urbanised areas does not compare to the chances of survival in this development

The development is staged, and will allow the possums to gradually become accustomed to the new development, and find homes among the buildings, resettling between stages.

3.10. Retention of the peppermint trees will help maintain the biodiversity of the area

This is acknowledged by the proponent.

3.11. Population at the site is separate to Busselton-Dunsborough populations, and little is known about viability

The population will remain in the area on site as well as in the adjacent National Park. In addition, the proponent has committed to revegetating approximately 25ha of ringtail possum in the Yallingup area at

Gunyulgup and Mt Duckworth which will result in an increase in the amount of habitat for the Yallingup populations of ringtail possums.

3.12. High risk of mortality during development due to extensive clearing, earthworks, and the use of heavy machinery

The proponent is committed to best practice fauna management and will protect the possums through the implementation of a Western Ringtail Possum Management Plan, a Vegetation, Flora and Fauna Management Plan, and a Construction Environmental Management Plan. These plans will include the requirement for a qualified zoologist being on site during the staged removal of trees.

3.13. Continuity and habitat linkages have not been adequately considered

A Possum Management Plan has been prepared by the proponent which ensures there are possum linkages within the site and increases the linkage to the adjacent National Park through planting of peppermint trees in road islands (see Appendix 14).

3.14. The development risks mortality from dog attacks, which are a much more common form of mortality than cat attacks

Additional dog numbers on top of those already visiting the site is unlikely to be significant given the predominance of tourist accommodation. The proponent is willing to investigate dog prohibition in conjunction with the Council.

The greater risk is from cats, and the proposal is that the site be declared a prohibited area for the keeping of cats under the Shire of Busselton's Local Law for the Keeping and Welfare of Cats. The proponent has expressed a willingness to investigate the feasibility of also prohibiting dogs.

3.15. Cumulative impact of habitat loss should be considered (much of the adjacent park is not suitable)

Habitat for ringtail possums does exist in the adjacent National Park and was surveyed in the ATA Environmental fauna survey of 2005. The proponent has committed to revegetating approximately 25ha of ringtail possum habitat on degraded portions of the National Park thereby increasing the amount of habitat in the region.

4. CONSERVATION AREAS

4.1. Pleased that 19ha will be used for public spaces and reserves, particularly buffer to national park, and preservation of the western headland

This is acknowledged by the proponent.

4.2. Management of the bushland on the western side is positive as it does not appear to be actively managed at the moment, and this will protect flora and fauna

This is acknowledged by the proponent.

4.3. Principle ridge area must be community endowment land

This is acknowledged by the proponent.

4.4. Whole western part should be included in the conservation area

Whole western part will be included in conservation areas.

4.5. Private conservation area unviable when fire setbacks, degradation, erosion, and escaping rubbish considered

Privately managed conservation reserves are the contemporary best practice model being implemented by Department of Environment and Conservation (DEC) and Western Australian Planning Commission in the south west, and arising from the practical difficulties experienced by DEC in resourcing the management of significant tracts of additional land earmarked for conservation. Experience is that local management by the benefiting stakeholder (in this case the tourism operator and local community) results in more efficient and effective management of the issues mentioned in the submission.

The Leeuwin Naturaliste Ridge Statement of Planning Policy promotes private conservation by allowing additional subdivision rights in return for conservation covenanting**.** In this case the proponent is not taking advantage of this policy, but is providing conservation areas without claiming additional subdivision rights.

In the granite heath area that is the private conservation area, there is no requirement to disrupt any vegetation as ground fuel loadings (in their natural state) in that area are below the prescribed levels. The area around Cape Spur Lodge will be subject to a second phase planning and assessment process as a Detailed Area Plan (DAP), as stated in the Development Guide Plan. The review of the fire management requirements for this area has resulted in a shift of the Lodge down the slope by about 20m with no requirement for additional fire management in the conservation area.

4.6. Principal Ridge Protection Area and the Conservation Area should be added to the national park and managed by DEC. This action will ensure appropriate levels of protection and management through the agency of the DEC and under the guidance of the Leeuwin Naturaliste National Park Management Plan. It is noted that the Initial Development Guide Plan (December 2000) showed some of this land becoming a national park.

The proponent accepts that the western Community Endowment Land that is located within the Principal Ridge Protection Area (PRPA) will likely ultimately form an extension to the National Park, but will be subject to agreed management arrangements, in the event that the DGP is approved in its current format (as advertised in 2007).

For the area designated in the DGP as "Conservation Area Privately Managed Open Space – Resort Gardens & Trails" the proponent favours retaining this land as a private conservation reserve because of concerns about the ability of DEC to prioritise the management of the area, the proponent's ability to commit to funding and active management of the area, the community benefit of managed access and interpretative trails, and the potential for land use restrictions on proposed development that abutting the conservation area if it were to become a national park. In particular, the land use restrictions may entail a greater setback of development to a national park than to a privately managed conservation area. There may also be increased restrictions on building density, height and form of developments or any other aspect next to a national park than would be permissible next to a privately managed conservation area. These restrictions would arise for no environmental or other reason except for the fact that the National Park has been extended into the area.

Notwithstanding the above, the proponent is willing to accept the PRPA and privately managed conservation area to be managed by DEC as a National Park in the future (subject to approval of the 2007 DGP) provided that the management of the new National Park boundaries does not lead to restrictions on the adjacent development being imposed by any local, State or Federal agencies or authorities as a consequence of the National Park extension.

4.7. Areas of *Kunzea ciliata* are proposed for private ownership and development of trails and gardens

Some areas dominated by *Kunzea ciliata* will be in the proposed privately managed conservation area. As the name suggests, the area will be managed for conservation with any trails constructed on degraded sections or on the many kangaroo tracks that permeate the area.

None of the *Kunzea ciliata* vegetation type will be impacted by the development.

4.8. Conservation areas should be larger to reduce impact, and should include:

4.8.1. Upper portion of peppermint woodland AF adjoining the Leeuwin-Naturaliste National Park

The upper portion of the peppermint woodland will be retained within the large lots buffering the National Park on the southern boundary of the development.

4.8.2. A larger area of the S9 vegetation type should be reserved in view of its likely extent and its propbable uniqueness to the Leeuwin-Naturaliste Ridge.

See response 1.12.3

4.8.3. Protection of all of poorly represented W2 complex

See response 1.12.1

4.8.4. More of the We complex

See response 1.12.2

4.9. The Principal Ridge Protection Area and proposed privately managed conservation area should be added to the national park due to its biodiversity and landscape values and the general intent of the State Planning Policy with respect to the consolidation of the national park. Notwithstanding the Statement of Planning Policy, the granite heath complex (GH4) on the western ridge is recognised in the Strategic Environmental Assessment as being environmentally significant and worthy of reservation in a national park.

See 4.5 and 4.6 in relation to the Private Conservation Area. The proponent prefers that the Principal Ridge Protection Area (PRPA) be vested via the National Trust process due to the management plan and community involvement components that are inherent in that process. The National Trust route was the preferred option as at no stage in the SEA process leading up to the advertising period did the DEC (previously CALM) indicate its desire to have the PRPA as part of the National Park. The National Trust, on the other hand, expressed its willingness to accept the area as part of its management of conservation areas. The National Trust cited the development at Cowaramup as a good example of how a conservation area could be managed under this arrangement.

The National Trust model also has advantages in terms of community development and cohesion that flow from the common interest and sense of ownership and purpose involved in direct community trusteeship. Examples include work carried out by the Yallingup LCDC and similar organisations in the Cape to Cape area.

National Trust donations (including land) also attract a tax deduction.

Note that any commitment to management of the PRPA or privately managed conservation area by agencies other than the landowner is made on the basis of approval of the Development Guide Plan.

4.10. Land should be ceded directly to the State and the Conservation Commission without cost

See also 4.5, 4.6, and 4.9 in relation to tenure and ceding process. The proponent has agreed to the ceding of the Community Endowment land to the community through the National Trust free of cost.

4.11. Unallocated Crown Land 1410 should be supported by the EPA for addition to the national park

This is not within the proponent's ability to implement.

5. COASTAL ISSUES

5.1. Bush along that walk is being maintained, and it will retain its rugged natural feel

The proponent acknowledges this submission and recognises the significance of the Cape-to-Cape Walk in development of Location 413. The proposal includes a commitment to a contribution for upgrading of the Cape-to-Cape Walk trail in conjunction with DEC.

5.2. The proposal protects and enhances the walk

This is acknowledged by the proponent.

The proposal includes a commitment for upgrading of the Cape to Cape Walk trail in cooperation with Department of Environment and Conservation, with a contribution from the proponent.

5.3. Insertion into coastal environment will have significant consequences

The proposal complies in full with Statement of Planning Policy 2.6 (SPP 2.6) relating to the interrelationship of development with the coast. The proposed development areas are set back from the coast significantly further than an existing (recently approved) neighbouring development.

5.4. Dune scrub and fauna will be impacted, and litter and cigarette butts will accumulate

The dunes are subject to an existing Foreshore Management Plan, which is further re-inforced by the Foreshore Management Plan forming part of the current proposal. The foreshore management plan provides fencing to between 1.2 and 1.8 high to protect the dunes from foot traffic, along with managed access routes. The area is also subject to replanting and rehabilitation, and ongoing management.

5.5. Pollution will effect the coastal environment

The development will be deep sewered and will enable other existing unsewered development in the area to connect and actually act to reduce the current levels of nutrients impacting the local environment.

There are no other identified proposed uses that can be considered a risk to pollute or cause harm to the coastal environment.

5.6. Increased visitor numbers will reduce dune stability and encourage erosion

The dunes are subject to an existing foreshore management plan, which is further re-enforced by the foreshore management plan related to this development initiative. The foreshore management plan provides fencing to between 1.2 and 1.8 high to protect the dunes from foot traffic, along with managed access routes. The area is also subject to replanting and rehabilitation, and ongoing management.

5.7. The development will put extra pressure on the beach

A Foreshore Management Plan forms part of the proposal and has been agreed with Department of Planning and Infrastructure and the Department of Environment and Conservation. The Foreshore Management Plan proposes to reduce existing impacts and manage increased usage on the beach interface by creation of larger foreshore reserves and better management of carparking and access. The plan provides for:

- better fencing;
- managed public access routes through the dunes to the beach;
- disabled access to the headland and improved access tracks;
- rehabilitation of dunal areas; and
- provision of a much needed surf lifesaving facility.

6. GENERAL ENVIRONMENTAL

6.1. Support for the project as it appears to be very sensitive to the environment and has taken on board ecological and environmental issues

This is acknowledged by the proponent. The protection of key ecological and environmental features of the site has always been an objective of the proponent in the design for Smiths Beach.

6.2. Environmental impact on fragile landform

The “landform” as physical topography is not fragile. The development retains the principle granite ridge within a conservation reserve. The visual effects on the landform have been rigorously tested through computer modelling to ensure that the primary ridgelines are retained when viewed from key contextual viewing locations.

6.3. Litter will accumulate

Additional rate and waste services fees will better equip the Shire to manage existing pressure and impacts at Smiths Beach.

See also response to 4.5.

6.4. There will be significant and irreversible environmental consequences

There are no significant regional environmental impacts arising out of the proposal. There will be minor localised environmental consequences, as detailed in the Strategic Environmental Assessment, and as may be expected with any development.

6.5. There will be a loss of recreational areas of natural habitat for the public

The proposal site is in private ownership and is therefore not subject to public access. The exception to this aspect is that portion of the Cape-to-Cape Walk, to which the site owner currently allows public access. There will be no loss of public access to this facility.

The commitments by the proponent to provide grassed picnic areas, upgraded pathways, a surf club, barbecues and playgrounds will enhance the recreational opportunities and public access to the area.

6.6. Will completely destroy flora and fauna

The development will not completely destroy the fauna and flora on the site. Many steps have been taken in the DGP to retain vegetation, promote revegetation, and accommodate fauna.

6.7. Flora and fauna will be impacted by people and pets

The Strategic Environmental Assessment document commits the proponent to working with the Shire of Busselton to prohibit domestic cats via the implementation of a “cat prohibited area” at the site through the Shire’s Local Law for the Keeping and Welfare of Cats. This law is particularly aimed at sensitive areas, such as those in close proximity to conservation reserves. This law enables the Shire to initiate trapping programs to reduce the presence of feral cats. The proponent intends to have the site classified as a “cat prohibited area”.

Additional dog numbers on top of those already visiting the site is unlikely to be significant given the predominance of tourist accommodation. The proponent is willing to investigate dog prohibition in conjunction with the Council.

6.8. Proponents will not disturb site with delicacy required

Unfounded allegation not reflecting proponent's intent, commitments or requirements See also 1.16, 1.6, 2.10 and 16.9

Construction will be undertaken in accordance with the Construction Management Strategy. This Strategy will form the basis for further Management Plans to be submitted to, and approved by, various regulating authorities such as the Shire of Busselton, Department of Water, and the Department of Environment and Conservation.

6.9. The area will be worth more to the region in the long term if it is left as it is

The strategic intent of the State and Local Government, is as articulated by the Leeuwin Naturaliste Ridge Statement of Planning Policy, is that the region will benefit by allowing limited development in identified coastal nodes which acts to relieve pressure from the remaining 105km of cape-to-cape coast and placing vast tracts of land within the conservation zone and new conservation reserves.

6.10. Level of detail in the SEA is excellent and shows respect for the environment and flora and fauna will be well-protected in the development

This is acknowledged by the client. The protection of key ecological and environmental features of the site has always been an objective of the proponent in the design for Smiths Beach.

6.11. There will be offsite impacts on the adjoining Leeuwin Naturaliste National Park

The creation of a "cat prohibited area" (as described at 2.7), and the incorporation of a vegetated buffer on large lots adjacent to the Leeuwin-Naturaliste National Park have been included specifically to ameliorate the effects of the development on the Leeuwin-Naturaliste National Park.

Formal access to the Leeuwin-Naturaliste National Park is not promoted in the Strategic Environmental Assessment. The Leeuwin-Naturaliste National Park is fenced and contains dense vegetation which is virtually impenetrable. There is therefore, unlikely to be any degree of informal access in excess of that already provided by the Cape-to-Cape Walk.

6.12. Fails to provide adequate buffer to national park, beyond the extent of the low-fuel zone, which will be cleared of understorey and vulnerable to invasives

The proposal is set back from the Leeuwin-Naturaliste National Park in accordance with Department of Environment and Conservation standard practice for fire management. For example, at the southern end, the intervening land will contain a road, reticulated water services and fire hydrants and appropriate fencing within a 50m setback to the National Park. There will be no clearing in the Leeuwin-Naturaliste National Park as a result of the proposal.

6.13. The proposal needs to be redesigned with a view to a reduced footprint to minimise loss of vegetation with high conservation value, improve opportunities to retain important habitat for fauna species, improve the width of the buffer between the development and the Leeuwin Naturaliste National Park and improve opportunities to effectively manage stormwater on site by reducing the overall hardstand area.

The design formulation process undertaken as part of both the Development Guide Plan (DGP) and Strategic Environmental Assessment process has been extremely comprehensive and the design option being promoted represents a very sound response to the opportunities and constraints presented. Further design refinements in response to the planning process will undoubtedly occur as part of the DGP process. This is not required in response to any environmental imperatives.

6.14. Does not allow adjustments during development to react to environmental problems as they arise

The management and planning framework for the development is notable for its proactive and flexible approach in dealing with the complexities of the region. The Strategic Environmental Assessment has identified the key environmental issues and future adjustments will be made on the grounds of optimisation rather than significant issues.

See also 2.10 and 3.9

7. VISUAL AMENITY

The proposal has been subject to extensive study in regards to the sites visual amenity. The analysis of the visual and landscape issues has been guided through an agreed methodology that was written and compiled with the input of officers from the Shire of Busselton, and the Department of Environment and Conservation (previously the Department of Environment). The methodologies were advertised by the Shire of Busselton and referred to all relevant Government agencies for comment. They were refined to reflect the responses received from both the community and public sector agencies prior to final adoption as a statutory document under District Town Planning Scheme 20.

Prior to completion the landscape and visual study titled *Smiths Beach Location 413, Landscape Study* was subject to editorial review by the Department of Planning and Infrastructure (DPI) to ensure compliance with the agreed methodology as required by the Shire of Busselton and the Technical Advisory Group. The DPI response to the Landscape Study is included in Appendix 8.

The study has also been the subject of an independent peer review requested by the Environmental Protection Authority. The review concluded that *"the report fully addresses the requirement of the adopted agreed Landscape Study Methodology. I also find that the study has been undertaken in a thoroughly professional and technical manner and that the conclusions reached are reasonable and appropriate responses to the agreed study methodology".*

The computer model that generated the images of the development from the agreed viewing points was initially run using an 85% development scenario. This was the expected level of development after 15 years. The level was considered appropriate given that none of the coastal development nodes in the south-west have yet been fully built out. Nevertheless, the complete 100% development scenario was run through the computer model for two key viewing points, the Torpedo Rocks Carpark and the Beach node. The results are presented in Appendix 11. There is no discernible difference between the 85% and the 100% development scenarios with respect to visual amenity from these two points. The other viewing points would likewise show no discernible difference from the 85% development scenarios published in the *Smiths Beach Location 413, Landscape Study* report and the 100% development situation.

The Development Guide Plan has been produced in accordance with the findings of the visual and landscape study and includes visual management measures addressing area of development to retain key topographic features, retention of vegetation, establishment of new landscape planting, perimeter buffer zones, building height and controls, use of a recessive colour palette and non reflective building materials and the use of local native species and building height controls.

The further detailed design of development will have to comply with Design Guidelines and visual management measures as a requirement of the Development Guide Plan and implemented through conditions on subdivision and development application and through covenants. Draft Design Guidelines are included in Appendix 9.

The Design Guidelines will include specific measurable parameters or outcomes for each of the visual management measures so that future Detailed Area Plans and/or subdivision plans are able to be checked for compliance. The developer is required to prepare the Design Guidelines as part of the Shire of Busselton's DGP planning process, and implementing the Design Guidelines to the satisfaction of the Shire of Busselton. If certain elements of the Design Guidelines are a major environmental issue, the EPA may recommend conditions for these aspects individually, rather than recommend the complete Design Guidelines as a condition. The specific elements would nevertheless be included in

Design Guidelines which would be approved by the Shire of Busselton prior to any Detailed Area Plans or subdivisions being submitted. In this way, the Detailed Area Plans and subdivision plans could be treated as Derived Proposals according to the process of a Strategic Environmental Assessment.

A number of submissions were received on the visual amenity of the proposed development.

7.1. Methodology for visual assessment was flawed

The methodology used is a statutory document, under District Town Planning Scheme 20, and was managed through a project reference group, which included the Department for Planning and Infrastructure, the Environmental Protection Authority Service Unit and the Department of Environment and Conservation. The methodology was produced with input from authority representatives and was also advertised for public comment prior to finalisation and adoption by the Shire of Busselton in the District Town Planning Scheme

7.2. Area cannot support large trees depicted as screening the development

The depicted trees on the computer model were taken from photographs of existing trees at the site or growing nearby in similar locations such as Gracetown. Trees shown are as they presently exist where retained or as expected to grow after approximately 10 to 15 years. The growing conditions for plant growth on the site will be affected by new buildings. Micro climate changes will be produced by built forms providing increased sheltered positions between buildings. In addition the soil profiles produced through site development works will support healthy plant growth and establishment. The growth rate estimates are based on healthy plants under sound horticultural management practices. Plants that are sheltered from strong prevailing winds may grow at a faster rate and those in extremely exposed conditions may grow at a slower rate.

The prevailing environment will limit ultimate growth heights in fully exposed conditions and in these locations height of mature trees can be expected to be similar to that of existing mature trees on site.

7.3. Will be an eyesore / size of development incompatible with adjoining landscape / will change and devalue the attraction of the area / proper design is needed to minimise damage to visual amenity

Visual methodology and site planning has the objective of visual integration, and has been approved by the Shire of Busselton, Department of Planning and Infrastructure, and Department of Environment and Conservation. Subjective statements on architectural quality cannot be commented on.

7.4. Developers misleading saying the scale has been reduced

The scale of the proposal under the current Development Guide Plan has been reduced significantly from the original 2002 Development Guide Plan, and is well within the relevant criteria set out in the Leeuwin Naturaliste Statement of Planning Policy.

The number of residential units has been reduced from 230 to 104.The criteria of the Leeuwin Naturaliste Ridge Statement of Planning Policy is residential development at R25 density whereas the proposal is at R16.

The number of tourist units has been reduced from 364 to 272. The norm for tourist development in the Cape to Cape Region is a density of R30 whereas the development is at approx. R20.

The area of conservation lands proposed including the Principle Ridge Protection Area, Private conservation reserve and Foreshore Reserve has increased from 8ha in the 2002 DGP to approximately 15.4ha in the current DGP, an increase of 7.4ha or 92%.

7.5. The area of vegetation being retained on the western side is the most important, visually

This is acknowledged by the proponent.

The area of vegetation on the western side was identified in the design process as being of high importance, and is to be preserved as part of the development. This is clearly demonstrated in the Development Guide Plan. This area once set aside will be managed for conservation purposes including managed public access (not currently managed and is subject to disturbance through unrestricted access), so the overall quality of the vegetation can be expected to improve over time. See 4.4, 4.5 and 4.7.

7.6. Natural beauty of the coastline should remain unspoiled

A key principle which underpins the land use strategy of the Leeuwin Naturaliste Ridge Statement of Planning Policy and received strong public and government agency support as part of the advertising of that document, is to focus development in specific nodes, and to preserve the vast majority of the coastline which stretches from Cape to Cape from development. Allowing development to take place in a location which has already been subject to some development reduces the pressure on other areas of coastline, enabling larger areas of the coast to remain in their natural state.

7.7. Area of development is exposed, highly visible, and forms part of the natural ridge area / Natural bowl running behind the existing resort is a preferable location

The area identified for development is consistent with Leeuwin Naturaliste Statement of Planning Policy and Scheme zonings and the visual assessment in the Landscape Study indicates that locationally this is appropriate. In essence the development footprint sits within a broad concave landform and does not intrude into the ridge and promontory. The development area of the Development Guide Plan retains views of the ridgelines from contextual view points identified as being of importance by the community.

7.8. Despite guidelines, visual amenity will be desecrated

Potential detrimental effects on the visual amenity of the area are addressed by various instruments within the planning process. Firstly the selection of the site as suitable for potential development within the broader context of the regional landscape was determined through a study that culminated in the Leeuwin Naturaliste Ridge Statement of Planning Policy.

The identification of an area of the site capable of development has been informed by a visual and landscape study complying with a methodology that was the subject of significant stakeholder involvement and public advertising then adopted within the local town planning scheme (District Town Planning Scheme 20). The Development Guide Plan reflects the content of the landscape and visual report and further commits to Design Guidelines and various management plans that further serve to integrate any detailed development proposal into the landscape. Draft Design Guidelines are included in Appendix 9.

The Development Guide Plan contains a statutory obligation for the proponent to implement comprehensive Design Guidelines to ensure that the subsequent built form response is one which is consistent with and complimentary to the natural values of the area. The developer commits to preparing the Design Guidelines to include specific measurable criteria to the satisfaction of the EPA through the SEA process as well as the Shire of Busselton through the DGP planning process, and implementing the Design Guidelines to the satisfaction of the Shire of Busselton.

These Design Guidelines will amongst other matters, require the application of a range of subdued landscape-related colours from a designated palette, use of non-reflective materials, retention and re-establishment of native vegetation and height restrictions.

7.9. Height of buildings like the Beach Club and Cape Spur Lodge may be too high and too far west when viewed from the north

The proposed height of buildings has been dictated by the assessment of the capacity of the site to absorb development in a satisfactory manner when viewed from the locations designated in the Methodologies and so that buildings will not skyline when viewed from those northern contextual locations. This process inherently minimises the potential for the built form to dominate when viewed from the sites that the community values most. Building heights are significantly less than that normally permitted by DTPS 20 and will be restricted, controlled and enforced by the Special Height Control Map that forms part of the DGP.

The Cape Spur Lodge area is subject of a separate Detailed Area Plan. The review of the fire management requirements for this area has resulted in a shift of the Lodge down the slope by about 20m.

7.10. Bushland buffers reduce visual impact of development from roads

This is acknowledged by the proponent. The DGP retains perimeter vegetation adjacent Smiths Beach Road on the eastern boundary and on the southern boundary with the objective of visual integration.

7.11. Protection of important views supported

This is acknowledged by the proponent. The Development Guide Plan has been prepared with the aid of extensive landscape and visual analysis in accordance with the agreed methodologies.

7.12. The retention of peppermint trees will contribute to the natural visual appeal

This is acknowledged by the proponent. The Development Guide Plan recognises the need to retain trees wherever practical and to establish new planting as part of creating a valued and integrated development.

7.13. Increased erosion of dunes will reduce visual amenity

The dunes are subject to an existing Foreshore Management Plan, which is further reinforced by the Foreshore Management Plan which forms part of this proposal. The foreshore management plans provide fencing to between 1.2 and 1.8 high to protect the dunes from foot traffic, along with managed access routes. The area is also subject to replanting and rehabilitation, and ongoing management.

7.14. Accept that walkers on Cape-to-Cape walk trail will enter a visual zone dominated by the development when they are close to it

This is acknowledged by the proponent.

7.15. Concerned that the Beach Club Resort will encroach on the visual character of the Smith's Beach promontory and suggests this is further evaluated

Modelling of options defined those areas capable of development complying with the design guidelines which were framed to reduce visual impact as far as possible. The Beach Club Resort is located in the areas defined by this process.

It should be noted that currently part of the area identified for the Beach Club is commonly used for car parking, and parking of coaches at peak periods

See 7.9 also.

7.16. Cape Spur Lodge will be prominently visible to walkers in the wilderness-like zone between Smiths Beach promontory and where the Cape-to-Cape walk trail leaves the coast.

Modelling has shown that without any of the vegetation that already exists at the site, limited views of Cape Spur Lodge may be visible over a section of track of the Cape-to-Cape Walk which is approximately 60m long (Appendix 10). However, the views of Cape Spur Lodge will not be prominent from the Walk as generally views of it are outside 15 degrees of either side of the directional view of the path. It is also more likely that users of the path will be focussed on panoramic views of the sea and rugged coastline. Page 35 of the Smith's Beach Applied Methodologies – Landscape and Visual Report identifies that any development of the site would be visible from this location. Existing buildings are observed from this point, as is Yallingup Townsite and power line on Smiths Beach Road. Mitigation measures are committed to in the report, particularly retention of vegetation and further plantings to aid in integration, screening and separation.

The Cape Spur Lodge is currently an exception to the Special Height Control Area Map as it is subject to more detailed levels of analysis through the Detailed Area Plan. The review of the fire management requirements for this area has resulted in a shift of the Lodge down the slope by about 20m.

7.17. Concern that other buildings may be more visible than they appear in the landscape study and the role of vegetation screening needs to be exactly specified

As the building heights were modelled without existing or proposed vegetation within the development site or surrounding areas in order to integrate built form with topography, it is more likely that buildings will be less visible than they appear in the study.

For post-development visualisations, vegetation and building colours and reflectivity were added, after the heights and locations of the buildings were set. Vegetation retention and replanting will provide significant ameliorating elements.

An unscreened model will not be provided on the basis that it will be totally inaccurate as at no point will the site be devoid of vegetation. See the revised Fire Management Plan in Appendix 4 and Landscape Commitment Plans in Appendix 5 to show how trees will be retained within the development.

See also 7.9, 7.15, and 7.16.

7.18. Lack of confidence in Special Height Control Area Map as a mechanism – there should be better explanation and demonstration

The Special Height Control Area Map will become a control under District Town Planning Scheme 20 with the full statutory weight of a town planning scheme, and a corresponding obligation on the Shire to consider all impacts if considering granting any concessions to the specified maximum heights. This is the most restrictive and structured control available under the planning system in Western Australia.

The Special Height Control Area was determined with the aid of the computer model. This allowed various heights and building arrangements to be tested. The accuracy of the model is determined by the surveying data used to construct it and a statement of accuracy of the model is provided by McMullen Nolan Surveyors in Appendix 6 of the Landscape Study.

8. GENERAL MANAGEMENT PLAN ISSUES

The proponent has committed to prepare and implement a series of management plans as part of the development process. These plans include:

- Environmental Management Plan for the Principal Ridge Protection Area
- Environmental Management Plan for the Privately Managed Conservation Area
- Construction and Environmental Management Plan
- Dieback Management Plan
- Vegetation, Flora and Fauna Management Plan
- Western Ringtail Possum Management Plan
- Fire Management Plan
- Foreshore Management Plan
- Integrated Water Management Plan

Some of the plans where there is a major environmental issue may be required as conditions of the Minister for the Environment's approval of this proposal. Other plans may be required as a condition of the planning process (DGP approval, Development Area Plan approval or subdivision approval). Where there is a statutory condition to prepare and implement the management plan, it is expected that the plans will be approved by the relevant government authority. Other plans not required as a condition of any environmental or planning process will be made available for viewing by the public.

8.1. Should be subject to approval of the Director General of the DEC

All management plans will be submitted to relevant agencies for approval in accordance with established development practices and statutory requirements (see table following).

8.2. Management plans should address the impact on the National Park.

This is acknowledged by the proponent. The Construction Environment Management Plan will address vegetation, flora and fauna, and will consider possible effects on the Leeuwin-Naturaliste National Park.

8.3. DEC will negotiate with the developer on appropriate funding of facilities in the management of environmental impacts (ie: pedestrian traffic)

This is noted by the proponent. The proponent has committed to assist with upgrading of Cape to Cape Walk, implement the Foreshore Management Plan and establish other facilities.Fire management plan

The Fire Management Plans forms part of the DGP and will be implemented and enforced under District Town Planning Scheme 20 and the Shires Annual Bush Fire Notice.

The Plan was formulated in accordance with the Western Australian Planning Commission and Fire and Emergency Services Authority (FESA) 'Planning for Bushfire' document and based on detailed assessment of bush fire history and risk, ground fuel loadings and access to emergency services etc.

The Shire of Busselton and FESA were consulted in the formulation of the Plan.

One of the key elements of the Plan is the introduction of a secure (scheme) water supply to Smiths Beach and installation of the full suite of urban level emergency infrastructure, such as a network of fire hydrants, throughout the development.

Important also is the emphasis given to using such infrastructure to achieve a balance of fire safety and retention of vegetation as is available under the 'performance standards' approach provided for within State policy on bush fire planning.

8.4. Fire management plan is in total conflict with the vegetation retention plan. A plan showing the extent of vegetation loss due to development and fire management needs to be produced as the Smith's Beach Action Group's analysis shows that there is minimal opportunity to retain vegetation between buildings or to replant following development.

The submission suggests that the vegetation retention plan (as shown in Figure 13 of the Strategic Environmental Assessment) incorrectly depicts the amount of native vegetation likely to remain in the development as, according to the submitter's assessment, the Fire Management Plan requirements would not allow for this amount of vegetation to be retained. The submitter provides their own interpretation of the fire management plan requirements in their submission which suggests that there would be almost no vegetation retained in the development area.

A revised Fire Management Plan is included in this response in Appendix 4. The revised plan provides better clarity on how fuel loads will be managed within the development without the need for wholesale clearing of trees. Also included, in Appendix 5, are Landscape Commitment Plans that show how trees will be retained within the development and how understorey will be maintained in adherence with the requirements of the Fire Management Plan.

The focus on managing fire hazards within the development is to reduce the groundcover fuel load. In this regard, whilst the immediate perimeter of buildings will be managed to achieve a groundcover of 100mm and beyond that much of the understorey will be preserved. It should be noted that the dense canopy of Peppermint and Banksia has resulted in a sparse understorey in its current natural condition. Future rehabilitation of the area with low-fuel species, such as pig-face, will enhance the understorey. In the granite heath area there is no requirement to disrupt understorey as ground fuel loadings (in their natural state) in that area are below the prescribed levels.

The interpretation of the fire management plan by the submitter is inaccurate. The focus on managing fire hazards within the development is to reduce the ground cover fuel load. The plan does not require the clearing of all trees and shrubs within either the Building Protection zone or the Hazard Separation Zone. For the Building Protection Zone which is the area from 5-20m around any building, trees are permitted either with 5m spacing between canopies or as clumps with touching crowns or canopies. In the Hazard Separation Zone, trees may remain without restrictions on continuous canopy.

See 1.6 also.

Issue and response duplicated at 1.13 under Vegetation and Flora section.

8.5. Compliance with the fire management plan will make maintenance of vegetation and possum habitat in the development area impossible

This assertion is incorrect. The Fire Management Plan and Vegetation Retention Plan (Figure 13 of the Strategic Environmental Assessment) match and are based on worst case scenarios.

There is considerable misinterpretation of the options for vegetation retention and revegetation available under the Fire Management Plan. This has lead to unnecessary concerns about the impact implementation will have on vegetation. The Fire Management Plan is based on ground cover fuel load reduction in the built up areas and importantly factors in the presence of a reticulated Scheme Water Supply which enhances fire fighting options not just at the domestic level but by the provision of fire hydrants at 200metre intervals throughout the development.

This is a significant beneficial factor in fire safety and reduces the need for substantial clearing requirements when compared to, say, a rural residential estate where there is no scheme water. Comparison with the level of vegetation retention at Yallingup and Eagle Bay where there is no reticulated water would be a reasonable guide (see Appendix 12 and 13), noting that neither of these settlements contact the vegetation/fauna corridors that are planned for Smiths Beach. The FMP allows reticulated gardens within the Building Protection Zone for each building. Contemporary standards are only that trees be trimmed so as to not overhang and/or be a threat of limbs falling onto buildings.

8.6. Unclear if fire management plan has approval of DEC. Also it makes little reference to the adjacency of the National Park.

The proposal is set back from the Leeuwin-Naturaliste National Park in accordance with Department of Environment and Conservation (DEC) standard practice for fire management. For example, at the southern end, the intervening land will contain a road, reticulated water services and fire hydrants and appropriate fencing within a 50m setback to the National Park. There will be no clearing in the Leeuwin-Naturaliste National Park as a result of the proposal. This approach is designed to protect both the community and the National Park. The introduction of a secure water supply at the proponent's cost will be of significant advantage to DEC in the fire management of the National Park.

The approval process for the Fire Management Plan is via Fire and Emergency Services Authority and the Shire. The Shire has endorsed the previous version of the Fire Management Plan (July 2006) for the purposes of public advertising.

The revised Fire Management Plan (Appendix 4) will be submitted for approval prior to commencement of any works.

Other management plans will be submitted to relevant agencies for approval as per established practice.

8.7. Fire Management Plan will need to be strictly enforced even if residents may not agree

Noted. The Fire Management Plan becomes part of the Shire's Annual Bushfire Notice and associated enforcement regime, including appropriate powers and penalties.

8.8. Water supplies for fire management are prescribed

Noted. The project will introduce a secure reticulated water supply to the area for the first time.

8.9. Access on Leeuwin-Naturaliste National Park interface and western boundary are important features

Noted. This a matter for detailed planning in the final Fire Management Plan. See also 8.6 and 8.7.

8.10. The Department of Environment and Conservation questions the efficacy of bush fire protection methods for the tent area. Additional protection for sprinkler systems and other measures might be necessary, but consideration should also be given to an evacuation plan as the structures are unlikely to meet fire building codes that provide adequate shelter for occupants in a wildfire.

Noted. This a matter for detailed planning in the final Fire Management Plan

9. FORESHORE MANAGEMENT PLAN

The draft Foreshore Management Plan included in the Strategic Environmental Assessment was prepared in close consultation with the officers of the Department of Planning and Infrastructure's Coastal Planning Branch and included workshops and a site inspection to formulate a plan that will improve the amenity of the beach area for current users as well as future users of the area.

9.1. Managing landscape / seascape interaction, marine recreation and the control of pollution from the development are important environmental considerations for the proposed marine park. The Foreshore Management Plan provides a means for the developer to contribute to the management of marine recreation, whilst the development engineering and infrastructure design detail will provide for pollution control. Consideration should be given to shifting the Beach Club Resort eastward if the proponent is to optimise the visual amenity of the development as it relates to protecting the landscape / seascape interface at the Smith's Point promontory.

This is acknowledged by the proponent. The implementation of the Foreshore Management Plan is essential to effectively manage interactions. The development will be deep-sewered and will not contribute pollutants to the marine environment. The deep sewering of the area will assist in the removal of existing on-site effluent disposal systems from adjacent developments that discharge into the water table close to the ocean within the Marine Park.

10. VEGETATION, FLORA AND FAUNA MANAGEMENT PLAN

Native vegetation will be retained in the development in two conservation areas as well as on tourist and residential lots where possible. In particular, the row of lots proposed along the southern boundary contain a 30m building setback to provide a fire control buffer to the adjoining National Park.

To ensure that native vegetation will be protected within privately owned lots, covenants will be placed on titles. Importantly, no fencing will be allowed. The majority of the internal road network will be designed as accessways within a strata-titled lot. As such they will not be roads maintained by the local authority. This arrangement will allow road widths to be kept to a minimum and can be winding to suit the topography. The lower category of road/accessway will enable more vegetation to be retained within the development than would normally be possible with a more conventional road system.

Protection of vegetation will be addressed in the Vegetation, Flora and Fauna Management Plan to be prepared and implemented by the proponent as a condition of subdivision approval in consultation with the Department of Environment and Conservation and the Shire of Busselton.

The Plan will include but not be limited to:

- Fauna relocation programme;
- Weed eradication programme;
- Revegetating and restoring POS areas with appropriate indigenous flora;
- Controlling vehicle and pedestrian access;
- Soil and plant source material hygiene;
- Encouraging community involvement and awareness promoting control of pets (i.e. dogs);
- Working with the Shire to prohibit domestic cats via expansion of the Shire's Cat Local Law to include the site;
- Water conservation principles;
- Monitoring criteria to determine the success of the revegetation and weed eradication programme;
- Responsibilities for implementation;
- Progress and compliance reporting; and
- Timing and implementation schedule.

10.1. Measures to protect vegetation during and after development are required by the environmental methodologies for the site and there is inadequate information

The Strategic Environmental Assessment (SEA) includes a Draft Construction Management Strategy (Appendix 14 of the SEA) that describes the technical and contractual measures that will be implemented to manage vegetation during the construction and post-construction stages of development. The proponent has also committed to preparing an Environmental Management Plan for the Principal Ridge Protection Area and privately managed conservation area. Clause 27 of District Town Planning Scheme 20 requires case by case assessment and approval by the Shire of Busselton

for any clearing of the site, whether this be by the original proponent or individual future lot owners. See 1.6 also.

RESPONSES TO PUBLIC SUBMISSIONS ON PLANNING MATTERS

11. PLANNING

A number of submissions suggest that both development per se, and the form of development proposed, is inconsistent with the Leeuwin Naturaliste Ridge Statement of Planning Policy (LNRSPP). The following general points are relevant with regard to how the LNRSPP addresses Smiths Beach;

- The LNRSPP specifically designates this site at Smiths Beach as one of only 4 tourist nodes to be developed in the 110km of coastline between Cape Naturaliste and Cape Leeuwin.
- Gazettal of amendments to the LNRSPP in 2003, in response to earlier proposals for Location 413, reiterated and reinforced the original strategic land use decision that the land be developed.
- The 2003 amendment to the LNRSPP inserted a suite of density controls and other measures to define an 'Identified Developable Land Area' within Location 413, and with which the DGP is entirely consistent.
- Amendment 92 to District Town Planning Scheme 20 (DTPS 20) was gazetted in July 2006 to reflect the regional strategy of development of Location 413 in the manner and to the extent proposed, via translation of the LNRSPP density and other controls into the local planning scheme. DTPS 20 had originally and already zoned.
- The DGP contains a comprehensive 'Statement of Response – Statutory Requirement' detailing compliance with the LNRSPP and DTPS 20 on a clause by clause basis.

11.1. Leeuwin Naturaliste Ridge Statement of Planning Policy 7 states new developments should be on degraded or non-viable farm land

The Leeuwin Naturaliste Ridge Statement of Planning Policy and District Town Planning Scheme 20 both designate this specific site for this nature and density of development. The site was historically a grazing property. The Leeuwin Naturaliste Ridge Statement of Planning Policy does not contain the purported policy statement about degraded or non-viable farmland.

The land has been identified for development in the Leeuwin Naturaliste Ridge SPP and zoned for development in the Shire of Busselton District Town Planning Scheme No 20 (DTPS 20). Whilst some clearing is naturally a consequence of development proceeding pursuant to these zonings, a range of controls, management strategies and other land use planning initiatives at a range of levels are to be implemented. This is to ensure development proceeds in a manner which will ensure retention of as much vegetation as is both possible and practical within the development area itself, on the periphery and elsewhere.

In particular the following should be noted;

- 9.6ha will be protected in a Principal Ridge Protection Area
- 5.63ha of the western heathland vegetation will be protected in a Privately Managed Conservation Area
- A substantial number of native trees will be protected on private lots via a conservation covenant
- Approximately 2.35ha is proposed to be set aside for a low key Camping and Chalet Area near the Cape Spur Lodge which will protect native vegetation including trees

- A 30m restricted building area on the southernmost lots will preclude any clearing in that high area of the site
- A 20m building setback along the Smiths Beach Road frontage of the site to preserve vegetation in that area
- Trees will be protected, and substantial new planting will be established, in Public Open Space to be set aside as part of the development
- The proponent will implement a Vegetation Management Plan to govern and control clearing through each phase of development, and which will commit to detailed design of roads and building envelopes etc based on a 'tree by tree' site assessment aimed at maximum preservation.
- Clause 27 of District Town Planning Scheme 20 requires prior approval of the Shire of Busselton to any clearing anywhere on the land
- The Fire Management Plan for the proposal incorporates measures to minimise clearing for fire protection purposes, including provision of a reticulated water supply and installation of fire hydrants at 200m intervals throughout the site.
- Planning Policy Statement 15 on the Development Guide Plan (DGP) prohibits boundary fencing of private lots.
- In addition, the proponent has committed to planting Peppermint and Marri trees on approximately 25ha of 'replacement habitat' at Gunyulgup Brook and Mount Duckworth.

11.2. Takes the pressure off developing other areas of the coast / takes the pressure off other areas in line with the Leeuwin Naturaliste Statement of Planning Policy

This is acknowledged by the proponent and reflected in the proposal design.

11.3. It does not meet town planning requirements

Incorrect. The proposal has been audited against all planning requirements and standards, as documented in the DGP in the Statement of Response – Statutory Requirements, and complies in all respects.

District Town Planning Scheme 20 zones the majority site as Tourist and with an 'Additional Use' provision allowing residential development within defined parameters. The western most portion of the site in a Reservation for Recreation under the Scheme, and is accordingly proposed to be donated to the State as a conservation reserve.

See also 1.14.

11.4. Identification of 21.4ha as suitable for development has no basis and is contrary to planning laws

The Identified Development Land Area is calculated based on strict application of the criteria contained in the endorsed Methodologies (landscape, drainage, environment, and wastewater collection and effluent) and the parameters set out within the Leeuwin Naturaliste Ridge Statement of Planning Policy, as follows:

"Identifiable developable land will exclude areas to be set aside for Principal Ridge Protection, national park, public open space, or similar purposes as designated on an approved Development Guide Plan".

11.5. Loss of caravan park – multi-million dollar apartments are not a substitute

The submission appears to have confused this proposal for Location 413 with the entirely separate and unrelated development on the adjoining Location 364. The proposal for Location 413 includes provision for a new camping area.

11.6. The proposal will help relieve shortage of accommodation in the south west

The proponent acknowledges this submission.

11.7. Size and density are too large, and the overall capacity larger that of Yallingup Township. This will put huge pressures on the environment and adjacent landowners

The development footprint and density are well below the standards prescribed in the LNRSPP and contemporary regional development approvals. A useful comparison may be made with Yallingup: Identified Developable Area for Location 413 Smiths Beach (21.33ha) is 56%, as compared to that occupied by Yallingup (built area approx. 38.21ha).

Comparison with other nearby settlements show that the proposal is approximately 40% of the size of Gracetown and 15% of the size of Prevelly or Gnarabup. In summary the footprint is generally smaller and densities proposed are consistent with all relevant Planning Instruments covering the land.

Adjacent and nearby landowners have highly modified environments ranging from a higher density unit development to cleared land.

The size of the development has been dictated by consideration of its setting in the landscape and reflecting the demand for tourist accommodation in the region.

Density of development, at R16 for Residential and R25 for Tourist as opposed to R25 and R30 respectively under the Leeuwin Naturaliste Ridge Statement of Planning Policy and District Town Planning Scheme 20, is significantly lower than the standards set for this site by Western Australian Planning Commission and the Shire of Busselton.

11.8. Shouldn't have a shopping plaza

The proposal does not include a shopping plaza. It does allow a 1700m^2 of commercial/retail floorspace ancillary to tourist accommodation and as required to meet local needs at the minimum level of self sufficiency to avoid additional travel. By comparison, the standard size for a neighbourhood shopping centre in the region is 5000m^2 of floorspace.

11.9. It will be a privately owned town run for profit without any public benefit

This is incorrect. As with the majority of developable land in this State Location 413 will be developed by the landowner and costs borne accordingly. As titles are created these will be sold and/or transferred free of cost to various public interests including the general public as purchasers and homeowners, and public agencies including the Shire of Busselton and State Government Departments. Public Open Space, community sites, Foreshore Reserves, road reserves, other public

infrastructure reserves all pass into public ownership and the development becomes a self sustaining entity where rates and taxes are paid as they are anywhere else in the State

In this respect the project is no different to all others in the region (including State Government projects such as Gracetown) with respect to tenure. The proposal includes a 'Proponents Commitments and Contributions Plan' that outlines a range of public and community facilities that will be provided as part of the project. Improvements to the foreshore, a new community hall/surf club facility, community endowment reserve and introduction of bushfire facilities and reticulated water and sewer services are examples of commitments that will be provided at no cost to the community.

11.10. The development is controlled

This is acknowledged by the proponent.

11.11. The nodal development will maintain the integrity of the coastline

This is acknowledged by the proponent. This is consistent with the strategic objectives articulated by the Leeuwin Naturaliste Ridge Statement of Planning Policy and District Town Planning Scheme 20.

11.12. A low-rise eco-friendly development would be more appropriate

The proposal DGP promotes a low-rise, environmentally responsive development, incorporating an area for eco-tents within the overall development.

11.13. Any further development should happen away from the coast in existing towns / the development should be moved inland

The Leeuwin Naturaliste Ridge Statement of Planning Policy has identified that some coastal development will take place, in a nodal fashion, and this site has been selected as one of those sites. Development at this site will deliver part of the State Government strategy for the region.

11.14. Should be confined to area already developed

See 11.1 and 11.4.

RESPONSES TO PUBLIC SUBMISSIONS ON COMMUNITY CONSULTATION

12. COMMUNITY CONSULTATION

The following table should be read in conjunction with the Community Consultation report prepared by Creating Communities and included as Appendix 1 to the Strategic Environmental Assessment (SEA). The Community Consultation report documented the extensive consultation that occurred between 2003 and 2006 prior to the advertising of the SEA and Development Guide Plan (DGP). The following table outlines the other opportunities that the public has had on a whole range of government documents that are relevant to the development of Smiths Beach. The section following the table includes the consultation that occurred as part of the DGP advertising process. As the SEA and DGP were advertised concurrently, and the SEA was also a part of the DGP documentation, this consultation should also be considered consultation as part of the SEA process. Taken together, the public have had an extraordinary number of opportunities to comment on the development of Smiths Beach.

SMITHS BEACH CONSULTATION MATRIX			
DATE / PERIOD	PROJECT OR PROPOSAL	NATURE OF CONSULTATION	OUTCOME FOR LOCATION 413
1988 - 93	**Busselton Rural Strategy**	**Workshops, public advertising and submission process**	**1993 - Busselton Rural Strategy Outcomes Document endorsed by WAPC – designates Loc. 413 for tourism and residential development at R20 density with no services.**
1993 – 96	**Shire of Busselton District Town Planning Scheme No. 20 (DTPS 20)**	**2 x advert-submission periods, community group workshops, public hearings**	**1997 – Gazettal of DTPS 20. Loc. 413 zoned Tourist with an 'Additional Use' clause applied to also allow Residential development. Western sector reserved for Recreation**
1994 - 97	**Leeuwin Naturaliste Ridge Statement of Planning Policy (LNRSPP)**	**Extensive workshopping with stakeholder group and Govt agencies. Public submission process resulting in >1300 submissions.**	**1998 – LNRSPP gazetted. Loc. 413 designated as a 'Tourist Node' for Tourist and Residential development. Residential lots restricted to 230.**
2000 - 02	**Smiths Beach Development Guide Plan**	**Focus groups, Smiths Beach Action Group, Technical Advisory Group, public submission process.**	**Proposal withdrawn for redesign in response to concerns re magnitude of project and to allow formulation of project Methodologies to guide revised planning.**
2002	**Amendment to LNRSPP**	**Ministerial/WAPC consultation with Shire of Busselton and Smiths Beach Action Group**	**2003 – Amendment to LNRSPP gazetted. Loc. 413 reaffirmed as a 'Tourist Node'. Density controls (R25 for residential component) and landscape criteria inserted.**
2002 - 04	**Combined Methodologies – Sussex Location 413 Smiths Beach Road, Yallingup**	**Focussed consultation between Shire of Busselton, WAPC, DEC, CALM, SBAG and proponent to formulate methodologies for key studies to guide revised DGP. Advert–submissions.**	**2004 – Combined Methodologies endorsed by Shire and WAPC** **2005 – Combined Methodologies incorporated into DTPS 20 (Schedule 10).**

SMITHS BEACH CONSULTATION MATRIX			
DATE / PERIOD	PROJECT OR PROPOSAL	NATURE OF CONSULTATION	OUTCOME FOR LOCATION 413
2003 - 06	**Amendments 56 and 92 to DTPS 20.**	**Public submission process x 2. Formal referral of Amendment (56) to EPA and Minister for Environment.**	**July 2006 – Amendment 92 to DTPS 20 reaffirms Loc. 413 for tourist and residential development subject to revised approval procedures and assessment criteria.**
2004 - 05	**Smiths Point Development Guide Plan**	**Prelodgement consultation with stakeholders (> 100 interviews/meetings) and Govt. Agencies. Smiths Beach Coordinating Committee. Smiths Beach Reference Group.**	**August 2005 – Lodgement of Smiths Point DGP with Shire of Busselton, including changes to proposal to reflect community/agency feedback.**
August – November 2007	**Smiths Beach Strategic Environmental Assessment (SEA)**	**Formal community consultation process on SEA over 8 weeks. Coordinated with advertising of DGP. 53 submissions received in response. Peer review of landscape/visual report.**	**January 2008 – lodgement of SEA consultation response with EPA.**
2007	**Smiths Beach Environment Protection and Biodiversity Conservation Act Report**	**Formal community consultation process on EPBC Report over 20 business days. Coordinated with advertising of DGP and SEA consultation. 36 submissions**	**January 2008 – lodgement of EPBC submission report with DEW. No submissions of objection received**
August – November 2007	**Smiths Point Development Guide Plan**	**Formal community consultation process on DGP Report over 74 days. Coordinated with advertising of SEA and EPBC Report and consultation. Approx. 7000 submissions received in response. See DGP Consultation Detail (below) for detail of consultation program.**	**Pending Shire and WAPC endorsement of DGP.**

- **Development Guide Plan Consultation Detail**

The proponent has conducted an extensive program of community consultation over the period from 23 August to 5 November 2007:

- **Media Briefings:**

- Busselton Dunsborough Times, Busselton Dunsborough Mail, South West Times, WA Business News, The West Australian, Channel 10, Channel 9, Channel 7, GWN, ABC TV, ABC Radio, The Australian, The Sunday Times

- **Manned Shopping Centre Displays:**

- Lakeside Joondalup, Whitford City, Belmont Forum, Harbour Town, Floreat Forum, Karrinyup Shopping Centre, Garden City, The Grove Cottesloe, Busselton Central, Dunsborough Centre Point, Centro Mandurah.

- **Presentations:**

- Tourism WA, Landlink, Institute of Project Management, Curtin University - Urban Planning Students, Rotary Club of South Perth, MGI Bridge Partners, Wood and Grieve, REIWA, Australian Institute of Landscape Management, Dunsborough Progress Association, Australian Institute of Project Management, South West Development Commission, Dunsborough-Yallingup Chamber of Commerce.

- **Smiths Beach Reference Group:**

- Meeting attended by consultants on the proposal.

- **Direct Mailouts:**

- Local Businesses – 220 mailed with Making of the Model DVD with survey accurate images. Busselton/Dunsborough Residents – 8,725 direct mailers letterbox dropped.

- **Website:**

- Included survey accurate images, Development Guide Plan, key viewing point images, information on the developers and consultants, full Strategic Environmental Assessment document, link to Shire of Busselton submission pages, how to make a submission information for Strategic Environmental Assessment and Commonwealth EPBC.

- **Telephone & Email:**

- Free call number and email information lines set up to answer enquires. Number and address included in advertising.

- **Advertising:**

- Press advertising outlining key points of the DGP; in total 24 advertisements were placed in The West Australian, Sunday Times, The Post, Busselton Dunsborough Times and Busselton Dunsborough Mail. Television advertising - one week campaign on Channel 7 and GWN.

- **Information Packs:**

- 800 packs which included fact sheets outlining key points of the development and survey accurate images were distributed to local community members.

12.1. Community backlash should remove expectation of approval / developer is swimming against tide of public opinion / the community has made it clear they do not want this development

The extent of supporting submissions received is unprecedented, and demonstrates that all public opinion is not against the development. The proponent does not have an expectation of approval of a dictated form of development, and is working with stakeholders to arrive at a reasonable and considered development proposal. The proposal is to be assessed within established best practice environmental, town planning, and design criteria and policies.

12.2. Community consultation was ignored

There was an extensive community pre-consultation prior to advertising the Strategic Environmental Assessment (SEA) and Development Guide Plan (DGP). The fact that not everyone is happy with the outcome does not mean that the community was ignored. The advertising of the SEA and DGP and consideration of submissions are also part of the formal consultation process which is still underway.

12.3. As closest neighbour would expect to be approached for a one-on-one meeting, as many were said to have taken place

The closest neighbour to the proposal was consulted and involved in several one-on-one meetings. The submission derived from an owner of Chandler's Smiths Beach. Owners of this neighbouring development were invited to and participated in community workshops and the Community Reference Group.

12.4. Community consultation processes seem not to have advised the local community of potential impacts on the P4 Dryandra species

The formal consultation/advertising process included full detail and discussion of implications on the P4 *Dryandra* species. The submission appears to be confusing the earlier consultation with the formal process.

12.5. Consultation process completely flawed and results meaningless. While it was stated at the commencement of the consultation process that there was to be a new plan starting form a blank sheet of paper, it is now apparent that this was not the case and that the developer had a clear agenda to achieve the maximum number of lots independent of the community's wishes.

There was a large amount of community consultation prior to advertising the Strategic Environmental Assessment and Development Guide Plan. The results of the process are, of course, open to individual interpretation. The process was valid and credible.

12.6. Creating Communities has been publicly critical of the Smiths Beach Action Group

There is no factual basis for this submission.

12.7. Facilitator and director of Creating Communities, Mr Alan Tranter, described himself as a spokesperson for the developer

There is no factual basis for this submission.

12.8. The report from Creating Communities is biased against the Smiths Beach Action Group's views and designed to produce an outcome giving the impression of a community in favour of the proposal

There is no factual basis for this submission. Creating Communities is a professional community consultation consultant.

RESPONSES TO PUBLIC SUBMISSIONS ON SERVICES AND INFRASTRUCTURE

13. WATER QUALITY AND WATER MANAGEMENT

13.1. Sewage and waste disposal will damage the environment

Development in the area currently uses septic tanks, which will be replaced with deep sewerage. The provision of deep sewerage to the development will reduce the risk of contamination to the beach and Gunyulgup Brook.

13.2. Movement and collection of waste and effluent and drainage is dependent on Hilton development

Incorrect. Provision of reticulated sewerage for the proposal is mandatory, without referral to any other development.

13.3. Increase in water consumption, sewerage, collection and disposal of waste and effluent will impact on the environment

See 17.2, 13.1.

13.4. Environmentally appropriate water and sewerage will benefit the area, and prevent the contamination of the beach and Gunyulgup Brook

This is acknowledged by the proponent.

13.5. Comments on maps dismissive saying that the alignment will be selected to avoid vegetation damage but the verge is narrow, and there doesn't appear to be any strong mechanisms to enforce compliance. Sewer line route should be put on private land that is already cleared

Routes have been preliminary surveyed to give effect to the intent of minimal disturbance. Detailed design will be subject to separate approval process.

See1.19.

13.6. Water demand will be very seasonal, and tankage, delivery, and line capacity issues have not been considered

See 13.3 and 16.3. Tankering will no longer be required.

13.7. A small waste water treatment plant on nearby degraded land should be investigated

The original proposals included a waste water treatment plant (WWTP) on site, but were rejected by the community. The site will be connected to the new state-of-the-art Dunsborough WWTP which disperses highly treated effluent into plantations. The existing settlement will be retrofitted to this system.

14. WATER SENSITIVE URBAN DESIGN

14.1. Stormwater runoff will be larger and prompter, and keylined storm drainage circuits should be provided with below ground storage for emergency purposes, amenity horticulture, and treated for consumption if other sources are uneconomical

The stormwater design incorporates each of these elements. Underground stormwater storage compartments (Atlantis Cells) are proposed in the drainage design.

14.2. Insufficient detail to judge compliance of water sensitive urban design standards

Stormwater management (drainage) is subject of a specific Methodology report and a separate chapter all contained in the Strategic Environmental Assessment.

The "Report on Stormwater Management" by Wood and Grieve Engineers states that "We have assumed that the plan is not finalised and components will evolve with time. As further planning is carried out, we will revise and refine the proposed stormwater management solution."

The planning process is an iterative one, and more detail on stormwater management solutions will be provided as the planning process itself becomes more detailed.

The proponent has made a commitment to retain up to and including 1 in 100 year rainfall events on site, as required by Department of Environment and Conservation (previously Department of Environmental Protection), which is in excess of the retention required by the Shire of Busselton.

A letter received on the 17th of May 2006 from the Department of Environment's (now Department of Water) Stormwater and Catchment Management section gives support for the stormwater management strategy as submitted with the Strategic Environmental Assessment documentation (see appendix 1). The letter also sets out the requirement for an integrated water management plan to be submitted to the Department of Water incorporating the principles and best management practices described in the stormwater strategy and the Stormwater Management Manual for Western Australia, 2005. This will be completed before the commencement of any siteworks.

See 14.1, 14.3 and 14.4.

14.3. Doubtful that the revised plan will satisfy water sensitive urban design concepts due to:

14.3.1. Steep slope

The "Report on Stormwater Management" by Wood and Grieve Engineers acknowledges that the steep slopes at the site present some difficulties in providing soakage basins. The report takes this into account, providing options for incorporating stormwater management with the topography. One option is to seat detention basins into the slope, with minor excavation at the head, and downstream walls. This will allow the minimum adjustment to the local topography.

14.3.2. Degraded vegetation coverage

The "Report on Stormwater Management" by Wood and Grieve Engineers suggests "urban forestry" as one of a suite of Best Management Practices to be incorporated in the site design. This is the

preservation of existing vegetation and / or the planting of additional vegetation after development. This is proposed to reduce run-off and slow flows, reducing the transportation of sediments.

These Best Management Practices will be stipulated in the Urban Water Management Plan committed to being prepared by the proponent.

14.3.3. Shallow soil

Siting of infiltration basins will undergo detailed design further down the planning process. Site-specific factors, such as soil depth, will be taken into account prior to final siting and construction.

14.3.4. Building density

The Department of Environment and Conservation (previously the Department for Environmental Protection) has imposed a condition on development at the site that post-development run-off up to the 100 year storm event be contained on site. This is in excess of the retention required by the Shire of Busselton. The proponent is committed and bound to comply with this requirement regardless of the density of the development.

14.3.5. Lack of contour buffers of undisturbed vegetation

Within the detailed design of roads and Open Space, contour buffers, swales, retained vegetation, and recharge areas will be considered as an integral part of the drainage management system.

14.3.6. Lack of clear plans for treatment before discharge

The “Report on Stormwater Management” by Wood and Grieve Engineers states that “We have assumed that the plan is not finalised and components will evolve with time. As further planning is carried out, we will revise and refine the proposed stormwater management solution.”

The planning process is an iterative one, and more detail on stormwater management solutions will be provided as the planning process itself becomes more detailed. The proponent has committed to preparing an Urban Water Management Plan as part of the development approval process.

14.3.7. Erosion hazard

Design of infiltration basins will undergo detailed design later in the planning process. Site-specific factors, such as vulnerability to erosion, will be taken into account prior to final siting and construction.

14.4. Detailed and adequate stormwater management plan should be in place before site guide plan is submitted, and urban design approach should include stormwater management from the outset (Framework for “Achieving integrated water cycle management” DPI)

The proponent has committed to preparing an Urban Water Management Plan as part of the development approval process.

14.5. Density and limited POS available for treatment make incorporation of WSUD principles limited

Stormwater management (drainage) is subject of a specific Methodology report and a separate chapter all contained in the Strategic Environmental Assessment, and detailed in the Stormwater Report.

14.6. Shallow soils on granite bedrock and steep slopes limit opportunities for infiltration at source. This, coupled with the extensive hardstand area at the density and area proposed mean that some type of piped stormwater discharge will be needed to deal with the large quantity of stormwater that will be generated.

Most of the development is on deep sandy soils with more than 1.5m depth to granite or limestone.

See also 14.2 and 14.4.

14.7. Water sensitive urban design principles do not appear to have been incorporated into the DGP

See 14.2, 14.3 and 14.4.

14.8. High building density precludes filter strips, grass swales, and urban forestry (as in previous DGP)

The DEC has imposed a condition on development at the site that post-development run-off up to the 100 year storm event be contained on site. This is in excess of the retention required by the Shire. The proponent is committed and bound to comply with this requirement regardless of the density of the development.

See also 14.2 and 14.4

14.9. Support commitment to an Urban Water Management Plan prior to commencement and approved by DoW and the Shire of Busselton

This is acknowledged by the proponent.

14.10. There is a lack of plans to manage and treat stormwater before it discharges to the beach

Incorrect. The draft Stormwater Report treats the 1 in 100 storm event on site prior to any discharge to the beach. The quality of stormwater in events greater than 1 in 100 is clean rainwater and does not require additional treatment.

15. AIR QUALITY AND NOISE

15.1. Adjacent tourist business will be adversely affected by dust and noise during construction

The dust management measures developed for the proposal in the draft Construction Management Strategy are in accordance with Environmental Protection Authority Guidance Statement No. 18. These measures form the basis of a Dust Management Plan to be submitted and approved by the Department of Environment and Conservation and the Shire of Busselton prior to the commencement of construction. The proponent has set a performance standard of no visible dust crossing the perimeter, and further to this agrees to set dust targets for the perimeter sensory alarms of Air Quality NEPM 24-hour PM_{10}

The proponent's draft Construction Management Strategy includes noise management strategies. These will form the basis of a Noise Management Plan to be prepared to the satisfaction of the CEO of the Shire of Busselton in accordance with regulation 13 relating to construction noise. The Noise Management Plan will be implemented by the proponent as a condition of subdivision approval.

15.2. Management measures for dust during construction appear reasonable and are in accordance with EPA Guidance Statement 18.

This is acknowledged by the proponent.

15.3. Proponent should specify dust targets for perimeter sensory alarms (Air Quality NEPM 24-hour PM_{10} is an appropriate ambient target)

The proponent agrees to set dust targets for the perimeter sensory alarms of Air Quality NEPM 24-hour PM_{10}.

RESPONSES TO PUBLIC SUBMISSIONS ON SUSTAINABILITY

16. SUSTAINABILITY ISSUES

16.1. Should produce power, use solar power or renewable energy, and solar hot water should be mandatory

The proponent commits to building design restrictions that mandate proportionate use of solar power for both residential and tourism components. The site is constrained for use for on site generation of wind power or similar substantial infrastructure.

16.2. Should develop waste recycling

The site is within the Shire's waste recycling contract area and all new development will participate in that scheme. The proponent commits to greenwaste recycling as a component of development works, as is required by Western Australian Planning Commission under standard conditions of approval for this type of project.

16.3. Rainwater capture and storage should be mandatory, and grey water re-use should be considered

The proponent commits to building design restrictions that mandate installation of rainwater tanks, use of only AAA rated water efficient plumbing fixtures and implementation of licensed grey water re-use technology on a site by site basis. The site is constrained for implementation of larger package plants or similar technology for grey water recycling. The management of drainage of roads on the site proposes to utilise storm water run off for the passive irrigation of verges.

16.4. There is insufficient evidence of alternative transport

Alternative transport is limited and is beyond the scope of the project, as is the case with all similar coastal nodes in the region. The road and urban planning of the project is designed to discourage resident and visitors to the new development from driving to the beach. A system of walkways and attractive public viewing spaces has been designed to be assist the attraction of the non-vehicle options.

16.5. Sustainability should be considered in building materials and design

See 16.1, 16.3 and 16.8.

The Building Design Guidelines embrace sustainable practices and will be enforced by covenants, a 'town architecture committee' and under District Town Planning Scheme 20 by the Shire.

A commitment to solar passive design of the residences has also been made by the proponent.

16.6. Nothing to assure that the development will not proceed in an unsustainable manner

This submission is incorrect. The approval process is a multi-layered system involving Environmental Protection Agency, Department of Environment and Conservation, Western Australian Planning Commission and the Shire of Busselton, with strong implementation oversight and enforcement regimes.

16.7. The sustainability checklist is flawed (ie,.: there is no public transport)

The Sustainability Checklist correctly marks *"Increase the proportion of trips using public transport"* as *" Current Practice".* Currently public transport is limited to the school bus system and a Government subsidised 'beach bus' service from the hinterland in the peak summer period. The proposal will result in minor expansion of these services proportionate to staged development and demand over time.

The road and urban planning of the project is designed to discourage resident and visitors to the new development from driving to the beach. A system of walkways and attractive public viewing spaces has been designed to be assist the attraction of the non-vehicle options.

16.8. Limits on air conditioning should be mandatory

The Building Design Guidelines specifically address heating/cooling aspects of design as a sustainability measure. Minimisation of the use of air conditioners at the site is intended to result from the solar passive design of the residential units. This will allow greater advantage of natural cooling opportunities and discourage the over-use of air conditioners.

A restriction on air conditioning beyond that is not contemporary practice and is impractical. Potential undesirable side effects of restrictions would include increased use of wood heaters.

16.9. Conservation objectives should be integral to the design

The design and proponent's commitments reflects contemporary best practice in respect to conservation, including setting aside of approx. 50% of the site as reserves and the rehabilitation of off site areas. In addition the proposals promote a development approach that retains vegetation where practical and re establishes indigenous vegetation types across the site.

16.10. Efficiency measures should be considered

See 16.1, 16.3 and 16.8.

16.11. Sustainability of walk/bike paths should be considered

Sustainability assessments encourage expanded use of walk/bike paths. The proposal incorporates an extensive network of paths to discourage use of vehicles by residents/visitors to access the beach. Circuit walks of varying lengths have also been considered as part of the Foreshore Management Plan.

16.12. Planning issues to be considered in sustainability:

16.12.1. Sewerage

The proponent will introduce and retrofit reticulated sewerage to Smiths Beach, connected to the new and state-of-the-art Dunsborough waste water treatment facility. The conversion of the settlement from on-site effluent disposal will result in significant environmental improvement.

16.12.2. Stormwater management

The project design is based on water sensitive design principles aimed at maximum stormwater absorption at source utilising runoff for passive irrigation of road verges and open space areas.

16.12.3. Preservation of native vegetation

The proponent is committed to retaining trees in road reserves and private lots, in addition to establishing the Principal Ridge Protection Area and the privately managed conservation area.

See1.16, 2.10 and 3.4.

16.13. Proposal should be reviewed against initiatives for the Gracetown expansion particularly with respect to energy, sewerage, and water provision

Comparison reveals that the proposal for Smiths Beach, including proponent commitments referred to earlier, is not dissimilar to that for Gracetown in the following respects:

- Responsive design – roads aligned along contours etc;
- Design guidelines/requirements for water and energy efficiency;
- Introduction of sustainable sewerage system at proponent cost;
- Building height restrictions at Smiths Beach are more restrictive than Gracetown;
- Landscape assessment criteria and methodology for Smiths Beach more detailed and rigid than for Gracetown;
- Snith's Beach proposal is only 40% the size of Gracetown;
- Bushfire standards for Smiths Beach more conservative than Gracetown; and
- Commitments to provide/upgrade local facilities and foreshore improvements more comprehensive at Smiths Beach than Gracetown.

16.14. Emphasis on walk traffic supported

This is acknowledged by the proponent.

RESPONSES TO PUBLIC SUBMISSIONS ON OTHER ISSUES

17. OTHER ISSUES

17.1. Will cause traffic congestion

The traffic study confirms that additional traffic will be within the capacity of the existing local road system, with no major upgrades required. The project is designed to draw resident and tourist accommodation traffic off Smiths Beach Road at the entry point remote from the beach and to encourage non-vehicular access to the beach from within the new settlement. Estimates are that only approx. 300 vehicles/day will utilise the beach post development. The foreshore management plan has also been designed to create additional parking and manoeuvring space at the beachfront and has achieved this primarily by rationalisation of existing space and efficient layout of carparks.

17.2. Taxpayers shouldn't have to pay for sewage, waste disposal, roads and other infrastructure

This is acknowledged by the proponent. The proponent is meeting the cost of all these infrastructure upgrades.

17.3. Safety issues where roads are built close to bushland

All infrastructure is designed to meet contemporary safety standards. The new roads within the development are designed as a low speed environment.

17.4. The development will put too much strain on the volunteers who staff the bush fire brigade, the ambulance, and other emergency services

The proposal represents a significant improvement to fire safety. As noted above, it introduces a secure reticulated water supply equipped to fire hydrants and storage tanks to replace the current private supply, which is sourced from a rural lot several kilometres to the north via a polypipe. The new lots will create an additional source of revenue for the Fire Levy imposed by FESA, for provision of equipment and manpower on the locality.

The new surf club facility will provide emergency rescue/medical assistance on site to augment the current St Johns Ambulance Service, and will significantly reduce response times.

17.5. The infrastructure required will place additional strain and costs on the community and the environment

All new and upgraded infrastructure required as a result of the development will be provided at the proponent's cost. Also, it is proposed that the project be subject of a Specified Area Rate imposed on landowners to fund ongoing maintenance and improvements in the immediate locality.

17.6. Provision of vehicle parking of one bay per residence will lead to overuse of public parking facilities and prevent visitors to the beach from using the parking / the parking required for visitors to residents in peak periods will effectively close the beach parking to the public

The development is fully self-sufficient for carparking, complying with R Codes and the Shire of Busselton's Carparking Policy. The carparking to be provided at the beach is in addition to that within the development proper.

The traffic study confirms that additional traffic will be within the capacity of the existing local road system, with no major upgrades required. The project is designed to draw resident and tourist accommodation traffic off Smiths Beach Road at the entry point remote from the beach and to encourage non-vehicular access to the beach from within the new settlement. Estimates are that only approximately 300 vehicles per day will utilise the beach post-development. The Foreshore Management Plan has also been designed to create additional parking and manoeuvring space at the beachfront and has achieved this primarily by rationalisation of existing space and efficient layout of carparks.

See also, 16.4 and 16.7 re design approach to inhibit vehicle use by residents and visitors.

17.7. Frequent power outages caused by overuse of the grid already occur, and this development will worsen the situation unless there is an upgrade

Any required upgrades will be carried out at the proponent's cost. The proponent commits to building design restrictions that mandates proportionate use of solar power for both residential and tourist components.

See also 16.1.

17.8. Development will cause traffic congestion at the corner of Caves Rd and Canal Rocks Rd, and an upgrade of the intersection will require unfair resumption of land from the owner

The traffic assessment is that this intersection does not require major upgrading solely as a consequence of the project at Smiths Beach. The intersection requires only minor improvements. The proponent will meet proportionate costs of any upgrade.

17.9. Facilities planned benefit the general public:

- **Grassy picnic areas**
- **Upgrading carparks / paths / roads**
- **Providing a surf club for protection of swimmers / community centre**
- **Barbecues**
- **Playground**
- **Grassy playing areas**

This is acknowledged by the proponent.

17.10. Facilities planned will take the pressure off the beach

This is acknowledged by the proponent. The road and urban planning of the project is designed to discourage resident and visitors to the new development from driving to the beach. A system of walkways and attractive public viewing spaces has been designed to be assist the attraction of the non-vehicle options

17.11. The integrity of the environmental assessment process has been jeopardised by influences shown in the CCC report, and reassessment needs to occur.

The proposal has been submitted according to the standards and requirements of the *Environmental Protection Act 1986* (WA), Leeuwin Naturaliste Ridge Statement of Planning Policy and District Town Planning Scheme 20 and must be assessed on its merits according to those controls.

17.12. Greater capacity will be needed for:

- **Waste collection**
- **Roads**
- **Power**
- **Telecommunications**
- **Emergency services**

There are likely to be environmental consequences from this, as well as the water supply. The developer should bear the costs, as ad-hoc services are likely to have many environmental impacts.

See 17.2, and 17.5 Proponent has addressed each item and will meet all costs.

17.13. Assessment process has been less than transparent

It is the proponent's position that this is not an issue within the scope of assessment by the Environmental Protection Authority, and therefore not subject to a detailed response.

The formal consultation process for the Strategic Environmental Assessment and Development Guide Plan has been comprehensive, including many new initiatives to assist the submission process, resulting in significant and unprecedented community response for a development of this scope.

ISSUES CONSIDERED BY THE PROPONENT TO BE OUTSIDE THE SCOPE OF THE ENVIRONMENTAL PROTECTION ACT

17.14. Selection of this area for development "inconceivable", and put down to Mr Burke and Mr Cox

It is the proponent's position that this is not an issue within the scope of assessment by the Environmental Protection Authority, and therefore not subject to a detailed response.

However, the intent of the Leeuwin Naturaliste Ridge Statement of Planning Policy is to allow development in previously developed areas, in a nodal style, in order to preserve other areas of the coastline. Smith's Beach is already a developed area, and allowing development at this site will enable other areas of coastline to be conserved.

17.15. Community consultation occurred against a background of lobbyists trying to achieve largest development possible regardless of community opinion

It is the proponent's position that this is not an issue within the scope of assessment by the Environmental Protection Authority A, and therefore not subject to a detailed response.

The project has been consistently redesigned to reduce its size, since it was first mooted in 1995, in response to community opinion.

17.16. The developer has failed to meet obligations

The specific obligations are not mentioned and are therefore not able to be commented on. It could be said that, as the site is zoned for tourism and residential uses, the proponent's obligations to the State are to develop it for that purpose which he intends to do.

17.17. Mr Burke admitted in the CCC that he was hired on a success fee basis by the developer, and this was while the community consultation was taking place. A success fee structure for lobbyists is confirmed by the CCC

It is the proponent's position that this is not an issue within the scope of assessment by the Environmental Protection Authority, and therefore not subject to a detailed response.

18. SUMMARY OF SUBMISSIONS

No	Author	Summary of Submission	Response
	EPASU	**Flora and Vegetation:**	
		• Further discussion with the DEC regarding Priority Ecological Communities (PECs) may be required by the consultant / proponent to investigate whether further survey is required to determine whether examples of these PECs are located within the site. Several PECs have been identified by DEC in the region, including: o *Melaleuca lanceolata* forests, Leeuwin Naturaliste Ridge, Priority 2 o Low shrublands on acidic grey-brown sands of the Gracetown soil-landscape system, Priority 2 o Granite community dominated by the shrubs *Calothamnus graniticus subsp. graniticus, Acacia cyclops, A. saligna, Hakea oleifolia, H. prostrata* and *Jacksonia furcellata* (Sugar Loaf Rock), Priority 1	1.1
		• The draft development guide plan shows that apart from a small number of plants, most of the approximately 65 *Dryandra sessilis var cordata* within the site will be lost and does not provide an indication of the likely proportion of *Dryandra sessilis var cordata* impacted by development	1.2
		• The distribution of *Kunzea ciliata* communities is discussed in the SEA (pages 65 – 67) 'Both the*Kunzea ciliata / Hakea trifurcata* Low Closed Heath and the *Kunzea ciliata / Melaleuca lanceolata* Low Closed Heath which are common on Location 413 are considered represented at the Cowaramup Bay population. The total area of these vegetation types is estimated to be around 3ha.' It is not clear whether the 3ha figure, which is itself very small, includes the location 413 estimate. If so, and the Location 413 representative communities were to be impacted, the remaining extent of these communities would be further reduced, and the extent remaining needs to be detailed.	1.3
		• A *Eucalyptus* specimen tentatively considered to be *E. marginata* collected at the site during a recent DEC site visit requires further identification work. This species is of an unusual low mallee form that was found in several large uniform clumps, which may indicate that it is clonal. Expert advice is being sought regarding the identification of the specimen, and will be provided as soon as possible, but it should be considered potentially significant.	1.4
		• A number of scientific names have been misspelled or not italicised o Page 4 *Xanthorrhoea pressii* is misspelt o Page 6 *Nuytsia floribunda* is misspelt o Pages 6, 18, 19 a number of scientific names are not italicised o Pages 20, 21 *Morethia lineoocellata* is misspelt o Page 24 *Tyto novaehollandiae* is misspelt	1.5

No	Author	Summary of Submission	Response
		o Page 25 formerly is misspelt o Appendix 2 *Anthochaera carunculata, Tringa nebularia*, and *Melanodryas cucullata* are misspelt o Appendix 3 *Quinetia urvillei* is misspelt in quadrats SB5 and SB6, and is noted incorrectly as an introduced species in quadrats SB2, SB5, and SB6. o Appendix 3 *Ficinia nodosa* is misspelt in quadrat SB5 o Appendix 3 *Cryptandra arbutiflora* is misspelt in quadrat SB6 o Appendix 3 *Hypochaeris glabra* is misspelt in quadrat SB6 and SB10 o Appendix 3 *Isolepis* sp. Requires corrections in quadrat SB8 o Appendix 3 *Hypochaeris radicata* is misspelt in quadrat SB12 o *Calothamnus sanguineus* is misspelt on page 66 of the SEA	
		• Retention of granite heath communities supported	1.17
		Native Fauna:	
		• Statements about limited habitat potential for the Rainbow Bee-eater appear to be incorrect. Inspection of the study area by DEC officers in October 2007 indicated a range of habitat types within the study area that provide suitable breeding areas particularly along the tracks and fire breaks and the more open habitats.	2.1
		• The Grey Butcherbird is found in the area, not the Pied Butcherbird.	2.2
		• The Red-Capped Robin does not occur in the area, and should be deleted.	2.3
		• The Sacred Ibis and the Australian White Ibis are the same species.	2.4
		• Sites listed as comparable in Appendix 2 do not appear similar enough. Data from closer areas should be included.	2.5
		Peppermint trees and possums	
		• The likely impact on Western Ringtail Possums may be considerably greater than inferred, since the status and likely impact of the proposal on the EPBC Act and WA Wildlife Conservation Act Schedule 1 listed species, is not comprehensively addressed in the SEA. The survey for Ringtail possums relied on spotlighting on nights when inclement weather was likely to lead to few individuals being recorded. No survey was undertaken of the occupancy rate of the high numbers of possum dreys recorded and no survey seems to have been conducted of abundance and distribution of scats in the project area to assess distribution/presence in different habitats and comparative abundance in different habitats. Inspection of the study area by DEC officers in October 2007 indicated three Ringtail Possums in three dreys examined. Comments in the fauna report in relation to likely impacts of the proposal are likely to be	3.1

No	Author	Summary of Submission	Response
		underestimates of the impacts on this threatened species. This underestimate of impact is reinforced by the statement on page 34 of the fauna report that "Smiths Beach had approximately 0.2 Western Ringtail Possums per hectare. This, however, may be a low estimate due to the suboptimal weather experienced during the November/December spotlighting assessment". A major limitation of the survey is that no additional survey was conducted in more suitable weather conditions and no other methods were adopted to determine possum abundance. An appropriate method would be to determine how many dreys were actually occupied of the large number of dreys recorded. The majority of the dreys recorded were located in areas of the project area that are proposed for development. • A survey of food plants used by Western Ringtail Possums in the project area has not been conducted. As stated in comments on the fauna report, the assumption that Agonis is the main food tree of this species is not correct as it is known to feed on a number of species (including Kunzea , Nuytsia, Banksia, Acacia, Eucalyptus) many of which are present in the study area. The reality is that the study area is likely to contain a number of food plants for this species and some of these could occur in habitats outside the areas where dreys are located.	3.2
1	Unknown	**General Environmental:** • Support for the project on the grounds of a genuine desire to protect the environment	6.1
2	Unknown	**Visual Amenity:** • Size of development incompatible with adjoining landscape **General Environmental:** • Environmental impact on fragile landform **Coastal Issues:** • Impact on flora and fauna of coastal heathland • Orderly planning to prevent uncontrolled people movement which leads to degradation of dunal areas	7.3 6.2 5.4 5.4
3	Unknown	**Planning:** • Loss of caravan park – multi-million dollar apartments are not a substitute	11.5
4	Unknown	**Planning:** • It will be a privately owned town run for profit without any public benefit • Does not allow adjustments during development to react to	11.9 6.14

No	Author	Summary of Submission	Response
		environmental problems as they arise	
		• Too large and will dwarf Yallingup Town	11.7
		• Should be spread over existing sites instead	11.13
		Coastal Issues:	
		• Insertion into coastal environment will have significant consequences	5.3
		• Dune scrub will be trampled, and litter and cigarette butts will accumulate	5.4
		Native Fauna:	
		• Bandicoots are likely to disappear	2.6
		• Species of birds, lizards and snakes will disappear from loss of habitat and attraction of foxes and cats	2.7
		General Environmental:	
		• Litter will accumulate	6.3
		• There will be significant and irreversible environmental consequences	6.4
		Flora and Vegetation:	
		• The amount of clearing of near pristine vegetation on the site and for road verges is of concern. Trees will inevitably be destroyed	1.6
		Water Quality and Water Management:	
		• Sewage and waste disposal will damage the environment	13.1
		Other Issues:	
		• Will cause traffic congestion	17.1
		• Taxpayers shouldn't have to pay for road upgrades	17.2
		• Not clear who will pay for sewage, waste disposal, roads and other infrastructure	17.2
		Visual Amenity:	
		• Will be an eyesore	7.3
		• Developers misleading saying the scale has been reduced	7.4
5	Unknown	**Planning:**	
		• the project will relieve pressure on other areas	11.2
6	Unknown	**Conservation Areas:**	
		• Pleased that 19ha will be used for public spaces and reserves, particularly buffer to national park, and preservation of the western headland	4.1
7	Unknown	**Planning:**	

No	Author	Summary of Submission	Response
		• Takes the pressure off developing other areas of the coast	11.2
		General Environmental:	
		• Protected by best practice environmental strategies	6.10
		Native Fauna:	
		• Protected by best practice environmental strategies	2.15
		Water Quality and Water Management:	
		• Environmentally appropriate water and sewerage	13.4
8	Unknown	**Conservation Areas:**	
		• Buffer zone to the national park won't be sufficient or managed adequately	4.5
		Native Fauna:	
		• Development and increased traffic will negatively affect wildlife	2.8
		Water Quality and Water Management:	
		• Movement and collection of waste and effluent and drainage is dependent on Hilton development	13.2
		• Increase in water consumption, sewerage, collection and disposal of waste and effluent will impact on the environment	13.3
		General Services and Infrastructure:	
		• Safety issues where roads are built close to bushland	17.3
		General Environmental	
		• Will affect flora and wildlife in the area	6.6
		• There will be a loss of recreational areas of natural habitat for the public	6.5
		Coastal Issues	
		• Pollution will effect the coastal environment	5.5
9	Unknown	**Issues Outside the Scope of the EPA Assessment:**	
		• Selection of this area for development "inconceivable", and put down to Mr Burke and Mr Cox.	17.14
		General Environmental:	
		• Will completely destroy flora and fauna.	6.6
10	Unknown	**Planning:**	
		• Identification of 21.4 ha as suitable for development has no basis and is contrary to planning laws	11.4
		• too dense	11.7
		• too large	11.7

No	Author	Summary of Submission	Response
		Community Consultation:	
		• Community backlash should remove expectation of approval	12.1
		Issues Outside the Scope of the EPA Assessment:	
		• Community consultation occurred against a background of lobbyists trying to achieve largest development possible regardless of community opinion	17.15
		• A success fee structure for lobbyists is confirmed by the CCC	17.17
		Peppermint Trees and Possums:	
		• Contractor not thorough in determining numbers	3.2
		• Density of site will lead to virtual clear felling	3.4
		• Relocation of possums is not successful	3.5
		• Habitat reduction means possum reduction, not redistribution	3.6
		• Level of clearing should be such that possums can co-exist with the development, which requires reduced density	3.7
		General Environmental:	
		• Proponents will not disturb site with delicacy required	6.8
		Flora and Vegetation:	
		• Intrudes into western heathland	1.7
		Visual Amenity:	
		• Area cannot support large tees depicted as screening the development	7.2
11	Unknown	**Sustainability Issues:**	
		• Should produce its own power	16.1
		• Should develop waste recycling	16.2
		• Should collect rainwater	16.3
		• There is insufficient evidence of alternative transport	16.4
		Planning:	
		• Proposal is too dense	11.7
		• Overall capacity is larger than Yallingup Town	11.7
		• Should not have a shopping plaza	11.8
12	Unknown	**General Environmental:**	
		• Development has taken on board ecological and environmental issues	6.1
		Planning:	
		• The development is controlled	11.10

No	Author	Summary of Submission	Response
		• Help relieve shortage of accommodation in the south west	11.6
		• Takes the pressure of other areas for development	11.2
		Coastal Issues:	
		• Bush along Cape to Cape walk will be retained	5.1
		Flora and Vegetation:	
		• Best part of site with best wildflowers being kept	1.8
		Peppermint Trees and Possums:	
		• Large number of peppermint trees being kept, and possums are happy to live in these in developed areas	3.8
13	Unknown	**Coastal Issues:**	
		• Bibbulmun track (sic) retains bush	5.1
		• Bibbulmun track (sic) maintains rugged natural feel	5.1
		Planning:	
		• The development is part of a long term plan to manage growth and demand for land and accommodation	11.2
		• Takes the pressure off developing other areas of the coast	11.2
		• The nodal development will maintain the integrity of the coastline	11.11
		Water Quality and Water Management:	
		• Provision of deep sewerage will benefit the area, and prevent the contamination of the beach and Gunyulgup Brook	13.4
14	Unknown	**Peppermint Trees and Possums:**	
		• Pleased that the development will retain many of the trees as they are home to possums and reflect spirit of the south west	3.8
15	Unknown	**Peppermint Trees and Possums:**	
		• The possums will be able to stay at the site due to the retention of many peppermint trees, and their ability to live in developed areas	3.8
16	Unknown	**Coastal Issues:**	
		• Retains bush	5.1
		• Maintains rugged natural feel	5.1
		Visual Amenity:	
		• The area of vegetation being retained on the western side is the most important, visually	7.5
		Conservation Areas:	
		• Management of the bushland on the western side is positive as it does not appear to be actively managed at the moment	4.2

No	Author	Summary of Submission	Response
17	Unknown	**Other Issues:** • Facilities planned benefit the general public **Planning:** • Should be moved at least 2 kilometres inland, with developer compensated by government, and land becoming national park **Visual Amenity:** • Change and devalue the attraction of the area • Natural beauty of the coastline should remain unspoiled **Community Consultation:** • Developer is swimming against tide of public opinion	 17.9 11.13 7.3 7.6 12.1
18	Unknown	**Coastal Issues:** • The development will put extra pressure on the beach **Other Issues:** • Pleasing that the developers are upgrading the facilities, particularly: o Grassy picnic areas o Upgrading carparks o Providing a surf club for protection of swimmers	 5.7. 17.9
19	Unknown	**Issues Outside the Scope of the EPA Assessment:** • The integrity of the environmental assessment process has been jeopardised by influences shown in the CCC report, and reassessment needs to occur. **General Environmental:** • Impact on flora and fauna by people and pets	 17.11 6.7
20	Unknown	**Other Issues:** • Added amenities are a plus, particularly: o Grassy areas o Barbecues o Playground o Upgrade of roads, pathways and carpark **Water Quality and Water Management:** • Development brings water and sewage to the site **Coastal Issues:** • The walking trail will be maintained	 17.9 13.4 5.1

No	Author	Summary of Submission	Response
21	Unknown	**Planning:** • Takes the pressure off developing other areas of the coast, and uses an area where there is already development **Other Issues:** • Upgraded facilities will be a benefit, particularly: o Barbecues o Playground o Upgrade of the parking area o Surf club	11.2 17.9
22	Unknown	**Community Consultation:** • Community consultation was not genuine. As an example, criticisms of the extent of the westward extent of the development footprint were ignored • As closest neighbour would expect to be approached for a one-on-one meeting, as many were said to have taken place **Issues Outside the Scope of the EPA Assessment:** • Alan Tranter chaired the Creating Communities Group and was also a spokesperson for Canal Rocks Pty Ltd **Sustainability Issues:** • Nothing to assure that the development will not proceed in an unsustainable manner **Planning:** • Footprint should be reduced • Too dense **Conservation Areas:** • Principle ridge area must be community endowment land • Whole western part should be included in the conservation area • Private conservation area unviable when fire setbacks, degradation, erosion, and escaping rubbish considered **Air Quality and Noise:** • Adjacent tourist business will be adversely affected by dust and noise during construction **Visual Amenity:** • Area of development is exposed, highly visible, and forms part of the natural ridge area • Natural bowl running behind the existing resort is a preferable location	12.2 12.3 12.7 16.6 11.7 11.7 4.3 4.4 4.5 15.1 7.7 7.7 7.8

No	Author	Summary of Submission	Response
		• Despite guidelines, visual amenity will be desecrated • Height of buildings like the Beach Club totally obtrusive	7.9
23	Unknown	**Peppermint Trees and Possums:** • Retention of peppermints and planting of more of these trees are important for the possums • Retention will help maintain the biodiversity of the area **Visual Amenity:** • The retention of peppermint trees will contribute to the natural visual appeal **Flora and Vegetation:** • Planting of natives in the development will help preserve biodiversity	 3.8 3.10 7.12 1.9
24	Unknown	**Planning:** • Impact of the density of the development is too great • A low-rise eco-friendly development would be more appropriate **General Services and Infrastructure:** • The development will put too much strain on the volunteers who staff the bush fire brigade, the ambulance, and other emergency services	 11.7 11.12 17.4
25	Unknown	**Other Issues:** • The provision of deep sewage to the area is a benefit, which will help prevent pollution of the beach and watercourses	 13.4
26	Save Our Foreshore Inc	**Issues Outside the Scope of the EPA Assessment:** • Assessment process has been less than transparent • The developer has failed to meet obligations **Community Consultation:** • The community has made it clear they do not want this development **General Environmental:** • The area will be worth more to the region in the long term if it is left as it is **Planning:** • It does not meet town planning requirements **Other Issues:** • The infrastructure required will place addition strain and costs on the community and the environment	 17.13 17.16 12.1 6.9 11.3 17.5
27	Unknown	**Peppermint Trees and Possums:** • Retention of peppermint trees will ensure that the possums retain	

No	Author	Summary of Submission	Response
		their habitat	3.8
		Planning:	
		• Takes the pressure off developing other more sensitive areas of the coast	11.2
		Water Quality and Water Management:	
		• Provision of deep sewerage to the area will replace environmentally unsound septic tanks	13.4
		Flora and Vegetation:	
		• The planting of local natives will help preserve the area's natural state	1.9
28	Unknown	**Coastal Issues:**	
		• Retains bush	5.1
		• Maintains rugged natural feel	5.1
		Planning:	
		• Takes the pressure off developing other more sensitive areas of the coast	11.2
		Visual Amenity:	
		• The area of vegetation being retained on the western side is the most important, visually	7.5
		Conservation Areas:	
		• Management of the bushland on the western side is positive as it does not appear to be actively managed at the moment	4.2
		Other Issues:	
		• Pleasing that the developers are upgrading the facilities, particularly: o Grassy picnic areas o Upgrading carparks o Providing a surf club for protection of swimmers	17.9
29	Unknown	**Water Quality and Water Management:**	
		• Provision of deep sewerage will reduce the risk of pollution of the beach and Gunyulgup Brook	13.4
		Conservation Areas:	
		• The protection of the western headland will protect flora and fauna	4.2
		Peppermint Trees and Possums:	
		• Retention of peppermint trees will protect the possums as they live well in developed areas	3.8
30	Unknown	**Coastal Issues:**	

No	Author	Summary of Submission	Response
		• Retains bush	5.1
		• Maintains rugged natural feel	5.1
		Flora and Vegetation:	
		• Best part of site with best wildflowers being kept	1.8
		• Wonderful that the developer is using local native plants	1.9
31	Unknown	**Conservation Areas:**	
		• Protection of western headland important	4.2
		Visual Amenity:	
		• Bushland buffers reduce visual impact of development from roads	7.10
		• Protection of important views supported	7.11
		Flora and Vegetation:	
		• Restricted clearing and revegetation with natives supported	1.9
		• Foreshore reserve replacing carpark supported	1.10
		Sustainability Issues:	
		• Emphasis on walk traffic supported	16.14
		Water Quality and Water Management:	
		• Deep sewerage replacing on-site effluent disposal	13.4
32	Unknown	**Coastal Issues:**	
		• Increased visitor numbers will reduce dune stability and encourage erosion	5.6
		Visual Amenity:	
		• Increased erosion of dunes will reduce visual amenity	7.13
		Planning:	
		• Should be confined to area already developed	11.14
		• Any further development should happen away from the coast in existing towns	11.13
33	Unknown	**The response to this submission is included in appendix 2**	App. 2
34	Unknown	**General Environmental**	
		• Support for the proposal as it appears to be very sensitive to the environment	6.1
		Peppermint Trees and Possums:	
		• Retaining native bushland and peppermints will maintain the habitat of the possums	3.8
		Native Fauna:	

No	Author	Summary of Submission	Response
		• Retaining native bushland and peppermints will maintain the habitat of the native fauna	2.9
		Flora and Vegetation:	
		• The proposal is sensitive to the environment as it retains existing bushland, peppermints, and wildflowers	1.11
		Water Quality and Water Management:	
		• The development will bring reticulated deep sewerage to existing developments in the area which is beneficial to the environment	13.4
		Other Issues:	
		• Addition of new facilities and upgrading of existing facilities will take the pressure off the beach	17.10
		Planning:	
		• Smith's Beach has already been identified for development, and confining development to these areas will preserve the overall appeal of the coast	11.2
35	Unknown	**Coastal Issues:**	
		• Retains bush	5.1
		• Maintains true natural experience	5.1
		Conservation Areas:	
		• Retains land on the western side in natural state and retains peppermints in development area, minimising effects on native wildlife	4.1
36	Unknown	**General Environmental:**	
		• Level of detail in the SEA is excellent and shows respect for the environment and the flora and fauna will be well-protected	6.1
37	Smiths Beach Action Group	**Flora and Vegetation:**	
		• Loss of communities that are unusual, important and restricted at both local and regional scale:	1.12
		o W2 complex at 21.1% of pre-clearing extent, with 8.9% of remaining area in reserves (1.9% of pre-clearing extent)	1.12.1
		o We complex may meet criteria for a Threatened Ecological Community due to its pre-European extent of only 136ha, with 67ha in conservation reserve. The proposal will clear 18-20ha of the 90ha that currently exists. It also conforms to the Federal criteria for a TEC in that it has less than 1000ha total occupancy.	1.12.2
		o SH9 vegetation type only known from 2 locations, both of them small, and over half will be cleared in the development area	1.12.3
		o Large number of priority species *Dryandra sessilis var cordata* will be lost	1.12.4

No	Author	Summary of Submission	Response
		o *Kunzea ciliata* is endemic to the national park, and only known from a small handful of locations. Communities dominated by this species have only been found in two other locations with a total area of 3ha	1.12.5
		• Measures to protect vegetation during and after development are required by the environmental methodologies for the site and there is inadequate information	10.1
		• There is misrepresentation of vegetation to be retained in the development as the Fire Management Plan is in complete conflict with the vegetation retention plan. An updated vegetation plan presented as an alternative analysis (by the submitter) shows there would be extensive clearing of vegetation on the site with minimal opportunity to retain existing vegetation between buildings or replant following development	1.13
		• Clearing required is in conflict with LNRSPP, principle (v) of the clearing principles (Environmental Protection Act, 1986), National Biodiversity Targets and Town Planning Scheme No 20	1.14
		Native Fauna:	
		• Loss of habitat for threatened fauna	2.10
		• Conflicts with principle 2 of the clearing principles – native vegetation should not be cleared if it is significant habitat for fauna:	2.11
		o Western Ringtail Possum – schedule 1	2.11.1
		o Baudins Black Cockatoo – schedule 1	2.11.1
		o Chuditch (roadkill and photographic evidence) – schedule 1	2.11.3
		o Carpet Python – schedule 4	2.11.4
		o Southern Brush Tailed Phascogale – priority 3	2.11.5
		o Forest Red-tailed Black Cockatoo (anecdotal evidence within 5km) – schedule 1 and vulnerable	2.11.6
		• Size and density of current plan will remove these entirely from the site	2.12
		• Baudins Black Cockatoo recorded feeding at site and majority of feeding habitat to be cleared	2.13
		Peppermint Trees and Possums:	
		• Population at the site is separate to Busselton-Dunsborough populations, and little is known about viability	3.11
		• Accurate information on the size of the population has not been provided (ie: scat scoring)	3.2
		• High risk of mortality during development due to extensive clearing, earthworks, and the use of heavy machinery	3.12
		• Continuity and habitat linkages have not been adequately considered	3.13 3.5
		• Translocation is not successful	3.9

No	Author	Summary of Submission	Response
		• Survival in old, urbanised areas does not compare to the chances of survival in this development	3.14
		• The development risks mortality from dog attacks, which are a much more common form of mortality than cat attacks	3.15
		• Cumulative impact of habitat loss should be considered (much of the adjacent park is not suitable)	
		General Environmental:	
		• There will be offsite impacts on the adjoining Leeuwin Naturaliste National Park, and the proposal fails to address the primary issues of concern by failing to provide an adequate buffer to national park, beyond the extent of the low-fuel zone, which will be cleared of understorey and vulnerable to invasives	6.11
		• The proposal needs to be redesigned with a view to a reduced footprint to minimise loss of vegetation with high conservation value, improve opportunities to retain important habitat for fauna species, improve the width of the buffer between the development and the Leeuwin Naturaliste National Park and improve opportunities to effectively manage stormwater on site by reducing the overall hardstand area.	6.13
		Conservation Areas:	
		• Inadequate protection and management measures for areas proposed to be conserved	4.5
		• Principal Ridge Protection Area and the Conservation Area should be added to the national park and managed by DEC. This action will ensure appropriate levels of protection and management through the agency of the DEC and under the guidance of the Leeuwin Naturaliste National Park Management Plan. It is noted that the Initial Development Guide Plan (December 2000) showed some of this land becoming a national park.	4.6
		• Areas of *Kunzea ciliata* are proposed for private ownership and development of trails and gardens	4.7
		• Should be larger to reduce impact and should include:	4.8
		o Upper portion of peppermint woodland AF adjoining the LNNP	4.8.1
		o A larger area of the S9 vegetation type should be reserved in view of its likely extent and its propbable uniqueness to the Leeuwin-Naturaliste Ridge.	4.8.2
		o Protection of all of poorly represented W2 complex	4.8.3
		o More of the WE complex	4.8.4
		• All conservation areas should be added to the national park for management and long term protection reasons	
		General Services and Infrastructure:	1.19
		• High level of offsite clearing likely to be required for services	
		• DRF (some critically endangered) in road reserves at risk from	

No	Author	Summary of Submission	Response
		clearing for services	11.7
		Planning:	
		• Scale and density should be reduced	14.4
		Water Sensitive Urban Design	14.4
		• Detailed stormwater plan should be developed with guide plan	
		• Urban design approach should include stormwater management from the outset (Framework for "*Achieving integrated water cycle management"* DPI)	14.10 14.5
		• Lack of detail on stormwater management	14.5
		• Limited POS available for stormwater treatment	
		• Density and limited POS available for treatment make incorporation of WSUD principles limited	14.6
		• Shallow soils on granite bedrock and steep slopes limit opportunities for infiltration at source. This, coupled with the extensive hardstand area at the density and area proposed mean that some type of piped stormwater discharge will be needed to deal with the large quantity of stormwater that will be generated.	12.6
		Issues Outside the Scope of the EPA Assessment:	
		• Creating Communities has been publicly critical of the Smiths Beach Action Group	12.7
		• Facilitator and director of Creating Communities, Mr Alan Tranter, described himself as a spokesperson for the developer	12.8
		• The report from Creating Communities is biased against the Smiths Beach Action Group's views and designed to produce an outcome giving the impression of a community in favour of the proposal	17.17
		• Mr Burke admitted in the CCC that he was hired on a success fee basis by the developer, and this was while the community consultation was taking place	
		Community consultation:	12.5
		• Consultation process completely flawed and results meaningless. While it was stated at the commencement of the consultation process that there was to be a new plan starting form a blank sheet of paper, it is now apparent that this was not the case and that the developer had a clear agenda to achieve the maximum number of lots independent of the community's wishes	8.4
		Fire Management Plan:	
		• Fire management plan is in total conflict with the vegetation retention plan. A plan showing the extent of vegetation loss due to development and fire management needs to be produced as the Smith's Beach Action Group's analysis shows that there is minimal opportunity to retain vegetation between buildings or to replant following development.	

No	Author	Summary of Submission	Response
38	Unknown	**Planning:**	
		• Size and scale is excessive and will put huge pressures on the environment and adjacent landowners	11.7
		Flora and Vegetation:	
		• Proposed route of the deep sewer will cause massive environmental damage to roadside vegetation	1.19
		Other Issues:	
		• Provision of vehicle parking of one bay per residence will lead to overuse of public parking facilities and prevent visitors to the beach from using the parking	17.6
		• Frequent power outages caused by overuse of the grid already occur, and this development will worsen the situation unless there is an upgrade	17.7
		• Development will cause traffic congestion at the corner of Caves Rd and Canal Rocks Rd, and an upgrade of the intersection will require unfair resumption of land from Beth Walker	17.8
		Sustainability Issues:	
		• The sustainability checklist is flawed (ie: there is no public transport)	16.7
		• Solar hot water systems should be mandatory	16.1
		• Solar power should be mandatory	16.1
		• Grey water re-use should be mandatory	16.3
		• Rainwater capture and storage should be mandatory	16.3
		• Limits on air conditioning should be mandatory	16.8
39	Unknown	**Flora and Vegetation:**	
		• The population of 82 *Dryandra sessilis var. cordata* represents a significant concentration of this P4 species and other populations are not considered in detail as to their security	1.12.4
		• The botanical survey of Bennett (2001) should have included a species list of the area in order to investigate more fully	1.15
		Water Quality and Water Management:	
		• Water demand will be very seasonal, and tankage, delivery, and line capacity issues have not been considered.	13.6
		Other Issues:	
		• The parking required for visitors to residents in peak periods will effectively close the beach parking to the public	17.6
		• Greater capacity will be needed for:	
		o Waste collection	17.12
		o Roads	

No	Author	Summary of Submission	Response
		o Power o Telecommunications o Emergency services There are likely to be environmental consequences from this, as well as the water supply. The developer should bear the costs, as ad-hoc services are likely to have many environmental impacts. **Water Sensitive Urban Design:** • Stormwater runoff will be larger and prompter, and keylined storm drainage circuits should be provided with below ground storage for emergency purposes, amenity horticulture, and treated for consumption if other sources are uneconomical **Community Consultation:** • Community consultation processes seem not to have advised the local community of potential impacts on the P4 *Dryandra* species	14.1 12.4
40	Unknown	**Flora and Vegetation:** • Very concerned about the amount of clearing of near pristine vegetation on the site, and on road verges for services **Planning:** • Leeuwin Naturaliste Ridge Statement of Planning Policy 7 states new developments should be on degraded or non-viable farm land • The development is too large and obtrusive – the tourist development should be small compact and non-obtrusive. The residential component should be a lot less, and the developer should only be allowed to clear a small area. **Flora and Fauna:** • Services (mainly sewer) will destroy many linear kilometres of near pristine roadside vegetation. Estimate that around 40% is good bushland. • Destruction of roadside vegetation will destroy the visual amenity of tourist drives. **Water Quality and water Management:** • Comments on maps dismissive saying that the alignment will be selected to avoid vegetation damage but the verge is narrow, and there doesn't appear to be any strong mechanisms to enforce compliance. • A small waste water treatment plant on nearby degraded land should be investigated	1.6 11.1 11.7 1.19 1.19 13.5 13.7
41	Unknown	**Water Sensitive Urban Design:** • Doubtful that the revised plan will satisfy water sensitive urban design concepts due to:	14.3

No	Author	Summary of Submission	Response
		o Steep slope	14.3.1
		o Degraded vegetation coverage	14.3.2
		o Shallow soil	14.3.3
		o Building density	14.3.4
		o Lack of contour buffers of undisturbed vegetation	14.3.5
		o Lack of clear plans for treatment before discharge	14.3.6
		o Erosion hazard	14.3.7
		• Stormwater management plan should be in place before site guide plan is submitted	14.4
		• There is a lack of plans to manage and treat stormwater before it discharges to the beach	14.10
42	Unknown	**Flora and Vegetation:**	
		• Use of local plants compliments the environment	1.9
		Conservation Areas:	
		• Preservation of the western portion is a positive outcome, and shows a caring approach	4.2
		Peppermint Trees and Possums:	
		• Retention of peppermint trees will provide habitat for possums	3.8
		Planning:	
		• Takes the pressure off developing other more sensitive areas of the coast	11.2
		Water Quality and Water Management:	
		• Provision of deep sewerage and reticulated water supply is a positive outcome	13.4
43	Unknown	**Planning:**	
		• Takes the pressure off developing other more sensitive areas	11.2
		• Area has been selected for development	11.2
		Peppermint Trees and Possums:	
		• Retention of peppermint trees will provide habitat for possums	3.8
		Coastal Issues:	
		• Proposal protects and enhances	5.2
		Conservation Areas:	
		• Management measures for large area of bushland will be a benefit, and do not exist at present	4.2
		Other Issues:	
		• Upgraded facilities will be a benefit, particularly:	17.9

No	Author	Summary of Submission	Response
		o Grassy picnic areas o Surf lifesaving club / community centre o Upgrade of the parking area **Water Quality and Water Management:** • Provision of deep sewerage will reduce risk of pollution of the beach and Gunyulgup Brook	13.4
44	Unknown	**Water Quality and Water Management:** • Provision of deep sewerage will reduce risk of pollution of the beach and Gunyulgup Brook **Flora and Vegetation:** • Saving onsite vegetation is a positive outcome	13.4 1.11
45	Unknown	**Planning:** • Takes the pressure off developing other more sensitive areas, in line with the Leeuwin Naturaliste Statement of Planning Policy • Area has been selected for development **Water Quality and Water Management:** • Provision of deep sewerage will protect the environment **Peppermint Trees and Possums:** • Retention of peppermint trees will provide protection for the possums **Flora and Vegetation:** • Use of local native plants is positive **Conservation Areas:** • Protection of the western area is positive **Other Issues:** • Upgraded facilities will be a benefit, particularly: o Grassy playing areas for children o Surf lifesaving club / community centre o Picnic areas o Upgrading of and the provision of additional parking	11.2 11.2 13.4 3.8 1.9 4.2 17.9
46	Cape to Cape Catchments Group	**Native Fauna:** • Significant clearing of habitat for the Western Ringtail Possum and Baudins Black Cockatoo **Flora and Vegetation:** • Vegetation associations to be cleared may have high conservation value	2.14 1.12

No	Author	Summary of Submission	Response
		• The density of development should be adjusted so as to enable natural vegetation corridors to be incorporated into the proposal and retain habitat trees on individual properties, while allowing compliance with the Fire Management Plan	1.16
		• DRF in road reserves at risk from clearing for services	1.19
		• Flora surveys should be conducted to minimise damage from offsite construction	1.19
		Water Sensitive Urban Design:	
		• Water sensitive urban design principles do not appear to have been incorporated into the DGP	14.7
		• Detailed and adequate plan for stormwater management required	14.4
		• High building density precludes filter strips, grass swales, and urban forestry (as in previous DGP)	14.8
		• Insufficient detail to judge compliance of water sensitive urban design standards	14.2
		Sustainability Issues:	
		• Conservation objectives should be integral to the design	16.9
		• Sustainability responses that should be considered:	
		o Renewable energy	16.1
		o Water tanks	16.3
		o Water recycling	16.3
		o Efficiency measures	16.10
		o Building materials and design	16.5
		o Walk/bike paths	16.11
		• Planning issues to be considered in sustainability:	16.12
		o Sewerage	16.12.1
		o Stormwater management	16.12.2
		o Preservation of native vegetation	16.12.3
		• Proposal should be reviewed against initiatives for the Gracetown expansion, particularly with respect to energy, sewerage, and water provision	16.13
		Fire Management Plan:	
		• Compliance with the fire management plan will make maintenance of vegetation and possum habitat in the development area impossible	8.5
47	Conservation Commission of Western Australia	**General Management Plan Issues:**	
		• Should be subject to approval of the Director General of the DEC	8.1
		• Management plans should address the impacts on the National Park	8.2

No	Author	Summary of Submission	Response
		Conservation Areas: • Most appropriate would be to add to the national park to ensure protection and management by DEC **Conservation Areas:** • Unallocated Crown Land 1410 should be supported by the EPA for addition to the national park **Visual Amenity:** • Proper design is needed to minimise damage to visual amenity	4.5 4.11 7.3
48	Missing		
49	Department of Water	**Water Sensitive Urban Design:** • Support commitment to an Urban Water Management Plan prior to commencement and approved by DoW and the Shire of Busselton	14.9
50	Air Quality Technical Advice	**Air Quality and Noise:** • Management measures for dust during construction appear reasonable and are in accordance with EPA Guidance Statement 18. • Proponent should specify dust targets for perimeter sensory alarms (Air Quality NEPM 24-hour PM_{10} is an appropriate ambient target)	15.2 15.3
51	Unknown	**Water Quality and Water Management:** • Provision of deep sewerage will reduce risk of pollution of the beach and Gunyulgup Brook	13.4
52	Unknown	**Coastal Issues:** • Retains bush • Maintains rugged natural feel **Peppermint Trees and Possums:** • Retention of peppermint trees will provide habitat for possums and keep character **Planning:** • Takes the pressure off developing other more sensitive areas	5.1 5.1 3.8 11.2
53	Department of Environment and Conservation	**Conservation Areas:** • The Principle Ridge Protection Area and proposed privately managed conservation area should be added to the national park due to its biodiversity and landscape values and the general intent of the State Planning Policy with respect to the consolidation of the national park. Notwithstanding the Statement of Planning Policy, the granite heath complex (GH4) on the western ridge is recognised in	4.9

No	Author	Summary of Submission	Response
		the Strategic Environmental Assessment as being environmentally significant and worthy of reservation in a national park.	
		• Land should be ceded directly to the State and the Conservation Commission without cost	4.10
		• GH4 vegetation associations should be in the national park	4.9
		• A portion of the SH9 association should be reserved (contiguous with the GH4 association) and ceded to the national park due to its restricted extent	4.8.2
		Flora and Vegetation:	
		• Support undertaking to preserve as much native vegetation as possible	1.11
		• Note that no DRF was found on the site	1.18
		Native Fauna:	
		• Finds the developer's undertakings for native fauna management and protection satisfactory	2.15
		• Particular attention needs to be paid to possum habitat	2.16
		Visual Amenity:	
		• Accept that walkers on Cape-to-Cape walk trail will enter a visual zone dominated by the development when they are close to it	7.14
		• Concerned that the Beach Club Resort will encroach on the visual character of the Smith's Beach promontory and suggests this is further evaluated	7.15
		• Cape Spur Lodge may be too high and too far west when viewed from the north and suggests this is further evaluated	7.9
		• Cape Spur Lodge will be prominently visible to walkers in the wilderness-like zone between Smiths Beach promontory and where the Cape-to-Cape walk trail leaves the coast. This is negative and should be remedied	7.16
		• Concern that other buildings may be more visible than they appear in the landscape study	7.17
		• Lack of confidence in Special Height control Area Map as a mechanism – there should be better explanation and demonstration	7.18
		• Role of vegetation screening needs to be exactly specified	7.17
		General Management Plan Issues:	
		• DEC will negotiate with the developer on appropriate funding of facilities in the management of environmental impacts (i.e.: pedestrian traffic)	8.3
		Fire Management Plan:	
		• Fire management plan will need to be strictly enforced even if residents may not agree	8.7

No	Author	Summary of Submission	Response
		• Water supplies for fire management are prescribed	8.8
		• Access on national park interface and western boundary are important features	8.9
		• The Department of Environment and Conservation questions the efficacy of bush fire protection methods for the tent area. Additional protection for sprinkler systems and other measures might be necessary, but consideration should also be given to an evacuation plan as the structures are unlikely to meet fire building codes that provide adequate shelter for occupants in a wildfire.	8.10
		• No integration between landscaping and clearing for fire protection	8.4
		Foreshore Management Plan:	
		• Managing landscape / seascape interaction, marine recreation and the control of pollution from the development are important environmental considerations for the proposed marine park. The Foreshore Management Plan provides a means for the developer to contribute to the management of marine recreation, whilst the development engineering and infrastructiure design detail will provide for pollution control. Consideration should be given to shifting the Beach Club Resort eastward if the proponent is to optimise the visual amenity of the development as it relates to protecting the landscape / seascape interface at the Smith's Point promontory.	9.1

19. DISCLAIMER

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Appendix 1
Letter from Department of Environment (now Department of Water)

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment

Department of Environment

Your ref: Project No 11161C

Our ref: 22274

Enquiries: P Kata

Direct tel: 6364 6628

Wood & Grieve Engineers
Level 3 Hyatt Centre
3 Plain Street East Perth
Western Australia 6004

Attention Mr A McGrath

Dear Anthony

RE: Smiths Beach Development
Stormwater Management Plan

Thank you for submitting the report on the proposed stormwater drainage management strategy for Smiths Beach to the Department of Environment for consideration and approval.

The Department has assessed the proposal and supports the stormwater management strategy.

Prior to the commencement of site works an integrated water management plan shall be submitted to the Department incorporating the principles and best management practices described in the stormwater strategy and the Stormwater Management Manual for Western Australia 2005.

The Department of Environment looks forward to the successful implementation of the plan and thanks you for your cooperation in this matter.

Yours sincerely

Peter KATA
Snr Engineer
Stormwater & Catchment Management
12 May 2006

	11161C
	Smiths Beach
	AMCG
	SLM
ANSWERED BY	
DATE ANSWERED	
COPIES	NS Projects 17/5/06

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Appendix 2
Response to submitter 33

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment

SECTION	SUMMARY OF ISSUE	RESPONSE
1 Introduction	This paper sets out responses to a submission made by submitter 33. He/she states that his submission is a critique and review of the Draft Development Guide Plan in the context of the Strategic Environmental Assessment with a focus on the Landscape Study.	No comment
2 Managing Landscape Values – Key Statutory Planning Policy Statements. Page 1,2,3,4 and 5	Outlines the planning and policy framework of the site. Comments on issues raised in these pages as follows; Restates the Leeuwin Naturaliste Ridge Statement of Planning Policy 6.1 emphasising in bold those words felt by the author to have special relevance. Also on page 4 the author transcribes extracts from the Shire of Busselton District Town Planning Scheme No 20 that relate to location 413.	No comment
Page 5 paragraph 1	The author outlines CALM's (now Department of Environment and Conservation) policy framework and rightly points out in the first dot point that the CALM policy for managing aesthetic landscape values has the following objective, "to ensure that all land uses **on lands and waters managed by CALM** are planned and carried out in ways to sustain the beauty of the natural environment"	The subject land, location 413, is private property
Page 5 paragraph 2	The author outlines CALM's (now Department of Environment and Conservation) policy statements considered pertinent to Location 413 and rightly points out in the third dot point that CALM's position in regards to Location 413 is to "evaluate land use proposals **on adjacent lands** in terms of their potential impact on landscape values and **recommend how these can be mitigated.**"	The DEC have made a submission on the SEA, No 53
Part One – Assessment of Values: Step A Establish a knowledge Base; i) A literature review will be undertaken and used to compare methodologies. Page 6 Paragraph 1	There is little evidence of a responsible literature review. The review consists of three short paragraphs.	An extensive literature review was undertaken and discussed with DPI officers who commented on the final edits of the report. In addition to a literature review, three experienced professionals from three different practices advised on landscape and visual assessments, and the possible interpretations of the methodologies. As the methodology was prescriptive, there is no purpose in discussing alternatives within the report.
Part One – Assessment of Values: Step A Establish a knowledge Base; Page 6 Paragraph 2	In defining 'Methodology Utility' no reference is made to Tribunal decisions or similar assessments required by planning process in the region.	The agreed methodology was prescriptive, therefore there is no purpose in discussing alternatives arising out of a Tribunal within the report or other assessments in the region.
Part One – Assessment of Values: Step A Establish a knowledge Base; Page 6 Paragraph 3	In discussing 'Methodology Validity'this paragraph includes the following points; • Questions the validity of visual simulations as they are static. • Suggests the need to portray landscape impacts over time and linked to a staging diagram. • Questions why 85% of development coverage was illustrated after a projected 15 year period. • Suggests visualisations inaccurate when related to the Fire Management Plan • States that indiscriminate use of muted colours, exotic plantings and building materials is biased.	Photomontage and static visual simulations are the accepted normal best practice in the presentation of the visual effects of planning and development proposals. The visual simulations are from a comprehensive, survey accurate computer model. The model affords an interactive virtual environment that enables full visual interaction in the virtual environment to be tested. The static reproductions in print format are only representative of modeling outcomes. The report recognises the limitations of static simulations, and therefore includes a computer disk that enables panning and shows the complexity of the model. It is agreed that the portrayal of changes to the landscape over time and linked to staging would be beneficial in understanding landscape impacts and this work has been undertaken subsequent to this comment.

SECTION	SUMMARY OF ISSUE	RESPONSE
		The development was modeled at 85% established as this was the expected completion of building development after approximately 15 years. The 15% not shown as developed are residential blocks. The level of development reflects the amount of development achieved in Yallingup over a similar period and was considered as reasonable to adopt. The development was modeled at 100% complete when assessing the extent and heights of development. The modeling reflects the fire management plan. There is considerable confusion about the options for vegetation retention and revegetation under the Fire Management Plan (FMP) which is leading to (misdirected) concern about wholesale clearing of the site. The introduction of scheme water and associated fire hydrants at 200metre intervals throughout the development is a significant factor in fire safety and reduces clearing requirements when compared to, say, a rural residential estate without scheme water. Comparison with the level of vegetation retention at Yallingup and Eagle Bay (no reticulated water) would be a reasonable guide, noting that neither of these settlements contain the vegetation/fauna corridors that are planned for Smiths Beach. The FMP allows reticulated gardens within the Building Protection Zone for each building. Contemporary standards are only that trees be trimmed so as not to overhang buildings and/or pose a threat of limbs falling onto buildings. The statement that indiscriminate use of muted colours, exotic plantings and building materials is biased in the visualisations is incorrect. Specific colours have been chosen complying with the draft design guidelines that are in integral part of the DGP for the location. These colours are purposely recessive in the landscape. No exotic planting is proposed. Building materials illustrated in the model comply with the design guidelines for this location.
Part One – Assessment of Values: Step A Establish a knowledge Base; Page 6 Paragraph 4	Under the heading 'Methodology Integration' the author states that it is difficult to understand how the methodology links to other environmental studies undertaken.	No comment
Part One – Assessment of Values: Step A Establish a knowledge Base; Page 7 Paragraph 1	Under the heading 'Methodology Limitation' it is stated that there is an over emphasis on visual landscape values and a need to assess "environmental belonging, connectedness, age and maturity, atmosphere, awe, wonderment, smells, sounds and health".	The study complies with the requirements of the methodology. The modeling and measurement of personal subjective experiences such as environmental belonging, connectedness, age and maturity, atmosphere, awe, wonderment, smells, sounds and health is outside the requirements.
Part One – Assessment of Values: Step A Establish a knowledge Base; Figure 1 and last Paragraph	Fig 1: 'Landscape Aesthetic Value Assessment Process' suggests the use of an alternative "best practice highly complex and comprehensive model" developed by the submitter as an appropriate methodology.	The study had to utilise the approved methodologies. The example model provided by the submitter is one of many examples of models considered by the project team in the literature review and discarded as others were. The agreed methodologies had also considered such models, however they were not considered best practice. The methodologies were advertised for public

SECTION	SUMMARY OF ISSUE	RESPONSE
		comment prior to being adopted.
Part One – Assessment of Values: Step A Establish a knowledge Base; ii) Key stakeholders will be interviewed to identify key issues, gather information etc etc Page 7 Paragraph 3	The limited stakeholder consultation was not comprehensive and an alternative, ongoing, active participatory process with community through planning and design is required.	The community is presently engaged in a process and is able to contribute through the process. In addition the consultation process is detailed in the community consultation report.
Part One – Assessment of Values: Step A Establish a knowledge Base; ii) Key stakeholders will be interviewed to identify key issues, gather information etc etc Page 8, 9 and 10	**Comments on Community Preference diagrams Points include:**	
	Principle 1: development should not break ridgelines from key locations. The computer modeling accuracy is questionable and therefore it is difficult to assess compliance with the principle.	The computer model is as accurate as contemporary technology allows and has set new benchmarks in virtual environment modeling for planning. Its accuracy has been verified by surveyors as stated in the Landscape Study, Appendix 4 Statement of Accuracy.
	The Fire management plan requires 20m building protection zones around all buildings and therefore undermines visual modeling.	The modeling reflects the fire management plan. There is considerable confusion about the options for vegetation retention and revegetation under the Fire Management Plan (FMP) which is leading to (misdirected) concern that there will be wholesale clearing of the site. The introduction of scheme water and associated fire hydrants at 200metre intervals throughout the development is a significant factor in fire safety and reducing clearing requirements when compared to, say, a rural residential estate without scheme water. Comparison with the level of vegetation retention at Yallingup and Eagle Bay (no reticulated water) would be a reasonable guide, noting that neither of these settlements contain the vegetation/fauna corridors that are planned for Smiths Beach. The FMP allows reticulated gardens within the Building Protection Zone for each building. Contemporary standards are only that trees be trimmed so as to not overhang buildings and/or pose a threat of limbs falling onto buildings.
	Principle 2: prominent straight line features should be avoided. Southern roadway will appear as a straight line.	The southern roadway will not appear as a straight line. The proposed road follows an existing broad fire break that is not discernable from the viewing locations due to the height of adjacent vegetation which is proposed to be retained. The proposed road alignment also deflects along its route and incorporates traffic islands that contain vegetation.
	Geometric rooftops and built form will be incongruous.	By nature buildings constitute geometric forms. The plan proposes measures to integrate those forms within the landscape.
	Tree planting will be discordant as will follow built form which is angular	Tree planting will not follow built form. It is not proposed to have avenue street tree planting.
	Straight lines are shown on the diagram "Principle 2"	The diagram was produced at a workshop and is not an illustration of the DGP. It was used to illustrate points at the community consultation workshop.
	Identification of a straight line on a diagram "Principle 2"	Diagram was produced at a workshop and is not an illustration of the DGP. It was used to illustrate points at a consultation workshop. Road highlighted was not proposed after stakeholder consultation.
	Principles 3:5 & 6	Proposed plan complies with the intent of the diagram and does not have any

SECTION	SUMMARY OF ISSUE	RESPONSE
	Sketch suggests denser development lower in the landscape, adjacent to the existing caravan park development and DGP proposes high rise beyond the area.	high rise development
	Principle 4 The extent of development will require extensive vegetation clearing.	The proposed plan retains significant amounts of vegetation across the site and retains all the vegetation on the granite ridge.
	Limited soil depth on the site and site exposure will result in long lasting visual impacts due to the inability to establish vegetation. Fire management controls will further affect the ability to revegetate the site.	The area of limited soil depth is generally that of the granite heath. This area is not being developed and forms the conservation reserve and Principal Ridge Protection Area. The soil depths within the main area of development will not constrain the establishment of vegetation. Fire management does not restrict revegetation.
	Fire management controls will severely limit revegetation	Response as previously addressed under various headings
	Land clearing will promote weed infestation	The developed area already contains abundant weeds including the Arum Lilly and Bridal Creeper. The area of granite heath is relatively weed-free, and the dense vegetation and management of the conservation areas will control the introduction and spread of weeds in this area.
	Principle 7 DGP is a sprawling design, has a domestic residential scale and will be suburban in character.	This is a personal opinion on architectural and design merit, and not an environmental issue
	The DGP does not recognise and manage natural site drainage characteristics and removes ephemeral wetlands	The "ephemeral wetland" is a soak that was created by a previous owner and used for stock watering. The soils on the portion of the site to be developed are very permeable. As such, there is no natural site drainage apart from infiltration. The stormwater design will promote infiltration at source within the constraints of a sloping with future areas of impermeable surfaces (such as carparks and roads).
	No internal views considered and this is a significant flaw	Throughout the evolution of the DGP, and in the preparation of the Landscape study, DPI, DEC and other stakeholders did not want internal views assessed. Additionally, Internal views do not affect the integration of the development into the broader contextual landscape
Part One – Assessment of Values: Step A Establish a knowledge Base; **iii) Data relevant to the assessment to be collected** **iv) Existing information related to peoples perceptions and attitudes to be identified**	Public views are experienced entities of the visual landscape not capable of being represented by a viewshed or still photography.	Project team recognized that still photography was not best practice and therefore utilised a fully interactive computer model that enabled real time analysis of topographic and building interrelationships, and subsequently modeled views in panoramic manner. The modeling of personal subjective experiences is outside of the requirements of the agreed methodologies.
	Thematic layers are poorly mapped and provide a superficial understanding.	All geographic information was mapped and included in the computer model. All site features and soil depths are also surveyed. The model allows comprehensive assessment of topography, slope analysis and interrelationships with features to be analysed.
Part One – Assessment of Values: Step A Establish a knowledge Base;	The public has defined all vegetation is significant.	Noted, members of the public have stated all vegetation is significant. Visual significance and prominence is mapped related to variation in colour, texture, massing and scale.

SECTION	SUMMARY OF ISSUE	RESPONSE
v)Prepare thematic layers	Where are the drainage features of the site, especially the ephemeral wetlands There is no collection basin integrated into site planning or design	The "ephemeral wetland" is a soak that was created by a previous owner and used for stock watering. The soils on the portion of the site to be developed are very permeable. As such, there is no natural site drainage apart from infiltration. The stormwater design will promote infiltration at source within the constraints of a sloping with future areas of impermeable surfaces (such as carparks and roads).
	Lack of landscape analysis in particular the appreciation of coastal landforms Figure provided illustrates Extent of Amphitheatre	Figure provided is not based on an analysis of topography and clearly shows the submitters "Extent of Amphitheatre" crossing contour lines at an almost perpendicular angle unrelated to any ridgeline. Also illustrates a ridge line where there is not one on the site. The definition of a topographic feature such as an implied amphitheatre, is dependant upon the location of the observer and this particular aspect of the site was studied in depth and discussed with the stakeholders.
Part One – Assessment of Values: Step B Classify the area into Landscape Character Units;	Plan contextualises a landscape character analysis over the broader Smiths Beach area and is too general reinforcing the inaccuracy of the landform analysis	The report clearly states Site Contextual Landscape Character Units
Page 15	Detailed landscape character units limited in landform analysis, confuses and ill defines the landscape character unit areas.	The character unit identifications were informed by an in depth understanding of the landform.
Part One – Assessment of Values: **Step C Identify Significant Features** **Step D Identify Community Use** **Step E Assess the Wilderness quality**	The characteristics of the area are important and inadequate analysis has been undertaken throughout the study.	Response as previously addressed under various headings
	Wilderness qualities mapping is complete but wildness is a cultural construct and this should be studied as an issue in greater depth	The subjective issue of perceived wilderness qualities has been satisfactory completed and further academic study is not required.
Pages 17 and 18	Insensitivity and inaccuracy of landscape analysis – ignores clearly stated community landscape values.	The landscape analysis is not inaccurate. Conjecture as to its sensitivity or alignment with community values is not an environmental issue and therefore is not commented on.
Page 19	No credibility to map appearing as Development Opportunity Area	Response as previously addressed under various headings
Part Two – Management Objectives and Development Guidelines **Step G Define management objectives for visual aesthetic values** **Step H Apply objectives to the site** **Page 20**	Restates extracts from the methodologies	No comment
Page 21	To use a comprehensive computer model of the site is overkill of technology use.	In undertaking analysis tasks outlined in the agreed methodologies, the project

SECTION	SUMMARY OF ISSUE	RESPONSE
		team tried not to be subjective and use of the computer model enabled very accurate assessment of inter visibility and visualisations of development options without the constraints and possible inaccuracies of a photo montage technique.
	Still photographs and visual simulations are of poor quality and provide a substantial bias. Views are not static they are experienced moments	Photomontage and static visual simulations are the accepted normal best practice in the presentation of the visual effects of planning and development proposals. The visual simulations are from a comprehensive survey accurate computer model. The model affords an interactive virtual environment that enables full visual interaction in the virtual environment to be tested. The static reproductions in print format are only representative of modeling outcomes. The report recognises the limitations of static simulations and includes a computer disk that enables panning and shows the complexity of the model. The study complies with the requirements of the methodology. The modeling and measurement of personal subjective experiences such as experienced moments is outside of the requirements.
	Radial arrays are meaningless	Response as previously addressed under various headings
	Crude graphic qualities and inaccurate content (Building heights and vegetation cover) invalidate the study	Response as previously addressed under various headings
	Incorrect viewing angle.	The viewing angle is accurate constructed from the model, the illustration page extracted from Landscape Report acknowledges the limitations of photographs and computer stills and refers reader to Appendix 6 for additional views. Appendix 6 is the computer disk including panning views that enable the full possible view to be experienced
	Simulation is of poor quality and includes development of only 85% after 15 years.	Response as previously addressed under various headings
	Need to assess sequential impacts over time	Response as previously addressed under various headings
Page 22	Repeated criticisms of visualisations and radial arrays	The computer printouts of accurate radial sections are extracted to illustrate the type of analysis able to be undertaken with the model. The Landscape Report acknowledges the limitations of photographs and computer stills and refers readers to Appendix 6 for additional views. Appendix 6 is the computer disk including panning views that enable the full possible view to be experienced
Page 23	Illustrations interpreting Fire management requirements – showing that visual impacts of development with lost vegetation will be major	The model and the visual assessments aided by it use, included the minimum of vegetation required under the fire management plan.
Page 24	Interpretation of Fire management requirements – visual impacts of development with lost vegetation will be major. Detailed site sections are inaccurate.	The sections referred to were not used in the appraisal and are graphic illustrations produced to present information on ridge protection, not visual integration with vegetation.
Page 25	Simulations are of poor quality and includes only 85% development coverage after 15 years. Alternative figure produced purporting to be more accurate illustrating the submitters assessment of visual change presented.	Response as previously addressed under various headings. Also the submitters photomontage using colour blocks crudely applied to a photograph does not provide a realistic visualisation as it does not use the colours of buildings as required by the design guidelines, does not account for reflectivity, does not incorporate retained or proposed planting and does not accurately represent the number, density or location of buildings that may be constructed on the site.
Page 26	*As above*	
Part Two – Management Objectives and Development	Repetition of previous points and criticism of the use of a village architect and proposal to also have a village landscape architect, town landscape planner and village environmental engineer.	The use of a guiding professional to ensure compliance with design guidelines is a well established practice. Extension of this service to other professionals in a

SECTION	SUMMARY OF ISSUE	RESPONSE
Guidelines **Step I Prepare design guidlines** **Page 27**		design review panel may be considered.
Page 28	Conclusion. The submitters conclusion reiterates criticisms of accuracy and lack of credibility of the study.	Submission's conclusions based upon the submitters analysis and points responded to above. As the majority of points expressed are incorrect and not factual conclusions stated here are not accepted.
Page 29	Alternative analysis of site prepared and presented as a plan prepared by the author/submitter.	The illustrated analysis is flawed in its consideration of site topography. As an example the illustration suggests an extent of an amphitheater landform that crosses the site contours at an almost perpendicular angle and is not related to ridgelines or variations in the alignment of contours. The perception of an extent of an amphitheatre landform will also depend upon the location of the observer.
Pages 30 to 33	Submission conclusions related to policy extracts and compliance with the methodology, stating that the study does not meet or comply with any aspect.	The submission conclusions are based upon an analysis finding "demonstrated" flaws identified in the submission and responded to above. As the majority of points expressed are incorrect, and not the factual conclusions they are claimed to be, they are not accepted.

Appendix 3
Environmental Offset

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment

CONTENTS

1 INTRODUCTION

1.1 Background

Canal Rocks Pty Ltd is planning to develop part of Sussex Location 413 (known as Smiths Beach) in the Shire of Busselton for tourism and residential purposes. Location 413 is approximately 40.4ha in size, of which approximately 21.3ha has been identified for proposed development (Smiths Beach Design Guide Plan). The proposed land uses for Location 413 following development are as follows:

- A resort-style tourist development (Beach Club Resort) located in the lower northern part of the site.
- A second resort-style tourist development (Cape Spur Lodge) in the upper mid-southern part of the site.
- Tourist accommodation in the form of chalets and units.
- A backpackers and camping area in the north-east part of the site.
- Low-density cabin-style tourist accommodation on the western part of the development predominantly located in a transitional zone between the native vegetation of the granite headland and the denser tourist/residential development on the eastern half of the site.
- Residential lots ranging in size from 375m^2 to approximately 1000m^2 (R10-R25). The larger lots are located on the more elevated parts of the property while the smaller lots are generally located in the northwestern portion of the site.
- An enlarged and enhanced foreshore reserve
- Retention of native vegetation on the western headland and ridge area within the Principal Ridge Protection Area
- Retention of native vegetation in the western areas in a privately managed conservation area;
- Retention of a buffer strip of native vegetation between the development and the National Park, to be managed for fire protection purposes
- Retention of significant amount of native trees within private lots and public open space within the development

The retention of approximately 15.4 ha (38%) of the native vegetation on the site in its natural condition as well as other areas of native trees and some understorey within the development footprint will protect vegetation considered to be of highest conservation value on-site.

The proposed development is being assessed by the Western Australian Environmental Protection Authority as a Strategic Environmental Assessment (SEA) under Section 38 of the *Environmental Protection Act 1986*. The proposal is also being assessed concurrently, but not in a joint or bilateral arrangement, by the Commonwealth Department of the Environment, Heritage, Water and the Arts under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The environmental investigations undertaken for the SEA identified that Location 413 provided habitat for the Western Ringtail Possum and Baudin's White -Tailed Black Cockatoo. Both species are protected under State and Federal legislation, through the *Wildlife Conservation Act* and EPBC Act respectively. A maximum of 7 Western Ringtail Possums have been recorded within the Peppermint trees (*Agonis flexuosa*) on the site during three surveys between 2004 and 2008. Baudin's Cockatoos have been observed foraging in small numbers of less than 10 birds predominantly on the Marri trees on the eastern half of the site.

The proposed development will protect some of the Peppermint trees and Marri trees within private lots and public open space and therefore the continued use of the site by Ringtail Possums and Baudin's Cockatoos is expected to occur. However, the proponent of the development has recognised that the development will result in loss of habitat for these two protected species and therefore has proposed this Environmental Offset to reduce this impact. The Environmental Offset has been prepared in liaison with the Department of Environment and Conservation and should not only offset the negative impacts of clearing habitat on Location 413, but should result in a significant increase in habitat for Ringtail Possums and Baudin's Cockatoos in the Yallingup area.

This offset is in addition to the mitigation strategies incorporated into the development which includes:

- The retention of Peppermint and Marri trees in Public Open Space;
- The retention of Peppermint and Marri trees in private lots;
- Planting of Peppermint and Marri trees in landscaped areas, where soil type permits; and
- The installation of artificial dreys for Ringtail Possums within the development.

1.2 Department of the Environment, Water, Heritage and the Arts Draft Policy on Environmental Offsets

The Commonwealth Department of the Environment, Water, Heritage and the Arts (previously Department of Environment and Water Resources) released a Draft Policy Statement on the use of environmental offsets under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) together with a Discussion Paper in August 2007.

According to the Draft Policy Statement, an environmental offset broadly means "actions taken by developers to compensate for the adverse impacts of their developments". Environmental offsets under the EPBC Act only relate to matters protected by the EPBC Act.

The eight principles for the use of environmental offsets under the EPBC Act are:

1 Environmental offsets should be targeted to the matter protected by the EPBC Act that is being impacted;

2 A flexible approach should be taken to the design and use of environmental offsets to achieve long-term and certain conservation outcomes which are cost effective for proponents;

3 Environmental offsets should deliver a real conservation outcome;

4 Environmental offsets should be developed as a package of actions – which may include both direct and indirect offsets;

5 Environmental offsets should, as a minimum, be commensurate with the magnitude of the impacts of the development and ideally deliver outcomes that are 'like for like';

6 Environmental offsets should be located within the same general area as the development activity;

7 Environmental offsets should be delivered in a timely manner and be long lasting; and

8 Environmental offsets should be enforceable, monitored and audited.

Actions that can be considered as environmental offsets are as follows:

Direct Offsets (those aimed at on-ground maintenance and improvement of habitat or landscape values)

- long-term protection of existing habitat – including through the acquisition and inclusion of land in the conservation estate, and covenanting arrangements on private land;
- restoration or rehabilitation of existing degraded habitat; and
- re-establishing habitat.

Indirect Offsets (those actions that improve knowledge, understanding and management leading to improved conservation outcomes)

- implementation of recovery plan actions – including surveys;
- contributions to relevant research or education programs;

- removal of threatening processes;
- contributions to appropriate trust funds or banking schemes that can deliver direct offsets through a consolidation of funds and investment in priority areas; and
- on-going management activities such as monitoring, maintenance, preparation and implementation of management plans etc.

1.3 EPA Guidance Statement No. 9 – Environmental Offsets

The Environmental Protection Authority released its Final Guidance Statement Number 19 on Environmental Offsets - Biodiversity in September 2008. Environmental offsets are required by the EPA to counterbalance unavoidable adverse environmental impacts. Ideally the offset will achieve a net environmental benefit rather than replacement on a one-for-one basis. In considering environmental offsets, the EPA will have regard to the following eight principles:

Principal A - Environmental offsets should only be considered after all other reasonable attempts to mitigate adverse impacts have been exhausted;

Principal B - An environmental offset package should address both direct offsets and contributing offsets, as appropriate;

Principal C - Environmental offsets should ideally be 'like for like or better';

Principal D - Positive environmental offset ratios should apply where risk of failure is apparent;

Principal E - Environmental offsets must entail a robust and consistent assessment process;

Principal F - Environmental offsets must meet all statutory requirements;

Principal G - Environmental offsets must be clearly defined, publicly registered, transparent, auditable and enforceable; and

Principal H - Environmental offsets must ensure a long lasting benefit.

2 ENVIRONMENTAL OFFSET

2.1 DESCRIPTION

This Environmental Offset for the Smiths Beach development is to rehabilitate two degraded parcels of land within the Leeuwin-Naturaliste National Park in close proximity to the Smiths Beach site. The two parcels are located at Mt Duckworth and Gunyulgup (Figure 1 and 2). These areas were identified by officers of the Department of Environment and Conservation who have also provided input on aspects of the rehabilitation plan outlined below as part of the advertising of the plan under the Commonwealth EPBC Act assessment.

The objective of the offset is to increase the amount of habitat for Ringtail Possums and Baudin's Cockatoo in the local area. The total area proposed to be rehabilitated as part of this offset is 22.7ha which will achieve approximately 4-5 times ratio to the amount of habitat to be cleared.

A summary of the environmental offset, as required by Principal G of the EPA's Guidance Statement No. 9 is contained in Appendix A

The two areas for rehabilitation are described below.

- ***Mt Duckworth Site (20.3ha)***

The Mt Duckworth site is located within the Leeuwin-Naturaliste National Park approximately 5km north-east of the Smiths Beach site. The area proposed for revegetation was ceded as part of a special rural development and is now part of the National Park. The site adjoins native vegetation in the National Park to the west, native vegetation on private land to the north and south, and semi-cleared land on special rural lots to the east. The area requiring revegetation is approximately 20.3ha. The site contains a high ridge at an elevation of around 200m AHD and slopes down to a broad low valley in the northern section (Photo 3).

The soils at the top of the hill and upper slopes contain some shallow limestone areas, however the remainder of the site contains orangey brown sandy soil. The vegetation in the National Park on the western side of the cleared area consists of peppermint trees 2-3m tall with *Hakea oleifolia* also a common small tree species. Scattered Jarrah and Marri trees also occur in this area. Common shrubs include Parrot Bush (*Banksia sessilis* var. *cordata*), *Diplolaena sp., Hibbertia cuneiformis* and some *Acacia rostellifera*. White-tailed black cockatoos have been observed in the vegetation adjacent to the clearing, roosting on *Hakea oleifolia* small trees and branches of a dead tree.

Some stands of native vegetation remain within the northern portion of the revegetation area. This vegetation consists of dense peppermint trees 5-6m high and some Jarrah trees 5-6m over dense Arum lilies and some *Xanthorrhoea preissii* shrubs (Photo 4). The vegetation to the west of this area contains peppermint trees, stunted Jarrah/Marri trees to 3m high and dense shrubs in very good condition.

Any planting of seedlings at the Mt Duckworth site would require protection from rabbits and kangaroos.

Access to the site for planting is very easy as there is a sealed road on the eastern side of the clearing.

- ***Gunyulgup Site (2.4ha)***

The Gungulgup site is an area within the Leeuwin-Naturaliste National Park located approximately 500m to the east of Location 413. The site contains an area of about 2.4ha which is completely bare as a result of past land use activities. The site adjoins National Park to the north, private vegetated lots to the east and Gunyulgup Brook and associated vegetation and cleared farmland to the west and south.

The native vegetation of the National Park to the north and private lots to the east contain Peppermint trees. The cleared portion of the Gunyulgup site contains a calcareous brown loamy sand suitable for planting of Peppermint trees (*Agonis flexuosa*). The northern and eastern boundaries of the clearing contain dense peppermint trees up to 6m tall over a degraded understorey containing Arum lilies (*Zantedeschia aethiopica*)

(Photo 1). The southern and western sides of the clearing contain occasional peppermint trees 2-5m high among shrubs of *Hibbertia cuneiformis* and Bracken Fern (*Pteridium esculentum*) (Photo 2). The southern side of the clearing is likely to have limestone at shallower depth than the northern side as evidenced by the outcropping of some limestone in native vegetation about 100m south of the clearing.

The site contains kangaroos and rabbits and any rehabilitation will need to be fenced to stop the grazing of young seedlings. The Arum lilies could also be controlled under the existing tall Peppermints although this is not essential for the successful establishment of peppermints in the cleared area and is unlikely to affect the ability of ringtail possums to inhabit the area. It is not known whether the ringtail possums currently occur in the surrounding area however, the density and age of peppermints suggests that it is highly likely that ringtail possums would occur there.

Access to the site for planting would be via a bush track within the National Park that links the clearing to Caves Road. The track is accessible in all weather conditions by two-wheel drive vehicles although four-wheel drive would be preferrable.

2.2 REHABILITATION PLAN

This section outlines the strategy for rehabilitation of the Mt Duckworth and Gunyulgup sites.

2.2.1 Site Preparation

Fencing

Figure 1 identifies the existing fencing arrangements at both the Mt Duckworth and Gunyulgup sites.

The Mt Duckworth site has a 5 strand post and wire fence on all sides. The northern and western boundaries abut the National Park while the eastern boundary is bordered by a road. The southern boundary is common with a private landowner. The northern, western and eastern fences should be replaced with the rabbit-proof fence. The rabbit-proof fence on the southern boundary should be installed just inside (to the north of) the current boundary fence unless the neighbouring landowner agrees to a rabbit-proof fence replacing the existing one.

The Gunyulgup site abuts the National Park on the northern side and abuts private landholdings on the other three sides. The northern fence is a four strand wire in poor condition and should be replaced by a rabbit-proof fence. The southern side of the site has a healthy covering of native plants and does not need revegetation. Due to the possible presence of rabbits within this section of the site, the rabbit-proof fencing should be installed on the southern side of a track that runs approximately west-east through the middle of the site. This track generally delineates the area that requires revegetation to the north from the area that contains native vegetation to the south.

Weeding

The main weed species to be controlled prior to planting the native tubestock are Wild Oats, Clover, Oxalis, Capeweed, Ryegrass and Flatweed at the Mt Duckworth site and Wild Oats, Flatweed, Capeweed, Geranium and Veldtgrass at the Gunyulgup site. These species will all be controlled by spraying with the appropriate herbicide. Two sprays are anticipated, one in autumn and the second in winter prior to planting.

The Gunyulgup site contains a large stand of Bracken Fern on the southern side of the areas that requires revegetation. The Bracken Fern is not dense and it is considered that there are enough gaps in the natural stand in which to plant the seedlings at the required spacing. The area of Bracken will still need to be sprayed to control grassy weed species such as Veldtgrass.

Rabbit Control

It is possible that some rabbit warrens exist within the two revegetation sites, although an inspection of the sites has not identified any at this stage. Prior to seedling planting, an inspection of both sites will be made and if any rabbit warrens are found, they will be destroyed on advice from DEC.

2.2.2 Planting

The planting programme proposes to plant both sites in one planting season. Seedlings of appropriate species will be ordered from the DEC nursery in Manjimup.

The species in Table 1 which are suitable habitat trees for Ringtail Possums and Baudin's Cockatoos occur in the adjoining National Park next to each respective site. These species are able to be grown from seed and will be targeted for use in the revegetation programme. The percentage of each species recommended for planting approximates the percentage of these species in the adjoining National Park areas.

A plant spacing of 2000 per ha for the Peppermint and Marri areas and 2000 per ha for the limestone soils has been determined to be the most suitable spacing with which to achieve usage by Ringtail Possums and Baudin's Cockatoos in the quickest time. This density is similar to the natural stands in the area (see Appendix B). Some thinning may be required in later years, particularly in the Peppermint stands.

Table 1

Species mix for revegetation (percentage of tubestock seedlings)

Mt Duckworth Site	Gunyulgup Site
Sandy Soils	**Whole Site**
Agonis flexuosa (WA Peppermint)	*Agonis flexuosa* (75%)
Corymbia calophylla (Marri)	*Corymbia calophylla* (15%)
Eucalytpus marginata (Jarrah)	*Banksia grandis* (5%)
Shallow Limestone Soils	*Banksia sessilis var cordata* (5%)
Banksia sessilis var cordata (formerly *Dryandra sessilis var cordata)* (Parrot Bush) (50%)	
Agonis flexuosa (30%)	
Hakea oleifolia (10%)	
Corymbia calophylla (10%)	

Figure 1 outlines the planting zones on each site. The soil types at the smaller Gunyulgup site are fairly uniform, therefore only one species mix will be required for planting. The larger Mt Duckworth site has two types of soil, one with a deep sandy profile and one towards the top of the hill with a shallow limestone profile.

2.2.3 Maintenance and Monitoring

Weeds

Both sites will be inspected 3 months after planting to determine whether any additional weed control will be required in the following year. If additional weed control is required, the appropriate control methods will be applied in autumn and winter of the following year.

Performance Criteria

Inspections of the revegetation sites will be undertaken 3 months and 6 months after planting to assess the progress of the planted seedlings. The significance of any deaths, damage or disease will be assessed and any remedial action required will be determined and implemented.

In addition to the general site inspections, five monitoring plots of 20m x 20m size will be established in the Mt Duckworth site and two in the Gunyulgup site to accurately measure the progress of the seedlings planted on each site. The height, percentage cover and overall health of the seedlings will be recorded in each plot. A photograph of each plot will also be taken from the same fixed point each time. The monitoring plots will be established immediately following planting and each plot will be monitored 3 months and 6 months after planting followed by annual monitoring in July for 5 years after planting. Several plots have already been surveyed in the remnant vegetation and adjoining national park areas for both sites and can be used as control plots to measure the performance of the rehabilitation areas (see Appendix C).

The amount of infill planting will be determined and undertaken in the following year for such time as a density of 2000 plants per ha is obtained.

Ringtail Possum and Cockatoo Usage

Western Ringtail Possums are not expected to use the Peppermint trees for several years until they are mature enough to support a drey. Likewise the tree species planted for foraging habitat for Baudin's Cockatoos will not be used by the cockatoos until the plants have commenced flowering and fruiting. Qualitative evidence of the usage of the revegetation area by Western Ringtail Possums and Baudin's Cockatoos will be monitored by a qualified zoologist inspecting both sites in years 3, 5, 8 and 10 after planting or until such time as evidence of usage has been sighted.

Fencing

Fences will be inspected annually in October of each year and any repairs will be carried out as soon as possible after the maintenance requirements have been identified.

2.2.4 Reporting

Annual reports will be submitted to the Department of Environment and Conservation and the Commonwealth Department of the Environment, Heritage, Water and the Arts by March of the year following the reporting year. The reports will include information on all activities that have occurred during that calendar year including the results of the maintenance and monitoring programmes.

Reports will be provided annually for the first 5 years and again after 8 and 10 years.

Table 2: REHABILITATION PLAN – SUMMARY OF TASKS			
	Task	**Timing***	**Responsibility**
Site Preparation			
1.	Install rabbit proof fence. Remove existing fence where required (see Figure 1 attached)	March 2010	Proponent
2.	Install firebreaks or maintain existing firebreaks where necessary (see Figure 1 attached)	March 2010 following installation of fencing	Proponent
3.	Initial spray for weeds	April 2010	Proponent
4.	Spray for weeds prior to planting	June 2010	Proponent
5.	Control rabbits within the revegetation sites if considered necessary	Prior to July 2010	Proponent
Planting			
6.	Plant tubestock seedlings	July 2010	Proponent
7.	Establish seven monitoring plots 30m x 30m and count the number of seedlings planted in each plot (5 at Mt Duckworth and 2 at Gunyulgup).	July 2009 following planting	Proponent
8.	Plant infill tubestock seedlings	July 2011	Proponent
Maintenance and Monitoring			
9.	Undertake a visual inspection of the entire revegetation works to identify any damage to seedlings caused by insects or disease or other animal grazing.	October 2010 and January 2011	Proponent
10.	Determine any remedial action required as a result of visual inspection in Step 8	October 2010	Proponent
11.	Implement remedial action as required in Step 9	As required	Proponent
12.	Undertake a visual inspection of the entire revegetation works to identify any areas requiring follow-up weed control.	October 2010	Proponent
13.	Determine requirement for follow-up weed control as a result of Step 11	October 2010	Proponent
14.	Undertake follow-up weed control as required in Step 12	As required	Proponent
15.	Assess the monitoring plots for seedling survival, growth and health (for 5 years)	October 2010	Proponent
16.	Determine requirement for infill planting in following season	October 2010	Proponent
17.	Order infill seedlings as required in Step 13.	As required	Proponent
18.	Inspect entire revegetation works to determine any usage by Western Ringtail Possums and Baudin's Cockatoos, 3, 5, 8 and 10 years after planting	October 2012, 2015, 2018, 2020	Proponent
19.	Inspect fencing and firebreaks annually and repair where required	October of each year	Proponent
Reporting			
20.	Provide annual report to DEC and DEWHA by March of the following year for a period of 5 years then again after 8 and 10 years.	March 2011-2015	Proponent

*Timing dependent on obtaining EPBC Act approval, W.A. Minister for the Environment approval and WAPC approval by December 31 2008. If approval is received after this date then the timing will be put back one year.

3 REFERENCES

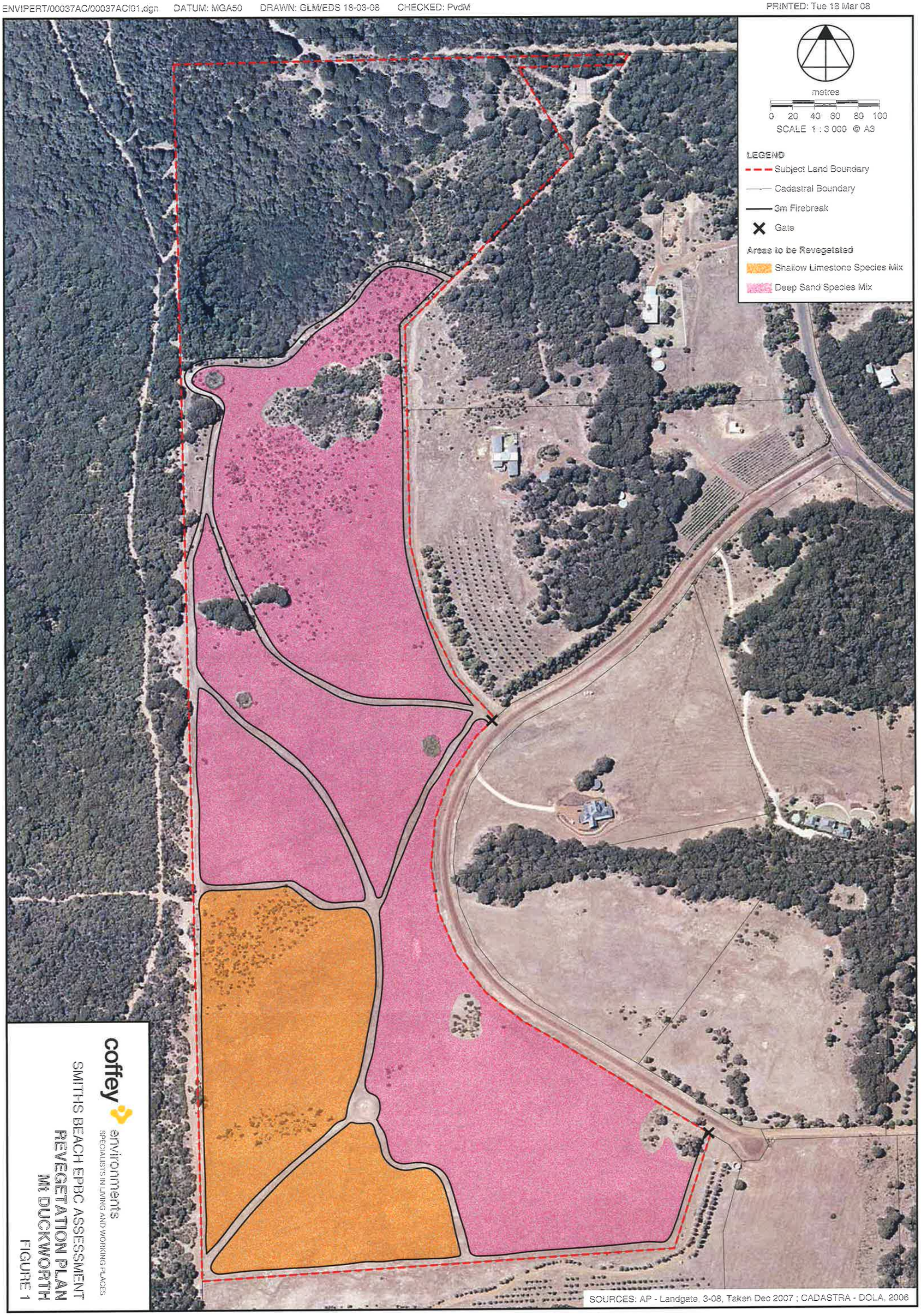
Department of Environment and Water Resources (2007) Draft Policy Statement: Use of environmental offsets under the *Environment Protection and Biodiversity Conservation Act 1999*. August 2007

Environmental Protection Authority (2008) Environmental Offsets - Biodiversity. EPA Position Statement No. 9. September 2008.

Figures

Environmental Offset
Smiths Beach Tourist and Residential Development

ENVIPERT/00037AC/00037ACi01.dgn DATUM: MGA50 DRAWN: GLM/EDS 18-03-08 CHECKED: PvdM PRINTED: Tue 18 Mar 08



coffey environments
SPECIALISTS IN LIVING AND WORKING PLACES

SMITHS BEACH EPBC ASSESSMENT
REVEGETATION PLAN
Mt DUCKWORTH
FIGURE 1

PRINTED: Tue 18 Mar 08

ENVIPERT/00037AC/00037AC02.dgn DATUM: MGA50 DRAWN: GLM/EDS 18-03-08 CHECKED: PvdM

metres

0 10 20 30 40 50

SCALE 1 : 1 500 @ A3

LEGEND

Subject Land Boundary

Cadastral Boundary

3m Firebreak

Areas to be Revegetated

Deep Sand Species Mix

SOURCES: AP - Landgate 3-08, Taken 12-07 ; CADASTRA - DLI, 2006

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SMITHS BEACH EPBC ASSESSMENT

REVEGETATION PLAN

GUNYULGUP

FIGURE 2

Photographs

Environmental Offset
Smiths Beach Tourist and Residential Development

PHOTO 1 - Gunyulgup Site - northern boundary showing dense Peppermints 5-6m High

PHOTO 2 - Gunyulgup Site – southern boundary showing scattered Peppermint and shrubs

PHOTO 3 - Mt Duckworth Site – looking north over cleared portion of the site

PHOTO 4 - Mt Duckworth – showing a stand of Peppermints and Marri within the cleared portion of the site

Appendix A
Summary of Environmental Offset

Environmental Offset
Smiths Beach Tourist and Residential Development

Environmental Offsets Summary

Section A: Administrative information

1. Proposal or scheme name: Sussex Location 413 - Smiths Beach Tourist and Residential Development

2. Summary of proposal or scheme: Location 413 is approximately 40.4ha in size, of which approximately 21.3ha has been identified for proposed development as illustrated in the Smiths Beach Design Guide Plan. The proposed land uses for Location 413 following development are as follows:

- A resort-style tourist development (Beach Club Resort) located in the lower northern part of the site.
- A second resort-style tourist development (Cape Spur Lodge) in the upper mid-southern part of the site.
- Tourist accommodation in the form of chalets and units.
- A backpackers and camping area in the north-east part of the site.
- Low-density cabin-style tourist accommodation on the western part of the development predominantly located in a transitional zone between the native vegetation of the granite headland and the denser tourist/residential development on the eastern half of the site.
- Residential lots ranging in size from 375m^2 to approximately 1000m^2 (R10-R25). The larger lots are located on the more elevated parts of the property while the smaller lots are generally located in the northwestern portion of the site.
- An enlarged and enhanced foreshore reserve
- Retention of native vegetation on the western headland and ridge area within the Principal Ridge Protection Area
- Retention of native vegetation in the western areas in a privately managed conservation area;
- Retention of a buffer strip of native vegetation between the development and the National Park, to be managed for fire protection purposes
- Retention of significant amount of native trees within private lots and public open space within the development

Section B: Type of environmental asset (s) – State whether Critical or High Value, describe the environmental values and attributes

- The site contains Western Ringtail Possum (up to 7 individuals) within Native Peppermint vegetation (approx. 5ha). The Ringtail Possum is considered a critical asset.
- The site contains Banksia and Marri trees which provide foraging habitat for Baudin's Cockatoo. The habitat is considered a high value asset.
- Vegetation on the western granite headland is uncommon in the Leeuwin-Naturaliste Ridge National Park and is considered a high value asset.

- Parrot Bush (*Banksia sessilis var. cordata*, formerly *Dryandra sessilis var. cordata*) is a Priority 4 species and is considered a high value asset. A total of 84 plants are located on site.

Section C: Significant impacts (describe the significant adverse environmental impacts related to the proposal or scheme before mitigation measures are applied)

The proposed development will result in the following adverse environmental impacts:

1. Clearing of up to 5ha of Native Peppermint trees that provide Western Ringtail Possum habitat.
2. Clearing of Banksia and Marri trees that provide foraging habitat for Baudin's Cockatoo.
3. Clearing of many of the 84 Parrot Bush plants.

Section D: Mitigation measures (describe all measures to Avoid, Minimise, Rectify and Reduce)

- All vegetation on the western granite headland will be retained and managed for its conservation value;
- Stands of Native Peppermint trees will be retained in Public Open Space within the development as well as on private lots with covenant restrictions on clearing and road reserves. Peppermint trees will be used wherever suitable for landscaping purposes Impact 1 above).

4. Individual trees of Marri, Banksia and Parrot Bush will be retained in Public Open Space, private lots, and road reserves. Parrot Bush will be used in landscaping in appropriate areas (Impact 2 and 3 above).

- Artificial nesting dreys will be installed within the Peppermint trees for the Ringtail Possums (Impact 1 above).

Section E: Significant residual impacts (describe all the significant adverse residual impacts that remain after all mitigation attempts have been exhausted)

1. Clearing of 4-5ha of Native Peppermint trees will reduce the amount of habitat for Western Ringtail Possums on Location 413
2. Clearing will reduce the number of Banksia, Marri and Parrot Bush plants available for Baudin's Cockatoo foraging in the area.

Section F: Proposed offsets for each significant residual impact (identify direct and contributing offsets). Include a description of the land tenure and zoning / reservation status of the proposed offset site. Identify any encumbrances or other restrictions on the land that may impact the implementation of the proposed offset and provide evidence demonstrating how these issues have been resolved.

- The Environmental Offset for the Smiths Beach development is to rehabilitate two degraded parcels of land within the Leeuwin-Naturaliste National Park in close proximity to the Smiths Beach site. The two parcels are located at Mt Duckworth and Gunyulgup (Figure 1 and 2 of this report).

The objective of the offset is to increase the amount of habitat for Ringtail Possums and Baudin's Cockatoo in the local area. The total area proposed to be rehabilitated as part of this offset is 22.7ha which will achieve approximately 4-5 times ratio to the amount of habitat to be cleared.
Section G: Spatial data relating to offset site/s (see *EPA Guidance Statement No. 19: environmental offsets- biodiversity*, Appendix 4)
Figure 1 and 2 of this report are CAD-drafted figures and are spatially correct. These drafting figures will be provided to the EPA and DEWHA on disc.
Section H: Relevant data sources and evidence of consultation (consultation with agencies, relevant stakeholders, community and references to sources of data / information). Include details of specific environmental, technical or other relevant advice and information obtained to assist in the formulation of the offset.
The sites for the Environmental Offset were proposed by officers from DEC with local knowledge of Ringtail Possum and Baudins Cockatoo habitat requirements. The Environmental Offset was advertised as part of the EPBC Act advertising process and refined through the assessment stage. DEC officers were contacted by DEWHA staff as part of this process.

Appendix B

Discussion Paper on Planting Density for Revegetation of the Mt Duckworth and Gunyulup Sites As Part of the Conservation Offset for the Smiths Beach Development

Environmental Offset
Smiths Beach Tourist and Residential Development

DISCUSSION PAPER ON PLANTING DENSITY FOR REVEGETATION OF THE MT DUCKWORTH AND GUNYULGUP SITES AS PART OF THE CONSERVATION OFFSET FOR THE SMITHS BEACH DEVELOPMENT

Background

Canal Rocks Pty Ltd (the proponent) have proposed to revegetate parts of the Leeuwin-Naturaliste National Park in two sites, Mt Duckworth and Gunyulgup, as part of the conservation offset for their proposed development at Smiths Beach. The objective of the revegetation offset is to habitat for Western Ringtail Possums and Baudin's White-tailed Black Cockatoos.

The main species that will be planted at both sites is the Native Peppermint (*Agonis flexuosa*), however a range of other species such as Marri (*Corymbia calophylla*), Jarrah (*Eucalyptus marginata*), Parrot Bush (*Banksia sessilis var cordata*), *Hakea oleifolia* and Bull Banksia (*Banksia grandis*) will also be planted in varying amounts. The Department of Environment and Conservation's staff at their Manjimup tree nursery has previously advised the proponent's consultants that a planting spacing of 3m between trees should be suitable for a revegetation exercise where Peppermint trees are the main species planted. This spacing would give 1,080 trees per hectare with 100% survival.

The Commonwealth Department of Environment, Water, Heritage and the Arts has indicated that the proposed stocking rate of 1,080 seedlings per hectare is too low. In order to determine the most appropriate stocking rates, a number of natural stands containing Peppermint trees, Eucalypt trees and Parrot Bush were assessed in February 2008. Within each stand, the density of dominant tree species was counted and measurements made of the canopy cover and average tree height per stand.

Results

Mt Duckworth Site

Four sites of 10m x 10m size were assessed at the Mt Duckworth site. One site (Plot 1) was a small stand located within the area to be revegetated while the other three sites were located within the National Park to the west of the revegetation area. While Plot 1 was an isolated stand with poor understorey, the tree growth was healthy and dense and was considered to provide the best indication of what densities could be achieved on the deeper sandy soils on the Mt Duckworth site.

Further detailed information on each tree species can be seen in the Control Plot data sheet attached to this report.

A summary of the results is shown in Table 1

Table 1

Tree Assessment Plots at Mt Duckworth

Site	Vegetation	Trees/100m^2	Trees/ha	Average %cover	Height(m)
Plot 1	Peppermint/Jarrah Low Closed Forest				
	- Peppermint	22	2200	70	6
	- Jarrah	6	600	20	6
	- Total	28	2800	90	6
Plot 2	Peppermint/Marri Low Closed Forest				
	- Peppermint	12	1200	65	5-6
	- Marri	8	800	10	4
	- Total	20	2000	75	4-6
Plot 3	Marri/Peppermint Low Open Forest				
	- Marri	8	800	50	6
	- Peppermint	5	500	10	6
	- Total	13	1300	60	6
Plot 4	Parrot Bush/Peppermint Low Woodland				
	- Parrot Bush	11	1100	25	4
	- Peppermint	1	100	5	4
	- Total	12	1200	30	4

All the Peppermint trees in the four plots have relatively thin stems of around 10cm diameter at breast height. Many are multi-stemmed. The photograph of Plot 1 below show the structure of a Low Closed Forest on the site while that of Plot 4 shows the Parrot Bush

Plot 1 – Low Closed Forest with 2800 trees/ha and 90% canopy cover. Young single to multi-stemmed Peppermints and Jarrah.

Plot 4 – Parrot Bush/Peppermint Low Woodland with 1200 trees/ha and 30% canopy cover.

Gunyulgup Site

Four plots were assessed in the Gunyulgup site, two included the two monitoring plots set up for this site and two other plots were assessed within the revegetation site for the purposes of determining tree density alone. All four plots contained only Peppermint trees.

Plot	Vegetation	Trees/100m^2	Trees/ha	Average %cover	Height(m)
Plot 5	Peppermint Low Closed Forest	3	300	70	5-6
Plot 6	Peppermint Low Woodland	1	100	20	4
Site 7	Peppermint Low Closed Forest	4	400	80	7-8
Site 8	Peppermint Low Closed Forest	9	900	80	8-12

The age range of the Peppermint trees on the site and in the adjacent National Park varies considerably as the photos below show. The Peppermint trees on the northern boundary of the revegeation site, as indicated in Sites 7 and 8, are old, mature trees of 7-12m high with diameters at breast height of between 0.5-1m. The younger Peppermints in Plots 5 and 6 that are from 4-6m high generally have multi-stems with diameters or around 10cm or less.

Site 7 – Low Closed Forest with 400 trees/ha and 80% canopy cover. Mature Peppermints 7-8m high.

Plot 5 – Low Closed Forest with 300 trees/ha and 70% canopy cover. Young, thin multi-stemmed Peppermints 5-6m high.

Discussion

The range of densities for trees in and adjacent to the two revegetation sites ranges from 100 to 2800. The different vegetation descriptions such as Low Closed Forest, Low Open Forest, Low Woodland are described according to the percentage canopy cover and tree height. Canopy cover decreases from a Closed Forest (70-100% cover) to an Open Forest (30-70% cover) and Woodlands (10-30% cover). An important point to recognise is that high canopy cover does not equate to a higher number of trees per hectare and vice versa, a low canopy cover does not necessarily result from a low number of trees. The main difference is related to the age of the trees, particularly the Peppermint trees. Very old trees, such as occur on the northern boundary of the Gunyulgup site, can be up to 1m in diameter and for assessment sites 7 and 8 it only requires four to nine trees to achieve a canopy cover of 80%. On the other hand, Monitoring Plot 3 at the Mt Duckworth site has a larger number of trees per hectare, 13, but a less dense canopy cover (60%). Therefore, tree density data is not necessarily a good indication of canopy cover.

The most important attribute to attract Ringtail Possums to the revegetation site is expected to be a tree strong enough to hold possums and their dreys, leaf cover that provides protection and food source, and canopy cover that allows possums to move between tree canopies rather than move on the ground. On this basis, it is proposed to plant the Peppermint seedlings at a spacing of 2,000 per hectare to achieve the closed canopy and leaf cover in as quick a time as possible. As the trees mature, the seedlings may need to be thinned so that individual dominant seedlings can grow into large trees.

The most important attribute to attract Baudin's Cockatoos to the revegetation site will be the production of flowers and fruit. Generally, the larger number of seedlings that are planted, the higher the flowering

and fruiting will be. The environmental characteristics of the site will eventually determine whether the maturing seedlings are planted at too high a density and may self-thin according to water and/or nutrient requirements in the soil. The Parrot Bush/Peppermint Woodland in Plot 4 at the Mt Duckworth site contained 1200 plants per hectare, most of which were Parrot Bush and some Peppermints. The shallow sand over limestone soils at the Mt Duckworth site are considered more suitable to planting species for Baudin's Cockatoos rather than a dense stand of Peppermint trees for Ringtail Possums. The range of species proposed to be planted in the shallow limestone area at Mt Duckworth is shown in the attached Operational Plan. As a result of the tree density measurements in this paper we propose to plant the seedlings at the rate of 2,000 per hectare. Some natural thinning of this population must be anticipated after several years when the plants mature.

Appendix C

Control Plots for Mt Duckworth and Gunyulgup Revegetation Programme

Environmental Offset
Smiths Beach Tourist and Residential Development

CONTROL PLOTS FOR MT DUCKWORTH AND GUNYULGUP REVEGETATION PROGRAMME

The following sites were surveyed on 20 February 2008 in order to determine the desired composition and density of species in the two areas of the Leeuwin-Naturaliste National Park at Mt Duckworth and Gunyulgup that are proposed for revegetation as part of the proposal to develop Location 413 Smiths Beach. The sites can be used as control plots to assess the progress of the revegetation programme.

Mt Duckworth Site 1

Vegetation: Peppermint (*Agonis flexuosa*) /Jarrah (*Eucalyptus marginata*) Low Closed Forest over sparse understorey of mostly dead Arum Lily (*Zantedeschia aethiopica*). Condition – Good (parkland cleared)

Soils: Deep yellow/brown sand.

GPS: 318285E 6278266N. Located within the northern portion of the area to be revegetated

10m x 10m plot

Species	Height (m)	% Cover	No. of Trees
Agonis flexuosa	6	70	22
Eucalyptus marginata	6	20	6
Macrozamia riedleii	1.5	<1	
**Zantedeschia aethiopica*	dead	30 (when alive)	

* - denotes introduced species

The density of trees at this site is 28 trees per $100m^2$ which equates to a density of 2,800 trees per hectare. Peppermint trees accounted for 79% of the trees in the plot with Jarrah the other 21%. Most of the stems of both the Peppermint and Jarrah are narrow, 5-15cm in diameter with some trees containing multiple stems. Overall the number of stems, rather than trees, per $100m^2$ is 32 for the Peppermint and 14 for Jarrah.

Species	Height (m)	% Cover	No. of Trees
Agonis flexuosa	5-6	65	12
Corymbia calophylla	4	10	8
Spyridium globulosum	4	15	4
Hibbertia hypericoides	0.3	5	
Hibbertia cuneiformis	1-2	2	
Leucopogon parviflorus	0.5-1.5	2	
Phyllanthus calycinus	0.4	2	
Leucopogon propinquus	0.5	1	
Xanthorrhoea preissii	1.5	<1	
Austrostipa flavescens	1.2	<1	

Species	Height (m)	% Cover	No. of Trees
Persoonia sp	1.0	<1	
Acacia pulchella	1	<1	
Rhagodia baccata	1	<1	
Macrozamia riedlei	0.5	<1	
Bossiaea linophylla	0.4	<1	
Desmocladus flexuosus	0.2	<1	
**Briza maxima*	0.2	<1	
Clematis linearifolia	Creeper	<1	

Mt Duckworth Site 2

Vegetation: Peppermint (*Agonis flexuosa*) /Marri (*Corymbia calophylla*) Low Closed Forest over Open Heath. Condition - Very Good

Soils: Deep yellow/brown sand.

GPS: 318200E 6278415N. Located to the west of site 1 in the National Park.

10m x 10m plot

* - denotes introduced species

The density of trees at this site is 20 per 100m^2 which equates to 2,000 per hectare. There were also 4 tall shrubs >2m tall within the plot. Peppermint trees accounted for 60% of the trees in the plot with Marri 40%.

Mt Duckworth Site 3

Vegetation: Marri (*Corymbia calophylla*)/Peppermint (*Agonis flexuosa*) Low Open Forest over sparse understorey containing dead Veldtgrass (*Ehrharta calycina*) and Arum Lily (*Zantedeschia aethiopica*). Condition – Good (parkland cleared)

Soils: Deep yellow/brown sand.

GPS: 318193E 6278074N. Located in the National Park approximately midway down the western boundary of the revegetation site.

10m x 10m plot

Species	Height (m)	% Cover	No. of Trees
Corymbia calophylla	6	50	8
Agonis flexuosa	6	10	5
**Ehrharta calycina*	Dead	80	
**Zantedeschia aethiopica*	dead	20 (when alive)	
Macrozamia riedlei	1	4	
Rhagodia baccata	0.5	2	
Solanum symonii	2.5	2	
Clematis linearifolia	Creeper	2	
Spyridium globulosum	2	1	
Xanthorrhoea preissii	2	1	
Hibbertia cuneiformis	1-2	1	
Acacia rostellifera	0.5	<1	
**Briza maxima*	0.1	<1	

* - denotes introduced species

This site is more open than sites 1 and 2 although it still has a 60% canopy cover. The density of trees at this site is 13 per 100m^2 which equates to 1,300 per hectare. Marri trees accounted for 62% of the trees in the plot with Peppermints were 38%.

Mt Duckworth Site 4

Vegetation: Parrot Bush (*Banksia sessilis var. cordata*) and Peppermint (*Agonis flexuosa*) Low Woodland over *Xanthorrhoea preissii, Lepidosperma gladiatum/Leucopogon parviflorus* Shrubland. Condition - Very Good

Species	Height (m)	% Cover	No. of Trees
Banksia sessilis var. cordata	4	25	11
Agonis flexuosa	4	5	1
**Zantedeschia aethiopica*	dead	20	
Lepidosperma gladiatum	1	10	
Hibbertia cuneiformis	2.5	8	
Xanthorrhoea preissii	1.2	5	
Spyridium globulosum	2	2	
Leucopogon parviflorus	0.4	2	
Rhagodia baccata	0.6	1	
Muehlenbeckia adpressa	0.3	<1	
**Ehrharta calycina*	dead	<1	
Clematis linearifolia	creeper	<1	

Soils: Shallow yellow sand over limestone.

GPS: 318193E 6277704N. Located in the National Park to the west of the high point in the revegetation site.

10m x 10m plot

* - denotes introduced species

The density of tall Parrot Bush shrubs and Peppermint trees at this site is 12 per 100m^2 which equates to 1,200 per hectare. There were four other shrubs greater than 2m height in the plot.

Gunyulgup Site 5

Vegetation: Peppermint (*Agonis flexuosa*) Low Closed Forest over *Spyridium globulosum* and other shrubs. Condition – Very Good

Soils: Deep yellow/brown sand.

GPS: 316817E 6273685N. Located within the National Park to the north of the revegetation area, approximately 50m north of the boundary.

10m x 10m plot

Species	Height (m)	% Cover	No. of Trees
Agonis flexuosa	5-6	70	3
Spyridium globulosum	2-3	30	12
**Lagurus ovatus*	0.3	20	
Acacia cochlearis	2	1	
Leucopogon parviflorus	1.5	<1	
Scaevola nitida	0.8	<1	
Hibbertia cuneiformis	0.8	<1	
Olearia axillaris	0.5	<1	
Rhagodia baccata	0.4	<1	
Phyllanthus calycinus	0.3	<1	

* - denotes introduced species

The density of Peppermint trees at this site is only 3 plants per $100m^2$ which equates to 300 per hectare. The trees are individually quite mature therefore the 3 trees cover around 70% of the sites.

Gunyulgup Site 6

Vegetation: Peppermint (*Agonis flexuosa*) Low Woodland over *Spyridium globulosum* High Shrubland. Condition – Good to Very Good

Soils: Shallow greyish yellow sand over limestone.

GPS: 316781E 6273481N. Located within the revegetation area near the south-west corner.

10m x 10m plot

Species	Height (m)	% Cover	No. of Trees
Agonis flexuosa	4	20	1
Spyridium globulosum	2	25	
**Lagurus ovatus*	0.2	40	
Hibbertia cuneiformis	1-1.5	10	
Rhagodia baccata	1	5	
Leucopogon parviflorus	1.5	2	
Templetonia retusa	1.2	2	
**Petrorhagia dubia*	0.4	1	

* - denotes introduced species

The density of Peppermint trees at this site is only 1 plant per 100m^2 which equates to 100 per hectare. The tree is multi-stemmed with approximately 8 thin trunks of less than 10cm diameter.

Appendix 4
Fire Management Plan

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment

FIRE MANAGEMENT PLAN

Loc 413 Smiths Beach

Shire of Busselton

Prepared by: FirePlan WA

June 2008

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PURPOSE OF THE MANAGEMENT PLAN

The purpose of this Fire Management Plan (FMP) is to detail the fire management methods and requirements that will be implemented within the proposed subdivision. The aim of the Fire Management Plan is to reduce the threat to residents and fire fighters in the event of a fire within or near the subdivision.

1.0 DEVELOPMENT LOCATION AND DETAILS

The subject land comprises Loc. 413 Smiths Beach and is located approximately 2kms south of the Yallingup township (refer Diagram 1).

3.0 SITE DETAILS

The property is located in a rural area adjoining National Park on the southern boundary, the ocean on the western and part of the northern boundary and farmland on the eastern boundary. Also adjoining on the northern boundary is the redeveloped Smiths Beach Caravan Park and Resort.
The site is generally vegetated with low heathland adjoining the ocean (about 1 metre in height) with vegetation increasing in height upslope away from the ocean to a maximum of 3-5 metres of stunted jarrah /marri with understorey of zantharia and Banksia in the south east corner of the site (total available bush fire fuel 17tonnes/ha one sample line SE corner).

The topography is moderate – steep slopes.

A bitumen road runs down the eastern and along the northern boundaries of the site providing access to Smiths Beach, the Smiths Beach Caravan Park and Resort.

4.0 STATUTORY CONDITIONS

The Shire of Busselton requires the preparation of a 'Bushfire Management Plan' for the proposed development as part of a Development Guide Plan process. This document has been prepared to satisfy that requirement.

As fire management strategies may require altering to meet changing environment and land use needs, provisions of the Bush Fires Act 1954 (the Act) may still be enforced in addition to this Fire Management Plan.

The Fire Management Plan is implemented initially by the developer of the broader subdivision and then enforced by the Shire under its annual Bushfire Notice that is applied pursuant to the Act. Penalties apply for non-compliance with the FMP and/or the Act, and the Shire has the authority to enter non-compliant land and carry out works to achieve compliance at the landowner's cost.

Diagram 1 Locality of Proposed Subdivision Not to Scale

5.0 BUSH FIRE HAZARD ASSESSMENT

The assessment of fire risk takes into account existing site conditions which include:

- Topography with particular reference to ground slopes and accessibility;
- Vegetation cover – both remnant and likely revegetation;
- Relationship to surrounding development

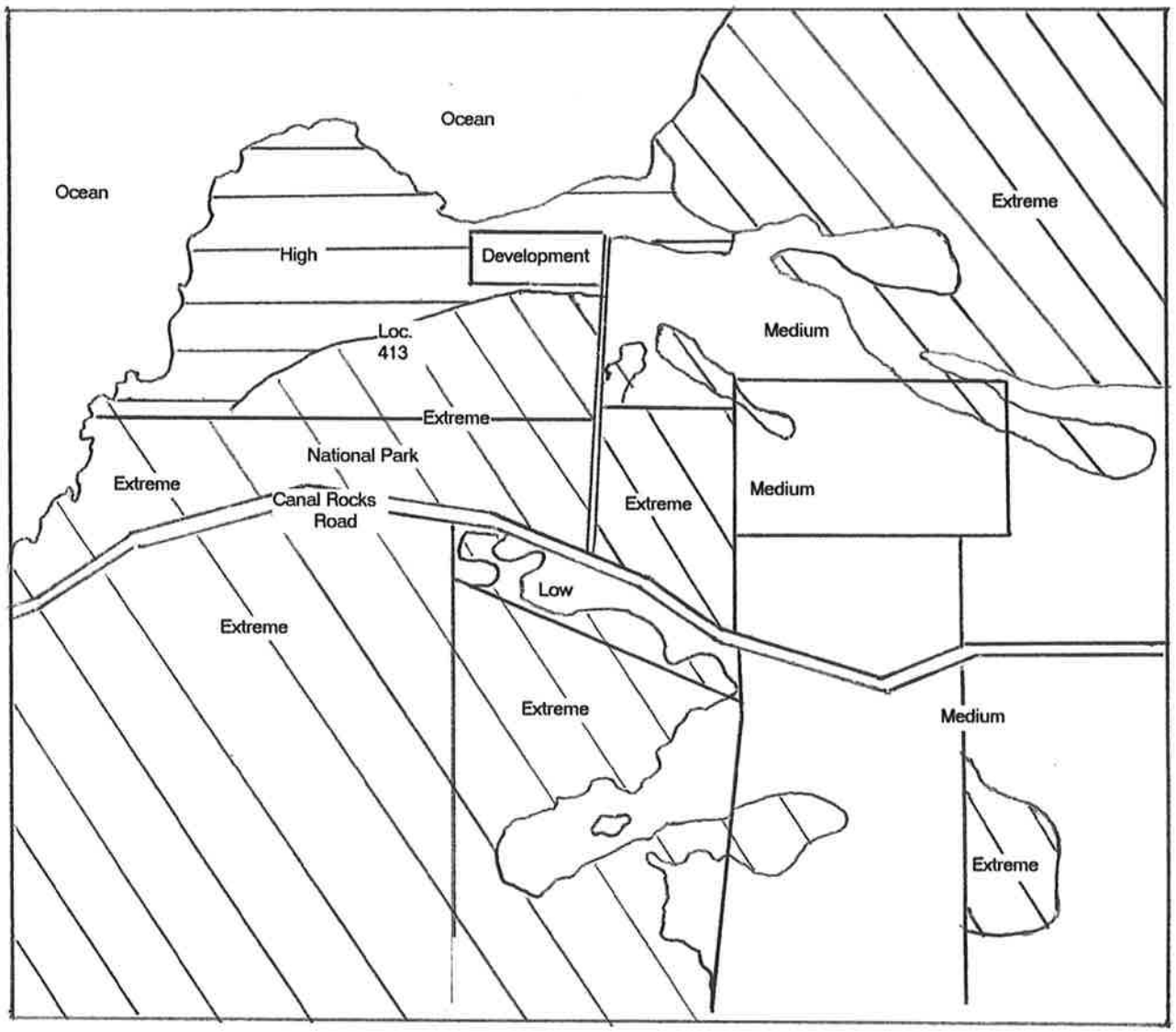
The Bush Fire Hazard Assessment (as detailed in *Planning for Bush Fire Protection* Dec 2001 Section 2.5) for the proposed Lots is Extreme in remnant vegetation in the south eastern portion and high in the remainder of the site.

The bush fire hazard assessment for the adjoining properties is extreme in the National Park to the south, medium in the cleared areas and extreme in remnant vegetation to the east. See diagram 2

The Mediterranean climate experienced by this area is such that the majority of rain falls in late autumn through to early spring. This rainfall supports substantial vegetation growth which dries off in Summer/Autumn.

The combination of prevailing winds and dry vegetation poses a fire risk and bush fire control is considered essential for the protection of life and property, and to ensure that frequently and uncontrolled burning does not degrade existing and replanted vegetation.

Diagram 2 Bush Fire Hazard Assessments Not to Scale



6.0 FIRE MANAGEMENT PLAN

The aim of the Fire Management Plan is to reduce the threat to residents and fire fighters in the event of bush fire within or near the site.

The Fire Management Plan has been developed to incorporate fire management methods.

- Internal Firebreaks systems;
- Dwelling Construction and setbacks;
- Building Protection Zones;
- Hazard Separation Zone;
- Hazard Reduction
- Driveways

6.1 ESTATE LAYOUT AND ROAD PATTERN

Access to the site and to new lots will be provided by fully sealed, drained and engineered public roads off Canal Rocks Road and Smiths Beach Road with a new access road along the southern boundary which provides access to the beach front. There are two access roads from the eastern boundary providing additional through access.

6.1.1 Walkways

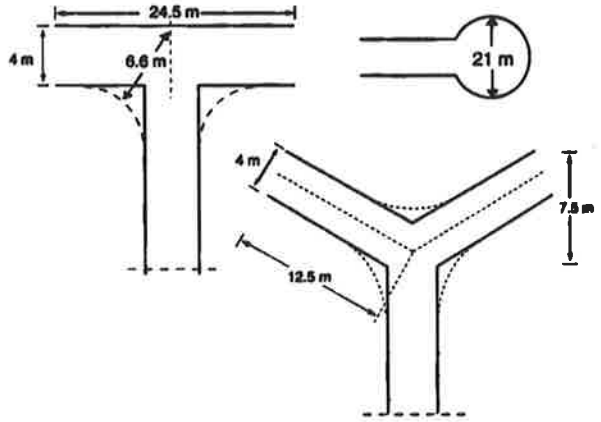
All walkways are to be dual purpose walkways and emergency vehicle access. Walkways are to have a 3 metre trafficable surface suitable for fire fighting vehicles and may have removable bollards to restrict non emergency vehicles. Bollard must be able to be removed by emergency services.

6.2 INTERNAL FIREBREAKS

All lots are to comply with the fire mitigation requirements of the Shire of Busselton Annual Bushfire Notice.

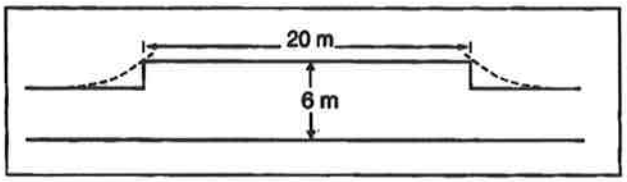
The existing firebreak along the southern boundary at the western extremity of the access road is to be maintained to 6 metres wide cleared with a 4 metre wide trafficable surface for fire fighting appliances. A turn around at the western end of this firebreak is to be constructed as shown in Diagram 3.

Diagram 3 Turn around standards



Turn around area measurements.

Diagram 4 Passing Bays Standards.



Passing bay measurements.

6.3 BUILDING SETBACKS

Buildings are to be setback 50 metres from the southern boundary, 20 metres from the eastern boundary and 20 metres from the adjoining Caravan Park and Resort. The setbacks are required to create building protection zones and hazard separation zones as required in *Planning for Bush Fire Protection* Table 4.

It is not required that the land in setback areas be cleared of vegetation, but rather that it be managed according to its designation as a Building Protection or Hazard Separation Zone as relevant to the specific location.

Appendix D identifies the broad approach to reconciling bush fire mitigation works with the existing landscape that will be implemented throughout the development, being the 'Modified Australian Landscape' approach

6.4 DWELLING CONSTRUCTION

Individual dwellings on each lot shall be designed and built to conform with:

- The Home Owners Bush Fire Survival Manual Guidelines
- The Shire of Busselton Specification and Requirements
- Australian Standards AS 3959

It will be a mandatory requirement (enforced by covenants) that all dwellings comply with the Australian Standard AS 3959 "*Construction of Buildings in Bush Fire Prone Areas*" Level 2 Construction.

Copies of the Bush Fire Survival Manual or other suitable documentation will be issued to each property owner by the developer at the sale of the allotment.

It is recommended that design guidelines for the project incorporate a low-pitched roof together with closed eaves, metal mesh fly screens and vent covers to provide optimum safety protection in bush fire prone areas.

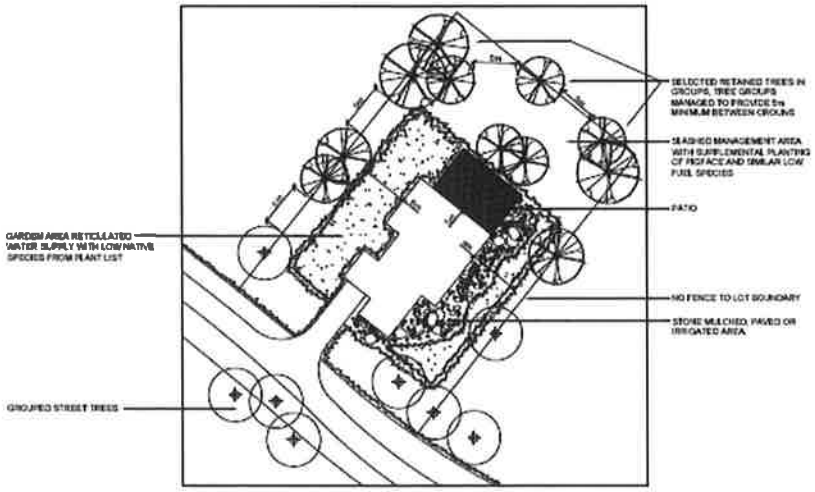
6.5 BUILDING PROTECTION ZONE

The aim of the Building Protection Zones is to reduce bush fire intensity close to dwellings, and to minimise the likelihood of flame contact with buildings.

The building protection zone is a low fuel area immediately surrounding a building.

Non flammable features such as driveways, vegetable patches, lawn, or landscaped gardens (including deciduous trees) should form part of building protection zones. Isolated trees and shrubs may be retained within building protection zones. It must fulfil the following conditions:

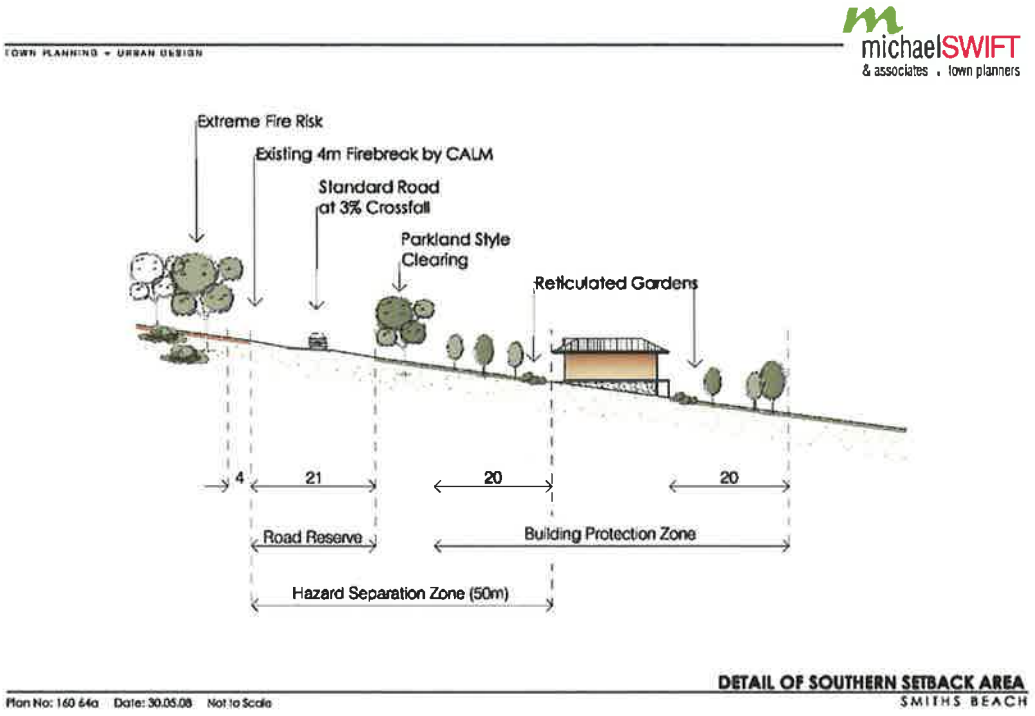
- Bush Fire fuels must be maintained below a height of 50mm in height.
- The first 5m around all building is to be cleared of all flammable material at ground level. Reticulated gardens may be located in this zone.
- For the next 15metres (i.e. from 5-20 metres surrounding any buildings) the spacing of trees should be a minimum of 15 metres apart to provide for a 5 metre separation between crowns. Clumps of trees are permitted provided that under the trees ground fuels are kept to a minimum. There should be a minimum of 5metres between the crowns of tree clumps. Refer Appendix D – Modified Australian Landscape for the generalised landscape approach.
- Branches, which may fall or overhang the house, must be removed for a minimum of 3metres away from the edge of the roof.
- All leaves, tall grass, and clearing slash of trees must be removed from within the building protection zone area.
- Grass is be trimmed and maintained to no more than 50mm
- Building Protection Zone and Hazard Separation Zones are to be installed on individual sites prior to new any dwelling/building construction commencing and is to be part of the Building License approval.



6.5.1 Southern Boundary Building Protection Zone & Hazard Separation Zone.

The 50 metre setback on the southern boundary will comprise of 20 metre road reserve (to be maintained as low fuel zone), a 10 metre hazard separation zone (to be maintained by the landowner) and a 20 metre building protection zone (to be maintained by the landowner). The maintenance of the road reserve will be subject to an agreement between the developer and the Shire of Busselton as to who will fund and maintain the road reserve as a low fuel area.

Diagram 5 Southern Boundary.



6.5.2 The Eastern Boundary

The 20 metre setback is to be managed as a building protection zone and the 20 metre road reserve is to be managed as a low fuel are and will be subject to an agreement between the Developer and the Shire of Busselton as to who will fund and maintain the road reserve as a low fuel area.

6.5.3 Western Boundary

A 20 metre building protection zone is to be installed around all building and camping areas.

A 50 metre (including the building protection zone) hazard separation zone is required and achievable except in the area west of the proposed building envelope for the Cape Spur Lodge. This south western extremity of the site will be managed by a combination of building setbacks; a building protection zone and a reduced hazard separation zone based on performance criteria along the boundary of the proposed Community Endowment Reserve (refer Appendix C). Construction of a wall and/or installation of perimeter sprinkler systems will provide adequate fire safety without detrimental landscape impacts.

The above response and management techniques mean that the Cape Spur Lodge precinct will be managed internally without additional management burdens being placed on the ultimate manager of the Community Endowment Reserve.

The Cape Spur Lodge precinct is within an area to be subject of a separate Detailed Area Plan under the town planning process, with final details of fire management and mitigation dealt with at that time.

6.5.4 Northern Boundary adjoining existing Smith beach Caravan Park and Resort.

A 20 metre building protection zone is to be installed around the boundaries adjoining the existing caravan park and resort complex. A walkway is located within this zone.

6.6 HAZARD SEPARATION ZONE

There must be physical separation between bush fire hazards and development. Hazard separation zones assist in reducing fire intensity when a bush fire impacts on buildings within a subdivision.

The building protection zone and the hazard separation zone are essential for this subdivision to proceed. It is essential that owners maintain the building protection and hazard separation zones to have any degree of safety. Trees may remain within the hazard separation zone.

6.6.1 Southern Boundary

A 50 metre hazard separation zone including the road reserve (to be maintained as a low fuel area and a 20 metre building protection zone with a 10 metre wide strip of remnant vegetation in which the fuel is to be modified as below.

Bush fire fuel loadings must be maintained within the Hazard Separation Zone and must not exceed 4-6 tonnes/ha of ground bush fire fuel. This can be achieved by burning or mechanical removed of bush fire fuels.

6.6.2 Western Boundary

A 50 metre hazard separation zone including a 20 metre building protection zone is to be maintained around all buildings and camping areas.

Within the 30 metre hazard separation zone fuels are to be maintained below 4-6 tonnes/ha. Heathland fuels may be modified by slashing and leaving clumps of heathland un-slashed to achieve the 4-6tonnes/ha. Clumps of approximately 5 metres diameter with 8 metres of slashed area (maximum height of 100mm) between clumps or as agreed to with the Shire of Busselton may be permitted.

A 4 metre firebreak/dual purpose walkway is to be installed on the western edge of the hazard separation zone. The firebreak/walkway is to zig zag down the slope in a northerly direction which will reduce soil erosion, reduce visual impact from the beach and will provide glimpses of the ocean as walkers are

going to the beach. See specific detail around Cape Spur Lodge at Appendix C.

As part of the environmental management of the site, the vegetation to the west of the GH4 Line (See Appendix A2) is to be managed as part of the conservation area.

Currently the fuel loading within the hazard separation zone around the proposed Beach Club Hotel meets the fuel loadings described above and does not require modification at this time. Monitoring of scrub and ground fuels along the western boundary is required (about every 5 years) to ascertain any changes in vegetation bio-mass.

6.7 HAZARD REDUCTION

In remnant vegetation bush fuels not within a building protection zone or hazard separation zone must be maintained below 6-8 tonnes/ha of ground and scrub fuels (trees not included). Shire of Busselton can provide advice on appropriate techniques to achieve this.

Grass fuels must be maintained below 100mm over the whole of each lot and can be achieved by mowing, or slashing.

6.8 ACCESSWAYS WITHIN SURVEY STRATA LOTS

Driveways are to be constructed to 6 metres cleared with a 4 metre trafficable surface and trees pruned to a minimum of 5 metres high.

7.0 FIRE FIGHTING FACILITIES

7.1 Water Supply

Reticulated water will be supplied and fire hydrants are to be installed every 200 metres and marked with standard pole and road markings as shown in Appendix B. All public buildings are to have smoke detection systems and sprinkler systems installed in accordance with the Building Code of Australia.

7.2 Fire Services

The Yallingup Bush Fire Brigade is located in the Yallingup Townsite which would be about 15-20 minutes travel time to Smiths Beach. Yallingup Rural Brigade is located on Caves Rd near the intersection with Spencer Rd which would be about 15-20 minutes travel time to Smiths Beach.

8.0 SUMMARY AND CONCLUSIONS

8.1 Overall Fire Threat

The design of this development and the facilities constructed at the time of development are such that with implementation of this Fire Management Plan, fire threat to persons and property within the subdivision is significantly reduced.

The area is currently only serviced by a private water supply to the existing resort and fed via a fire prone poly pipe. Therefore, introduction of a secure reticulated water supply by the developer will significantly enhance the fire safety of the existing settlement and dwellings on the fringe of that area.

The new development will contribute finances to new and upgraded fire fighting vehicles and implements. The conversion of the area from a transient community to a small resident community should result in greater fire security due to earlier warning and quicker response times.

8.2 Property Owner's Responsibilities

To maintain the reduced level of risk and threat of fire, the owners/occupiers of lots created by this proposal will be responsible for undertaking, complying with this fire management plan and implementing measures protecting their own assets from the threat and risk of bush fire.

- Maintain fire mitigation measures on their property by the dates shown on the Shire of Busselton Firebreak Notice as detailed in Section 6.2;
- Ensure all domestic dwellings are designed and constructed in full compliance with the requirements of the Shire of Busselton and as detailed in Section 6.4. It is recommended that home owners familiarize themselves with the advice given in the Standards Australia publication "Construction of Buildings in Bush Fire Prone Areas", Level 2, and The Homeowners Bush Fire Survival Manual or equivalent provided by the Shire of Busselton;
- Implement and maintain Building Protection Zone as detailed in Section 6.5;
- Implement and maintain Hazard Separation Zone as detailed in Section 6.6.
- Implement Hazard reduction as detailed in Section 6.7;
- Install and maintain driveways as detailed in Section 6.8;

8.3 Developer's Responsibilities

Prior to Clearance of Titles the developer shall be required to carry out works as described below. Subsequent to Clearance to subdivide, the developer shall have no further responsibilities to provision of fire fighting facilities on lots which pass from their ownership.

- Lodging a section 70A Notification on each Certificate of Title proposed by this subdivision. The Notification shall alert purchasers of land and successors in Title of their responsibilities as contained in this Fire Management Plan;
- All internal roads to have passing bays and turnaround areas as detailed in Diagram 3 & 4 ;
- Obtain agreement that the Shire of Busselton will maintain the road reserves on the eastern and southern boundaries as a low fuel area as detailed in Section 6.5
- Supply a copy of this Fire Management Plan and The Homeowners Bush Fire Survival Manual to each property owner on sale of the allotment;
- Maintain building protection and hazard separation zones around the proposed resort and camping area (Section 6.5.3) and the interface area with the existing Smiths Beach development (Section 6.5.4).
- Install fire hydrants and hydrant markings as detailed in Section 7.1

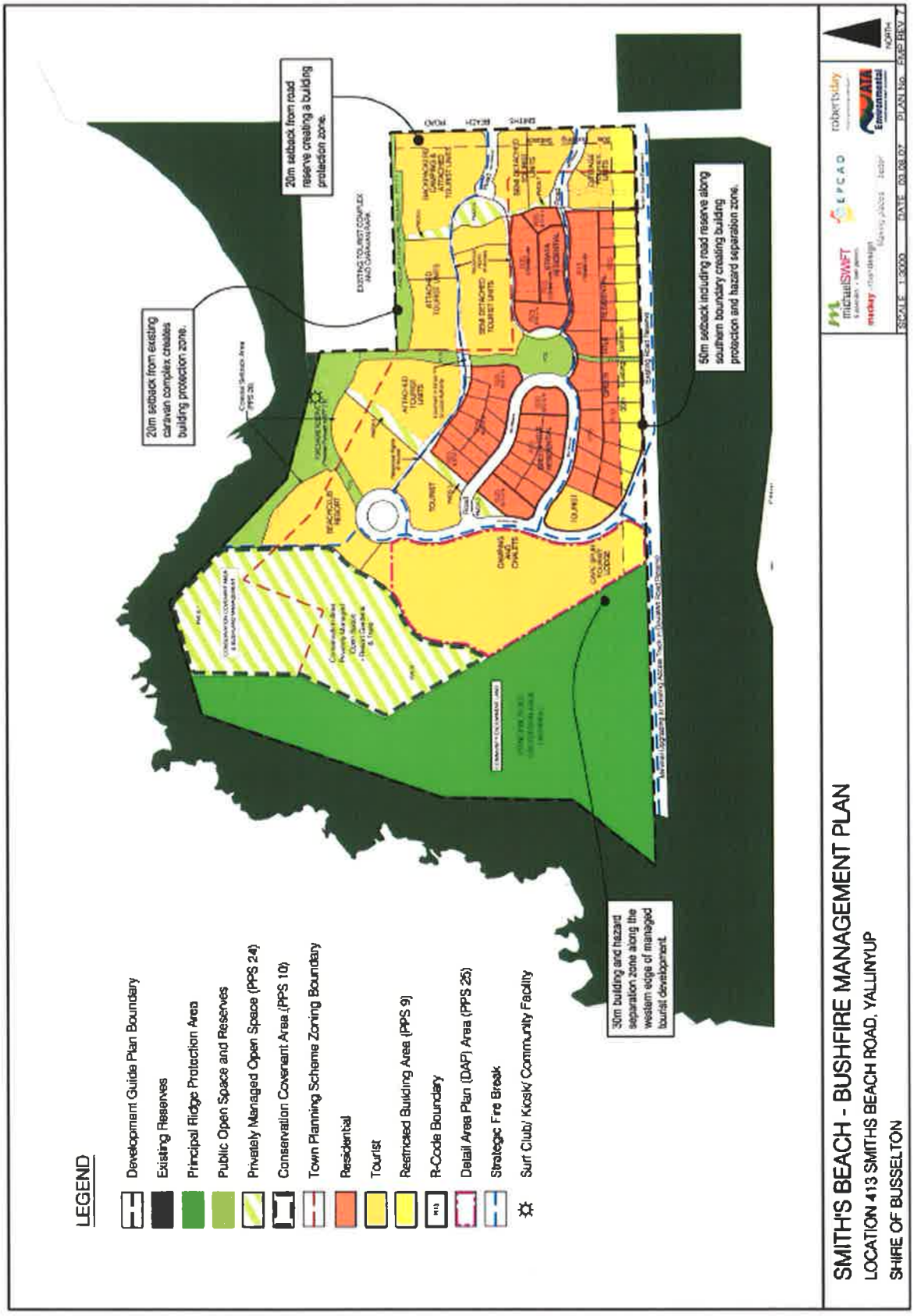
8.4 Shire of Busselton Responsibilities

The responsibility for compliance with the law rests with individual property owners and occupiers and the following conditions are not intended to unnecessarily transfer some to the responsibilities to the Shire of Busselton.

The Shire of Busselton shall be responsible for:

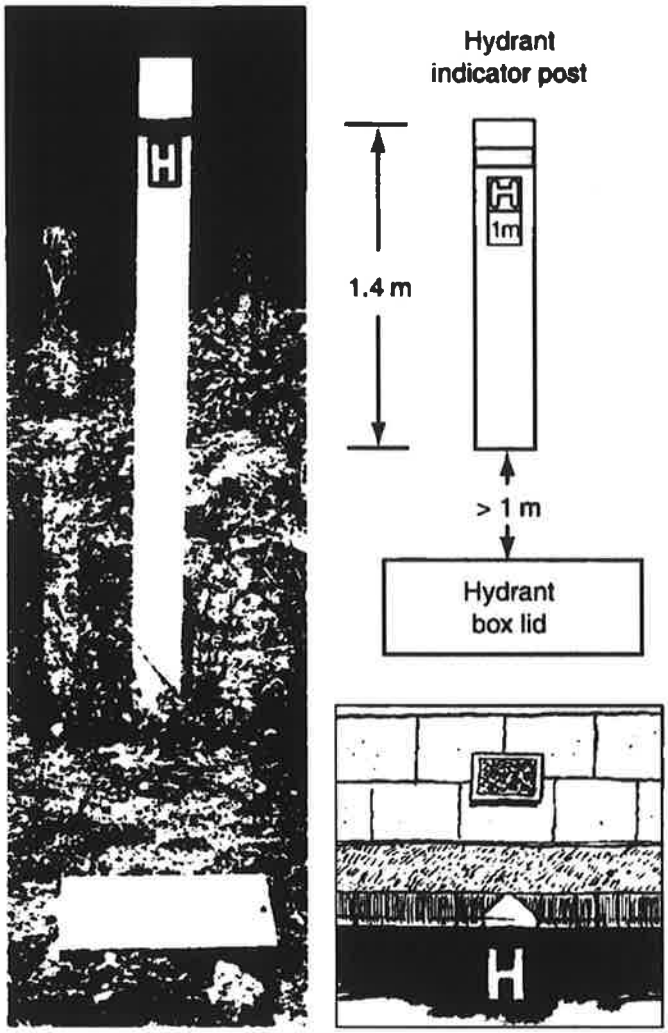
- Endorsing a Section 70A Notification on each Certificate of title affected by this Fire Management Plan.
- Developing and maintaining District Fire Fighting Facilities.
- Maintaining in good order the condition of the district water tanks and fire hydrants and the apparatus for fire fighting purposes.
- Enter into an agreement for the maintenance of the road reserve on the southern and eastern boundaries as detailed in Section 6.
- Enforcement of the Annual Firebreak Notice.

Appendix A Development Guide Plan

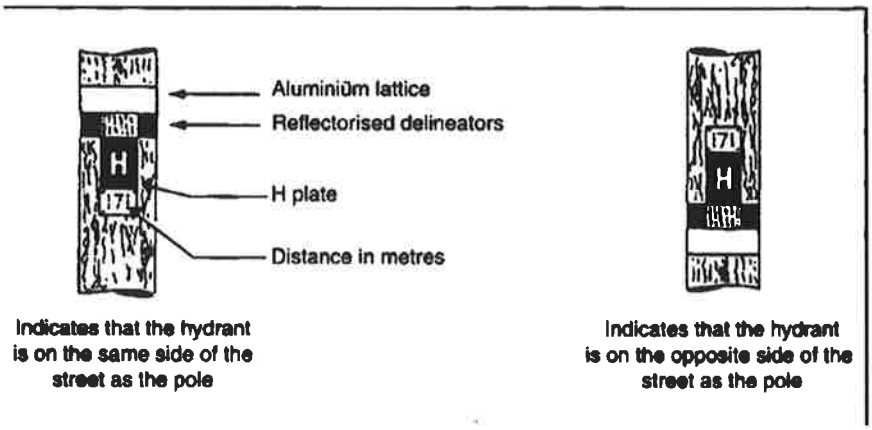


This development guide plan may change prior to endorsement.

Appendix B Fire Hydrant Standard Markings.

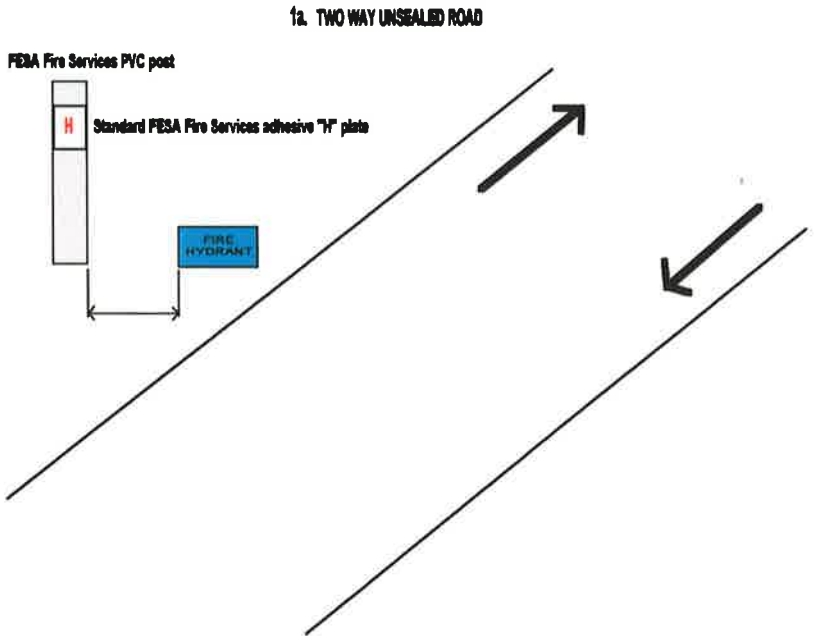


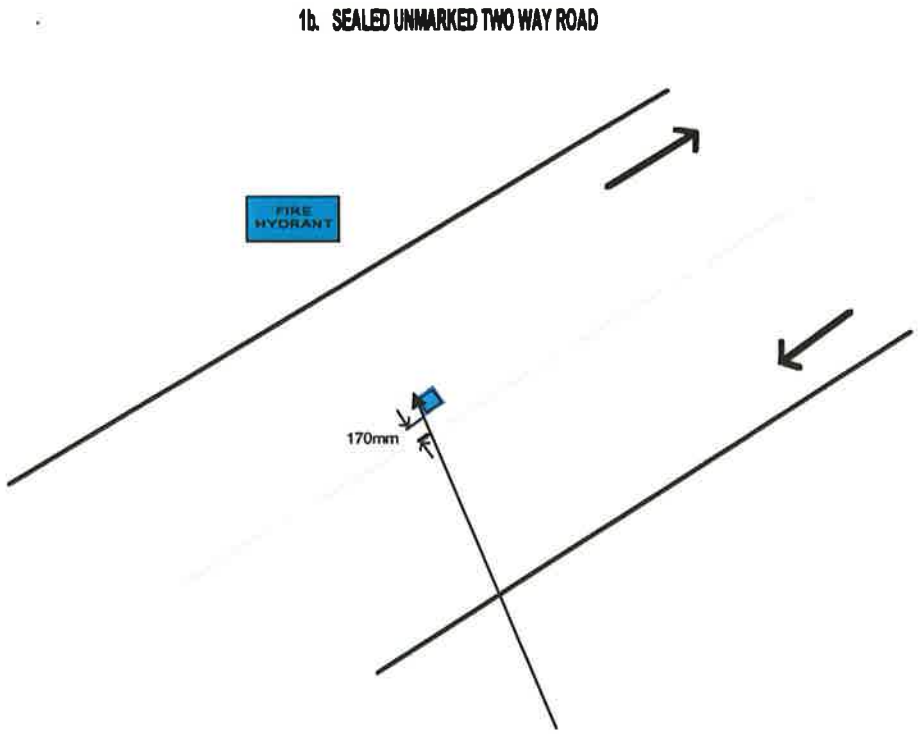
Hydrant indicators post.



BLUE RAISED RETROREFLECTIVE PAVEMENT MARKER & HYDRANT INDICATING GUIDLINES

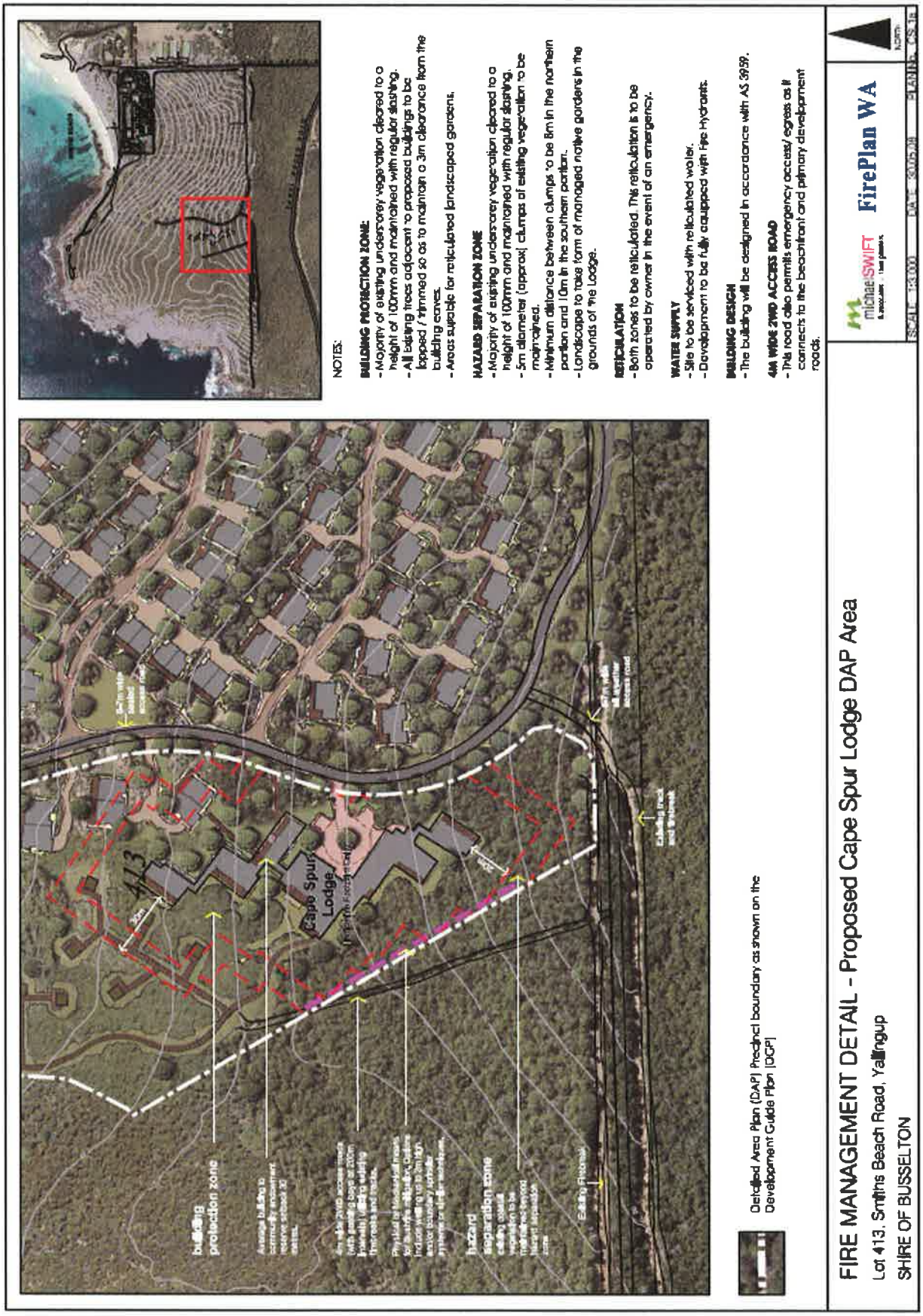
The implementation of the blue raised retro reflective pavement marker (RRPM's) and new hydrant indicating regime is designed to provide greater ability for fire fighters to readily identify fire hydrant locations, particularly at night or where smoke affects visibility.





Blue raised retro-reflective pavement marker

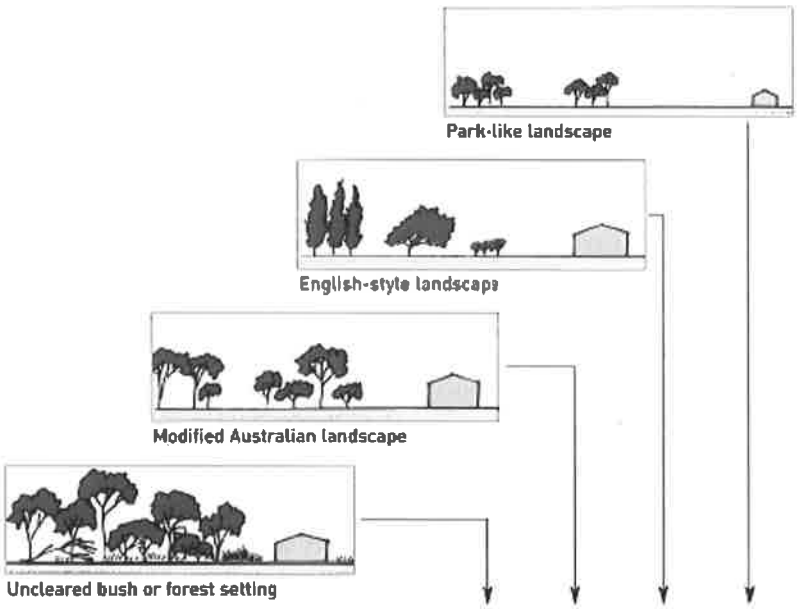
Appendix C Detailed fire Protection around Cape Spur Lodge.



Appendix D - Landscape Response to Bush Fire Control Measures

Landscape design options

Suitability of landscape styles in terms of their attributes



Fire hazardous fuel	**	*	✓	—
Regrowth, recovery after fire	✓	✓	**	✓
Need for cutting back or mowing due to rapid growth	*	*	✓	—
Demand on water supply	✓✓	✓	**	✓
Support for native wildlife	✓✓	✓✓	**	✓
Promotes native flora	✓✓	✓✓	**	✓
Fits in visually with native landscapes	✓✓	✓✓	*	✓✓
Suitability for large areas (e.g. farms, hobby farms)	*	✓	**	✓✓
Suitable for smaller lots (e.g. residential subdivisions)	**	✓✓	✓	■
Opportunity for protective screen planting	**	✓	✓	✓✓

Key

✓✓ very suitable
✓ suitable
— variable
* unsuitable
** most unsuitable
■ suitable for whole sub-division only

Appendix 5
Landscape Commitment Plans

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment

Indicitive built form & location of hotel. Final site layout subject to futher detail analysis and design.

1 LANDSCAPE PLAN
PLAN VIEW SCALE 1:2000

Core Plant Schedule

Latin Name	Common name	Type	Plant	Seed
Acacia cochlearis	Rigid wattle	shrub	*	
Acacia cyclops	Red eye wattle	shrub	*	
Acacia pulchella	Prickly moses	shrub		*
Acacia saligna	Weeping wattle	Small tree	*	
Agonis flexuosa	Peppermint	Small tree	*	
Anthocercis littorea	Yellow tail flower	shrub		*
Boronia alata	Winged boronia	shrub	*	
Brachyscome iberidifolia	Swan river daisy	annual		*
Carpobrotus spp	Pigface	groundcover	*	*
Clematis pubescens	Wild clematis	climber	*	
Conostylis candicans	Cottonheads	groundcover	*	
Conostylis aculeata	Cottonheads	groundcover	*	
Dodonea aptera	Hop bush	shrub		
Hardenbergia comptoniana	Native wisteria	climber		
Hibbertia cuneiformis	Buttercup bush	shrub	*	
Isolepis nodosa	Club rush	sedge	*	
Kennedia coccinea	Coral vine	climber	*	
Leucophyta brownii	Cushion bush	groundcover	*	
Melaleuca acerosa		shrub	*	
Melaleuca huegelii	Chenille honey myrtle	large shrub	*	
Melaleuca lanceolata	Rottnest tea tree	small tree or shrub	*	
Mesomelaena tetragona	Semaphore sedge	sedge		
Olearia axillaris	Daisy bush	shrub	*	
Pimelea ferruginea	Rice flower	shrub	*	
Scaevola nitida	Blue fan flower	shrub	*	
Sollya heterophylla	Australian bluebell	Shrub semi climber	*	

Plants recommended for planting in the resort area

Latin name	Common name	Type	Plant	Seed
Acacia lasiocarpa	Dwarf acacia	Ground cover	*	
Adenanthos cuneatus		shrub	*	
Adenanthos sericea		shrub	*	
Agonis flexuosa	Weeping peppermint	Small tree	*	
Agonis flexuosa After Dark		Small tree	*	
Anigosanthos hybrids	Kangaroo paws	Feature plants	*	
Banksia attenuata	Candle banksia	Small tree	*	
Banksia prionotes	Acorn banksia	Small tree	*	
Calothamnus sanguineus	One side bottlebrush	shrub	*	
Casuarina equisitifolia	Weeping casuarina	Small tree	*	
Var. incana				
Clematis pubescens	Wild clematis	climber	*	
Conostylis candicans	Cottonheads	groundcover	*	
Conostylis candicans		groundcover	*	
Darwinia citriodora		Small shrub	*	
Dodonea aptera	Hop bush	shrub	*	
Gevillea crithmifolia		Low shrub	*	
Grevillea "Green Gem"		Low shrub	*	
Grevillea hybrids		Low shrubs	*	
Grevillea nudiflora		Groundcover	*	
Herdenbergia comptoniana	Native wisteria	climber	*	
Hemiandra pungens	Snake bush	Ground cover	*	
Hibbertia cuneiformis	Buttercup bush	shrub	*	
Hypocalymma robustum	Pink myrtle	Low shrub	*	
Kennedia becksiana	Orange vine	climber	*	
Kennedia coccinea	Coral vine	climber	*	
Lechenaultia hybrids		Low shrubs	*	
Leucophytaa brownie	Cushion bush	Ground cover	*	
Melaleuca huegelii	Honey myrtle	Large shrub	*	
Olearia axillaris	Daisy bush	shrub	*	
Orthrosanthus multiflorus		Bulbous plant	*	
Pimelia ferruginea	Rice flower	Low shrub	*	
Pimelia ferruginea cultivars		Low shrubs	*	
Ricinocarpus cyanescens	Wedding Bush	Low shrub	*	
Scaevola "Fanfare"	Fan flower	Low shrub	*	
Scaevola crassifolia	Thick leaved fan flower	shrub	*	
Scaevola nitida		Low shrub	*	
Sollya heterophylla	Australian Bluebell	shrub	*	
Templetonia retusa	Cockys tongues	Low shrub	*	
Verticordia nitens		Low shrub	*	
Xanthorrea preissi	Grass tree	Feature plant	*	

Note:
Final species list to be confirmed. all species to be native to the district & derived cultivars & sports

No.	REVISION	BY	DATE
A	ADDED RECOMMENDED PLANTS FOR RESORT AREA	AC	13/5/08

Title
LANDSCAPE PLAN

Project
SMITHS BEACH

Client
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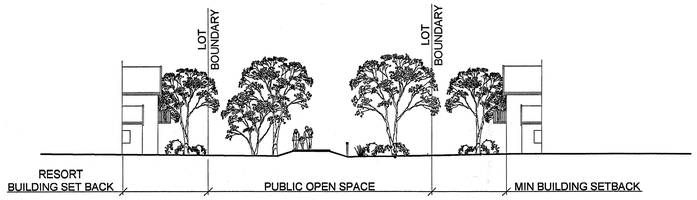
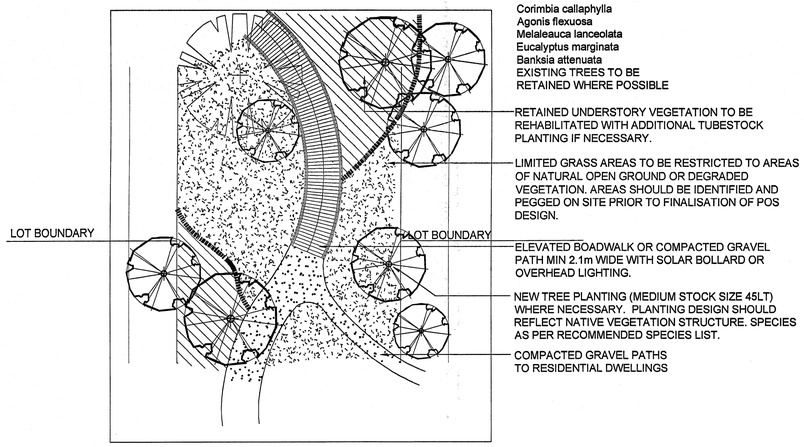
Project No. B0531 Category SBP Drawing No. LP101

Date APRIL 2008 Revision A
Scale 1:2000 @ A1
Issue APPROVAL
Drawn AC Checked HM

Note:
This plan is to be used in conjunction with D.G.P. for footpath, vegetation, tree retention information etc.





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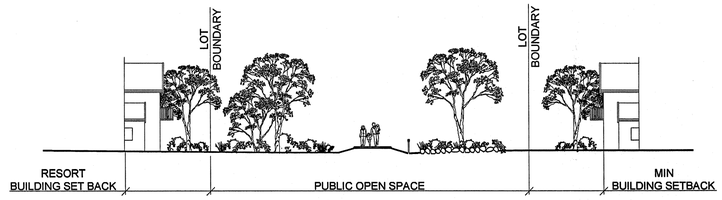

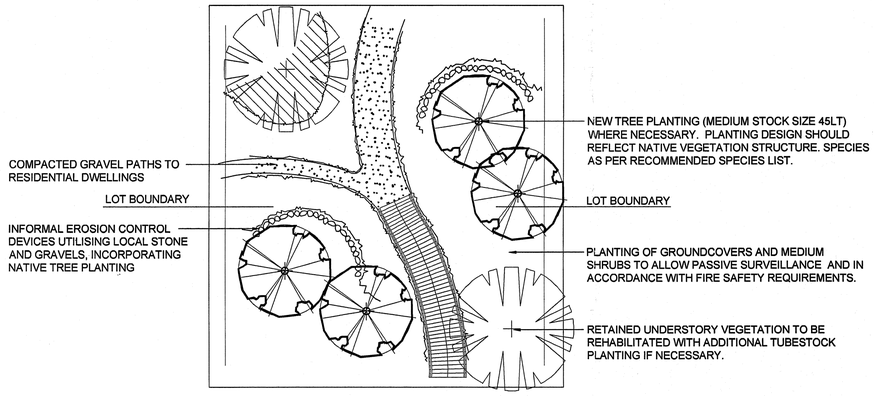

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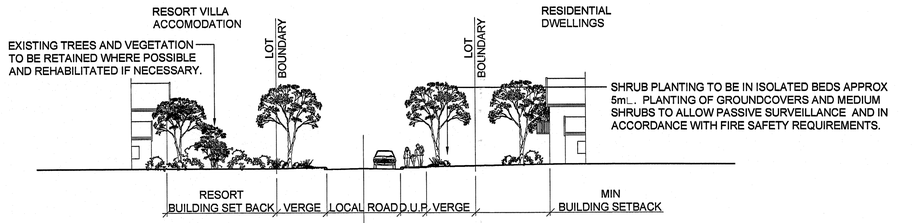

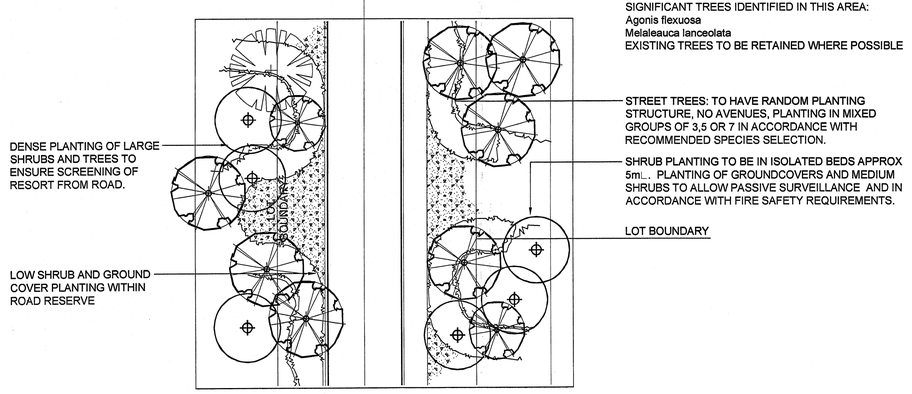

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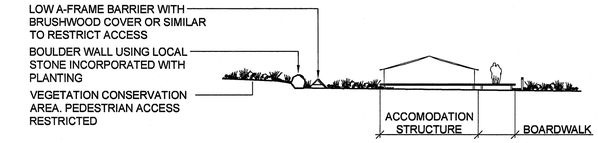

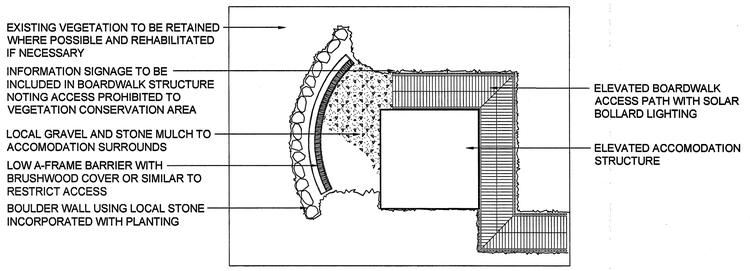

12 TYPICAL LANDSCAPE TREATMENT: ECO RESORT
PLAN / SECTION SCALE 1:250

No.	REVISION	BY	DATE

Title
LANDSCAPE COMMITMENT DETAIL
DRAWING 3 OF 4

Project
SMITH BEACH

Client
CANAL ROCKS PTY LTD

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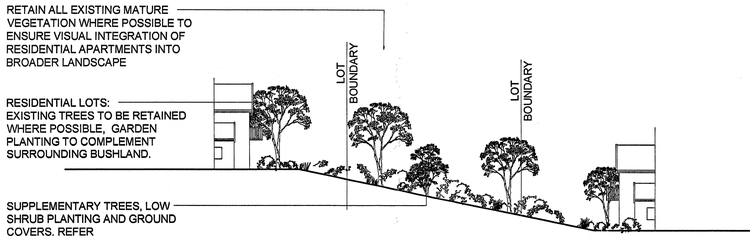
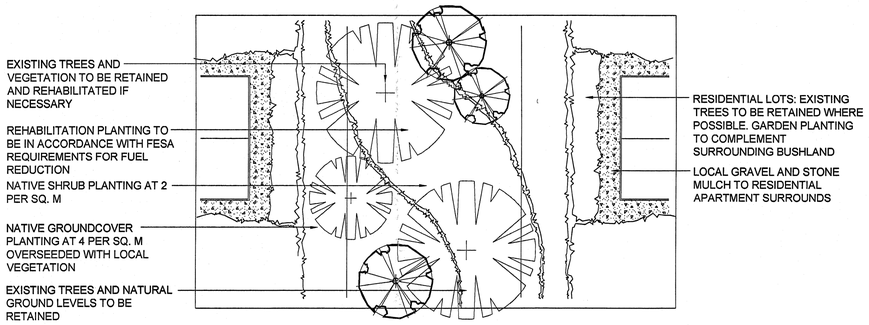
Project No. B0531/SBP/LC/L203
Category
Drawing No.

Date APRIL 2008 Revision
Scale 1:250 @ A1
Issue APPROVAL
Drawn AC Checked HM





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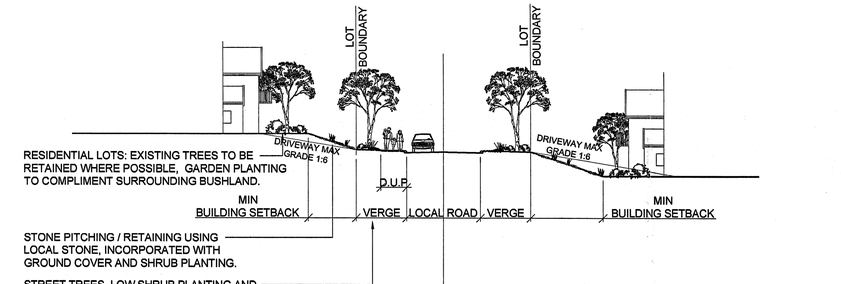

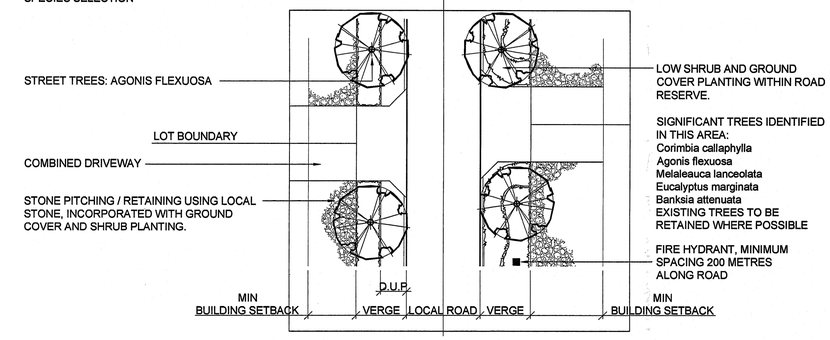

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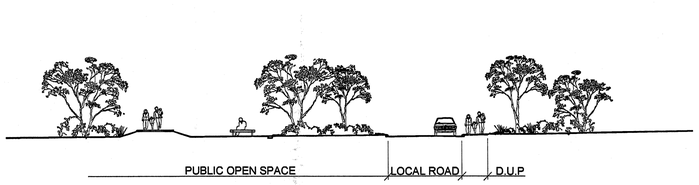

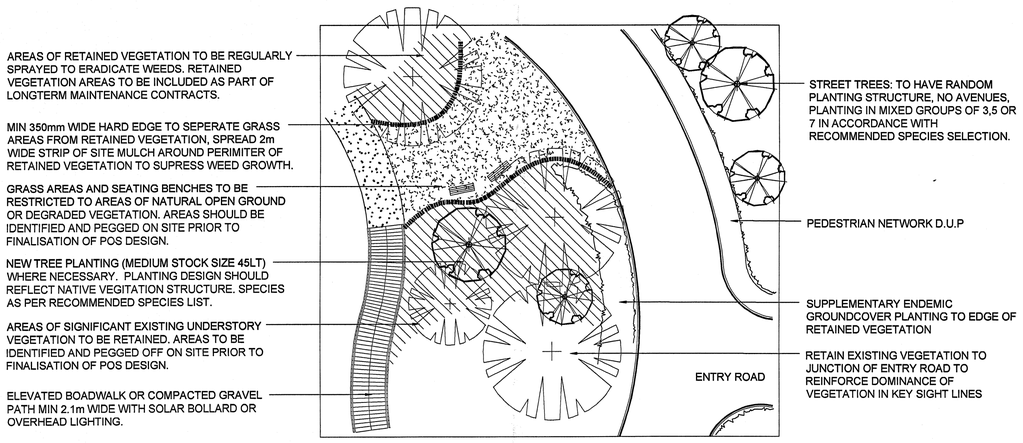

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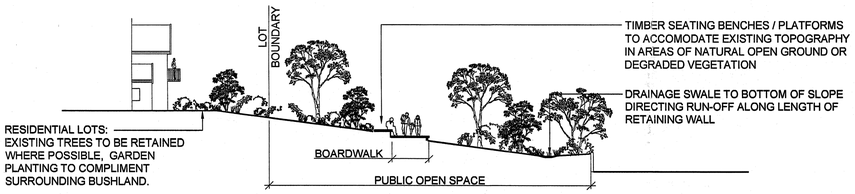

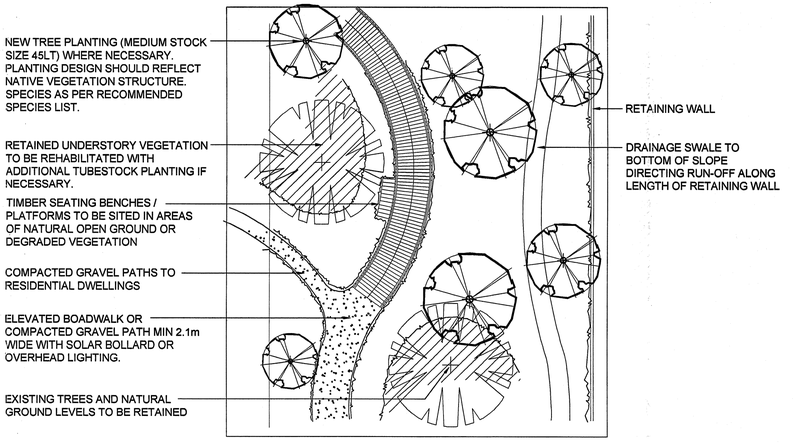

08 TYPICAL LANDSCAPE TREATMENT: POS 1
PLAN / SECTION SCALE 1:250

No.	REVISION	BY	DATE

Title
LANDSCAPE COMMITMENT DETAIL
DRAWING 2 OF 4

Project
SMITH BEACH

Client
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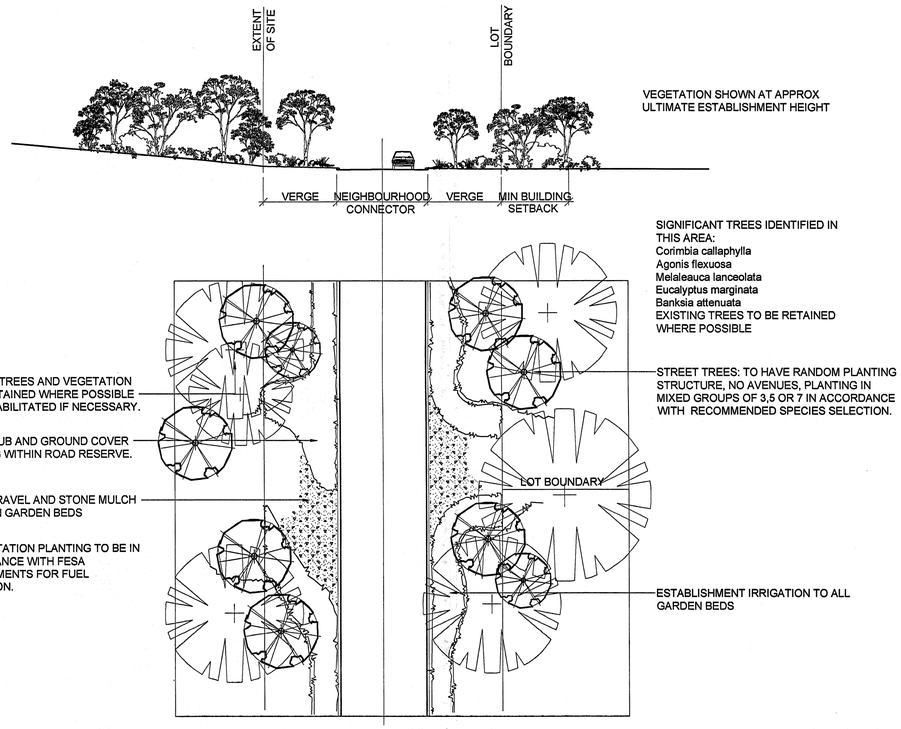
Project No. B0531/SBP/LC/L202
Category
Drawing No.

Date APRIL 2008
Revision
Scale 1:250 @ A1
Issue APPROVAL
Drawn AC
Checked HM



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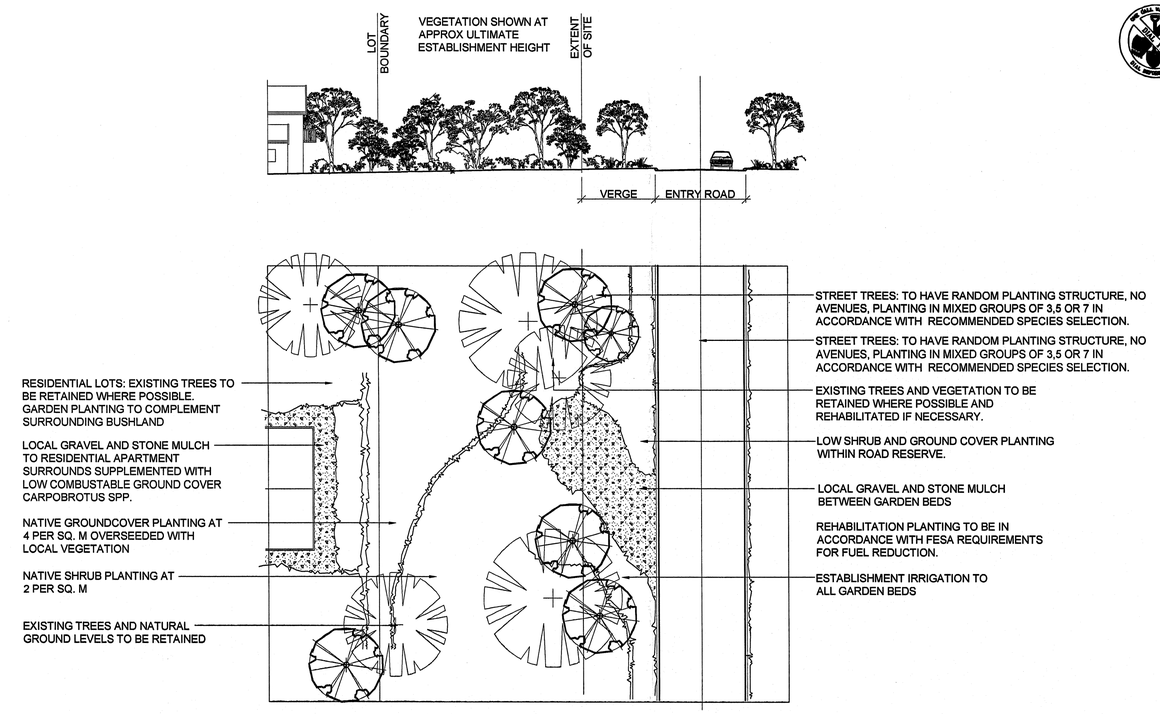

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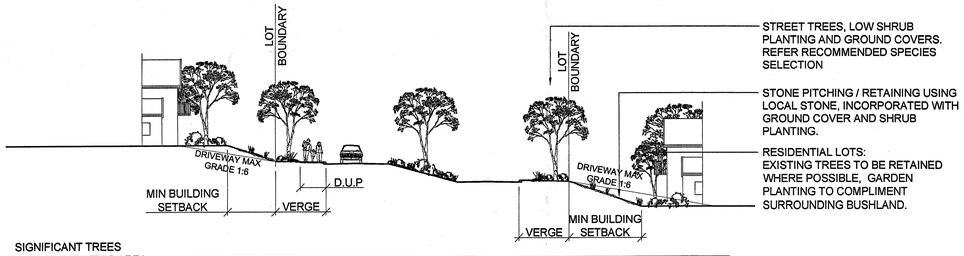

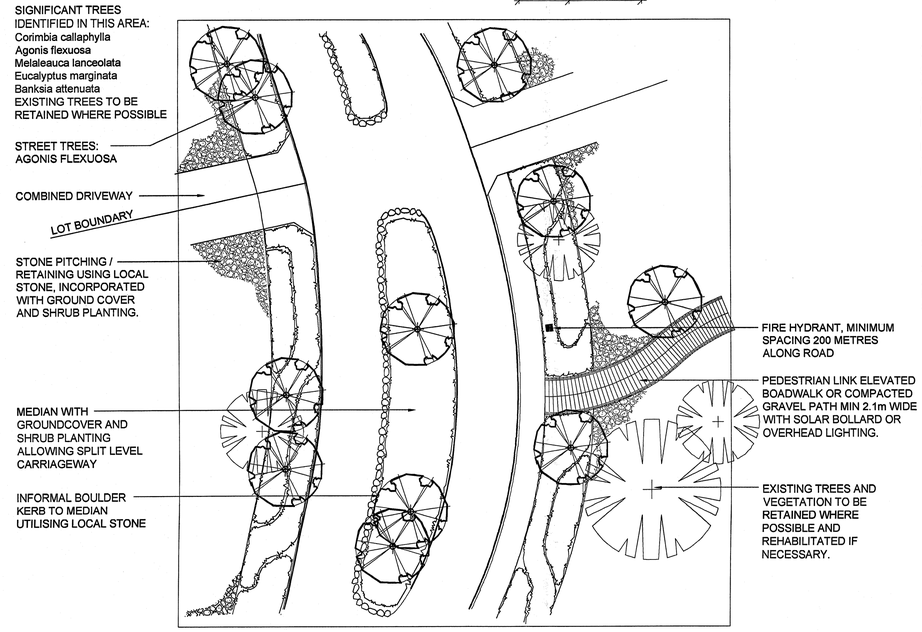

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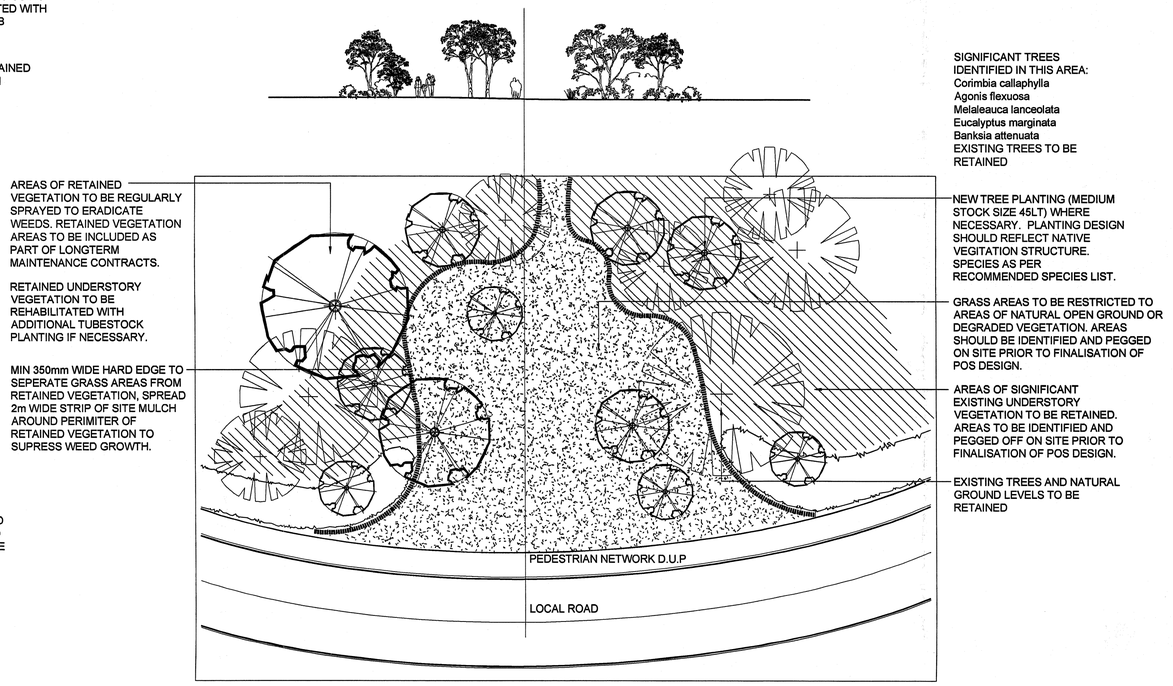

04 TYPICAL LANDSCAPE TREATMENT: POS 1
PLAN / SECTION SCALE 1:250

No.	REVISION	BY	DATE

Title
LANDSCAPE COMMITMENT DETAIL
DRAWING 1 OF 4

Project
SMITH BEACH

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Project No. B0531/SBP/LC/L201
Category
Drawing No.

Date APRIL 2008
Revision
Scale 1:250 @ A1
Issue APPROVAL
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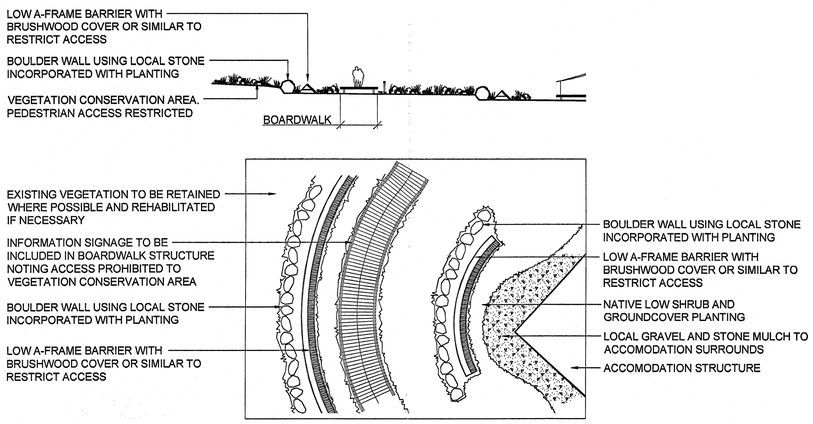
Checked HM



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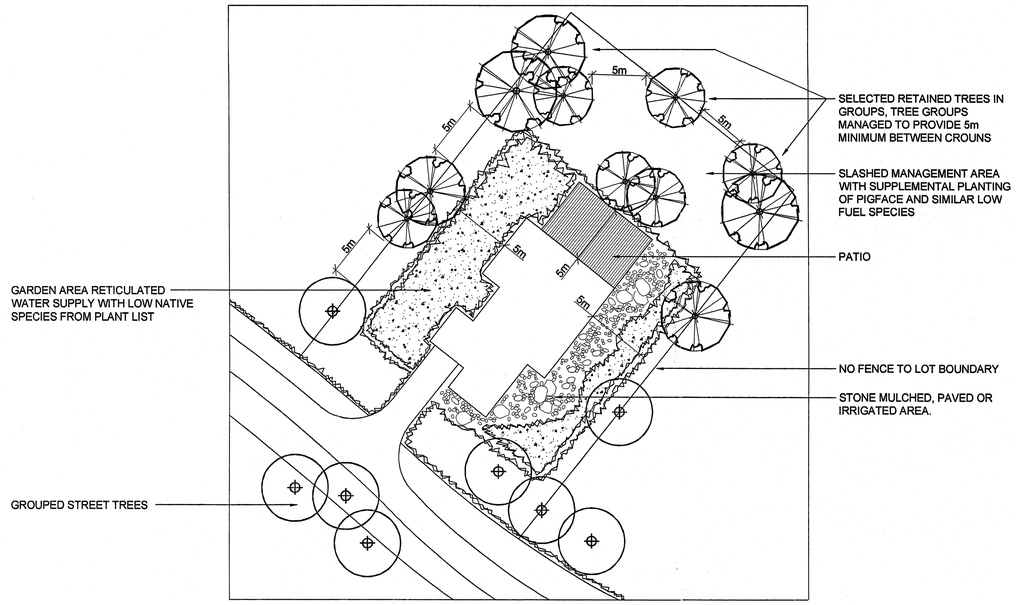

14 TYPICAL LANDSCAPE TREATMENT: LOT, SINGLE BUILDING
PLAN SCALE 1:250

No.	REVISION	BY	DATE
A	ISSUED FOR SEA RESPONSE	AC	APL06

Title
LANDSCAPE COMMITMENT DETAIL
DRAWING 4 OF 4

Project
SMITH BEACH

Client
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Project No. Category Drawing No.
B0531/SBP/LC/L204

Date AUG 06 Revision
Scale 1:250 @ A1 A
Issue APPROVAL
Drawn AC Checked HM

Appendix 6
Revised Appendix 2 table from Vertebrate Fauna Assessment report

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Masked Owl *Tyto novaehollandiae novaehollandiae* P	X									
Zosteropidae (Silver-eyes)										
Silvereye *Zosterops lateralis*	X	23	X	43		X	X	X	X	

== ATA Environmental (2006) *Location 413 Smiths Beach Fauna Assessment Survey*, Unpublished report for Canal Rocks Properties.

@ ATA Environmental (2005) *Lot 1001 Mardo Avenue, Australind, Environmental Assessment*, Unpublished report for Marist Brothers, Report Number: 2005/56.

* How, R.A., Dell, J. and Humphreys, W.F. (1987) The Ground Vertebrate Fauna of Coastal Areas between Busselton and Albany, Western Australia, *Records of the Western Australian Museum 13, 553-574.*

ATA Environmental (1998) *Vertebrate Fauna Dalyellup Beach Estate Shire of Capel*, Unpublished report for Homeswest/Home Building Society and Satterley Real Estate.

& Harewood, G. (2005) Fauna Survey, Eagle Bay, Rural Residential Estate. Unpublished report to Cardno BSD.

% ATA Environmental (2003) *Lot 1000 Barnes Avenue, Australind Flora and Fauna Survey*, Unpublished report for Marist Brothers, Report Number: 2003/24.

^ *ecologia* Environmental Consultants (2001) *Part Lot 211 Barnes Avenue, Australind Fauna Assessment Survey*, Unpublished report for Marist Brothers.

+ *ecologia* Environmental Consultants (2001) *Location 413 Smiths Beach Fauna Assessment Survey*, Unpublished report for ATA Environmental.

~ Hart, Simpson and Associates Pty Ltd (1995) *Meelup Regional Park, Dunsborough Fauna Survey*. Prepared for the Shire of Busselton.

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Sharp-tailed Sandpiper *Calidris acuminata* M	X									
Long-toed Stint *Calidris subminuta* M										
Curlew Sandpiper *Calidtis ferruginea* M										
Strigidae (Owls)										
Southern Boobook Owl *Ninox novaeseelandiae novaeseelandiae*	X	2		1		X	X	X		
Sylviidae (Old World Warblers)										
Clamorous Reed-warbler *Acrocephalus stentoreus*										
Little Grassbird *Megalurus gramineus*										
Rufous Songlark *Cincloramphus mattewsi*										
Brown Songlark *Cincloramphus cruralis*										
Threskiornithidae (Ibis and Spoonbills)										
Sacred Ibis *Threskiornis aethiopica*					X				X	
Australian White Ibis *Threskiornis molucca*						X				
Straw-necked Ibis *Threskiornis spinicollis*	X					X				
Royal Spoonbill *Platalea regia*										
Yellow-billed Spoonbill *Platalea flavipes*										
Turnicidae (Button-quails)										
Painted Button-quail *Turnix varia*						X				
Tytonidae (Owls)										
Barn Owl *Tyto alba delicatula*	X									

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Australian Ringneck *Platycercus zonarius semitorquatus*	X	24	X	123	X	X	X	X	X	
Regent Parrot *Polytelis anthopeplus*	X			1		X				
Rallidae (Crakes, Coots and Rails)										
Dusky Moorhen *Gallinula tenebrosa*									X	
Buff-banded Rail *Gallirallus philippensis*	X									
Spotless Crake *Porzana tabuensis*										
Baillon's Crake *Porzana pusilla*										
Australian Crake *Porzana fluminea*										
Black-tailed Native Hen *Gallinula ventralis*	X									
Purple Swamphen *Porphyrio porphyrio*										
Eurasian Coot *Fulica atra*						X				
Recurvirostridae (Stilts and Avocets)										
Banded Stilt *Cladorhynchus leucocephalus*										
Black-winged Stilt *Himantopus himantopus*	X									
Red-necked Avocet *Recurvirostra novaehollandiae*										
Scolopaciade (Curlews and sandpipers)										
Common Greenshank *Tringa nebularis* M									X	
Wood Sandpiper *Tringa glareola* M										
Common Sandpiper *Tringa hypoleucos* M										
Marsh Sandpiper *Tringa stagnatilis* M										
Black-tailed Godwit *Limosa limosa* M										
Bar-tailed Godwit *Limosa lapponica* M										

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Great Cormorant *Phalacrocorax carbo*										
Pied Cormorant *Phalacrocorax varius*	X					X				
Phasianidae (Quails)										
Stubble Quail *Coturnix pectoralis*										
Brown Quail *Coturnix ypsilophora*										
Podargidae (Frogmouths)										
Tawny Frogmouth *Podargus strigoides*	X		X			X				
Podicipedidae (Grebes)										
Australasian Grebe *Tachybaptus novaehollandiae*						X				
Hoary-headed Grebe *Poliocephalus poliocephalus*						X				
Psittacidae (Parrots and lorikeets)										
Galah *Cacatua roseicapilla*		182	X	6	X	X				
Forest Red-tailed Black-Cockatoo *Calyptorhynchus banksii naso* S	X									
Baudin's Black-Cockatoo *Calyptorhynchus baudinii* ES	X	63	X			X				
Carnaby's Black-Cockatoo *Calyptorhynchus latirostris* ES	X									
Purple-crowned Lorikeet *Glossopsitta porphyrocephala*			X	53						
Elegant Parrot *Neophema elegans*		5	X				X			
Western Rosella *Platycercus icterotis*	X	2				X	X			
Red-capped Parrot *Platycercus spurious*	X		X	34		X	X	X	X	

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Neosittidae (Sittelas)										
Varied Sittella *Daphoenositta chrysoptera*						X				
Pachycephalidae (Whistlers, Shrike-thrush)										
Grey Shrike-thrush *Colluricincla harmonica*						X	X			
Golden Whistler *Pachycephala pectoralis*	X	37	X		X	X	X			
Rufous Whistler *Pachycephala rufiventris*	X			8		X			X	
Pardalotidae (Pardalotes)										
Striated Pardalote *Pardalotus striatus*	X			24		X	X	X	X	
Spotted Pardalote *Pardalotus punctatus*						X			X	
Pelecanidae (Pelicans)										
Australian Pelican *Pelecanus conspicillatus*				1					X	
Petroicidae (Robins)										
Western Yellow Robin *Eopsaltria australis griseogularis*	X						X			
White-breasted Robin *Eopsaltria georgiana*	X	32	X			X	X			
Scarlet Robin *Petroica multicolor*	X	4				X	X			
Red-capped Robin *Petroica goodenovii*									X	
Hooded Robin *Melanodryas cucullate*										
Phalacrocoracidae (Cormorants)										
Little Pied Cormorant *Phalacrocorax melanoleucos*					X			X	X	
Little Black Cormorant *Phalacrocorax sulcirostris*					X		X			

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Silver Gull *Larus novaehollandiae*		92			X	X				
Maluridae (Fairy-wrens)										
Splendid Fairy-wren *Malurus splendens*	X	19	X		X	X	X			
Southern Emu-wren *Stipiturus malachurus*		1	X				X			
Meliphagidae (Honeyeaters)										
Western Spinebill *Acanthorhynchus superciliosus*			X	3		X	X			
Singing Honeyeater *Lichenostomus virescens*	X	13	X			X				
Red Wattlebird *Anthochaera carunulata*	X	37	X	92	X	X	X	X	X	
Brown Honeyeater *Lichmera indistincta*		10	X	19		X	X	X	X	
New Holland Honeyeater *Phylidonyris novaehollandiae*		130		4		X	X		X	
White-fronted Chat *Epthianura albifrons*										
Little (Western) Wattlebird *Anthochaera lunulata*				1						
White-cheeked Honeyeater *Phylidonyris nigra*				6						
Tawny-crowned Honeyeater *Phylidonyris melanops*										
Brown-headed Honeyeater *Melithreptus brevirostris*										
White-naped Honeyeater *Melithreptus lunatus*										
Meropidae (Bee-eaters)										
Rainbow Bee-eater *Merops ornatus* M							X		X	
Motacillidae (Pipits)										
Richard's Pipit *Anthus novaeseelandiae*					X					

Species		*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Fan-tailed Cuckoo	*Cuculus pyrrhophanus*					X		X			
Dicaedae (Mistletoebird)											
Mistletoebird	*Dicaeum hirundinaceum*										
Dicruridae (Flycatchers)											
Grey Fantail	*Rhipidura fuliginosa*		43	X	25	X	X	X	X	X	
Willy Wagtail	*Rhipidura leucophrys*		39	X		X	X				
Restless Flycatcher	*Myiagra inquieta*	X									
Magpie-lark	*Grallina cyanoleuca*				1	X	X	X			
Falconidae (Falcons)											
Australian Hobby	*Falco longipennis*	X					X				
Brown Falcon	*Falco berigora*										
Australian Kestrel	*Falco cenchroides*	X	7		1	X					
Peregrine Falcon	*Falco peregrinus* S										
Halcyonidae (Kingfishers)											
Laughing Kookaburra	*Dacelo novaeguineae* *	X	4	X	5	X	X	X	X	X	
Sacred Kingfisher	*Todiramphus sanctus*										
Hirundinidae (Swallows)											
Welcome Swallow	*Hirundo neoxena*		17	X	12	X	X	X			
Tree Martin	*Hirundo nigricans*		4		6	X	X	X		X	
Laridae (Gulls and Terns)											

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Charadriidae (Plovers and Dotterels)										
Black-fronted Dotterel *Charadrius melanops*										
Banded Lapwing *Vanellus tricolor*										
Red-kneed Dotterel *Erythrogonys cinctus*									X	
Columbidae (Pigeons and Doves)										
Common Bronzewing *Phaps chalcoptera*	X			13	X	X		X	X	
Crested Pigeon *Ocyphaps lophotes*						X				
Brush Bronzewing *Phaps elegans*	X	26	X							
Feral Pigeon *Columbia livia**						X				
Spotted Turtle-dove *Streptopelia chinensis* *										
Laughing Turtle-dove *Streptopelia senegalensis* *						X				
Corvidae (Crows and Ravens)									X	
Australian Raven *Corvus coronoides*		59	X	33	X	X	X	X		
Cracticidae (Butcherbirds and Magpies)										
Australian Magpie *Cracticus tibicen*	X	58	X	34	X	X	X	X	X	
Grey Butcherbird *Cracticus torquatus*	X		X	30	X	X		X		
Pied Butcherbird *Cracticus nigrogularis*	X	9	X							
Grey Currawong *Strepera versicolor*										
Cuculidae (Cuckoos)										
Horsfield's Bronze Cuckoo *Chrysococcyx basalis*									X	
Pallid Cuckoo *Cuculus pallidus*										
Shining Bronze Cuckoo *Chrysococcyx lucidus*	X									

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Darter *Anhinga melanogaster*				1					X	
Ardeidae (Herons and Egrets)										
Great Egret *Ardea alba* M	X							X	X	
Pacific Heron *Ardea pacifica*										
Cattle Egret *Ardea ibis* M										
Little Egret *Ardea garzetta*								X		
White-faced Heron *Ardea novaehollandiae*					X	X	X			
Rufous Night Heron *Nycticorax caledonicus*	X									
Artamidae (Woodswallows)										
Masked Woodswallow *Artamus cyanopterus*	X				X					
Black-faced Woodswallow *Artamus cinereus*										
Dusky Woodswallow *Artamus personatus*										
Campephagidae (Cuckoo-shrike)										
Black- faced Cuckoo-shrike *Coracina novaehollandiae*	X		X	16	X	X	X	X	X	
White-winged Triller *Lalage sueurii*										
Caprimulgidae (Nightjars)										
Spotted Nightjar *Eurostopodus argus*	X									
Casuriidae (Emu and Cassowary)										
Emu *Dromaius novaehollandiae*										

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Brown Goshawk *Accipiter fasciatus*							X			
Swamp Harrier *Circus approximans*										
White-bellied Sea Eagle *Haliaeetus leucogaster* M	X									
Wedge-tailed Eagle *Aquila audax*	X					X	X			
Little Eagle *Hierasaetus morphnoides*						X				
Square-tailed Kite *Lophoictinia isura*									X	
Osprey *Pandion haliaetus* M						X			X	
Aegothelidae (Owlet-nightjars)										
Australian Owlet-nightjar *Aegotheles cristatus*										
Anatidae (Ducks)										
Pacific Black Duck *Anas superciliosa*					X	X	X		X	
Grey Teal *Anas gibberifrons*					X	X				
Chestnut Teal *Anas castanea*					X					
Australian Shoveler *Anas rhynchotis*					X					
Black Swan *Cygnus atratus*					X					
Freckled Duck *Stictonetta naevosa*	X									
Australian Shelduck *Tadorna tadornoides*					X					
Pink-eared Duck *Malacorhynchus membranaceus*										
Hardhead *Aythya australis*					X					
Wood Duck *Chenonetta jubata*	X				X	X	X			
Blue-billed Duck *Oxyura australis*										
Musk Duck *Biziura lobata* *					X	X				
Anhingidae (Darters)										

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Western Brush Wallaby *Macropus irma* P							X			
Mollosidae (Freetail Bats)										
Southern Freetail Bat *Mormopterus planiceps*			X							
White-striped Freetail Bat *Tadarida australis*			X			X				
Muridae (Rats and mice)										
Water Rat *Hydromys chrysogaster* P	X				X					
House Mouse *Mus musculus* *	X	5	X	15	X	X	X		X	
Bush Rat *Rattus fuscipes*	X		X							
Black Rat *Rattus rattus* *	X				X	X			X	
Peramelidae (Bandicoots)										
Southern Brown Bandicoot, Quenda *Isoodon obesulus fusciventer* P	X				X	X	X			X
Phalangeridae (Possums)										
Common Brush-tail Possum *Trichosurus vulpecula*	X		X	29	X	X	X		X	2
Pseudocheiridae (Ring-tailed possum)										
Western Ringtail Possum *Pseudocheirus occidentalis* ES	X	X			X	X	X			10
Tachyglossidae (Echidnas)										
Short-beaked Echidna *Tachyglossus aculeatus*										1

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Pseudophryne guentheri	X				X		X			
Bovidae (Cows, Goats and Sheep)										
Cow *Bos taurus* *	X									
Burramyidae (Pygmy Possums)										
Western Pygmy Possum *Cercartetus concinnus*	X	1					X			
Canidae (Dogs and foxes)										
Domestic Dog *Canis lupis* *			X	X						
Feral Fox *Vulpes vulpes* *		2		X		X	X		X	2
Dasyuridae (Dunnarts)										
Western Quoll, Chuditch *Dasyurus geoffroii* ES	X									
Southern Brush-tailed Phascogale *Phascogale tapoatafa tapoatafa* P	X	1			X					
Grey-bellied Dunnart *Sminthopsis griseoventer*	X				X					2
Felidae (Cats)										
Feral Cat *Felis catus* *	X	1	X	X	X	X		X		
Leporidae (Rabbits)										
European Rabbit *Oryctolagus cuniculus* *		X	X	X	X	X	X		X	8
Macropodidae (Kangaroos)										
Western Grey Kangaroo *Macropus fuliginosus*		X	X	X		X	X	X	X	15

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Lerista lineata	X				X					
Menetia greyii	X	18	X		X	X			X	91
Morethia lineoocellata	X	207	X	231	X	X			X	83
Morethia obscura					X			X		
Tiliqua rugosa		89	X	20	X	X	X	X		14
Typhlopidae (Blind snakes)										
Ramphotyphlops australis	X	2	X	5	X	X			X	
Varanidae (Monitors)										
Varanus rosenbergi		X	X							3
Hylidae										
Litoria adelaidensis		X				X	X	X	X	20
Litoria moorei	X	X					X			
Myobatrachidae										
Crinia georgiana							X		X	161
Crinia glauteri							X			
Crinia insignifera	X				X	X			X	
Geocrinia leai										1
Heleioporus eyrei	X	13	X	3	X	X			X	9
Heleioporus inornatus										1
Heleioporus psammophilus	X				X		X			
Limnodynastes dorsalis	X	4		1	X	X	X			6
Metacrinia nichollsi										9
Pseudophryne douglasi										2

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Gekkonidae (Geckoes)										
Christinus marmoratus	X	3	X	23	X	X			X	1
Pygopodidae (Legless lizards)										
Aprasia pulchella	X	4			X					1
Aprasia repens	X				X					
Delma australis		5								1
Lialis burtonis						X				
Pygopus lepidopodus	X				X					
Scincidae (Skinks)										
Acritoscincus trilineatum	X	17			X	X	X		X	8
Cryptoblepharus plagiocephalus	X		X	30	X	X			X	9
Ctenotus catenifer	X									
Ctentotus delli										4
Ctenotus fallens						X				
Ctenotus impar	X	45	X	2	X					26
Ctenotus labillardieri		6								
Egernia kingii		X			X				X	1
Egernia napoleonis	X	X			X	X				
Egernia pulchra										
Hemiergis peronii	X	13	X		X		X			48
Hemiergis quadrilineata	X			69	X	X			X	
Lerista distinguenda	X	95		60	X					
Lerista elegans				60	X	X	X		X	15

APPENDIX 6
FAUNA SPECIES LISTED AS POTENTIALLY OCCURRING NEAR YALLINGUP

E represents species listed under the *Environment Protection and Biodiversity Conservation Act 1999*
S represents species listed on the Department of Conservation and Land Management's Scheduled Fauna list
P represents species listed on the Department of Conservation and Land Management's Priority Fauna list
* introduced species

Species	*Fauna Base*	Smiths Beach =	Smiths Beach +	Mardo Ave Australind @	Busselton to Albany *	Dalyellup Beach Estate #	Lot 50 Eagle Bay Road, Eagle Bay &	Lot 1000 Barnes Ave Australind %	Pt Lot 200 Barnes Ave Australind ^	Meelup Regional Park ~
Agamidae (Dragons)										
Pogona minor minor		6	X		X	X				1
Boidae (Pythons)										
Morelia spilota imbricata S		X								
Cheluidae (Side-necked Tortoises)										
Long-necked Tortoise *Chelodina oblonga*	X				X					
Elapidae (Front-fanged snakes)										
Echiopsis curta	X	3			X	X				
Elapognathus coronatus	X	1			X					
Elapognathus minor	X				X					
Notechis scutatus	X				X					
Parasuta gouldii						X				
Parasuta nigriceps	X				X					
Pseudonaja affinis affinis	X	2			X					2
Simoselaps bertholdi				1						

Appendix 7
Results of January 2008 Western Ringtail Possum Survey

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment

coffey environments
SPECIALISTS IN LIVING AND WORKING PLACES

4 March 2008

Canal Rocks Pty Ltd
c/- NS Projects
Suite A7, 435 Roberts Road
SUBIACO WA 6008

Attention: Neill Stevens

Dear Neill

RE: Western Ringtail Possum Survey at Sussex Location 413, Smiths Beach

This letter report details the results of Western Ringtail Possum survey at Sussex Location 413 Smiths Beach in response to a request from the Environmental Protection Authority (EPA) to undertake a further site assessment of the Western Ringtail Possum (WRP) population on the site.

A WRP survey was previously conducted by ATA Environmental in December 2005 and included a day time and night time spotlighting survey. The survey identified 50 dreys within the proposed development area but only eight WRPs were observed during the spotlighting surveys (ATA Environmental, 2007). The ratio of dreys to possums was considered to be very high compared to the average ratio in the Busselton-Dunsborough area.

At a recent EPA meeting it was decided that the EPA required additional information on the occupancy rate of WRP dreys to get a measure of the actual population of possums in the area rather than an estimate of possum numbers.

METHODOLOGY

Given that the original survey was conducted over two years ago, it is likely that new dreys will have been built and previously recorded dreys may no longer be there. Therefore, the proposed development area was re-surveyed for dreys and WRPs rather than visiting previous drey sites. The diurnal survey of dreys was conducted between 21 and 23 January 2008 by Dr Jessica Oates with assistance from Kate Thomson. The survey followed the methodologies used for the original survey conducted in November/December 2005 as well as an additional method of tree-tapping to detect possums during the day. During daylight surveying the canopy and lower vegetation throughout the survey area was visually searched for dreys by walking transects 10m apart across the survey area. All possible dreys were recorded by GPS and were classified into one of four types:

- (1) - Dense, well-made ball or slightly elongate form with a distinct entrance hole. In this type of drey the possum is completely enclosed;
- (2) - Dense, well-made cup-shape nest with some material overtop, but not fully enclosed;

- (3) - Dense, well-made cup-shape nest open at the top. The possum sits deep inside the cup of the drey and may not be visible from the ground; and
- (4) - Platform of twigs, often in a tree or branch fork, with no more than a shallow depression where the possum rests.

Additional information was recorded for each potential drey including:

- the species of vegetation in which the drey is located;
- the height of the vegetation in which the drey is located;
- height of the drey above the ground;
- comments on the condition of the drey; and
- presence of possum(s).

The presence of possums within any dreys recorded was determined by tapping the tree with a stick during the day and see if any possums move out of the drey. This method was proposed and approved by John Dell, the EPASU fauna specialist.

In addition, Coffey Environments considered that spotlighting at night was still necessary as not all possums will necessarily be in dreys during the day. Some may live in hollows or be moving around due to disturbance from various factors. Spotlighting was conducted over two evenings (21 and 22 January 2008) by traversing the survey area on foot and using head torches. Locations of WRP and Common Brushtail Possum sightings were recorded using a GPS and mapped.

Both nights were warm with clear skies and a slight breeze. This weather is considered suitable for spotlighting possums. Coffey Environments acknowledges that it is unlikely all WRP were observed during an individual nights spotlighting assessment. Whilst spotlighting, possums often turn their heads or close their eyes when light is shone nearby. These actions can make spotlighting counts difficult given that eye-shine is the primary method of locating individuals.

The survey was conducted during the period of greater detection rates for WRPs (Wayne *et al.*, 2005). Wayne *et al.*, (2005) recorded greater detection rates of WRPs between October and April, which corresponds with the breeding activity, weaning and maturation of young, and when the population is seasonally at its greatest. Therefore, the timing of the survey was considered optimal.

RESULTS

A total of 41 possum dreys were located during the daylight search in January 2008. Locations and descriptions of each of the possum dreys are provided in Table 1 and their locations shown on Figure 1. Of these 41 dreys, six WRPs were found to be occupying a drey, resulting in a drey to possum ratio of 6.8:1.

A total of five WRPs sightings were recorded during the spotlighting survey undertaken in January 2008. Four WRPs were sighted on the first night of spotlighting and one WRP was sighted on the second night. No Common Brushtail Possums were recorded during the January 2008 survey. Table 2 shows the tree species the possums were found in and the number of possums sighted. The locations of possums sighted are shown in Figure 1.

Evidence of foxes and cats was found within the proposed development area.

DISCUSSION

In the original survey conducted in November/December 2005, a total of 50 dreys and six WRPs were recorded within the project area (ATA Environmental, 2007). Figure 2 shows the location of dreys and WRPs from the November/December 2005 survey and it can be seen that two of the dreys are actually outside the project area and have been excluded in the calculation of the possum to drey ratio. The

drey to possum ratio for the November/December 2005 survey is therefore 6:1. This ratio is very similar to that recorded during the recent survey in January 2008.

The distribution of WRP dreys has changed slightly since the November/December 2005 survey. In the November/December 2005 survey the dreys appeared to be more concentrated to the north in the area of suitable habitat. In the January 2008 the dreys appear to be more dispersed in a north-south direction across the area of suitable habitat, with more of a concentration to the south.

The recent survey in January 2008 confirms that the project area does have a high drey to possum ratio (6-7:1) compared with other survey results in the Busselton-Dunsborough area. The spotlighting surveys that were undertaken during the January 2008 survey also confirms that the number of possums in the survey area is low compared with the number of dreys recorded in the area. Previous surveys by Jones *et al.* (1994) recorded a ratio of two dreys per WRP at Abba River, where numerous tree hollows were also being used, and three dreys per WRP at the Locke Estate in Busselton. Other surveys have recorded slightly higher ratios of 4.5 dreys per WRP in the Busselton-Dunsborough region (Bamford Consulting Ecologists, 2003).

It is unknown why this particular area at Sussex Location 413, Smiths Beach has such a high drey to possum ratio compared with other areas surveyed. It is likely that the reason is related to the specific habitat variables of the site. The higher number of dreys being built and used by the WRPs in the area may be due to a combination of the lack of any tree hollows suitable for diurnal resting spots (ATA Environmental, 2007) and lack of dense understorey vegetation that provide refuge for the possums. Studies have found that the abundance of tree hollows is an important habitat variable influencing the abundance of WRPs (Jones and Hillcox, 1995).

Please feel free to contact either myself or Dr Paul van der Moezel should you require clarification on any issue addressed in this report.

For and on behalf of Coffey Environments Pty Ltd

Dr Jessica Oates
Senior Environmental Scientist - Zoology

Dr Paul van der Moezel
Principal

Attachments: Table 1
Figures 1 and 2

REFERENCES

ATA Environmental (2007) Vertebrate Fauna Assessment – Smiths Beach, Yallingup. Report prepared for Canal Rocks Pty Ltd. ATA Report No. 2006/050.

Bamford Consulting Ecologists (2003) Survey for the Western Ringtail Possum *Pseudocheirus occidentalis* at the Proposed Novacare Lifestyle Village, Busselton, Western Australia. Report prepared for Ecoscape.

Jones, B. and Hillcox, S. (1995) A Survey of the Possums *Trichosurus vulpecula* and *Pseudocheirus occidentalis* and their Habitats in Forest at Ludlow, Western Australia. *The Western Australian Naturalist 20,* 139-150.

Jones, B.A., How, R.A. and Kitchener, D.J. (1994) A Field Study of *Pseudocheirus occidentalis* (Marsupialia: Petauridae) I Distribution and Habitat. *Wildlife Research 21,* 175-187.

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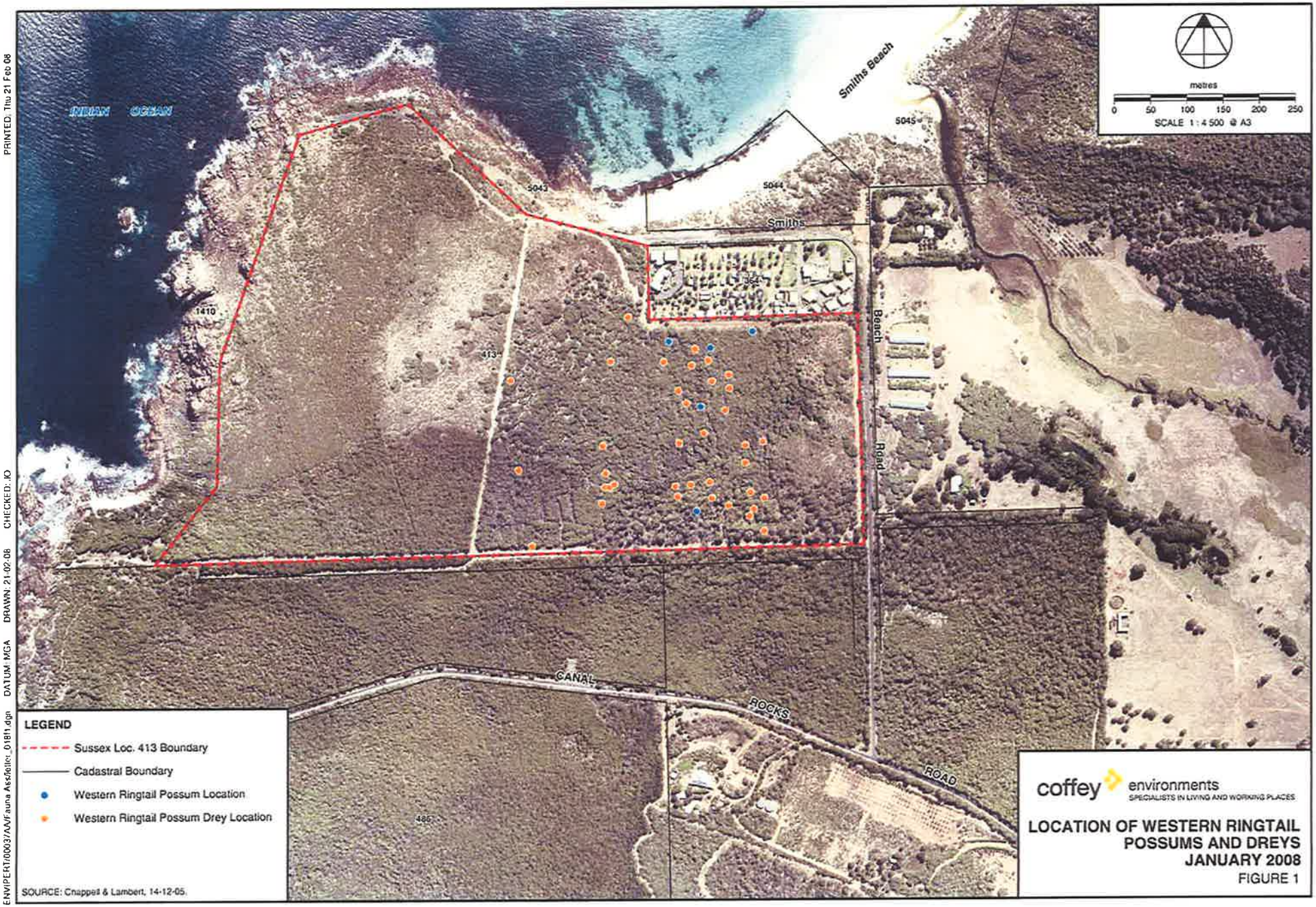
TABLE 1

LOCATION OF DREYS WITHIN SUSSEX LOCATION 413, SMITHS BEACH

Drey Quality	Tree Species	Height of Tree	Height of Drey in Tree	GPS Coordinates (WGS84)	Comment
4	*Corymbia calophylla*	2m	2m	315576mE 6273403mN	WRP inside
4	*Banksia attenuata*	4m	3m	315587mE 6273277mN	
3	*Spyridium globulosum*	3m	2m	315606mE 6273170mN	
4	*Melaleuca huegelii*	4m	3m	315702mE 6273229mN	WRP inside
4	*Melaleuca huegelii*	4m	2m	315702mE 6273229mN	
2	*Melaleuca huegelii*	4m	2m	315702mE 6273229mN	
4	*Melaleuca huegelii*	4m	2m	315706mE 6273252mN	
2	*Melaleuca huegelii*	3m	2m	315712mE 6273252mN	
4	*Agonis flexuosa*	4m	3m	315738mE 6273490mN	
3	*Spyridium globulosum*	3m	2m	315714mE 6273429mN	
4	*Agonis flexuosa*	4m	4m	315703mE 6273311mN	
2	*Agonis flexuosa*	3m	3m	315707mE 6273272mN	
1	*Melaleuca huegelii*	3m	2m	315719mE 6273256mN	
4	*Agonis flexuosa*	3m	2m	315806mE 6273238mN	
2	*Spyridium globulosum*	3m	2.5m	315803mE 6273253mN	
1	*Spyridium globulosum*	3m	2m	315808mE 6273314mN	WRP inside
2	*Spyridium globulosum*	4m	3m	315807mE 6273388mN	
3	*Spyridium globulosum*	4m	2m	315807mE 6273388mN	
3	*Agonis flexuosa*	5m	3m	315787mE 6273428mN	
2	*Spyridium globulosum*	4m	3.5m	315830mE 6273446mN	WRP inside
3	*Spyridium globulosum*	4m	3m	315830mE 6273446mN	
4	*Agonis flexuosa*	5m	3m	315825mE 6273423mN	
4	*Agonis flexuosa*	4m	2m	315818mE 6273370mN	
1	*Agonis flexuosa*	5m	4m	315824mE 6273255mN	WRP inside

Drey Quality	Tree Species	Height of Tree	Height of Drey in Tree	GPS Coordinates (WGS84)	Comment
1	*Hakea oleifolia*	5m	3m	315853mE 6273236mN	
4	*Spyridium globulosum*	4m	3m	315850mE 6273259mN	
4	*Spyridium globulosum*	3m	2m	315842mE 6273328mN	
2	*Spyridium globulosum*	4m	3m	315853mE 6273401mN	
3	*Spyridium globulosum*	3m	2m	315848mE 6273430mN	
2	*Spyridium globulosum*	4m	3m	315876mE 6273410mN	
1	*Agonis flexuosa*	4m	3m	315877mE 6273391mN	
4	*Spyridium globulosum*	4m	3m	315871mE 6273360mN	
1	*Agonis flexuosa*	4m	3.5m	315876mE 6273225mN	
4	*Agonis flexuosa*	6m	5m	315905mE 6273211mN	
2	*Agonis flexuosa*	6m	5m	315906mE 6273244mN	WRP inside
4	*Agonis flexuosa*	4m	3m	315899mE 6273286mN	
4	*Agonis flexuosa*	3m	2m	315899mE 6273311mN	
1	*Spyridium globulosum*	4m	2m	315923mE 6273316mN	
1	*Agonis flexuosa*	3.5m	3m	315925mE 6273236mN	
4	*Agonis flexuosa*	7m	6m	315911mE 6273220mN	
1	*Agonis flexuosa*	4m	2m	315925mE 6273190mN	



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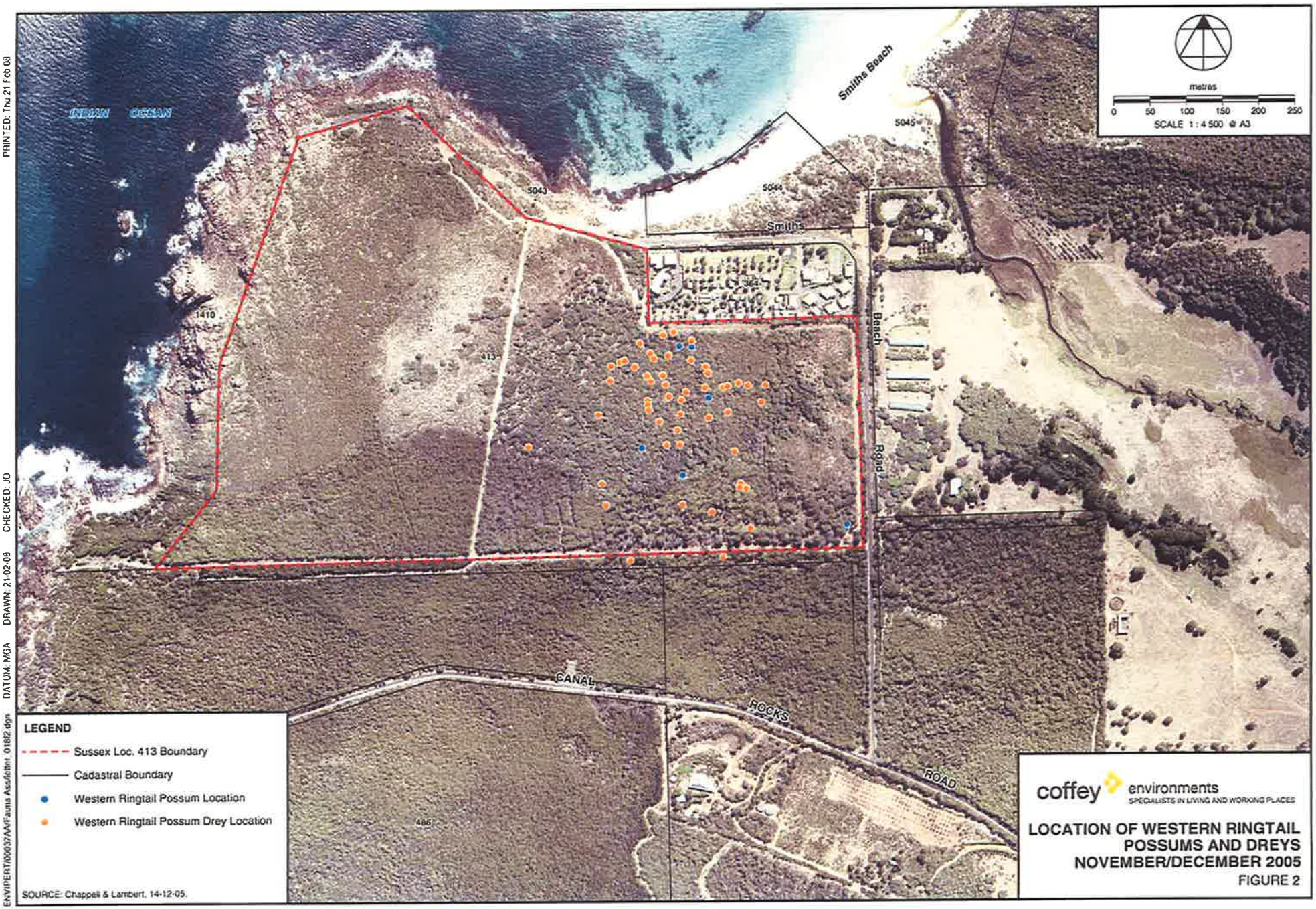

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Appendix 8
Department of Planning and Infrastructure Response to Landscape Study Report

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment

Department for **Planning and Infrastructure**
Government of Western Australia

Environment and Sustainability Directorate

Your ref: Smiths Beach Loc 413
Our ref: 055/6/6/2PV
Enquiries: Tara Cherrie
(08) 9264 7921

15 September 2006

Neill Stevens (Director)
Suite A7, 435 Roberts Rd
Subiaco WA 6008

Dear Neill

RE: Smiths Beach Location 413 LANDSCAPE STUDY *The Methodologies Applied* August 2006 (Edit 12)

The Environment and Sustainability Directorate (DPI) accepts the above report in that it meets the requirements of the Shire of Busselton TPS Adopted Methodologies (2004). More specifically it meets technological standards in the field of landscape assessment in relation to technique and the accuracy of the visualisation modelling used. This Directorate approves the content and outcomes of the above report.

This approval is conditional; based on the following minor alterations required by the consultant:

- Minor word editing within the Introduction, Step A and Step B
- Step C (identification of significant features) although these are mapped, they need to be described in the text (as requested from advice from this Directorate 9th Aug 06)
- Figure 10 requires interpretation in the text
- Wilderness Quality categories require minor language edits
- Composite Landscape Class Maps (Figures 13 and 14) require minor changes in the map legends
- Step G – view management objectives for Canal Rocks area and Rotary Lookout suggest an additional objective: "Development not to be visible" to maintain consistency with other view management objectives (derived from Fly-through view analysis)
- View management objective for Smiths Beach headland carpark requires an additional objective: "Minimise visibility through mitigation and integration measures including screening vegetation and building design guidelines"
- View management objectives for both Surf Breaks – one change suggested in first objective to include both the primary ridge AND secondary ridge if possible
- Comments from Appendices 2 and 3 need to have some explanation of how they were adopted, in the text (as requested from advice from this Directorate dated 9th Aug 06)
- The section outlined in the Conclusion that explains how the objectives of the study have been met, needs to be moved to Step H. Some minor word additions and explanations are required (as requested from advice from this Directorate 9th Aug 06).

These conditions are very straightforward, and would only require a brief discussion for clarification between Howard Mitchell (EPCAD) and Tara Cherrie from this Directorate. This meeting will be organised, and the changes made accordingly, as soon as possible.

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ABN 40 996 710 314

Department for Planning and Infrastructure
Government of Western Australia

Yours sincerely

Jim Singleton
Director
Environment and Sustainability Directorate

cc: Howard Mitchell – EPCAD Pty Ltd – P.O. Box 1233, West Perth WA 6872
cc: Mike Schramm – DPI Bunbury – 6th Floor, Bunbury Tower, 61 Victoria St, Bunbury WA 6230
cc: Nigel Bancroft – Shire of Busselton – Locked Bag 1, Busselton WA 6280
cc: Alice O'Conner – Department of Environment and Conservation – P.O Box K822 Perth 6842
cc: Peter Hanly - Department of Environment and Conservation – P.O. Box 1693, Bunbury 6231
cc: Tracy Churchill – Department of Environment and Conservation – 17 Dick Perry Avenue, Kensington 6151

Appendix 9
Smiths Beach Design Guidelines (draft)

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment

DRAFT

Smiths Beach
Design Guidelines

June 2008

mackay urbandesign

CONTENTS

Smiths Beach
Indicative Design Guidelines

INTRODUCTION
Smiths Beach is a rare opportunity to develop a unique and world-class coastal settlement that respects and responds to its special landscape setting. Smiths Beach is intended to be a place that evokes a relaxed coastal lifestyle rather than a piece of suburbia that has escaped from the Perth metropolitan area. With a range of different building types set harmoniously within a continuous landscaped environment, the development has been designed to maximise its visitor appeal and its visual amenity.

The overall layout and the qualities of the development at Smiths Beach are described in the Smiths Beach Development Guide Plan, which ensures that it will be consistent with the Leeuwin Naturaliste Ridge Statement of Planning Policy. Development at Smiths Beach will also be consistent with the prevailing Shire of Busselton Town Planning Scheme unless otherwise approved by the Shire of Busselton.

STATEMENT OF INTENT
The principal intention of this document is to provide a context for the design and landscape setting of buildings at Smiths Beach, and to define how the design of the buildings and their setting can contribute to the overall character and experience of the place.

APPLICATION OF THE DESIGN GUIDELINES
These design guidelines have been established to ensure that all development in Location 413 (referred to herein as Smiths Beach) will contribute to a relaxed community-based lifestyle and tourist experience, and will help to provide owners with a high degree of certainty that their neighbours will share in the overall vision for Smiths Beach.

For these guidelines to be effective, building design proposals will be reviewed by the principal developer (Canal Rocks Pty Ltd) to ensure that they are consistent with the characteristics and, where applicable, the requirements of these guidelines. Therefore, all buildings constructed in Smiths Beach require design endorsement from the principal developer prior to obtaining a development approval or building licence, or both where applicable, from the Shire of Busselton.

All building design proposals for the Smiths Beach development will be assessed by a Design Review Panel set up by the principal developer. The point of contact on design matters for the Design Review Panel will be the Village Architect, who is appointed by the principal developer.

The Design Review Panel will assess the design of each building within Smiths Beach against the design characteristics for the overall development and against the characteristics and requirements for each of the major design elements (described in Elements 1 to 12).

A design that clearly demonstrates the requirements of these guidelines will receive design endorsement from the principal developer. However, a building design

proposal may seek to address the design characteristics in another way other than described by the requirements of the Design Guidelines. In such cases, the building design proposal shall include justification as to how it meets the characteristics of the overall development and the characteristics of the major design elements, and will be assessed on its own merits by the Design Review Panel.

The Design Review Panel reserves the right to endorse a building design that is inconsistent with the requirements of the design guidelines where it believes that the proposal is of outstanding merit and is generally consistent with the design characteristics of the overall development and the design elements.

The Design Review Panel will also assess designs for consistency with the Smiths Beach Development Guide Plan and the Restrictive Covenants placed against each land title issued within the development area.

If endorsed by the Design Review Panel, the proposal will be stamped as 'Endorsed by Canal Rocks Pty Ltd' and returned to the purchaser to be further submitted to the Shire of Busselton as part of the normal process for a development approval or building licence application. The Shire of Busselton has undertaken to notify the principal developer of any attempt to submit plans for building approval without the prior endorsement from the principal developer.

The assessment process can be expected to take approximately two weeks and an administrative charge will apply.

If a building design proposal is not endorsed, the Design Review Panel will provide a copy of their assessment explaining where amendments will be required to the design to enable compliance to be achieved.

To smooth the process for all parties, all purchasers will be offered a consultation session with the Smiths Beach Village Architect prior to submission of the proposal for assessment as part of the endorsement process. Purchasers are strongly advised to take advantage of this consultation opportunity early on in the design stage.

In addition to compliance with these design guidelines, all buildings within the Smiths Beach development must be consistent also with the Smiths Beach Development Guide Plan and the prevailing Shire of Busselton Town Planning Scheme, and must comply with all other relevant statutory building standards. In the case of residential dwellings, all buildings shall also comply with the Residential Design Codes of Western Australia.

OVERALL DEVELOPMENT CHARACTER

Smiths Beach is intended to be a place that offers a relaxed community-based lifestyle and tourist experience that is in contrast to a conventional suburban experience. Smiths Beach is a place that responds to its natural setting and which appeals to, and accommodates, a wide range of visitors.

Development Characteristics

The desired sense of place at Smiths Beach is defined by the following set of broad development characteristics:

DC1 ***A context for a wide range of experiences and lifestyles, for people with a wide range of expectations and affordability.***

DC2 ***An experience that is clearly coastal, non-urban, and Western Australian.***

DC3 ***A place that responds to the views from, and orientation of, the site.***

DC4 ***A respect for the natural topography and landscape values of its setting.***

DC5 ***A place that assists in the reading of the landscape in which it is set.***

DC6 ***A place where the existing vegetation contributes to the character.***

DC7 ***A place that expresses the values of the community over the values of the individual.***

DC8 ***A place that aims to achieves a degree of sustainability in respect to its environmental, social and economic impact.***

DC9 ***An architectural language that evokes a sense of shelter from the elements and is reminiscent of the South-western region.***

DC10 ***An architectural language that is simple, distinctive, harmonious and consistent.***

Achieving the desired characteristics

All buildings and their curtilages must contribute to the desired character and experience of Smiths Beach. The following sections identify a set of characteristics for each major design element to provide guidance on how the desired character may be achieved.

In addition to the characteristics for each major element of design, these design guidelines offer a set of requirements which, if adopted, will ensure that a design is consistent with the desired character.

Some buildings identified in the Development Guide Plan have been identified as a special building type. In these cases, specific requirements have been identified in Element 12; the requirements of Element 12 take precedence over the general requirements of the other ten design elements.

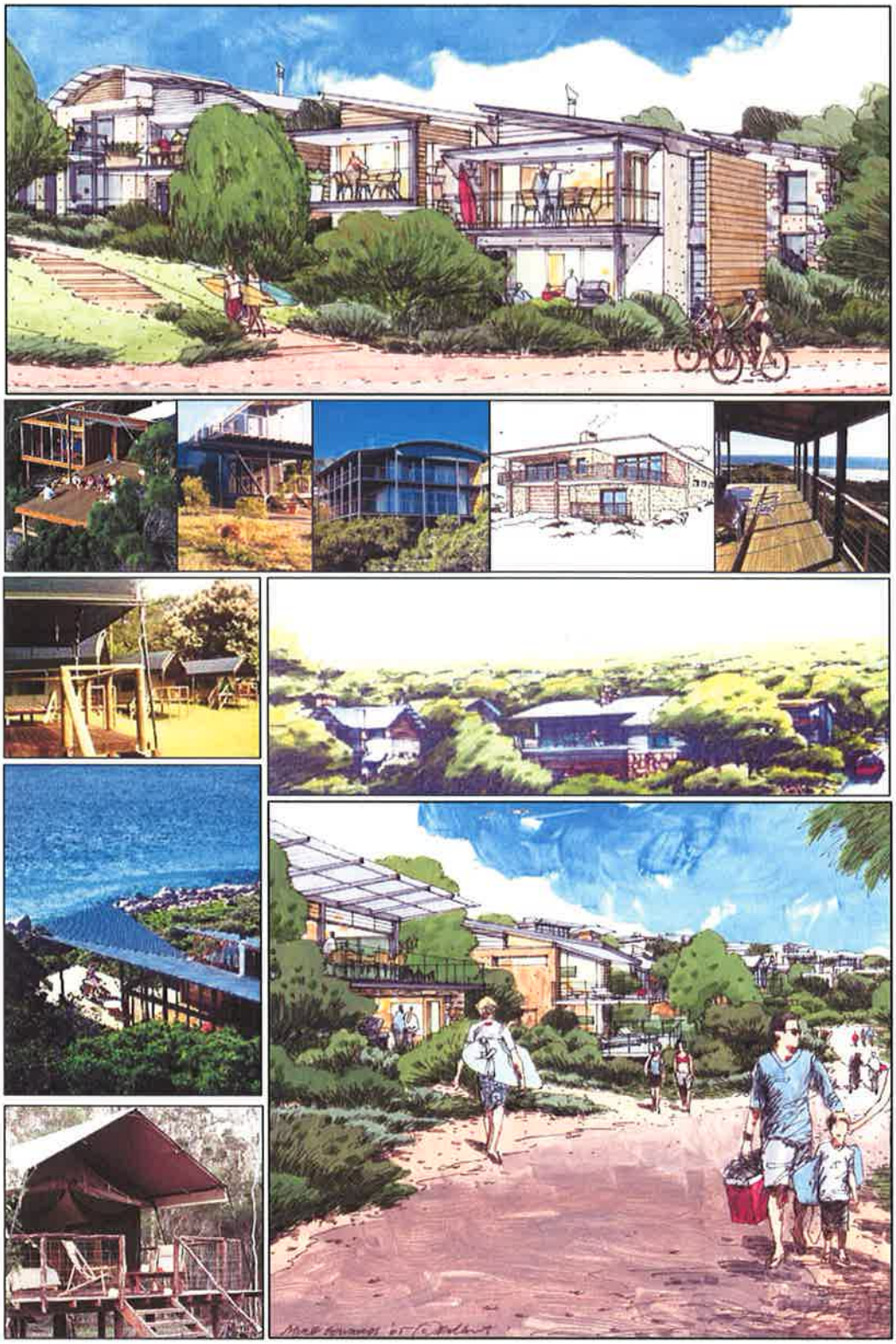


Figure 1: ***Examples of architectural forms, character and detailing that respond to the development characteristics of Smiths Beach***

ELEMENT 1: BUILDING FORM AND LOCATION

The form and location of buildings on the site is a key element in responding to the desired character of Smiths Beach. As such, the location, type, orientation and extent of buildings have been determined by the provision of building envelopes in the Smiths Beach Development Guide Plan.

In places with a strong character and sense of identity, it is common to find a consistent architectural language in the buildings, whether derived from the form, construction materials and colours or the construction methods.

The built form of design proposals for Smith's Beach will be assessed against the following characteristics:

Characteristics

Unless otherwise specified in the design requirements for a special building type (see Element 12), all buildings within the Smiths Beach development shall achieve the following characteristics:

C1.1 ***Minimise disruption of landscape views, where possible, from other buildings behind.***

C1.2 ***Contribute to a recognisable architectural language for Smiths Beach.***

C1.3 ***Enhance the enjoyment of attractive landscape views for occupants.***

C1.4 ***Minimise energy consumption where possible through adoption of appropriate building forms.***

C1.5 ***Follow the natural contours of the land.***

C1.6 ***Be contained within the designated heights and building envelopes, and be consistent with the building location and overall footprint as described by the Smiths Beach Indicative Development Plan.***

C1.7 ***Reflect the exposed coastal location through the use of simple building forms.***

C1.8 ***Minimise perceived bulk through the use of verandahs and decks, and through changes in elevational planes.***

C1.9 ***Assist with an understanding of the settlement through the use of landmark architectural features at the intersections of movement paths.***

C1.10 ***Respond to bush fire mitigation requirements (refer to Element 10).***

C1.11 ***Contribute to a pedestrian-friendly environment that also provides a sense of safety and personal security.***

Requirements

The building form and its location will be deemed to meet the characteristics for building form and location, if the following requirements are met:

R1.1 ***Each building, including any attached structures such as balconies, pergolas, or other shade structures shall be fully contained within the designated building envelope provided by the principal develop. Height limits are described by a vertical dimension from the natural ground level at any point within the prescribed building envelope, as illustrated in Fig 2. A designated***

building envelope will be provided by the principal developer for all building developments, which will refect the intent of the Smiths Beach Development Guide Plan and the Smiths Beach Indicative Development Plan.

R1.2 ***Buildings shall not exceed the height limits prescribed in the Shire of Busselton Town Planning Scheme or additional height limits as described in the height limit plan attached as Appendix 3 of these design guidelines.***

R1.3 ***Buildings shall demonstrate the characteristics of the major design elements outlined in the following sections.***

R1.4 ***No independent ancillary statures, such as sheds and garages for example, are permitted.***

R1.5 ***Buildings shall be designed to either minimise the need for cut and fill or, at least, to balance the requirement for cut and fill so that no importation or exportation of fill is needed,***

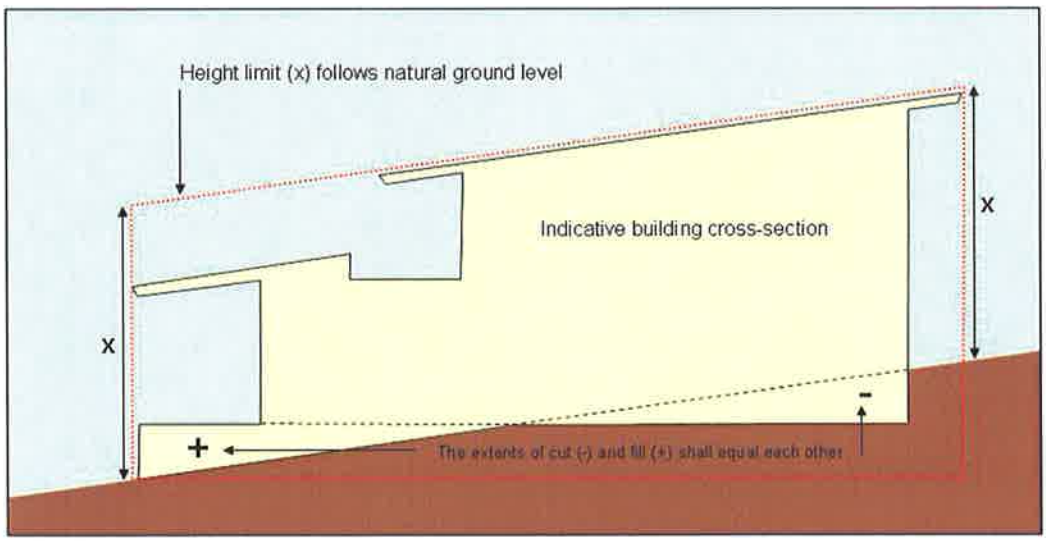


Figure 2: Calculation of height limits and balance of cut and fill

ELEMENT 2: ROOF DESIGN

The roof is a strong contributor to the architectural character of a building. In many cases the roof is the most visually prominent part of a building, especially when viewed from a distance. The design of a roof can express whether a building is rural or urban in character; emphasise a sense of shelter against the elements; and contribute to a distinct architectural character.

The following characteristics and requirements provide guidance on the design of roofs for buildings within the Smiths Beach development:

Characteristics

Unless otherwise specified in the design requirements for a special building type (see Element 11), all buildings within the Smiths Beach development shall achieve the following characteristics:

C2.1 ***Maintain a roof construction and pitch that is sufficiently consistent with other buildings within the development.***

C2.2 ***Avoid roof types that are usually employed in suburban locations.***

C2.3 ***Contribute to a strong sense of shelter from the elements.***

C2.4 ***Utilise roof forms that evoke a coastal character that is derived from the traditional coastal shack.***

C2.5 ***Contribute to a recognisable architectural language for Smiths Beach.***

Requirements

The design of the roof will be deemed to meet the above characteristics, if compliant with the following requirements:

R2.1 ***Roof materials shall be a dark grey Colorbond Custom orb sheeting, except where a flat roof is employed.***

R2.2 ***Roofs shall either be flat, 10 degrees skillion, or curved with a radius of no less than 18 metres.***

R2.3 ***Where employed, gutters and rainwater downpipes shall be round section only. The use of free-draining roofs (that is, no gutters or down pipes), or the use of draining chains) is permitted from eaves no higher than 3 metres above ground level.***

R2.4 ***No finials or other type of roof ornamentation shall be permitted.***

R2.5 ***All eaves shall have a minimum overhang of 600mm to provide weather protection and to create a sense of shelter.***

R2.6 ***Where eaves are lined (recommended in exposed coastal environments), the eaves lining shall follow the pitch of the roof.***

R2.7 ***Gutters, gable and eaves fascias, and exposed members of the roof structure may be painted in colours from the approved highlight colour palette (refer to Appendix 4).***

ELEMENT 3: WALLS

Walls are a fundamental contributor to architectural character, whether it is through the chosen construction material or the use of architectural detailing.

The following characteristics and requirements provide guidance on the design of the external walls of buildings within Smiths Beach.

Characteristics

Unless otherwise specified in the design requirements for a special building type (see Element 12), all buildings within the Smiths Beach development shall achieve the following characteristics:

C3.1 ***Utilise wall materials, finishes and colours that empathise with the surrounding environment.***

C3.2 ***Utilise wall materials that either weather gracefully, or where the weathering process can be accelerated.***

C3.3 ***Avoid materials that are usually employed in suburban locations.***

C3.4 ***Utilise a combination of wall construction materials that have an ephemeral quality that is derived from the traditional coastal shack, or a sense of permanence that is derived from the earth.***

C3.5 ***Contribute to a recognisable architectural language for Smiths Beach.***

Requirements

The design of the walls will be deemed to meet the above characteristics, if compliant with the following requirements:

R3.1 ***No face brick shall be permitted except where used as a string course, sill or lintel of no more than one horizontal or vertical course.***

R3.2 ***The walls shall comprise of one primary material and one secondary material. The secondary wall material shall not comprise of less than 25% of the total wall area of each elevation.***

R3.3 ***The primary wall material shall be natural stone laid in straight courses or random rubble, rammed earth, or rendered masonry finished in a colour consistent with the (refer approved Primary Colour Palette in Appendix 4).***

R3.4 ***Secondary wall materials shall include natural timber or Newport weatherboards, Custom orb/Mini orb metal cladding, lightweight flat panels, or rendered masonry.***

R3.5 ***Colours of pre-finished or painted wall cladding materials shall be from the approved Primary Colour Palette in Appendix 4).***

R3.6 ***No large areas of blank wall shall be presented to roadways, pedestrian paths, or designated park areas.***

ELEMENT 4: OPENINGS

Windows and doors are the eyes and mouth of a building: the design of these elements can significantly contribute to a building's architectural character.

The openings of a building are also important in establishing the relationship between the inside and outside of a building, the enjoyment of the views offered by a building's setting, and the ability of the occupants of a building to monitor the use of the surrounding area.

The following characteristics and requirements provide guidance on the design of the external walls of buildings within the Smiths Beach development.

Characteristics

Unless otherwise specified in the design requirements for a special building type (see Element 11), all openings within buildings within the Smiths Beach development shall achieve the following characteristics:

C4.1 ***Maintain a relatively consistent vertical proportion for glazed panels.***

C4.2 ***Enhance the opportunity for occupants to appreciate the views offered by a building's setting.***

C4.3 ***Be located to clearly identify the access arrangements.***

C4.4 ***Provide the opportunity for passive surveillance of the surrounding area, particularly in respect to the public domain..***

C4.5 ***Contribute to a recognisable architectural language for Smiths Beach.***

Requirements

The design of the openings will be deemed to meet the above characteristics if compliant with the following requirements:

R4.1 ***No reflective coatings to glass shall be permitted.***

R4.2 ***No curved glass shall be permitted.***

R4.3 ***Major openings shall generally be of a vertical proportion with a height to width ratio of no less than 2:1, and no more than 3:1. In the case of large panoramic openings, the overall opening shall contain a series of evenly distributed framed glass panes or openings with a height to width ratio in the range of 2:1 to 3:1.***

R4.4 ***Square or horizontal openings shall be permitted if the opening is less than 750mm high.***

R4.5 ***Doors and window openings shall be of stained or painted timber, or pre-finished steel or aluminium. Where painted or pre-finished, door and window frames shall be from the approved Highlight Colour Palette (refer to Appendix 4).***

R4.6 ***Although windows will generally be located to maximise landscape views, there shall be at least one window from a habitable room on each elevation to provide the opportunity for passive surveillance of the surrounding curtilage.***

R4.7 ***The main entrance to each building shall be visible from, and clearly relate to, the nearest adjacent roadway or designated park area.***

R4.8 ***External roller shutters are not permitted.***

ELEMENT 5: VERANDAHS, BALCONIES AND DECKS

Sheltered or constructed external building spaces such as verandahs, balconies and decks provide an opportunity to establish a transition between the internal and external environments, and provide an opportunity enjoy the external environment in a convenient and comfortable manner.

Elements such as verandahs, balconies and decks are also a useful design tool in managing the visual impact of a building by reducing its scale, and creating areas of interest through shade and shadow. When appropriately positioned in relation to windows, these elements can manage solar penetration and minimise winter heating and summer cooling costs.

The following characteristics and requirements provide guidance on the design of verandahs, balconies and decks within the Smiths Beach development.

Characteristics

Unless otherwise specified in the design requirements for a special building type (see Element 11), all verandahs, balconies and deck elements within the Smiths Beach development shall achieve the following characteristics:

C5.1 ***Create opportunities for direct access to an external space from the principal internal spaces.***

C5.2 ***Reduce a building's perceived mass and visual impact.***

C5.3 ***Manage the effects of climatic influence to reduce the total energy consumption of the building.***

C5.4 ***Avoid creating major reflections of sunlight.***

C5.5 ***Contribute to a recognisable architectural language for Smiths Beach.***

Requirements

The design of the verandahs, balconies and decks will be deemed to meet the above characteristics, if compliant with the following requirements:

R5.1 ***Balconies, verandahs and decks may not project outside the designated building envelope.***

R5.2 ***The surface finish to verandahs, balconies and decks shall be stained or naturally weathered timber only.***

R5.3 ***Balustrades shall be constructed of timber or painted steel, and may incorporate stainless steel cables. Glass balustrades may cause undue reflections and are not permitted.***

R5.4 ***Off-the-shelf cast or wrought iron balustrades are not permitted. However, customised metalwork may be permitted where undertaken by a local artist/company and subject to approval from the Design Approval Panel.***

R5.5 ***Paint colours for balustrades shall be from the approved Highlight Palette.***

ELEMENT 6: VEHICLE PARKING AND ACCESS

Given that one of the characteristics of Smiths Beach is a relaxed family-orientated experience that is reminiscent of places such as Rottnest, minimising the visual intrusion of cars, other vehicle types and their storage is an important consideration. The management of vehicle access and parking is a particularly challenging issue because of the relative openness of the Smiths Beach environment.

The following characteristics and requirements provide guidance on the design of vehicle parking and access within the Smiths Beach development.

Characteristics

Unless otherwise specified in the design requirements for a special building type (see Element 12), vehicle access and parking arrangement within the Smiths Beach development shall achieve the following characteristics:

C6.1 ***Incorporate vehicle parking within the designated building envelope.***

C6.2 ***Reduce the impact of vehicle circulation on the existing natural environment.***

C6.3 ***Reduce the visual impact of parked vehicles.***

C6.4 ***Avoid the use of driveway treatments usually found in suburban locations.***

Requirements

The design of the vehicle parking and access arrangement will be deemed to meet the above characteristics, if compliant with the following requirements:

R6.1 ***Garages or carports shall be integrated with the buildings they serve.***

R6.2 ***Garage doors shall be of either stained natural timber or timber style finish.***

R6.3 ***Garage parking provision shall not exceed 2 cars per unit.***

R6.4 ***Storage of, boats, caravans or large commercial vehicles shall be screened to avoid being viewed from the roadways and the pedestrian network).***

R6.5 ***Driveways shall be limited to either gravel or consolidated earth. Concrete slab, brick paving, bitumen, or in situ concrete shall not be permitted.***

R6.6 ***Driveways widths within 6 metres of the adjacent roadway shall be limited to a maximum width of 3 metres. Driveways shall not exceed 6 metres in width at any point.***

R6.7 ***Vehicle access locations shall be from the shared access lanes as shown on the Smiths Beach Indicative Development Plan, unless otherwise specified by the principal developer.***

R6.8 ***No individual driveways are permitted from the roadways, except where designated on the Smiths Beach Indicative Development Plan.***

ELEMENT 7:CURTILAGE AND LANDSCAPING

One of the key differences between Smiths Beach and a conventional suburban development is the feeling of openness and freedom of movement, where the majority of the space surrounding the buildings is accessible to all people. In other words, there will be no traditional suburban front or back yards.

The following characteristics and requirements provide guidance on the design of the surrounding curtilage of buildings within the Smiths Beach development.

Characteristics

Unless otherwise specified in the design requirements for a special building type (see Element 12), landscape design and the landscape curtilage around buildings within the Smiths Beach development shall achieve the following characteristics:

C7.1 ***Minimise disruption to the existing natural environment.***

C7.2 ***Contribute to the sense of openness and freedom of movement.***

C7.3 ***Limit private open space to that which is sufficient to contain external living spaces or utilitarian external functions.***

Requirements

The treatment of the curtilage and landscaping will be deemed to meet the above characteristics, if compliant with the following requirements:

R7.1 ***No retaining walls shall be permitted unless incorporated as part of the building. Where incorporated as part of a building, a retaining wall shall not project more than 3 metres beyond the designated building envelope.***

R7.2 ***Private courtyards, such as to screen external utilities such as water heaters, air conditioning plant and clothes line, shall not extend beyond the building envelope. Where employed, courtyards shall be screened by a wall of no more than 1.8 metres in height and constructed to match the primary or secondary wall material of the building.***

R7.3 ***No fencing is permitted other than to enclose a private courtyard.***

R7.4 ***No native vegetation shall be damaged, disturbed or removed from outside the building envelope except for construction of a driveway, or for fire management purposes.***

R7.5 ***No plants may be introduced into the curtilage except for species listed on the approved plant species list (attached as Appendix 5).***

ELEMENT 8: ANCILLARY ELEMENTS

Utilitarian ancillary elements such as sheds, clothes dryers, water heaters and air conditioning plant are "add-ons" for many homes that can clutter and diminish the visual enjoyment of a place for neighbours and passers-by in the public domain. The management of ancillary elements is particularly important in Smiths Beach where a more open context prevails.

The following characteristics and requirements provide guidance on the location and management of ancillary elements within Smith's Beach.

Characteristics

Unless otherwise specified in the design requirements for a special building type (see Element 12), ancillary elements associated with buildings within the Smiths Beach development shall achieve the following characteristics:

C8.1 ***Minimise the visual impact of ancillary elements.***

C8.2 ***Maintain a reasonable level of amenity for adjacent occupants.***

Requirements

The treatment of the ancillary elements will be deemed to meet the above characteristics, if compliant with the following requirements:

R8.1 ***No satellite receiver dishes are permitted.***

R8.2 ***Individual TV reception or other communication aerials shall not be permitted. Broadcast services will be received by a common receiver.***

R8.3 ***External clothes dryers shall be located so as not to be visible from public roadways or designated parks, and shall be contained within screened courtyards (refer to Element 7).***

R8.4 ***Only reverse cycle air conditioning is permitted and shall be screened at ground level from public view within a private courtyard where allowable.***

R8.5 ***Window mounted air-conditioning units are not permitted.***

R8.6 ***No freestanding ancillary structures such as sheds or gazebos are permitted.***

R8.7 ***Storage areas shall be integrated into the building design.***

R8.8 ***Elements such as spas or pools may be permitted but only if integrated into the building or contained with a private courtyard where allowable.***

R8.9 ***Refuse bins shall be stored in screened storage areas or private courtyards out of view from public roadways and designated park areas.***

R8.10 ***Private letterboxes are not permitted. All mail delivery will be to a central mail reception area within the village centre.***

R8.11 ***Signage other than a 'for sale' sign, and an address sign (as approved by the Design Approval Panel) shall be permitted.***

R8.12 ***External lighting shall be located to minimise the impact of glare on adjacent properties or the public domain.***

ELEMENT 9: ENVIRONMENTAL MANAGEMENT

Because Smiths Beach is located in an area of outstanding natural amenity, there is an obligation on residents and visitors to carefully manage the way in which the development impacts on the environment.

The following characteristics and requirements provide guidance on how the design of buildings and their curtilage can assist in creating a more environmentally benign development at Smiths Beach.

Characteristics

Unless otherwise specified in the design requirements for a special building type (see Element 11), environmental management within the Smiths Beach development shall achieve the following characteristics:

C9.1 ***Minimise disturbance to the surrounding natural environment during construction.***

C9.2 ***Manage the effects of climatic influence to minimise fixed energy costs.***

C9.3 ***Manage the effects of waste to minimise infrastructure and servicing requirements.***

C9.4 ***Manage the transfer of stormwater from constructed surfaces to the natural environment.***

C9.5 ***Minimise the impact of nutrients and other pollutants on the natural environment.***

Requirements

The way in which the design of the building manages the impact of environmental influences will be deemed to meet the characteristics, if compliant with the following requirements:

R9.1 ***All buildings shall comply with the characteristics or requirements of Element 10 in regard to construction management.***

R9.2 ***Notwithstanding the provision of the Building Codes of Australia, all buildings shall incorporate passive solar design principles wherever possible.***

R9.3 ***Roof mounted solar collectors shall be non-reflective only.***

R9.4 ***All buildings shall incorporate a rainwater harvesting and storage system.***

R9.5 ***No fertilizers should be used within the building curtilage other than slow-release products.***

ELEMENT 10: FIRE HAZARD MANAGEMENT

The proximity of Smiths Beach to the adjacent national park, the retention of existing vegetation, and the likely intermittent occupation of buildings within the development suggest that a relatively cautious approach to the management of fire hazard should be taken.

The following characteristics and requirements provide guidance on the management of the construction process within the Smiths Beach development.

Characteristics

Unless otherwise specified in the design requirements for a special building type (see Element 11), construction management within the Smiths Beach development shall achieve the following characteristics:

C10.1 ***Reduce the risk of fire spread across the building and its landscape curtilage.***

C10.2 ***Reduce the exposure of large areas of glazing to fire.***

C10.3 ***Maintain sufficient spacing between buildings to reduce the risk of fire spread from building to building.***

C10.4 ***Have regard to the fire hazard management measures, such as common sprinklers and fire breaks put into place by the principal developer.***

Requirements

The management of the construction process will be deemed to meet the characteristics, if compliant with the following requirements:

R10.1 ***Buildings shall be designed to meet the relevant applicable standards such as: Australian Standards AS 3959 "Construction of Buildings in Bush Fire Prone Areas" for Level 2 Construction; the Shire of Busselton Specification and Requirements; and Bush Fire Survival Manual Guidelines.***

R10.2 ***The curtilage of all buildings shall be designed and maintained to conform to the Smiths Beach Fire Management Plan and include a Building Protection Zone. The Building Protection Zone is a low fuel area immediately surrounding a building. The aim of the Building Protection Zones is to reduce bush fire intensity close to dwellings, and to minimise the likelihood of flame contact with buildings.***

R10.3 ***Exposed undercroft areas to ground level verandah and decks where flammable debris may accumulate is not permitted.***

R10.4 ***Adjacent trees shall be pruned and maintained to avoid branches overhanging buildings***

R10.5 ***Gutters shall incorporate a mesh to avoid the accumulation of leaf litter in the gutters, and vents should be provided with a safety cover.***

R10.6 ***Major openings should be protected with canopies, verandahs and balconies wherever possible to avoid excessive exposure to nearby fires. Windows should also incorporate a wire screen mesh.***

R10.7 ***Buildings should be separated by a minimum of 6 metres except where adjacent buildings are constructed as part of the same development.***

ELEMENT 11: CONSTRUCTION MANAGEMENT

Because not all buildings are likely to be constructed and occupied simultaneously, the construction process for each building needs to be managed to avoid an unreasonable reduction in the amenity enjoyed by nearby occupants.

The following characteristics and requirements provide guidance on the management of the construction process within the Smiths Beach development.

Characteristics

Unless otherwise specified in the design requirements for a special building type (see Element 12), construction management within the Smiths Beach development shall achieve the following characteristics:

C11.1 ***Minimise unreasonable adverse impacts on adjacent occupants.***

C11.2 ***Manage and minimise construction waste.***

C11.3 ***Minimise the construction footprint on the landscape.***

C11.4 ***Avoid disruption to the natural environment.***

C11.5 ***Rectify any damage during construction to vegetation, roadways, services, or other shared infrastructure.***

Requirements

The management of the construction process will be deemed to meet the characteristics, if compliant with the following requirements:

R11.1 ***Construction sites shall be fenced with a screen of shade cloth at least 1 metre high to help contain debris and dust.***

R11.2 ***No construction work shall occur at weekends or between the hours of 7pm and 7am.***

R11.3 ***Construction debris shall be transferred to a set of common bins for recycling as provided by the developer.***

R11.4 ***Construction activity, including the storage of materials, shall occur within 3 metres of the designated building envelope.***

R11.5 ***No removal or disturbance of vegetation shall be permitted beyond 3 metres from the designated building envelope.***

R11.6 ***Disturbance to vegetation within 3 metres of the building envelope shall be avoided wherever possible.***

R11.7 ***Any damage caused during construction to roadways, lighting poles, service conduits, footpaths, shared access lanes, or landscaping within the public domain shall be rectified at the builder's expense.***

ELEMENT 12: SPECIAL BUILDING TYPES

The Smiths Beach Development Guide Plan identifies a number of specific building types and their locations. In addition to meeting the characteristics of the overall development, the specific building type shall also meet the characteristics of the design elements where applicable, unless otherwise described below.

12.1 Capespur Lodge

The Capespur Lodge is a premium resort development located in the south-western area of the Smiths Beach Development Area. The design of the Capespur Lodge represents a challenging reconciliation of the desire to provide a high quality iconic development, whilst minimising the visual impact of a building that will sit in a relatively prominent location in the upper western reaches of the Smiths Beach Settlement:

The design of the Capespur Lodge shall conform to a building envelope determined by the principal developer, which reflects the location and overall extent of the building footprint shown on the Smiths Beach Indicative Development Plan.

The specific desired characteristics of the Capespur Lodge are:

a. Establish a unique identity, whilst remaining sensitive to the natural context and the overall design themes of Smiths Beach.

b. Provide a high quality welcoming address to the main southern entrance road to Smiths Beach.

c. Establish a landscaped curtilage that mitigates the visual impact of the development

12.2 Beach Club

The Beach Club is the primary resort component in the Smiths Beach development area, and as such is the heart of the settlement. The Beach Club shall include a range of facilities and amenities for the benefit of guests and visitors alike. The Beach Club occupies a prominent position in the north western portion of the Smiths Beach settlement, with a strong relationship to the foreshore area behind the beach.

The design of the Beach Club shall conform to a building envelope determined by the principal developer, which reflects the location and overall extent of the building footprint shown on the Smiths Beach Indicative Development Plan.

The specific desired characteristics of the Beach Club are:

a. Establish a unique identity, whilst remaining sensitive to the natural context and the overall design themes of Smiths Beach.

b. Provide a high standard of pedestrian amenity in the immediate vicinity of the building, particularly on the northern, southern, and eastern side.

c. Provide a clearly recognisable address to the arrival circle to the southeast of the Beach Club.

d. ***Maximise the potential for commercial uses at the ground floor level on the northern side, which affords views of the beach.***

e. ***Maximise opportunities for passive surveillance of the beach and adjacent parkland and landscaped areas.***

f. ***Respond to the topography of the site.***

g. ***Employ an architectural modulation that reduces the perceived bulk and scale of the building when viewed from the beach.***

h. ***Provide adequate shade and shelter adjacent to the ground floor commercial areas.***

i. ***Provide a clear differentiation between guest and short-term visitor parking.***

12.3 Backpacker Lodge

The Backpackers Lodge is located in the north-eastern area of the Smiths Beach settlement and provides budget level accommodation, in association with adjacent short-stay units and a camping ground.

The presentation to Smiths Beach Road is an important consideration for the design of the Backpacker's Lodge as it is the most prominent building that can be viewed from the road.

The design of the Beach Club shall conform to a building envelope determined by the principal developer, which reflects the location and overall extent of the building footprint shown on the Smiths Beach Indicative Development Plan.

The specific desired characteristics of the Backpacker's Lodge are:

a. ***Establish a 'funky' identity that appeals to a younger clientele, yet remains sensitive to its landscape setting and the overall design themes of Smiths Beach.***

b. ***Provide opportunities for commercial uses at ground floor level that can capitalise on the exposure to Smiths Beach.***

c. ***Maximise the potential for passive surveillance of Smiths Beach Road and adjacent pedestrian pathways.***

d. ***Provide adequate shade and shelter adjacent to the ground floor commercial areas.***

e. ***Provide a clear differentiation between guest and short-term visitor parking.***

12.4 Community Clubhouse

The Community Clubhouse sits in the foreshore area and is a multi-purpose building that can be used for accommodating equipment for rescue purposes, as well as other community purposes. In essence, the Community Clubhouse is a civic building for the benefit of the community.

Given the prominent location of the community clubhouse in a prime position on the foreshore, the design of the building must be of a very high quality when viewed from every direction.

The design of the Community Clubhouse shall conform to a building envelope determined by the principal developer, which reflects the location and overall extent of the building footprint shown on the Smiths Beach Indicative Development Plan.

The specific desired characteristics of the Community Clubhouse are:

a. ***Create a structure with a civic presence, whilst remaining sensitive to its landscape setting and the overall design themes of Smiths Beach.***

b. ***Create a building that can be appreciated 'in-the-round'.***

c. ***Provide flexibility of use to suit a wide range of community purposes.***

d. ***Establish an identity that is sensitive to a beachside location.***

e. ***Utilise durable materials, or materials that weather elegantly.***

12.5 Eco-cabin Structures

The Eco-cabin structures are small stand-alone studio apartments in the western extremity of the Smiths beach development area, which are linked back to the Capespur Lodge and the Beach Club by a boardwalk network.

The eco-cabins provide a more natural tourist experience, and, as such, require a different design treatment to the rest of the Smiths Beach settlement. For example, the Eco-cabins are not accessible by vehicle, so there is no requirement for accommodation vehicles within the structures or their curtilage.

The desired architectural treatment of the Eco-cabins shall refect the environmentally sensitive nature of the structures and the experience they offer.

The design of the Eco-cabins shall conform to a building envelope determined by the principal developer, which reflects the location and overall extent of the building footprint shown on the Smiths Beach Indicative Development Plan.

The specific desired characteristics of the Eco-cabins are:

a. ***Provide a tourist experience that is consistent with the relatively remote location within the development area.***

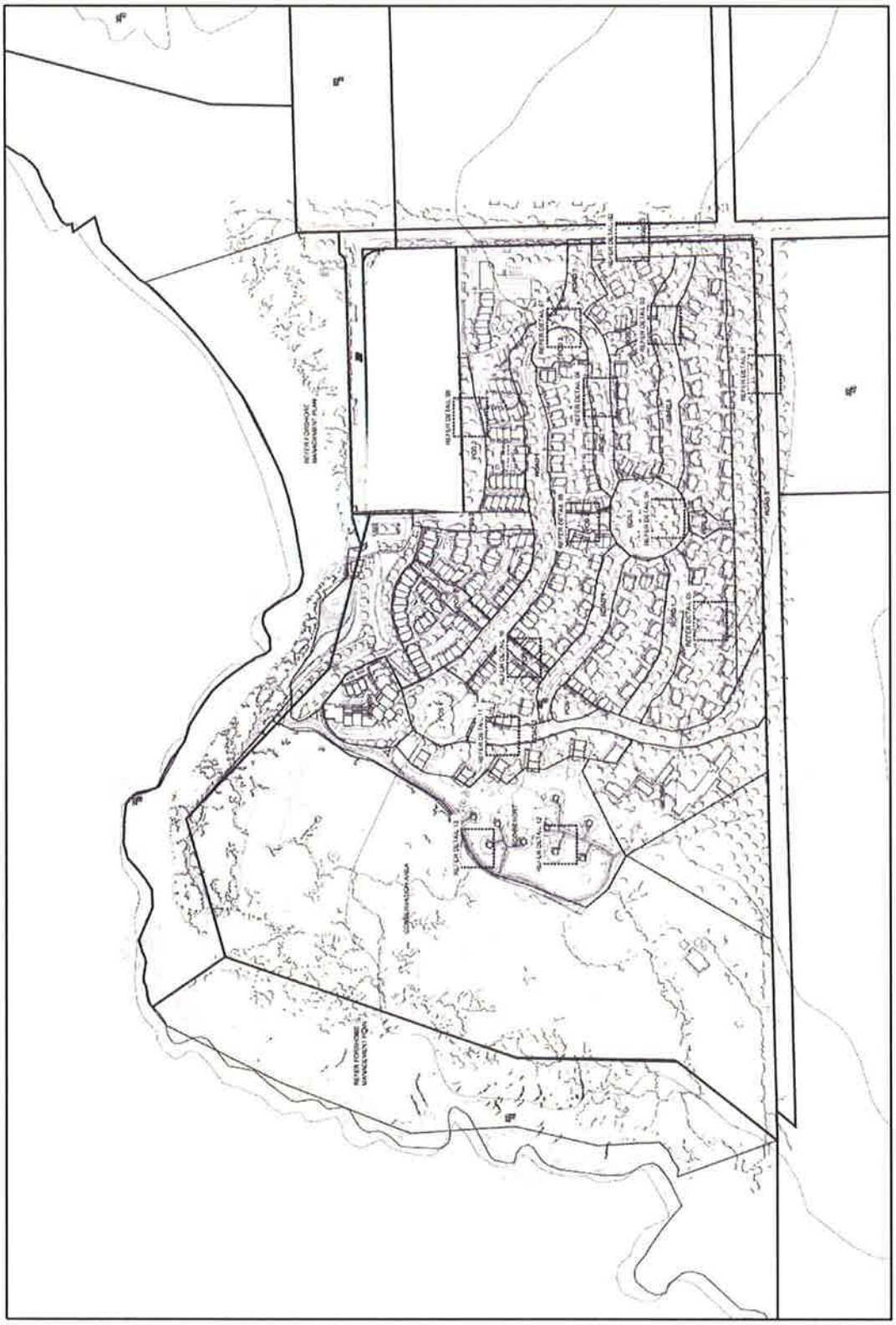
b. ***Maximise the use of natural or recycled materials wherever possible.***

c. ***Avoid the exposure to view of services or ancillary equipment.***

d. ***Utilise augmentation of the existing landscape to reduce the visual impact of the Eco-cabins from each other and from the remainder of the development.***

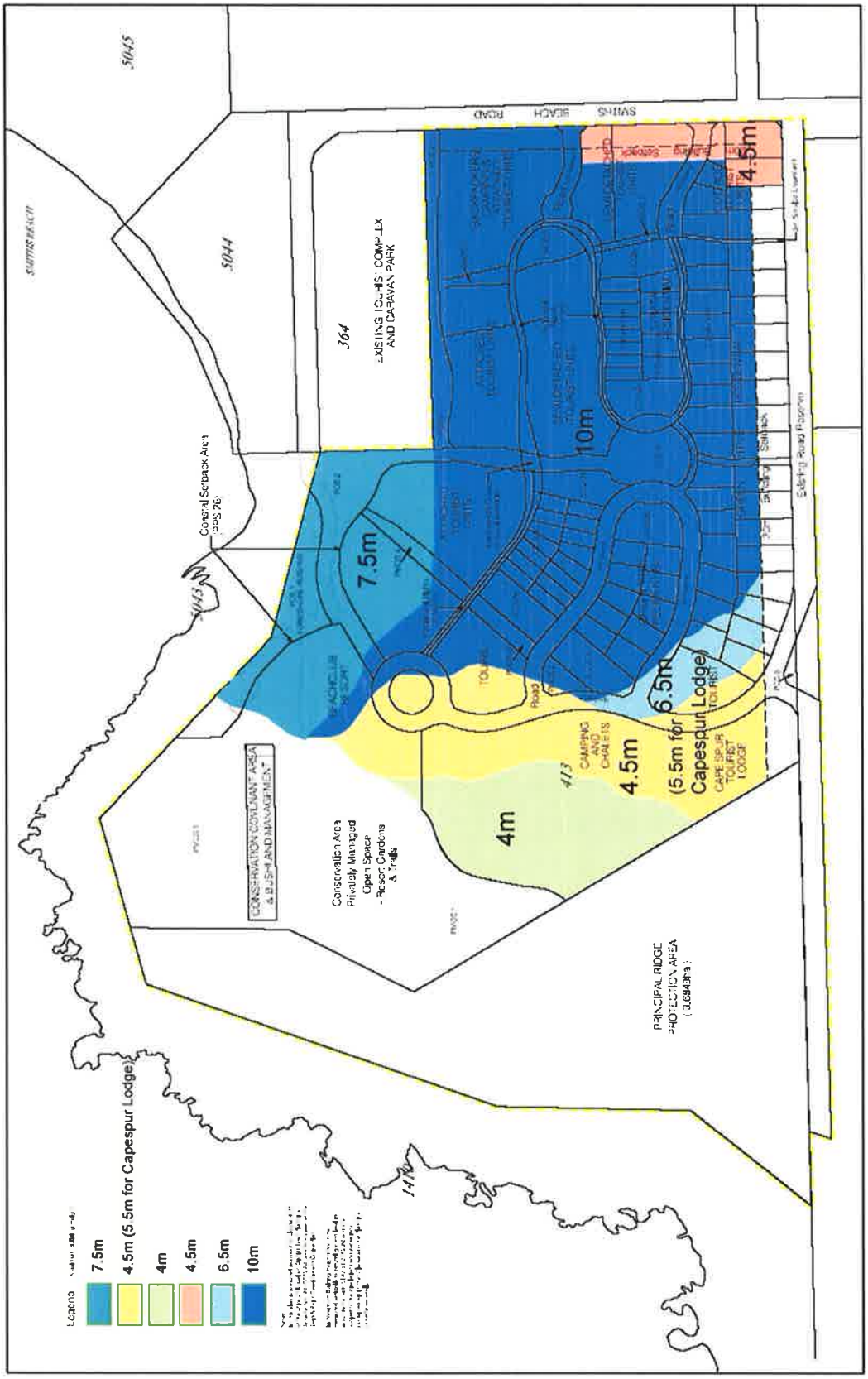
APPENDIX 1: SMITHS BEACH INDICATIVE DEVELOPMENT PLAN

APPENDIX 2: LANDSCAPE MASTER PLAN



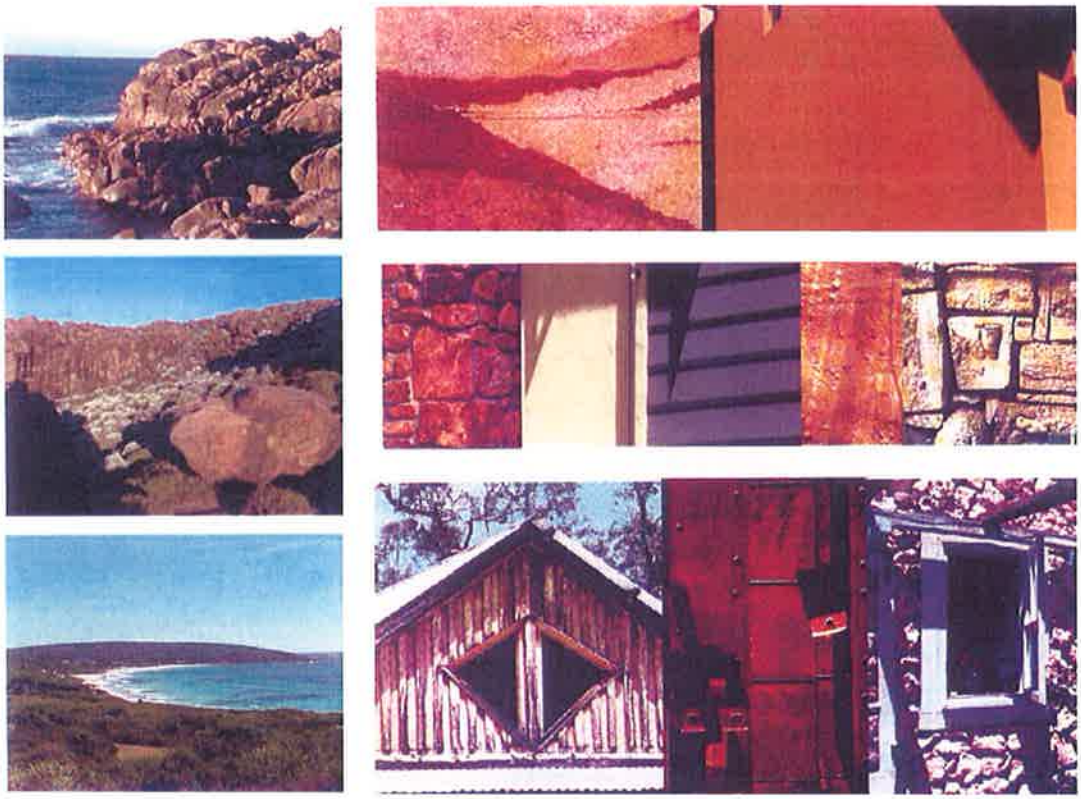
Landscape master plan prepared by EPCAD

APPENDIX 3: HEIGHT CONTROLS



APPENDIX 4: PALETTE OF APPROVED COLOURS

The images below provide inspiration for the Smiths Beach materials and colours palette:



Roof and associated elements

Metal – Colorbond Premium and Steel ranges

a. 'Stainless' steel (less than 100m from breaking surf)
Colour - Deep Ocean

b. 'Ultra' steel or 'Stainless' (100 to 200m from breaking surf)
Colour - Deep Ocean

c. 'Steel' (200m and beyond from breaking surf)
Colours - Ironstone or Deep Ocean

Any eaves lining shall be off-white

Any gutter or fascia colour selection shall match the roof colour or be from the base or highlight colour palette. Downpipes shall match the wall colour

Any service elements on the roof shall match the roof colour

Deep Ocean

Ironstone

Walls

Materials and colours appropriate for primary and secondary wall elements:

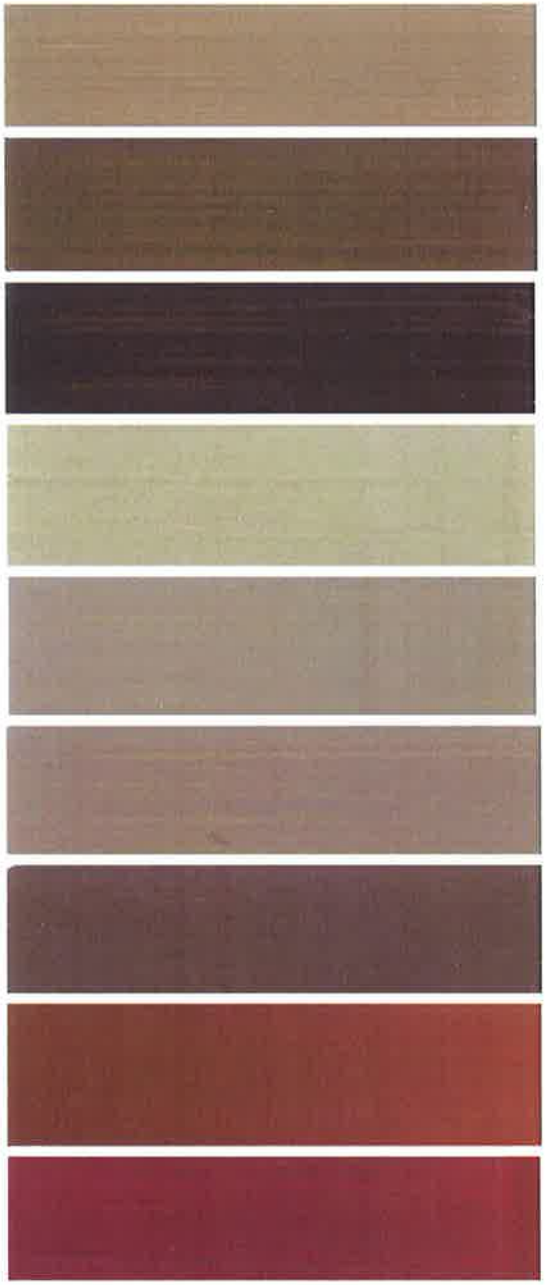
Natural stone

Rammed earth or limestone

Natural dark coloured timber or a dark colour stain in base palette colours

Painted brick or blockwork (smooth render, bagged or textured finish) in base palette colours

Base palette paint colours:



Materials and colours appropriate for secondary wall elements and architectural features:

Corrugated steel mini-orb

James Hardie Linea or Primeline Newport painted weatherboard

Natural dark coloured timber or a dark colour stain in base palette colours

Painted brick or blockwork (smooth render, bagged or textured finish) in base palette colours

Highlight palette paint colours:

External doors and window frames

Natural timber or a dark colour stain

Aluminium – Dulux powder coated from the following palette colours:


Deep Brunswick Green


Anotec Dark Grey


Navy


Anotec Mid Bronze

Glass

Reflective glass is not permitted

Decks and verandahs

Natural timber or a dark colour stain or recycled synthetic timber replacement of a similar colour

Garage door

Natural dark coloured timber

To match the base palette colours

Shutters, flyscreens and security screens

To match the window frame colour behind

Use of fine detention mesh only

Sunshade and awnings

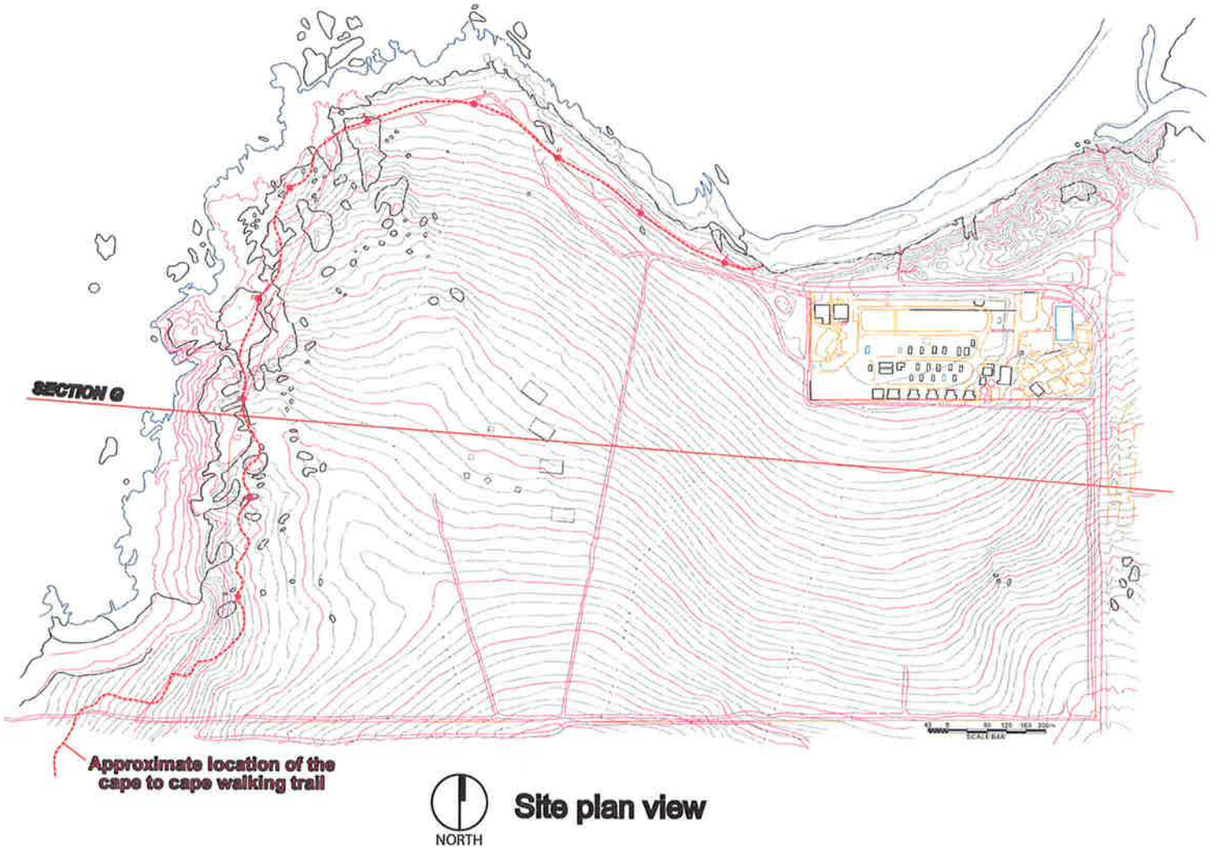
To match the colours from the base or highlight palette

APPENDIX 5: APPROVED PLANT SPECIES

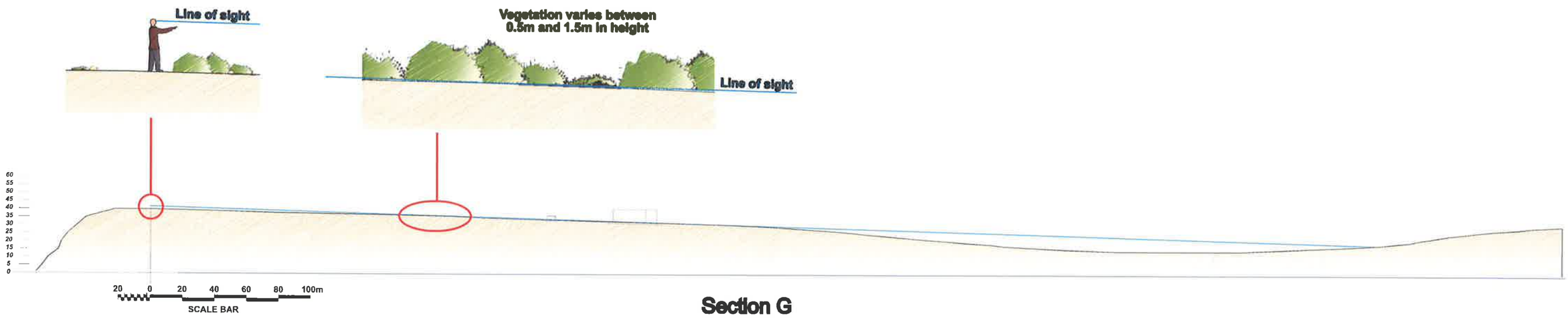
Insert the plant list

Appendix 10
Western Section of Cape to Cape Track With Views of Development

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment



Site plan view



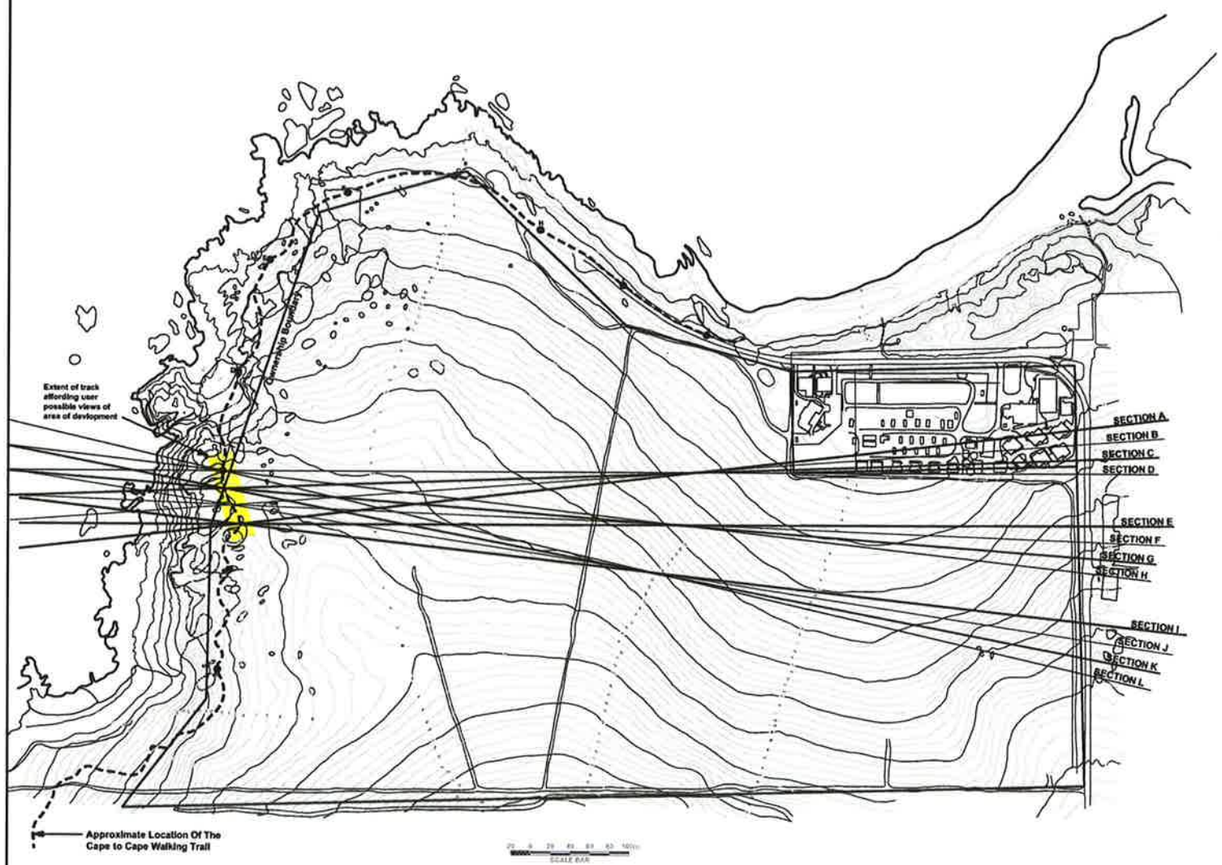
Section G

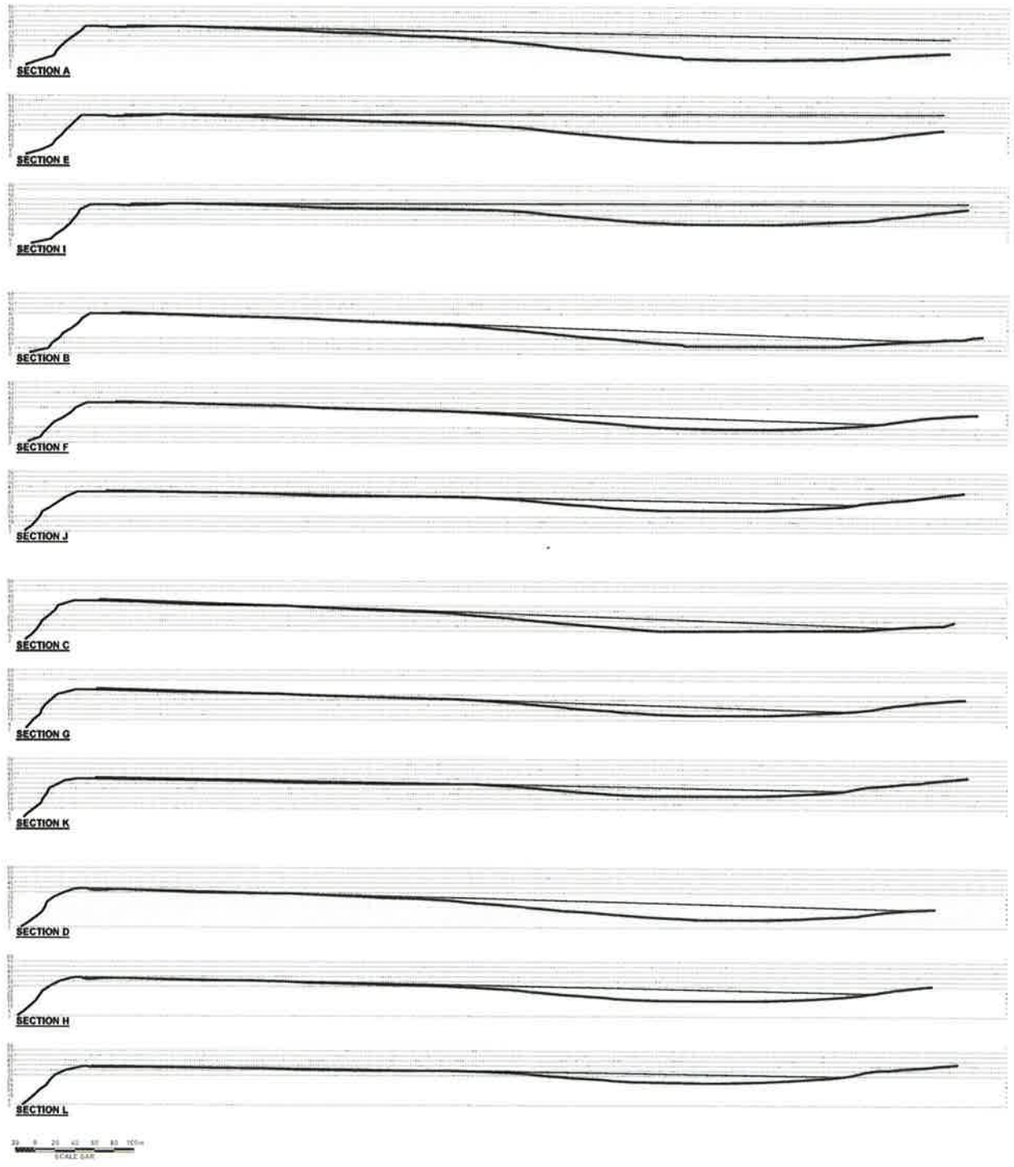
EPCAD

SMITHS BEACH PLAN

SECTION G LINE OF SIGHT

March 2007





SECTIONS ILLUSTRATING TOPOGRAPHICAL RELATIONSHIP OF SITE TO TRACK THEORETICALLY ENABLING VIEWS OF WHOLE SITE

EPCAD

SMITHS BEACH PLAN

LINE OF SIGHT SECTIONS

March 2007
Revised June 2008

Appendix 11
Comparison of visual model results for the 85% and 100% development from Torpedo Rocks and the Beach node

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment

Appendix 12
Aerial Photograph – Eagle Bay

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment

Aerial Photograph – Eagle Bay.

500m

N

Appendix 13
Aerial Photograph – Yallingup

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment

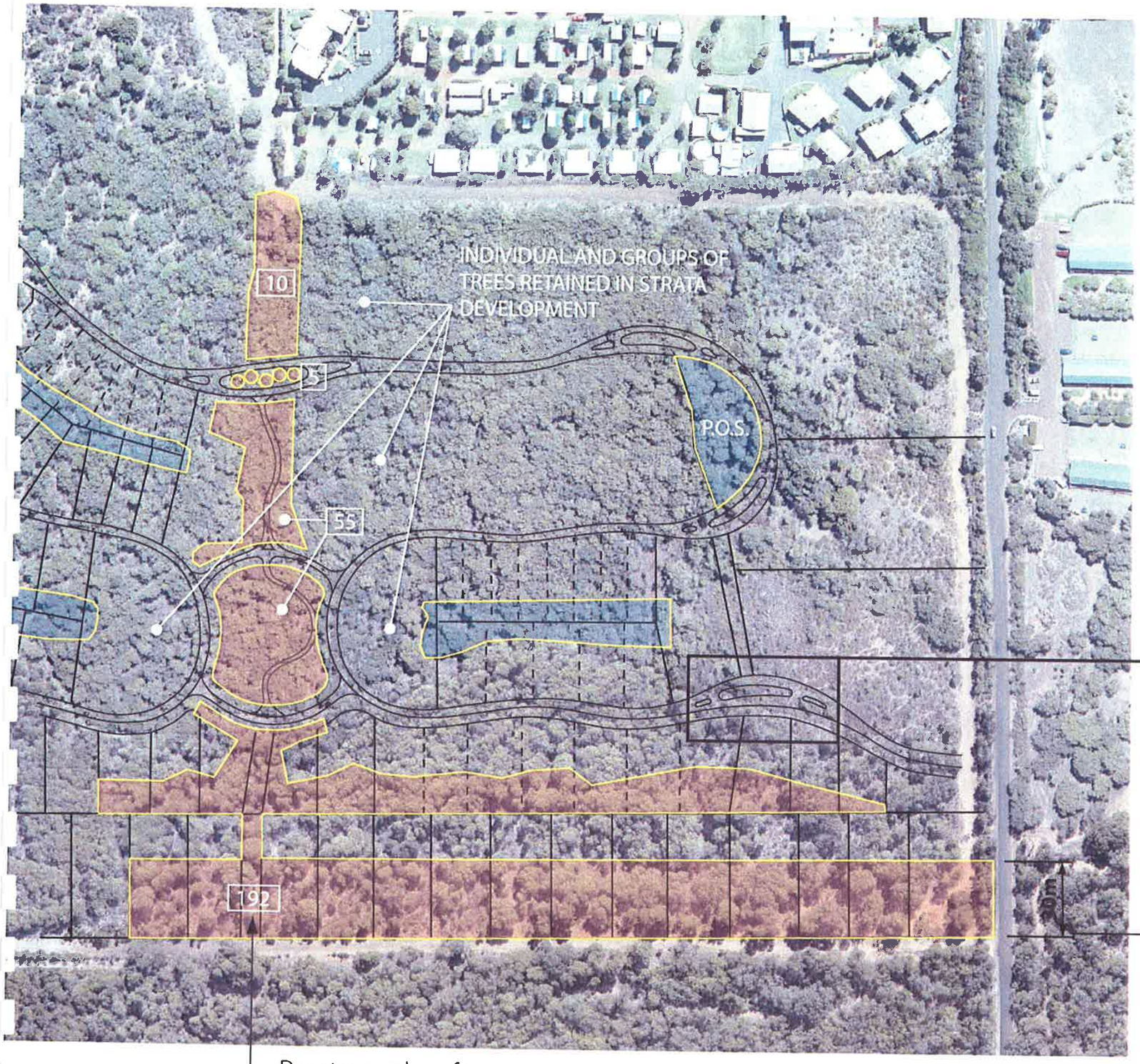
Aerial Photograph – Yallingup

500m

N

Appendix 14
Smiths Beach - Sussex Location 413 – Possum Management Strategy

EPA Assessment No. 1597
Sussex Location 413, Yallingup,
Smiths Beach Strategic Environmental Assessment



Denotes number of trees retained in each area

NORTH

0m 40 60 80

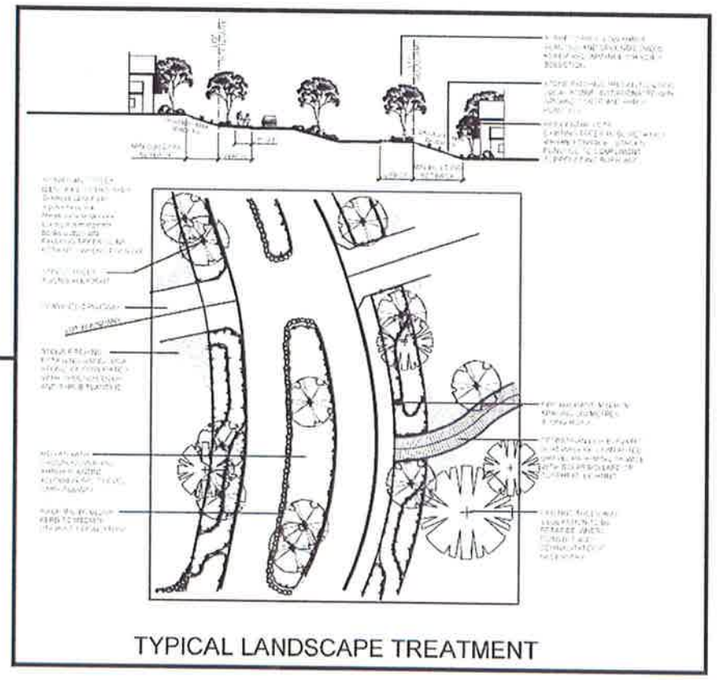
scale (metres)

This plan illustrates areas of tree retention for possum management. In addition to these defined areas tree retention throughout the site is proposed subject to detailed design.

All vegetation on site is subject to the constraints detailed in the local D.T.P.S. 20
cluase 27. LANDSCAPE VALUE AREA
Amendment No. 53 GG 18.7.03
(Amendment No. 54 GG 12.4.05

Primary area of retention

Secondary area of retention



TYPICAL LANDSCAPE TREATMENT

30m building setback (refer DGP.)

This drawing is to be read in conjunction with drawing no. B0531/P01 & B0531/P02 reference landscape dwg's for further detail of retention and planting