

MAJOR PROJECT – PART 3A

**ENVIRONMENTAL PLANNING
AND ASSESSMENT ACT, 1979**

PROPOSED SUBDIVISION

LOT 30 DP 1198692

**GEORGE EVANS ROAD AND JONSSON ROAD
MUNDAMIA**

Prepared for

**Allen, Price and Associates
and Jemalong Mundamia Pty Ltd**

22 January 2015



Prepared by:

COWMAN STODDART PTY LTD

PROPOSED SUBDIVISION

LOT 30 DP 1198692

GEORGE EVANS ROAD AND JONSSON ROAD

MUNDAMIA

Ref. 08/64

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EXECUTIVE SUMMARY

On 30 November 2012, Allen Price and Associates submitted an Environmental Assessment Report and Project Application for a residential subdivision at Mundamia, located within the Shoalhaven City Council to the west of the Nowra township.

The Project Application and Environmental Assessment Report were placed on public exhibition by the Department of Planning from 8th May 2013 to 11th June 2013.

A total of eleven submissions were received, ten from government agencies and educational institutions, and the remaining submission being from a local resident.

The proponent has commissioned the preparation of additional assessments and amended the Project Application accordingly to address matters raised in the submissions.

The amended project the subject of this Preferred Project Report (PPR) has the following features:

- Total of 320 residential allotments as follows:
 - 305 traditional residential allotments,
 - 9 allotments suitable for dual occupancy development, and
 - 6 multi dwelling allotments which are suitable for further higher density residential development.
- Four (4) public reserve allotments;
- One (1) commercial allotment;
- identification of a proposed bus route and bus stop locations; and
- identification of areas for on-site detention of stormwater.

This PPR has been prepared for submission to the Director-General of the Department of Planning and Environment. This Report seeks the Minister's approval for the amended Project Application and includes the following information:

- Responses to key issues.
- Preferred Project Report including additional information comprising an Aircraft and Traffic Noise Intrusion Report; Aboriginal Heritage Assessment; Stormwater Management Assessment; Flora and Fauna Issues and Assessment; Bushfire Protection Assessment; and Preliminary Acid Sulfate Soils Assessment.
- Revised Statement of Commitments.

Important aspects of the amended Project Application and Statement of Commitments include the following:

- A reduction in development footprint to preserve threatened species in the area;
- A redesign of the stormwater management system to provide additional security to the downstream ecology;
- The introduction of a Sewerage Pumping Station site in the north-east which will be developed by Shoalhaven City Council; and
- Modifications to the street network to align with the adjoining subdivision to the west.

In preparing this PPR, the following separate plans and reports have been prepared and are relied upon:

- *Subdivision Sketch Plan* – Allen Price and Associates.
- *Interim Bushfire Measures* – Allen Price and Associates.
- *Stormwater Management Assessment* prepared by Martens Consulting Engineers.
- *Aboriginal Heritage – Further Information* – NSW Archaeology Pty Ltd.
- *Flora and Fauna Assessment Report* prepared by SLR Consulting.
- *Aircraft and Traffic Noise Intrusion Report* – Day Design.
- *Bushfire Protection Assessment* - Eco Logical Australia.
- *Preliminary Acid Sulfate Soils Assessment* - Martens Consulting Engineers; and
- *Response to submissions concerning ecological issues* – Gunninah.

Furthermore, consideration has been given to the Mundamia URA – Hydrological Impact Management prepared by Martins Consulting Engineer's previously submitted.

1.0 INTRODUCTION

This Preferred Project Report has been prepared for submission to the Director General of Planning and Environment to satisfy the requirements of the Environmental Planning and Assessment Act. It is submitted in support of the Project Application 08-0141 for Mundamia.

Approval is sought for the Project Application in accordance with the Environmental Assessment Report previously submitted and exhibited, and as amended by this PPR and amended Statement of Commitments.

1.1 THE PROPONENT

The proponent is Allen Price and Associates (APA), as agents for Jemalong Mundamia Pty Ltd, who are the developers of the proposal.

1.2 BACKGROUND

On 29th August 2008 Allen Price and Associates lodged a Major Project Application for Project Approval for a residential subdivision of the subject lands.

On 17th October 2008, the Director General of the Department of Planning declared the proposal to be a Major Project (Reference No. 08_0141) and provided the Environmental Assessment requirements.

On 20th October 2010, the Director General issued amended requirements of the Environmental Assessment.

The Project Application was made on 30th November 2012 in accordance with the amended Director General Environmental Assessment requirements.

Approval issued under SF 10328 by Shoalhaven City Council to the adjustment of boundaries between Lot 3 DP 568613 and Lot 384 DP 755952. That approval consented to a boundary adjustment to enable an existing dwelling to be excised onto a separate rural residential parcel in order that it have no effect on the future residential subdivision. In essence, that approval was creating Lot 1 in Stage 1A of the original Project Application, and a residual development lot. That subdivision (SF 10328) has not yet been registered, but will proceed any implementation of the Project Application the subject of this Report. As a consequence however, the Project Application was amended by Department of Planning on 23rd January 2014 by deleting this component.

The Project Application was placed on exhibition by the Department of Planning from 8th May 2013 to June 2013. During this period, a total of 11 submissions were made. Of

the total submissions that were made, 10 were from government agencies and educational institutions, whilst the name and other details of the remaining submission was withheld.

Shoalhaven LEP 2014 (implementing the Standard LEP instrument) was published in the Government Gazette on 8th April 2014 and commenced 14 days thereafter, being 22nd April 2014. The provisions of Shoalhaven LEP 2014 have zoned the subject site partly R2 Low Density Residential, and partly E2 Environmental Conservation. Commencement of Shoalhaven LEP 2014 enables consideration and approval of the proposal.

1.3 FORMAT OF REPORT

This Preferred Project Report submitted to the Director General of Planning and Environment provides the following:

- Section 2: Preferred Project Report. Provides an overview of the proposed changes to the subdivision to further minimise the environmental impacts and address issues raised in the submissions.
- Section 3: Submission and Responses. Reviews submission that have been made in relation to the public exhibition of the Project Application, and responds to the concerns that have been made.
- Section 4: Amended Statement of Commitments. Outlines the revised Statement of Commitments.
- Section 5: Conclusion.

2.0 PREFERRED PROJECT REPORT

2.1 PROJECT APPLICATION

The amended Project Application is detailed in the Subdivision Sketch Plan prepared by Allen Price and Associates (Referenced 25489-11 Rev 5) dated 15th August 2014 and is attached as **Annexure 1**. The amended Subdivision Sketch Plan has been prepared following detailed consideration of issues raised during the exhibition of the Project Application by government agencies and the community.

The Subdivision Sketch Plan has the following features:

- Total of 320 residential allotments with the following characteristics:
 - 305 traditional residential allotments,
 - 9 allotments suitable for dual occupancy development,
 - 6 multi dwelling allotments (suitable for further higher density residential development); and
- four (4) public reserve allotments;
- one (1) commercial allotment;
- identification of a proposed bus route and bus stop locations;
- identification of areas for on-site detention of stormwater.

The following sections deal with the proposal in greater detail.

2.1.1 Residential Allotments

The proposed allotments vary in size from a minimum of 503 m², to a maximum of 1101 m².

The majority of allotments proposed have a site area of between 600 and 700 m².

The breakdown of lot sizes and numbers is proposed as follows:

- Lot Type 1 (500 – 600 m²) – 65;
- Lot Type 2 (600 – 700 m²) – 232;
- Lot Type 3 (700 – 800 m²) – 5; and
- Lot Type 4 (> 800 m²) – 3.

2.1.2 Dual Occupancy Allotments

The amended Subdivision Sketch Plan prepared by APA shows the provision of 9 dual occupancy allotments with area of at least 703 m². Development of these allotments will result in the provision of eighteen residential dwellings.

The dual occupancy allotments are sited in relatively close proximity to the Mundamia “Hub” being generally within a 250 to 300 m radius.

2.1.3 Multi Dwelling Housing Allotments

The amended Subdivision Sketch Plan prepared by APA shows the provision of multi dwelling lots/medium density sites. It is anticipated that the development of these will result in up to 29 separate dwellings. These allotments are sited in the vicinity of the “Hub” precinct, and also opposite a proposed public reserve.

2.1.4 Commercial Allotment

The amended Subdivision Sketch Plan prepared by APA shows the creation of one (1) commercial allotment having an area of 163 m² which is to be available for integration with adjoining lands to enable development of the “Hub” precinct.

2.1.5 On site Detention Areas

The Subdivision Sketch Plan prepared by Allen Price and Associates includes the siting of three areas where on site detention can be located. These allotments are sited at the lower level of the site and have the following characteristics:

- Southern site within bushland public reserve with potential detention area of 1,000 m² and volume of 600 m³
- central site within public reserve allotment with potential detention area of 2,900 m² and volume of 2,500 m³ ;
- central site within bushland reserve allotment with potential detention area of 2,000 m² and volume of 1,200 m³ ; and
- northern site within bushland reserve with detention area of 7,000 m² and volume of 5,400 m³.

Total detention area of 12,900 m² is proposed for the entire estate, with a detention volume of 9,700 m³.

2.1.6 Road Alignment

The alignment of Road Five has altered, being moved to the west to provide greater buffer to threatened flora species being Nowra Heath Myrtle.

In addition, minor reconfiguration of the road layout has resulted from changes to allotment layout necessitated by the subdivision layout of adjoining lands (MP09_0056).

2.1.7 Public Reserves

The Subdivision Sketch Plan prepared by Allen Price and Associates includes the provision of public reserve allotments as follows:

- A public reserve allotment, which is generally regular in shape and has an area of 3207 m², and which is centrally sited fronting roads four, ten and eleven;
- A public reserve allotment with an area of 1400 m² adjacent the main spine road at the entry to the estate
- a natural area of public open space is proposed along the north eastern edge of the site with an area of 7.39 ha; and
- a natural area along the eastern edge of the site and which has an area of 3.1 ha.

The Subdivision Plan prepared by Allen Price and Associates shows a total of 4,607 m² of public reserve being proposed within the estate. This is in addition to the 8,644 m² of public reserve proposed by Shoalhaven City Council in the development of land adjoining (MP 09_0056) which amounts to a total of 13,251 m² of public reserve within the Mundamia Estate to complement the natural bushland areas.

2.1.8 Bus Routes and Stops

The Subdivision Sketch Plan prepared by Allen Price and Associates identifies a bus route and location for bus stops to service the Mundamia Living Area. The proposal incorporates a clockwise route (highly desired by bus industry as it minimises more restrictive left turn manoeuvres) and three bus stops, two of which are located within the subject site.

The bus route has been carefully selected to ensure that all allotments are well within a 500 m radius of a designated bus stop, thus providing good walkability to ensure accessibly for all future residents.

2.2 DEVELOPMENT DATA TABLE

The following table compares the development the subject of the PPR with that originally exhibited.

	<i>Preferred Project</i>	<i>Exhibited Project</i>
Single Dwelling Allotments	305	284
Dual Occupancy Allotments	9 (allowing 18 dwellings)	7 (allowing 14 dwellings)
Multi dwelling Allotments	6 (allowing 29 dwellings)	21 (allowing 45 dwellings)
Total Residential Allotments	320	312
Number of Dwellings	352 dwellings	344 dwellings
Subdivision Yield	31.57 ha /352 dwellings = 11.15 dwellings per ha	31.57 ha /344 dwellings = 10.89 dwellings per ha
Commercial Allotments	1	Nil
Area of drainage reserves	12,900 m² with a volume of 9,700 m³.	Unspecified
Area of public open space	4, 607 m²	5,442 m ²
Areas of bushland	10.49 ha	9.492 ha

2.3 JUSTIFICATION FOR DEPARTURES

Annexure 9 of this PPR provides a comprehensive assessment of the proposal against the requirements of Draft Development Control Plan No. 124 – Mundamia Urban Release Area. This demonstrates that predominantly, the proposal complies with the objectives and performance criteria of Draft DCP No. 124. However, it is noted that certain provisions do not receive strict compliance. The following section of this PPR deals with the departures to the requirements of DCP No. 124.

Firstly, however it must be noted that the provisions of Draft DCP No 124 – Mundamia Urban Release Area have not been formally adopted by Council, and therefore they have no statutory weight, and as a result do not require any consideration. Notwithstanding this, the proposal has been amended in order to attain the aims and objectives of the Draft DCP, despite planning and design for this project commencing many years before Council undertook the preparation of Draft DCP No. 124.

The following table identifies the departures to requirements and provides justification.

<i>Required</i>	<i>Proposed</i>	<i>Comment</i>
Minimum Residential Density of <ul style="list-style-type: none"> medium density of 20 dwellings/ ha detached dwellings of 12 dwellings/ha 	Overall yield of 11.4 dwellings/ha.	This appropriately considers the requirements of the draft DCP, reflecting the significant constraints (ecological / bushfire / stormwater detention ponds) that restrict the extent of developable land within the subject site.

Required	Proposed	Comment
Minimum of 20% of all dwellings in the URA to be medium density, which includes dual occupancies. Therefore, 70 medium density units required (352@20%).	Total of 47, representing 13.3 %.	The proposal provides for 47 dual occupancy and multi dwelling houses, representing 13.3 % of the total housing stock. This represents a reasonable proportion and exceeds the 9% currently attained in the Shoalhaven LGA (based on 2011 census) by 50%.
Provide for dual occupancy developments with a minimum of 5% of single residential lots to be assigned for dual occupancy.	Proposal provides 3% of allotments for dual occupancy purposes. Dual occupancy allotments are well sited, being close to the Neighbourhood Hub, as an offset to the greater density, by improving access the facilities to be provided within the Estate.	It is considered undesirable to provide additional dual occupancy allotments as the shape of the site will see them located further away from the "Hub" in areas having reduced access to the Estate facilities.
Local Public Reserves must comply with the requirements of the Shoalhaven Council Public Open Space Plan of 12 m ² per person. Compliance would result in some 10, 560 m ² of open space.	Preferred Project includes a total of 4, 607 m ² of public open space within the Estate, plus in excess of 10 ha of bushland reserve.	The open space that is proposed in this Preferred Project will combine with that provided in the adjoining subdivision proposed by Shoalhaven Council and will result in the provision of open space that generally accords with the overall requirements. The Contributions Plan which has been adopted by Shoalhaven Council includes a significant contribution per allotment towards the provision and embellishment of the Central Open Space, and as such, it is only reasonable that this is considered in the provision of open space attributed to this project. This is in addition to the significant expanse of bushland open space on the perimeter of the site. Consequently, within the entire Mundamia Estate, substantial public open space will be provided.
Vehicles will gain access from service lanes to the rear at the Gateway to the site	Traditional subdivision layout has been proposed with vehicular access being available via the Gateway road.	This provision of the draft DCP has been objected to by proponents as the nature of the subdivision and traffic safety does not warrant prohibition on vehicular access via the main spine road.

3.0 SUBMISSIONS AND RESPONSE

3.1 INTRODUCTION

The Project Application was placed on exhibition by the Department of Planning from 8th May 2013 to June 2013 and a total of 11 submissions were made.

Of the total submissions that were made, 10 were from government agencies and educational institutions. The remaining submission was from the resident owner of an adjoining privately held allotment.

Having regards to government agencies and educational institutions, submission were received from the following:

- NSW Rural Fire Service;
- Roads and Maritime Services;
- NSW Trade and Investment – Resources and Energy;
- NSW Office of Environment and Heritage;
- NSW Department of Primary Industries (Crown Land and Fisheries);
- Shoalhaven City Council – Shoalhaven Water;
- NSW Education and Communities;
- Australian Government – Department of Defence;
- Shoalhaven City Council – Director of Development and Environmental Services; and
- University of Wollongong.

In addition, the Department of Planning has provided correspondence identifying key issues to be addressed.

The following Sections of the Report broadly deals with the submissions, whilst **Annexure 8** accompanying this PPR provides a more comprehensive response, addressing each issue that has been raised.

3.2 COMMONWEALTH SUBMISSIONS

3.2.1 Department of Defence

The Department of Defence has raised concerns regarding:

- Potential bird strike, with the proposal incorporating water bodies that may attract birdlife to the locality;
- Area is subject to building height controls to protect airspace near HMAS Albatross; and

- Site lighting with a view to avoiding upward emissions of light.

These matters are further discussed in **Annexure 8**.

3.2.2 University of Wollongong

The University of Wollongong, Shoalhaven Campus is located at Mundamia, having frontage to George Evans Road some 400 m to the south-west of the subject site.

The submission from the University of Wollongong indicates that the University of Wollongong is supportive, in principle of the development.

No further comments are warranted in relation to this submission.

3.3 SUBMISSIONS FROM STATE AGENCIES

3.3.1 NSW Rural Fire Service

The NSW Rural Fire Service raise concern with the proposal, essentially relating to the staging of the project to ensure that relevant requirements of Planning for Bushfire Protection are met at each stage.

These issues are further considered in the Subdivision Sketch Plan (inclusive of Subdivision Plan showing Interim Bushfire Measures) (**Annexure 1**), Bushfire Protection Assessment of Eco Logical Australia (**Annexure 5**), and **Annexure 8**

Having regard to the Staging of development, Eco Logical Australia advise that each stage of the subdivision will provide a primary and alternate access route, perimeter access and Asset Protection Zones (APZ), with access roads or a perimeter fire trail complying with the requirements for Planning for Bushfire Protection (PBP). Having regard to the provision of APZ, Eco Logical Australia recommend that these be provided in accordance with PBP for allotments sited on the perimeter of the development, or alternatively for allotments inside the ultimate perimeter, a temporary minimum APZ of 100 m, or to the final development perimeter, is required.

The Plan prepared by APA shows the interim protection measures required for Stage 1 of the subdivision as follows:

- provision of a temporary 100 m Asset Protection Zone surrounding Stage 1 of the subdivision;
- temporary alternate bushfire access for Stage 1; and
- temporary fire trail network for Stage1.

The provision of relevant APZ, access and fire trails can be readily implemented and maintained as long as necessary as the staged implementation of the subdivision progresses.

Concern has also been expressed regarding the provision of APZ, and how these would impact on the future development of the residential allotments. The provision of APZ have been shown on the Subdivision Sketch Plan (**Annexure 1**) prepared by APA by way of a dashed line. This shows the APZ extending only into those allotments on the perimeter of the site. The extent of encroachment onto the residential allotments is marginal, such that the APZ affects either:

- that land which would comprise front setback as required by Shoalhaven Council and would therefore be unsuitable for the siting of development; or alternatively
- the rear yard area for the 6 allotments which back onto the bushland reserve.

Consequently, although the provision of APZ will extend onto a number of allotments, the effect of such encroachment will be negligible, and these allotments will retain a large extent of developable land to enable construction of suitable residential accommodation.

With respect to the provisions of the *Environmental Planning and Assessment Regulation 2000* and *Rural Fires Regulation 2013*, Eco Logical Australia have advised (**Annexure 5**) that these provisions only apply where exemption is being sought under Section 79BA of the EP&A Act for future development. The project does not seek exemption from Section 79BA and consequently, according to Eco Logical Australia, these provisions have no implication for the project.

3.3.2 Roads and Maritime Services

The Roads and Maritime Services have outlined concerns with the certain aspects of the development and the Transport Report prepared by Colston Budd Hunt and Kafes (CBHK) having regard to issues such as:

- Consideration of cumulative traffic impacts, and in particular the impacts of adjoining development (MP09_0056) including traffic modelling.
- Conservative approach to traffic impacts, including worst case scenarios.
- Inclusion of suitable infrastructure to ameliorate traffic and safety impacts, mindful of pedestrian, cyclists and public transport infrastructure.
- Road upgrades need to be mindful that Albatross Road and Yalwal Road is an approved B-double route.

In addition to the above comments, RMS also provide preliminary comments with regard to the Transport Assessment and intersection analysis in regard to the following matters:

- discrepancies between the Transport Assessment undertaken by CBHK and that provided in conjunction with MP 09_0056 adjoining the site.
- The Traffic Impact Study for MP09_0056 indicates that the Yalwal Road approach at the junction with Albatross Road is already experiencing delays in the 2012 PM peak.
- SIDRA analysis reveals that the 'PM Holidays + Dev No Upgrade' scenario modelled results in a Level of Service F on the Yalwal Road approach, with delays of up to 73 seconds and queues of 222 m.

For the most part, issues raised by the RMS will be resolved through the implementation of the Shoalhaven Contributions Plan which has subsequently been adopted by Shoalhaven City Council to include, amongst other things, significant upgrades to the local road network. The Contributions Plan has been adopted following consultation with the community, and consideration of the traffic network servicing the Mundamia Urban Release Area. The Contributions Plan has included the following road upgrade projects :

- Construction of local access roads within the Mundamia URA;
- Provision of shared cycleway/pathways in the Mundamia URA; and
- intersection upgrade at the George Evans Road and Yalwal Road;
- Upgrade of the intersection of Yalwal Road and Rannoch Drive with a roundabout;
- Upgrade of the intersection of Yalwal Road and Lightwood Drive with a roundabout; and
- Provision of traffic signals and associated works at the intersection of Albatross and Yalwal Roads.

The proponent has agreed to the payment of the Section 94 Contributions which are ultimately adopted by Shoalhaven Council. It is considered that the above satisfactorily addresses the concerns of the RMS. The issues raised by the RMS are further considered in details in **Annexure 8**.

3.3.3 NSW Trade and Investment – Resources and Energy

The submission from NSW Trade and Investment – Resources and Energy was prepared by the Mineral Resources Branch (MRB). The submission from the MRB specifically states that there are no concerns with the proposal. The submission does note that a clay-shale resource is sited within 1 km of the site, however this operates only intermittently.

It is considered that no further comments are required in relation to this submission.

3.3.4 NSW Office of Environment and Heritage

The NSW Office of Environment and Heritage (OEH) have raised issues relating to the following:

1. Proposed development encroaches onto areas having high conservation value;
2. extent of development in relation proposed APZ being sited in areas proposed to be dedicated for conservation purposes;
3. the extent of land set aside for conservation purposes is insufficient to remain consistent with the biodiversity maintain or improve principles. In addition, no mechanism is in place to manage the offset area; and
4. updated Aboriginal Cultural Heritage Assessment and AHIMS search required, including consideration of any recent legislative amendments.

In response to these matters, the following is advised:

- The plan has been amended to increase the setback to the areas having high conservation value (refer amended Subdivision Plan - **Annexure 1**).
- Gunningah (**Annexure 10**) have noted that the lands are to be dedicated to Shoalhaven Council.
- A separate Aboriginal Heritage Assessment has been prepared by NSW Archaeology (**Annexure 7**) to update the assessment and this has revealed that there are no new AHIMS sites, and the original recommendations by South East Archaeology remain valid.

Having regard to offsets, SLR Consulting have advised as follows:

The Nowra-Bomaderry Structure Plan had anticipated the development inter alia of the subject land for residential purposes (essentially as is currently proposed), with an array of other lands identified within the Structure Plan for retention as biodiversity offsets for such development. That is, the requirement for biodiversity offsets for the future development of the subject land at Mundamia (amongst other portions of land) has already been offset within the Nowra-Bomaderry Structure Plan. It is the position of the proponent that no further additional provision of land for biodiversity offsets is necessary.

In considering the assessment of potential impacts on threatened biota, the conclusions of this Report reflect, in essence, the conclusions reached by Shoalhaven City Council (SCC) and the then Department of Planning (DoP) with respect to the appropriate development of Mundamia for residential purposes. The Nowra-Bomaderry Structure Plan (which was adopted by the Council and endorsed by the DoP) recognises the appropriateness of residential development at this location (including on the subject land).

In addition, both the Shoalhaven Local Environmental Plan 1985 (SLEP 1985) and the recent SLEP 2014 have identified those parts of the site considered

appropriate for development purposes, and have zoned the land accordingly. The ecological information presented in the SLR Consulting 2012 Report was available through the creation of SLEP 2104, and presumably reflects the considerations contained in the Nowra-Bomaderry Structure Plan.

As a consequence, it is considered that no offsets are necessary in the implementation of this project given the assessments undertaken in preparing the Nowra-Bomaderry Structure Plan and Shoalhaven LEP 2014.

The OEH has also raised specific concern regarding the impact of the development on the Nowra Heath Myrtle, particularly having regard to that sited within the required APZ which will be subject to management measures aimed at minimising fuel loads. SLR Consulting (**Annexure 3**) has advised that the Nowra Heath Myrtle species often favours disturbed areas with enhanced light levels and its apparent ability to resprout from lignotubers means it can benefit from the slashing of vegetation. Consequently, this species is unlikely to be significantly affected by management practices utilised in APZ maintenance. Notwithstanding this, SLR Consulting have recommended that:

management of APZs, where required, around the development to retain specimens of and habitat or resources for the relevant threatened biota, including inter alia:

- ...;
- ...;
- *slashing and thinning of understorey vegetation to achieve APZ fuel loads at selected locations to avoid the Nowra Heath-myrtle (which will be flagged for identification purposes).*

These matters are further considered in **Annexure 8**.

3.3.5 NSW Department of Primary Industries (Crown Land and Fisheries)

The submission from NSW Department of Primary Industries incorporates comment from Crown Lands, Fisheries NSW and NSW Office of Water. The following section deals with the issues arising from this submission.

3.3.5.1 Crown Lands

Crown Lands raise issues regarding:

1. The construction of roads within Crown Road reserves.
2. The proposed creation of public reserves.
3. Concerns regarding potential development adjoining an existing Crown Reserve.

These issues are outlined in detail in **Annexure 8**.

Having regard to the construction of roads within Crown reserves, additional consultation has been had with Crown Lands and Shoalhaven City Council's Assets Manager. This has culminated in Shoalhaven City Council formally requesting Crown Lands arrange for the transfer of Crown Road reserve into Council's ownership. A series of emails dealing with this issue are reproduced as **Annexure 11**.

3.3.5.2 NSW Fisheries

NSW Fisheries do not object to the proposal and concurs with the proposed mitigation measures.

Further, NSW Fisheries consider that the proposed safeguards and mitigation measures identified in the EA, Statement of Commitments be included in any project approval.

These matters are further dealt with in **Annexure 8**.

3.3.5.3 NSW Office of Water

The NSW Office of Water raises concern with the following:

- The site contains a depression which although not defined as a watercourse, displays good riparian values which require protection;
- Further consideration of groundwater issues including recharge, consideration of groundwater dependent ecosystems, and groundwater seepage areas;
- Allowable development in the E2 zone; and
- Suggested amendments and amendments to the Statement of Commitments.

These matters are dealt with in detail in **Annexure 8**.

3.3.6 NSW Education and Communities

The NSW Education and Communities have not raised any issues with the proposed subdivision, noting that the planned student population has been accommodated at the Nowra Public School and Nowra High School. The Department has requested that a VPA be developed with a view of securing a contribution to construction of new education facilities to service future student demand from the development of the nearby Cabbage Tree Lane Area.

This matter is further discussed in **Annexure 8**.

3.3.7 NSW Department of Planning and Infrastructure

The Department of Planning and Infrastructure (DoPI) have raised a number of issues, some of which reiterate issues identified by relevant state agencies and Shoalhaven City Council. The issues outlined include:

- Flora and fauna matters;
- Water Management issues;
- Subdivision Staging;
- Subdivision Design and Layout;
- Developer Contributions;
- Traffic and access;
- Bushfire measures;
- Aboriginal Heritage Assessment;
- Site earthworks;
- Noise impacts;
- Acid Sulphate Soils; and
- Geotechnical Assessment.

These matters have been addressed in **Annexure 8** and where relevant, the various supplementary reports annexed to this PPR.

Of particular note however are Hydrological Impacts Management whereby the DoPI engaged Evans and Peck to undertake a peer review of the project. These matters have been addressed by Martens Consulting Engineers (**Annexure 2**) as follows:

- The stormwater management has been amended to provide for:
 - onsite detention;
 - water quality controls; and
 - stormwater infiltration.

Furthermore, Martens Consulting Engineers have provided mitigation measures relating to the potential impact of proposed site infrastructure such as building foundations, roads, service trenches and the like on the passage of shallow sub-soil water flows across the site. These mitigation measures include:

- raft slabs not being founded on rock, thereby not impeding groundwater flows;
- strip footing with piers to rock, this enabling sub-spoil flows of water;
- roads being constructed with the use of drainage blankets under pavements allowing sub-soil drainage to pass beneath;
- use of impermeable material in the backfilling of trenches thereby forcing water to continue passage across a trench and downslope.

3.4 SHOALHAVEN CITY COUNCIL

3.4.1 Shoalhaven Water

Shoalhaven Water have raised the need to identify the site of a proposed sewerage pumping station, along with outlining relevant developer contributions that are required to be paid.

These matters are dealt with in **Annexure 8**.

3.4.2 Director of Development and Environmental Services

Issues raised by Shoalhaven City Council include:

- Strategic Planning matters;
- Provision of open space;
- Preparation of a Contributions Plan;
- Staging of the subdivision;
- Provision of Bushfire mitigation and Asset Protection zones;
- Stormwater and drainage including:
 - Overland flow paths,
 - Onsite detention,
 - Rain gardens,
 - Erosion and sediment control plan;
- Environment and hydrology conflict;
- Ecological issues;
- Traffic and access;
- Proposed bus route; and
- Provision of Infrastructure – Water and Sewer, essentially reiterating issues outlined by Shoalhaven Water.

These matters are dealt with in **Annexure 8**.

3.5 RESIDENT SUBMISIONS

One submission was received from the resident owner of a privately held parcel that immediately adjoins the subject site.

The submission explicitly supports the proposal and welcomes the development of the subdivision and requests that the access road service the side boundary of their property

as is proposed in order that the existing access to the rear yard and garage can be maintained.

The Subdivision Sketch Plan (**Annexure 1**) prepared by APA proposes that property with frontage to Road No. 6 and Road No. 14, which will result in that allotment maintaining its corner allotment status, and access from the side boundary access desired.

4.0 STATEMENT OF COMMITMENTS

The amended commitments listed below have been compiled based on the EA and separate specialist assessments which have been undertaken and the constraints and opportunities available at the site. They provide a commitment from the developer indicating their responsibilities in developing the site as proposed to ensure that the development is environmentally, socially, and economically sustainable. In developing the subdivision, the developer gives the following commitments in order to minimise the impact on the environment:

Item	Commitment	Timing
General	1. The developer will carry out the development in accordance with the Environmental Assessment (EA), prepared by Cowman Stoddart dated January 2009, Preferred Project Report (PPR) dated December 2014 plans prepared by Allen Price & Associates and supporting reports.	For the duration of the subdivision.
Legislative Controls/Requirements	2. The developer will obtain and maintain the following licences, permits and approvals for the residential subdivision: <ul style="list-style-type: none"> • Shoalhaven City Council - Construction Certificates for engineering works for each stage of the subdivision. The application for Construction Certificates will contain Design Drawings submitted containing, where relevant, detailed designs relating to earthworks, drainage, soil erosion and sediment control, site remediation, tree clearing, site stability, roadworks, footpaths/cycleways, water supply (both potable and use of reclaimed water) and sewerage works, and landscaping; • Shoalhaven City Council - Section 138 Consent for roadworks (Roads Act 1993); • Endeavour Energy - Design Certification; • Endeavour Energy - Notification of Arrangement; • Telstra/NBN - Compliance Certificate; • Shoalhaven Water - Certificate of Compliance; • Shoalhaven City Council – Subdivision Certificates for each stage; • Department of Land and Property Information - registration of the subdivision. 	For the duration of the subdivision.

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Item	Commitment	Timing
Final Plan of Subdivision	3. The developer will prepare a final plan of subdivision for each stage of the development in accordance with the recommendations of the Environmental Assessment, as amended by the Preferred Project Report and requirements of Shoalhaven City Council.	Prior to the release of Subdivision Certificates.
Public Open Space	4. The developer will prepare a detailed landscape design plans to be approved by Shoalhaven Council as part of the Construction Certificate documentation.	Prior to release of Construction Certificate for subdivision for each stage/s containing public reserve.
	5. The developer will dedicate all public reserves to Shoalhaven City Council within the appropriate stage of the development.	Prior to release of Subdivision Certificate and dedicated upon registration.
Waste Minimisation and Management	6. The developer will prepare a Waste Minimisation and Management Plan for subdivision construction works in accordance with Shoalhaven DCP 2014 for approval by Shoalhaven City Council for implementation.	Prior to the release of the Construction Certificate for each stage.
Construction	7. The developer will prepare a detailed Construction Management Plan for approval by Shoalhaven Council including education of workers in the approvals and conditions requiring compliance (including soil erosion and sediment controls, flora and fauna and aboriginal archaeological issues, waste management), details of the environmental management procedures during the development and measures relating to waste minimisation and management.	Prior to the commencement of construction and for the duration of the development.
	8. The CMP shall include a management regime for the construction process to ensure that no other wastes (including building rubble, garbage, contaminants, fuels, oils, paints or other chemicals) are discharged from the construction area, and that all such wastes and contaminants are contained within the construction footprint and are appropriately managed.	Prior to the commencement of construction and for the duration of the development
	9. The use of sediment fences and other appropriate control measures during construction activities to manage and/or avoid erosion and sediment discharge or the discharge of other contaminants.	Prior to the commencement of construction and for the duration of the development

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Item	Commitment	Timing
Bushfire Management	Provision of Asset Protection Zones	
	10. The developer will establish Asset Protection Zones (APZs) in accordance with Figure 2 of the Bushfire Assessment, prepared by Eco Logical Australia.	Prior to the release of the Subdivision Certificate for each stage.
	11. All public reserves within the internal boundary of the subdivision shall be designed to be maintained as an APZ.	Prior to the release of the Construction Certificate for the relevant stage.
	12. Reticulated water and fire hydrants shall be provided as per Section 7 of the Ecological Bushfire Protection Assessment submitted with the PPR.	Prior to the release of the Subdivision Certificate for each stage.
	13. The developer will install relevant road and fire trail infrastructure to comply with Planning for Bushfire Protection 2006.	Prior to the release of the Subdivision Certificate for each stage.
	14. 0.5 m clearance will be maintained between any trees and overhead electrical conductors.	Prior to the release of the Subdivision Certificate for each stage.
	15. Gas service shall be maintained in accordance with AS/NZS 1596:2008.	Prior to the release of the Subdivision Certificate for each stage.
	16. Staging is to include provision for alternative access, fire trails and temporary APZs of a width of 100 m or to the perimeter of the site.	Prior to the release of the Subdivision Certificate for each stage.
Water Quality Management and Soil Control	17. The developer will create Section 88B Restrictions as necessary implementing the temporary alternative access, fire trail, and APZ requirements for each stage of the subdivision.	Prior to the release of the Subdivision Certificate for each stage.
	18. The management of stormwater discharge volumes and water quality from the development area, both during construction activities and following completion and occupation of the site, according to current 'best practice' principles and as outlined in the Martens Consulting Engineers' "Stormwater Management Assessment", November 2014.	Prior to the release of the Subdivision Certificate for each stage.

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Item	Commitment	Timing
<i>Water Quality ... cont'd</i>	19. Detailed design and construction of the peripheral bioretention swale system to maintain soil moisture and groundwater regimes.	Prior to the release of the Subdivision Certificate for each stage.
	20. The developer will design, install and maintain water quality control measures in accordance with the Construction Certificate Plans approved by Shoalhaven City Council.	Prior to the release of the Subdivision Certificate for each stage.
	21. The developer will prepare a soil and water management plan to control runoff during construction in accordance with the principles of the Landcom publication Managing Urban Stormwater (MUS); Soils and Construction Volume 1, 4 th Edition and Construction Certificate Plans approved by Shoalhaven City Council and DCP 100.	Prior to the release of the Subdivision Certificate for each stage.
	22. The developer will create restrictions-as-to-user on future allotments to ensure the required lot level WSUD facilities are provided by future home owners.	Prior to the release of the Subdivision Certificate for each stage.
Cultural Heritage	23. The developer will implement the management and mitigation measures recommended in the report prepared by South East Archaeology Pty Ltd and NSW Archaeology including the preparation and implementation of an Aboriginal Heritage Management Plan.	For the duration of the development.
	24. The developer will inform the Nowra Local Aboriginal Land Council of progress of the development.	Ongoing through the construction of the subdivision.
Infrastructure	Roads	
	25. The developer will construct all roads and fire trails in accordance with DCP 100 and approved Construction Certificates.	Prior to the release of the Subdivision Certificate for each relevant stage.
	26. The developer will provide a minor street drainage system to accommodate the 5 year A.R.I. storm event in accordance with plans approved by Shoalhaven City Council with the Construction Certificate.	Prior to the release of the Subdivision Certificate for each relevant stage.
	27. The developer will provide a major street drainage system to accommodate the 100 year A.R.I. storm event in accordance with plans approved by Shoalhaven City Council with the Construction Certificate.	Prior to the release of the Subdivision Certificate for each relevant stage.

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Item	Commitment	Timing
<i>Infrastructure continued</i>	28. The developer will construct footpaths and cycleways as shown on the plans prepared by Allen Price and Associates and approved Construction Certificates.	Prior to the release of the Subdivision Certificate for each relevant stage.
	29. The developer will provide street signs in accordance with the requirements of Shoalhaven City Council.	Prior to the release of the Subdivision Certificate for each stage.
	30. The developer will provide street lighting in accordance with the requirements of SCC and Endeavour Energy.	Prior to the release of the Subdivision Certificate for each stage.
	Electricity and Telecommunications	
	31. The developer will provide underground power to each residential lot in the subdivision in accordance with the requirements of Endeavour Energy.	Prior to the release of the Subdivision Certificate for each stage.
	32. The developer will provide street lighting to the requirements of Endeavour Energy and Shoalhaven City Council.	Prior to the release of the Subdivision Certificate for each stage.
	33. The developer will provide underground telecommunications infrastructure to each lot in the subdivision in accordance with requirements of Telstra/NBN Co.	Prior to the release of the Subdivision Certificate for each stage.
	Drainage	
	34. The developer will install street and interallotment drainage as necessary in accordance with plans approved by Shoalhaven City Council.	Prior to the release of the Subdivision Certificate for each stage as applicable.
	35. The developer will design and construct the various WSUD features as outlined in the Martens Consulting Engineers report entitled "Stormwater Management Assessment" dated November 2014.	Prior to the release of the Subdivision Certificate for each stage as applicable.
	Water and Sewer Services – Residential Allotments	
	36. The developer will provide reticulated water and sewerage services to each lot in the subdivision in accordance with the requirements of Shoalhaven Water.	Prior to the release of the Subdivision Certificate for each stage.

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Item	Commitment	Timing
Landscaping Plans	37. The developer will use native species, endemic to the locality in the preparation of landscaping plans, and subsequent works undertaken in conjunction with this subdivision as shown on plans prepared by Peter Phillips Landscape Architecture.	For the duration of the subdivision
Geotechnical	38. The developer will provide a lot classification geotechnical report to Shoalhaven City Council for each stage of development prior to the release of the final plan of subdivision for that stage. 39. The developer will include a Section 88B Restriction as to User on each allotment preventing the development of dwellings with strip footings being constructed to rock.	Prior to the release of the Subdivision Certificate for each stage.
Staging	40. The developer will construct the subdivision in accordance with the staging details prepared by Allen Price and Associates or as otherwise approved in Construction Certificate plans approved by Shoalhaven City Council.	For the duration of the subdivision.
Developer Contributions	41. The developer will pay Section 94 developer contributions in accordance with Shoalhaven City Council's Section 94 Contributions Plan on a "per ET" basis for each stage of the residential subdivision. 42. The developer will pay Section 64 water and sewer developer contributions in accordance with the development servicing plan applicable at the time of payment.	Prior to the release of the Subdivision Certificate for each stage. Prior to the release of the Subdivision Certificate for each stage.
Signage	43. The developer will provide estate marketing signs in accordance with the provisions of DCP 89 – Exempt and Complying Development or as otherwise approved by Shoalhaven City Council.	For the duration of the subdivision.
Voluntary Planning Agreement	44. The developer will enter into a Voluntary Planning Agreement with Shoalhaven Council having regard to the dedication of areas of Public Open Space, subject to agreement with Shoalhaven Council ¹ .	Prior to the release of the Subdivision Certificate for the first stage.
Ecological	45. The developer will implement the mitigation and amelioration measures recommended by SLR Consulting as follows:	Prior to the release of the Subdivision Certificate for each stage.

¹ At this stage, Shoalhaven Council has agreed to the dedication of certain public reserves, and negotiation have commenced and will continue in relation to the outstanding areas.

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Item	Commitment	Timing
<i>Ecological continued</i>	<ul style="list-style-type: none"> the use of sediment fences and other appropriate control measures during construction activities to manage and/or avoid erosion and sediment discharge or the discharge of other contaminants; the ongoing management of stormwater discharge volumes and water quality from the development area, both during construction activities and following completion and occupation of the site (see Martens 2014); the ongoing management of the peripheral bioretention swale system to maintain water quality, soil moisture and groundwater regimes, and to provide supplementary habitat for native biota; the ongoing management of the APZs to ensure that habitat and resources for, and individuals of, threatened species are protected; the implementation of a management regime during the construction process to ensure that no wastes (including building rubble, garbage, contaminants, fuels, oils, paints or other chemicals) are discharged from the construction area, and that all such wastes and contaminants are contained and are appropriately managed; management of APZs, where required, around the development to retain specimens of and habitat or resources for the relevant threatened biota, including <i>inter alia</i>: <ul style="list-style-type: none"> the preferential and selective retention of hollow-bearing trees; the preferential and selective retention of identified Yellow-bellied Glider and Glossy Black Cockatoo feed trees; slashing and thinning of understorey vegetation to achieve APZ fuel loads at selected locations to avoid the Nowra Heath-myrtle (which will be flagged for identification purposes); the implementation of a <i>Vegetation Management Plan</i> (VMP) for the proposed <i>Public Reserve</i>, in accordance with the attached <i>Vegetation Management Principles Plan</i> (Appendix I) to ensure the long-term viability of flora and fauna populations which utilise the land, particularly the Glossy Black Cockatoo, Yellow-bellied Glider and Nowra Heath myrtle. 	

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Item	Commitment	Timing
<i>Ecological continued</i>	<ul style="list-style-type: none">the collection of native vegetation removed from development areas and its re-use within the <i>Public Reserve</i> for bushland rehabilitation and/or landscaping purposes and/or the provision of that material to Council for bushland management and rehabilitation purposes;the destruction or appropriate removal of weeds from the development footprint and from the <i>Public Reserve</i>, with specific weed management measures to be included in the VMP; andthe implementation of a <i>Hollow-bearing Tree Protocol</i>, involving:<ul style="list-style-type: none">the segmental 'dismantling' by professional tree experts of hollow-bearing trees in order to salvage tree-hollows, wherever possible;the placement of salvaged tree-hollows on existing large trees or dedicated poles in the Public Reserve;alternatively, the placement of salvaged tree-hollows on the ground as hollow log habitat, where placement in existing trees is not practical; andthe use of artificial nest boxes to replace tree-hollows which cannot be salvaged and to supplement that resource on the site.	

5.0 CONCLUSION

This report provides a PPR in relation to a residential subdivision at Mundamia, an Urban Release Area within the City of Shoalhaven on the south coast of NSW.

The amended subdivision the subject of this PPR provides for the development of 305 residential allotments, 9 dual occupancy allotments, and 6 multi-dwelling lots, various public reserve allotments for both recreation and conservation purposes and a small commercial allotment adjoining the “Hub”. It is envisaged that the subdivision will provide accommodation for up to 352 dwellings upon its development.

The proposed subdivision layout and accompanying reports have addressed those issues identified by various Commonwealth, State and Local Government agencies and instrumentalities who have commented on the proposal. The PPR is supported by an amended Subdivision Layout, further new assessments and supplementary reports as necessary to address the relevant concerns.

Support for the development is recommended subject to implementation of those matters outlined in the statement of commitments.



STUART DIXON CPP MPIA
TOWN PLANNER