

Pedestrian pathways and cycleways within the site are to be provided entirely within road reserves, thereby ensuring maximum passive surveillance opportunities by the general public and residents.

3.2.13 Servicing

Submitted in support of the application as **Annexure 9** is a “*Utilities Investigation Report*” prepared by Allen Price and Associates (APA) which has examined the provision of all infrastructure necessary to support the proposed subdivision.

Water and Sewerage Services

SCC, through Shoalhaven Water, is the supply authority for water and sewerage services throughout the entire City.

Investigations have been undertaken and SCC are fast-tracking the supply of water and sewerage services to the locality in order to meet the development targets scheduled by the NBSP.

All allotments are intended to be supplied with reticulated water and sewerage services.

Electricity

Electricity services are to be provided underground in accordance with Shoalhaven Council requirements, and to provide a level of visual amenity expected in contemporary subdivision design. In addition, lines protected underground are preferable in areas identified as being bushfire prone, as is the site.

Electricity is proposed to be provided by way of underground supply.

Telecommunications

The site is already serviced by Telstra who supply telecommunications services to the existing dwellings.

The proponent is to supply telecommunications infrastructure to suit either Telstra's or NBN Co's requirements. Due to the proximity of the property to West Nowra and the University of Wollongong's Shoalhaven Campus, it is expected that infrastructure will be delivered by NBN Co.

All telecommunications infrastructure is to be installed by the developer in accordance with the relevant design and construction standards, and will be NBN Co. ready, being compatible with further infrastructure supplied by either Telstra or the NBN Co.

Gas

The availability of reticulated gas to residential areas is limited in the Shoalhaven with this dependent on feasibility assessments undertaken by Jemena Pty Ltd who obtain gas from Actew AGL. In relation to Mundamia, it has been advised that a reticulated gas supply will not be economically viable and as such, will not be made available.

Notwithstanding this, bottled gas is readily available, and resultant development will be able to be serviced.

3.2.14 Management and Maintenance of Open Space Areas

The proposal provides for the provision of open space allotments as follows:

- 7.422 ha area in the north-eastern corner of the site,
- 2.07 ha area in the south-eastern edge of the site,
- Public reserve having a total area of some 1986 m² to the east of the main spine road (Road No. 1),
- Public reserve having a total area of some 2048 m² to the west of Road No. 1,
- Public reserve at the entry to the development with an area of 1408 m².

The proposed two large parcels of public reserve on the eastern and north-eastern edges of the site have been designed around the ecological significance attributed to this area following flora and fauna assessment. It is intended to dedicate these to SCC to ensure the ongoing protection of habitat, and for conservation purposes, and such is considered an effective means of ensuring the ongoing preservation of such lands.

Management of these areas will be simplified by the public road and fire trail system which separates the reserves from the proposed residential allotments.

Management of these lands should be undertaken in accordance with a Vegetation Management and Habitat Restoration Plan recommended by SLR who undertook an Environmental Flora and Fauna Assessment for the proposal (Section 5.6) and the APZ requirements detailed by ELA. Whilst the details of such a plan are still to be determined, according to SLR, it will need to specifically address the removal of weeds.

The smaller public reserves are intended to be dedicated to SCC following embellishment with a play structure, seating and plantings for the use and enjoyment of future residents and the wider public. The proposal is generally consistent with the Masterplan Principles adopted by SCC and provides public reserves in the vicinity of the retail/community area in order to optimise the appeal of this precinct which will act as a focal hub for future residents.

3.2.15 Construction

Construction of the proposal is to be undertaken generally in accordance with the Construction Management Plan (Outline) (CMP) prepared by Allen Price & Associates (**Annexure 10**). Such plan details, in a conceptual manner, issues relating to occupational health and safety, site contamination, vegetation management, provision of existing and temporary services, pedestrian and traffic management, earthworks and excavation, construction waste management and working hours.

It is envisaged that a more detailed and specific CMP would be prepared for each stage considerate of more comprehensive design work necessary which will be prepared prior to construction.

3.2.16 Affordability

The proposal is intended to enhance the extent of affordable housing stock in the Shoalhaven by firstly, adding to the supply of housing and vacant allotments in order that prices are not artificially inflated. Secondly, the proposal includes a variety of allotment sizes and seeks to optimise the number of allotments developed in this new living area. Finally, the developer is committed to housing affordability through low cost modular building techniques during the design and construction process. To that end, our client, Twynam Property Group, is in the process of purchasing a separate company to pursue these objectives.

3.2.17 Site Remediation

The proposal includes the remediation of the property in accordance with the recommendations of Martens Consulting Engineers contained within the Remedial Action Plan. This work includes the excavation of identified material and its disposal off-site, with further sampling to validate the remediation undertaken.

3.3 STAGING OF DEVELOPMENT

The development will be completed in stages and included on the subdivision sketch plan comprising **Figure 4** above (also plan Reference 25489-01 in **Annexure 1**) is information which details the intended staging programme.

In this regard, it is anticipated that the subdivision will be undertaken in 12 stages, commencing in the south western corner and continuing along the western boundary generally in a northerly direction. The central and eastern portions of the development are to be undertaken generally from north to south in order to allow the infrastructure that is to be provided in conjunction with the development.

The staging pattern is a logical one that is mindful of the need to provide relevant services for residential development, particularly having regard to water supply pressure and sewerage service, along with appropriate maintenance of Asset Protection Zones in order to mitigate bushfire risk to enable the development of lots upon their release.

Release of land will be contingent on the buoyancy of the residential market and take up rates.

As outlined above in Section 3.2.3, Allen Price and Associates, subsequent to commencing this Major Project process, have made separate development application to Shoalhaven City Council, referenced SF 10328, seeking approval to the rationalisation of the site boundaries. That application, made over the two lots that comprise the subject site, proposes the creation of two allotments, being a 2.86 ha large lot residential parcel containing an existing dwelling, and a 40.424 ha development parcel. In essence, that application seeks the creation of Stage 1A, as shown in the Subdivision Sketch Plan comprising **Figure 4** above. That application can operate independently of the Major Project the subject of this Environmental Assessment, and if approved, simply enables the commencement of the overall development in a more timely and orderly fashion by separating the development lot from that parcel retaining its large lot residential land use with no further subdivision opportunities.

3.4 PROJECT JUSTIFICATION

3.4.1 Background

This EA has been prepared in support of a Major Project Part 3A application proposing the subdivision of the site into 312 residential lots, 1 residue large lot residential allotment, 5 public reserve lots and conservation areas, and the construction of roads and other essential civil infrastructure.

The site is located in a new living area proposed by SCC known as Mundamia, which is located to the west of the Nowra Township. Nowra, along with the entire Shoalhaven area has been undergoing significant population growth over recent years and Mundamia has been identified as a new urban release area in the *Nowra Bomaderry Structure Plan* (NBSP) as an area to accommodate additional residential development to cater for expected growth.

The NBSP is further acknowledged within the *South Coast Regional Strategy* (SCRS) which has supported its findings, and identified the area as an urban investigation area. The SCRS has identified the Shoalhaven as requiring an additional 26 300 dwellings in the next 25 years, of which 23 900 are potentially available by the development of vacant

urban land, and in the development of investigation areas. The purpose of the SCRS, as it applies to housing, is to ensure that there is adequate land available, appropriately located to accommodate the projected housing and employment needs of the region over the next 25 years (2006-31).

Furthermore, our clients in conjunction with SCC have prepared a Masterplan in order to implement components of the NBSP and to provide further principles and aims to guide further development of the area.

This development will therefore contribute to the anticipated population growth of the NSW South Coast and Shoalhaven area generally, and implement the NBSP more specifically. The population projections contained within the NBSP and SCRS all identify demand for housing within the area and the need to increase the extent of housing stock. The application proposes the development of 312 residential lots (along with support commercial precinct and open space land) within the ecological constraints identified for the area, and the characteristics that have been identified for the site.

3.4.2 Introduction

This section provides justification for the subdivision by addressing the following matters:

- consistency with strategic planning policies and documents;
- assessing the suitability of the site; and
- demonstrating that the project is in the public interest.

3.4.3 Strategic Planning Policies

The strategic planning framework as contained in various strategic and planning documents for the site is outlined below in both the regional and local context.

3.4.3.1 South Coast Regional Strategy (SCRS)

The SCRS applies to the Local Government Areas of Shoalhaven, Eurobodalla and Bega. The *“primary purpose of the Regional Strategy is to ensure that significant natural and scenic assets that define the region’s character and underpin its economy are not compromised by growth”*. The SCRS is to *“be implemented primarily through LEPs, development control plans and the State Infrastructure Strategy and funds collected through developer contributions”*. The SCRS applies to the 25 year period from 2006 to 2031.

In relation to residential growth, the SCRS provides background information and a series of goals for each of the relevant Local Government Areas that culminates in a number of

‘Outcomes’ and ‘Actions’ relating to various themes including the natural environment, natural hazards, housing and settlement, economic development and employment growth.

Furthermore, the SCRS includes within Appendix 1 a series of Sustainability Criteria which will require consideration in the development of additional new areas that are not specifically identified in the SCRS.

Natural Environment

Having regard to the natural environment, the SCRS makes a number of recommended actions, the majority of which relate to the preparation of local environmental plans. In relation to the site, the proposed subdivision layout has been considerate of ecological assessments that have identified areas having greater significance and these are to be preserved within the public reserve network to ensure the conservation of native vegetation.

Natural Hazards

The relevant actions proposed for the consideration of natural hazards relate to the preparation of flood investigations, considerate of climate change, the consideration of coastal erosion in LEPs, and consideration of proper risk assessment when rezoning land.

In relation to the site:

- it is not identified as being flood liable, with proposed urban development being above RL 46 m AHD, well in excess of known flood levels including the Probable Maximum Flood (PMF) (refer Section 5.4.1);
- a bushfire risk assessment has been undertaken and recommendations have been incorporated into the subdivision layout (refer Section 5.4.4);
- the site is relatively high, with urban development located at minimum of RL 46 m AHD, well above the potential sea level rise. Further, consideration of this matter is undertaken in Section 5.4.1.

Housing and Settlement

In relation to Housing and Settlement, the SCRS estimates 45 600 new dwellings will be required throughout the Region by 2031. Within the Shoalhaven local government area, the SCRS makes the following specific approximations:

An additional 26 300 dwellings will be required in the Shoalhaven over the next 25 years, of which 23 900 can potentially be accommodated by existing vacant urban land and existing investigation areas. A majority of this land is located around the major centre of Nowra–Bomaderry and the major towns of Ulladulla and Vincentia (includes the Jervis Bay–St Georges Basin area).

The 2400 dwelling 'supply gap' will be accommodated by medium-density development within the town centres.

Having regard to actions to achieve these goals, the SCRS outlines the following:

- *Infill housing and new residential subdivision located adjacent to existing well serviced centres and towns will be given priority in land release.*
- *Only urban areas which are/will be identified in the final versions of the following documents are supported (once endorsed by the Director General of Planning):*
 - *Nowra Bomaderry Structure Plan.*
- *Local environmental plans will include appropriate urban design and land use objectives as set out in the Neighbourhood Planning Principles to address issues such as*
 - *sustainability principles, e.g. walkable neighbourhoods, compact centres, water and energy efficiency, and transit-oriented development*
 - *promoting community development and wellbeing, e.g. through the provision of adaptable housing, accessibility, safety and crime prevention, and quality public domain areas and facilities that provide opportunities for social interaction*
 - *quality architecture and character, e.g. coastal design, streetscape and heritage*
 - *promoting community health and wellbeing through a clean and healthy environment and a built form that affords people a variety of recreation options (e.g. through the provision of green spaces) and transport alternatives (e.g. walking and cycling).*

The site is within Mundamia, a locality planned as a new living area near Nowra, an area which is well serviced with a range of commercial, social, educational, medical and community infrastructure. Further, the site is clearly identified in the NBSP as an area suitable for urban growth. As such, the project is consistent with the recommendations of the SCRS.

The site is planned to be provided with key infrastructure including water and sewerage services, electricity and telephone. Consultation has been had with the relevant supply authorities and no objection is raised to the proposal (refer to Section 6.7 and **Annexure 9**). Staging will be considerate of servicing constraints.

The project is the subject of a Masterplan prepared to respond to the opportunities and constraints identified in early planning for the site and locality. This has resulted in a subdivision layout which follows sustainability principles by incorporating walkable neighbourhoods and a centrally located commercial precinct which is intended to act as a hub for social and community interaction in the neighbourhood. Further, the site is

ringed by open space on its northern and eastern boundaries in close proximity to all allotments which will encourage an active and healthy lifestyle. The Masterplan gives consideration to streetscape design by orientating the grid pattern and streets such that views to Cambewarra Mountain or surrounding bushland are available and this will provide the site with a distinctive character.

Economic Development and Employment Growth

This section of the SCRS seeks to preserve economic growth and employment opportunities by:

- protecting lands that are currently zoned for employment;
- adding to the supply of employment lands in existing economic centres;
- monitoring the supply of employment lands;
- ensure provision of tourism infrastructure in new LEPs.

These actions relate to additional considerations required in the preparation of LEPs and have no major bearing on this project.

Water, Energy and Waste Resources

This Section relates to the provision of essential services in an efficient and secure fashion and culminates in the following actions:

- Council shall identify suitably located and appropriately zoned land for new water supply, waste water treatment and recycling, energy, waste avoidance and resource recovery infrastructure, to support growth in major regional centres and major towns.
- Councils will be encouraged to reduce town water demand through water conservation such as replacement of potable water use with harvested Stormwater and/or highly treated waste water for non-potable uses.
- Suitable locally generated and/or renewable energy projects such as wind, solar, bio-waste and wave power, shall be supported.
- Councils will be encouraged to promote waste avoidance and resource recovery in demolition and building work as well as in the design and occupancy of residential, commercial and industrial development.

Shoalhaven Water is the supply authority for water and sewer services and plans are underway to provide relevant infrastructure to support the development.

Having regard to the waste generation, SCC has adopted DCP No. 93 – Waste Minimisation and Management which aims to reduce the extent of waste generated by all phases of development, and requires the submission of a Waste Minimisation and

Management Plan for all development applications, including single dwellings and development that is defined as Complying Development. This will assist in controlling the amount of waste, along with its storage and disposal that is generated by this project.

The provision of alternative power energy sources are outside the scope of this project however Endeavour Energy, who supply electricity in the Shoalhaven Local Government Area, allows its customers to select renewable energy as an option under its 'INgreen' programme, and this will be available to future residents of the site.

Sustainability Criteria

Appendix 1 applies additional Sustainability Criteria for any additional investigation areas which have not been specifically identified within the SCRS. This is to ensure that any new investigation areas meet stringent criteria to enable further consideration to be given. By reference to the heading of the table contained within Appendix 1, it clearly states that it relates to "Threshold Sustainability Criteria for any proposed development site outside designated areas in South Coast Regional Strategy". The subject site is identified within the NBSP (refer Sections 3.4.3 and 4.7.1), clearly a designated area, and as such, the provisions of Appendix 1 have no specific application to this proposal.

Despite this, the proposal is considerate of the issues raised in Appendix 1 having regard to the provision of:

- essential infrastructure in a planned and methodical manner,
- a site which is accessible by public transport, whilst road access builds upon the established road network,
- a development that contributes to the planned supply of additional housing,
- a development that gives proper consideration of the risks to development and natural hazards including flood, geotechnical constraints and bushfire,
- development that properly considers ecological constraints of development, and addresses issues relating to water quality and stormwater management.

The proposal is consistent with the sustainability criteria outlined in Appendix 1.

Concluding Comment on South Coast Regional Strategy

The SCRS is a strategic document to guide future decisions, principally in relation to LEPs and DCPs, however it is considered that the proposal is consistent with its aims and objectives given that:

- the project is on land identified with the NBSP, a planning document that is specifically identified in the SCRS as being one where its provisions are supported.

- the layout is of good design that properly considers ecological constraints and opportunity;
- the subdivision proposes significant quantities of open space;
- the proposal is based on masterplanning principles adopted by SCC;
- the development is on land that is not visually prominent, and therefore visual impacts are minimised.

3.4.3.2 *Nowra Bomaderry Structure Plan (NBSP)*

The NBSP was adopted by Council on 24th October 2006, and endorsed by the Department of Planning on 25th February 2008. According to the NBSP, it “*sets the development-conservation agenda for Nowra Bomaderry for the next 20-30 years*”. The NBSP addresses the following key issues:

- Sustainable population;
- Natural environmental and values and biodiversity;
- Residential development;
- Sustainable transport system;
- Urban infrastructure provisions.

The NBSP includes a comprehensive assessment of population growth trends, along with economic trends to establish employment growth opportunities. Having regard to population growth, the NBSP predicts that population growth within the Nowra Bomaderry area will grow from 31,681 in 2006, to 53,710 by 2036, being the 30 year life of the NBSP. In response to this, the NBSP has identified certain areas where population growth could be supported, based on an analysis of land capability and site constraints. This process culminated in the identification of seven (7) New Living Areas for future development. These are shown in **Figure 5**. These areas are distributed around the existing urban area, and are sited both north and south of the Shoalhaven River.

Mundamia is identified in the study as Living Area Number 5, which comprises an area of 53 hectares, and has a residential capacity of some 720 dwellings and this area is shown in detail in **Figure 6**. The site the subject of this Major Project Part 3A Application makes up a portion of the New Living Area, with the balance comprising of land owned by other private holders, SCC, Local Aboriginal Land Council and the NSW Aboriginal Land Council.