



**West Culburra Mixed Use Concept Plan
Major Project 09-0088, Now SSD 3846
Supplementary
Response to Submissions**

John Toon Pty Limited
July 2017

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1. Introduction

This Response to Submissions (RTS) is for the West Culburra Mixed Use Concept Plan identified as Major Project 09-0088 now State Significant Development (SSD). The purpose of the Concept Plan is to obtain consent for the expansion of Culburra Beach Township for a mixture of residential uses of various densities, some commercial uses, some industrial development and some tourist facilities. The Concept Plan is shown at Figure 1.

The RTS is prepared in response to a range of government agency submissions and consultations, consultations with Shoalhaven City Council, submissions from private individuals and community groups and comments arising from an on-going dialogue with the Department of Planning and the Peer Reviewer with respect to water quality. The 'Response to Submissions' (John Toon Pty Limited; October 2013) flowed from a consideration of matters raised following the exhibition of the Major Project on July-August 2013. Subsequent comments from OEH and DPI (see Appendices 1 and 2) are responded to in this RTS which follows on from a site inspection by the Department on 3 April 2014 at which the extent and outline of the Concept Plan was discussed and several issues were raised, followed by a letter from the Department, dated 7 April 2014, outlining key issues which must be addressed in this RTS. Following subsequent meetings with the Department these key issues were further elaborated by email dated 23 May 2014. These issues are addressed in this RTS and a number of supplementary reports. The overall Concept Plan remains very similar to that submitted to the Department on November 2013. The Schedule of Responses to Issues raised is at Appendix 3.

The RTS describes the current project and presents justifications for the proposed land uses. The layout has been simplified to the extent that all residential zones are shown as Residential 2(c) with any variations in density to be subject to detailed development applications to Council. The Concept

Plan now only includes major access roads and footpaths/cycleways; local residential roads are excluded as are detailed subdivision layouts.

The RTS includes the following supplementary reports:

1. Estuarine Process Modelling Report Proposed Mixed Use Subdivision, West Culburra. Martens November 2016.
2. Water Cycle Management Report, Martens, Mixed Use Subdivision, West Culburra. Martens, November 2016.
3. Water Quality Monitoring Plan, Mixed Use Subdivision, West Culburra, Martens November 2016.
4. A Preliminary BioBanking Assessment Report. Cumberland Ecology September 2014 (Appendix 5).
5. West Culburra Aquatic Ecology Impact Assessment. Proposed Mixed Use Subdivision. Ecological Australia, May 2017 (Appendix 8).
6. Water Cycle Management Report Addendum, Mixed Use subdivision, West Culburra (SSD3846). Martens 8 June 2017 (email) (Appendix 7).
7. Summary of Biodiversity Offset Strategy for the West Culburra Part 3A Project. Ecological Australia, 18 May 2017 (email) (Appendix 6).

2. Description of the Current Project

The area covered by the West Culburra Mixed Use Concept Plan is part of some 1100ha of land owned by the Proponent (see Figure 2) generally located west of Culburra Beach and Lake Wollumboola. At the time the plan was endorsed in 2009 as a major project the land was in the single ownership of Mr Warren Halloran, the then proponent. Since that time all the Halloran lands, including extensive holdings at Sussex Inlet, Kinghorne and north of Callala Bay, have been transferred to a Trust established to manage all the lands (The Halloran Trust). The Trust is now the Proponent. The extent of the Jervis Bay land holdings are shown on Figure 2; the figure also shows the location of the area covered by the Concept Plan.

The West Culburra Mixed Use Concept Plan has a gross area of about 116ha (see Figure 3) and a net usable area of circa 75ha, the majority of which is zoned Residential (c) 'Living Area' in SLEP 1985. It is defined on the north side by the Crookhaven River estuary, on the south side by the divide between the catchment of Lake Wollumboola and the catchment of the Crookhaven River; on the east side the site abuts Culburra Beach Business Centre and on the west by the western boundaries of Portion 61 DP755971 and Lot 7 DP1065111. The site is generally 300-400m deep (on the north-south axis) and some 2750m

long (on the east-west axis). The boundaries and areas of the lands taken up by the Concept Plan are shown in Figure 3.

The site is predominantly woodland and wraps around Culburra Sewage Treatment Plant (STP) at its eastern end where adjoining lands are zoned (SLEP 1985) industrial and local centre. A SEPP 14 wetland is located adjacent to the site; it is dominantly a mangrove forest located between the site and Billys Island (see Figure 10).

The location of the Concept Plan abuts the foreshore of the Crookhaven estuary which is here tidal and subject to potential sea water rise due to global warming. It is unlikely to be directly affected by erosion or storm action being in excess of 1km inland from the coast. The land is a mixture of regrowth woodland that was cleared circa 1920 and pasture. The land is elevated, with slopes up to 8%, offering expansive views over the Crookhaven estuary and the lower reaches of the Shoalhaven. The land is stable and well suited to urban development.

Culburra Beach is primarily a holiday and retirement township. The permanent population is about 3000 persons skewed to the older age cohorts. In recent years there has been a small increase in the number of households with young families. There is a noticeable out-migration of youth and young adults which is considered to be indicative of limited higher education and job opportunities. Culburra Beach is within easy commuting distance of Nowra (20 mins) and its coastal location is an attraction for some upper-income groups who commute to Nowra; house prices in the few advantageous locations are in excess of \$1million. A significant percentage of existing housing is in the affordable range of \$300 – 500,000; whilst not enjoying ocean views, proximity to the beach is a significant determinant of house prices. Generally Culburra Beach is considered an affordable location for young households, for retirees and for metropolitan residents seeking a coastal holiday home. Approximately one-third of dwellings are unoccupied at the time of the census. It is believed locally that the population approaches 10,000 in the summer holiday season.

The current project comprises five stages of development with a combined area of 74.58ha. Stages 1, 2, 3 and 4 are primarily residential uses with an estimated capacity of 650 dwellings with lot sizes ranging from 300m² to 800m² with the average being about 550m². Stages 2, 3 and 4 are by far the largest component of the Concept Plan in terms of both area and number of dwellings. These stages are west of the STP. These stages will incur heavy up-front infrastructure costs in terms of access, services, water supply, sewerage and drainage.

Provision is also made for sites for tourist development in Stage 2 and Stage 4. The location of tourist facilities at Cactus Point in Stage 4 of the development,

is considered to be important for the diversification of the Culburra Beach economy. This location has an ideal orientation and outlook for tourist oriented facilities. Stage 5 is the expansion of the existing industrial zone adjacent to the STP; this stage has an area of 7.24 ha (now reduced to 3.5ha to meet water quality objectives). The industrial zone is also considered essential to the diversification of the Culburra Beach economy and to promoting local employment opportunities.

The ridgeline that defines the southern boundary of the developable area was determined by survey by Allen Price and Associates, Surveyors. The need for the definition of the ridgeline arises by reference to the South Coast Regional Strategy (SCRS). Appendix 2 of the SCRS contains summarised comments of the Sensitive Lands Review Panel on various sites, one of which was Long Bow Point, Culburra Beach. The Panel determined that land within the catchment of Lake Wollumboola was not considered suitable for urban development. Consequently land south of the ridgeline is excluded from this Concept Plan. There are four minor encroachments into the catchment of Lake Wollumboola which are discussed later in this RTS (see Section 9).

3. Justification for the Current Project

The justification for the proposal rests on seven pillars.

These are:

- provision of housing for known and anticipated demand;
- promotion of new business opportunities in tourism and recreation, in health and aged care and in management of ecologies and items of heritage significance;
- promotion of local employment opportunities;
- use of land that is well suited to urban development;
- use of land consistent with relevant zoning and statutory instruments;
- efficient and economic use of existing infrastructure; and
- integrating development with local public transport services.

Growth at Culburra Beach has been constrained since circa 1970 primarily due to the absence of services. Then, circa 1980, services, particularly water supply and sewerage were upgraded with a new sewage treatment plant being

constructed; simultaneously urban growth studies were initiated by Shoalhaven City Council (SCC) resulting in some 400ha of land being zoned for new urban development at West Culburra in SLEP 1985. Detailed development plans were submitted by the proponent for a Stage 1 of the projected 400 ha development located on Long Bow Point. This proposal proved contentious and the Minister ordered a Commission of Inquiry to review the proposal. The Commissioner recommended the Long Bow Point proposal be refused consent. Following several years during which the proponent discussed numerous alternatives with the Department of Planning it was eventually agreed that this project could proceed – it being outside the catchment of Lake Wollumboola. Capacity of the water supply to Culburra was augmented and a sewage treatment plant had been installed for an additional 3000 persons in 1985; this capacity has lain unused since that time; consequently the key infrastructure is in place for this proposal.

Demand for housing for older age cohorts and down-sizers is known to be strong. Real estate advice is that there is a current demand for at least 70 dwellings suited to down-sizers. An analysis of recent sales indicated a good demand for 3-bedroom family houses in the \$350-550,000 price range; these sales were of houses that were located in average positions with no particular advantage in terms of access to beaches, shops or other facilities. New dwellings, of which there were a limited number, sold quickly.

The indication is that there is a pent-up demand for houses in Culburra Beach. The proponent aims to market house and land packages in the \$400-650,000 price range, house types will be both small-lot (300m²), standard lots (500-600m²) with some larger lots (up to 900m²) in favoured locations (aspect and views). The larger lots are most likely to be one-off designs. The small-lot and standard lots are proposed to be developed as house and land packages. Preliminary consultations with an architect and local builders have been held with a view to commissioning the designer and builders to jointly develop packages for potential home buyers under the overall design control of the proponent. Subject to approval of this Concept Plan it is envisaged the DA's for each stage of development will be submitted to SCC for approval. Preliminary discussions have been held with architects and builders, and with Council, with respect to the Stage 1 development. (see Figure 15).

Because of the absence over some four decades of any new urban development at Culburra Beach, and to a lesser extent, Callala Bay, the proponents have opted for a provisional demand profile that is one third retirees, one third young households and one third holiday homes. Our provisional estimate of demand is 90 lots per annum. Upon approval being granted this target is not expected to be reached until at least year 2 of the construction phase.

There are several approaches adopted in the Concept Plan to the generation of employment. The main one focuses on the leisure hub at Cactus Point. This location overlooks the broad expanse of the Crookhaven River, here some 300m wide, with views to Mount Coolangatta. It has ideal north orientation and the land slopes gently down to the water's edge. There are several middens in the vicinity of Cactus Point suggesting that it was a place frequented by aboriginals who would surely have been sensitive to the micro-climate attributes of the local environment. This reinforces the view that this is an ideal location for leisure activities. The uses envisaged are motels, restaurants, cafés and tourist-orientated shops. It is recognised that the middens, which are considered to have regional significance, will need to be protected whilst also being of historical interest. Their historical importance will be demonstrated through interpretation panels and potentially exhibits of any artefacts discovered in-situ. The leisure hub is part of Stage 4 which is not estimated to be developed until at least 5 years after approval of this Concept Plan. The proponents consider the leisure hub concept will require considerable design development with consultations with local aboriginal groups, archaeologists, landscape designers as well as Council and the local community. It is the proponents' view that Cactus Point can become a very distinctive place. The staging allows ample time for the full potential to be explored and appropriate designs to be developed for this significant location.

A second approach to employment is the ongoing management of the foreshore reserve. This reserve comprises mangrove forest and swamps, saltwater marshes, extensive stands of casuarinas and zeric woodland. It is an eco-system of considerable diversity. Lookouts at key vantage points are envisaged along the foreshore reserve with interpretation panels highlighting key features of the eco-system. Adjacent to the foreshore reserve, but outside the 7(a) zone, it is proposed to embellish this reserve with children's play areas, BBQ shelters, exercise equipment etc. to enhance the leisure/recreation experience. It is anticipated the on-going maintenance of the foreshore reserve and associated facilities will generate a small and continuing number of local employment opportunities.

The active construction phase is considered likely to lead to the take-up of some of the industrial estate as works depots, suppliers of building materials and domestic fittings etc. The incoming population is expected to lead to an increase in employment in retail and community services, including health and additional community facilities, benefitting the whole Culburra Beach community through increasing diversity of available services and facilities.

The integrity of the ecology of the foreshore reserve will be maintained. Certain areas have been vandalised and other areas are extensively invaded by lantana, blackberries and other noxious weeds. The rehabilitation of the foreshore will involve ecologists and landscape designers as well as the local

community and Council in co-ordinating the program of rehabilitation and the provision of facilities for controlled access to maximise the ecological experience of the foreshore zone. This is considered to be an important public works contribution to the community.

Discussions have been held with the local bus proprietor who runs the Culburra Beach – Nowra bus services (see EA Appendix R) regarding the current service being routed through the development envisaged in the Concept Plan. The Proprietor has indicated that he would welcome the opportunity to route his service along the collector Road through Stages 2, 3 and 4 of the proposed development. He also indicated strong support for the extension of the bus service along an extended westward collector road to complete the loop back onto Culburra Road. The completed loop has been part of the proponents long term strategy for the development of this area.

The mutually beneficial support gained by both the bus service and future residents arising from the proposed Concept Plan is considered to be a positive aspect of the proposed development.

In our view there is sufficiently significant public benefit to be gained from the proposed Concept Plan to justify the project. The Concept Plan is strongly supported by the majority of residents of Culburra Beach.

4. The Structural elements of the Concept Plan

The overall site dimensions are approximately 2750m x 300-600m. The linear form of the site dictates the structure of the proposed development.

The main structural elements reflecting the linear form of the site are the collector road and associated cycle/walkway located on the divide and the foreshore cycle/walkway, both reflecting the defining topographical elements.

The primary structural element is the collector road which is conceptualised as a 3km loop road off Culburra Road. It is generally aligned along the divide and generally forms the southern edge of the proposed urban development acting in part as a bushfire protection zone. The more elevated sections will provide panoramic views towards Mount Coolangatta and the Cambewarra ranges. Only the first section of the loop road (some 1800m) is included in this Concept Plan. The Culburra Beach – Nowra bus service will be re-routed along the collector road; in the first instance it will be routed along the Collector Road and through local roads in a truncated loop off the roundabout intersection with Culburra Road.

Some 95% of all residential areas are within 400m (5 minutes) walking time of the proposed bus stop locations along the collector road (see Figure 5.1 Transport and Accessibility Impact Assessment, Appendix R, EA).

The northern edge of urban development is defined by a foreshore drive which provides access to the foreshore reserve, the leisure hub and the associated foreshore recreation facilities. The foreshore drive acts as a bushfire protection zone for the residential zones.

The existing sewer rising main from Greenwell Point to Culburra STP is located in and adjacent to the foreshore reserve. It is anticipated that this rising main will be re-engineered and integrated with the main collector sewer for the proposed development. The details of these works will be undertaken in consultation with SCC.

The collector road and foreshore drive are connected by two principal vista avenues in addition to other local roads and footpaths. The vista avenues are designed to give legibility and clarity to the urban development by providing a clear visual link between the ridge and the foreshore with additional visual emphasis being achieved through alignment with topographical elements such as Mount Coolangatta and Orient Point.

Two cycle/walkways form the supporting access network. They also reflect the linear form of the site. One is aligned with the collector road and Culburra Road to form a direct link to the town centre, linking eventually with the cycle network east of the town centre. The other is located in the foreshore reserve and is intended as a slower leisure route linking the leisure hub with the town centre. Co-located with this route are children's play areas, BBQ facilities, viewing platforms, shelters and the like, emphasising its recreational, as well as its primary access function. There will be frequent access points to the foreshore cycle/walkway from parking areas aligned along the foreshore drive.

Council have given provisional approval to the proposed foreshore cycle/walkway traversing Council owned foreshore land adjacent to the STP but not forming part of the STP site. There is a large saltmarsh in this foreshore area (see: West Culburra Aquatic Ecology Impact Assessment, ELA, 2017 (Appendix 8)).

The two cycle/walkways complement the primary road network creating a ladder like effect with the vista avenues and other throughways forming the rungs of the ladder.

5. The Evolving Statutory Context of the Concept Plan

The relevant Statutory Planning Instrument at the time the West Culburra Mixed Use Concept Plan was allowed to proceed was Shoalhaven Local Environment

Plan 1985 (see Figure 4). This plan zoned most of the area identified for the Concept Plan as 2(c) Residential “C” (Living Area). The object of this zone was ‘to provide new residential areas with a range of housing types with provision for urban facilities to serve the local community’. Certain uses were prohibited and those not prohibited were permissible with development consent. The major part of this zone was located some 1000m west of the existing settlement of Culburra Beach; and separated from it by the STP. The zone also included a small area of some 10ha south of Culburra Road west of the retirement village. The intervening area north of Culburra Road is divided into two approximately equal zones each of about 20ha; one is a 3(f) (Business “F” (village) zone) in which residential flat buildings and a range of other dwelling forms are prohibited; and the other is a 4(a) (Industrial “A” (General) zone) adjacent to the existing STP. The foreshore area is generally 100m wide and is zoned 7(a) (Environment Protection “A” (Ecology) Zone).

In 2012 the proponent submitted a development application for a golf course on land zoned residential 2(c) on Long Bow Point south of Culburra Road. The use is permissible in the zone. The golf course is part of a broader strategy being pursued by the proponent designed to increase the attractiveness of Culburra Beach as a retirement and tourist destination. The plan of the golf course has been amended several times to meet concerns raised with respect to the impacts on Lake Wollumboola and on certain classes of vegetation located on the site. The proponent aims to maintain the golf course in its environment as a managed ecological precinct. The Golf Course proposal is shown at Figure 5.

In the early 2000’s Shoalhaven City Council resolved to prepare a new LEP using the new land use template. Generally Council adopted an ‘as near as possible like-for-like’ zoning for the new plan – Draft Shoalhaven LEP 2009. The 2(c) Residential zone became the R1 General Residential zone in which tourist and visitor accommodation is permitted with consent; the 3(f) business zone became the B2 Local Centre zone in which dwellings are prohibited; and the 4(a) Industrial zone became the IN 1 General Industrial zone. The 7(a) zone became an E2 Environmental Conservation zone. Draft LEP 2009 is shown at Figure 6.

Subsequent to the exhibition of Draft Shoalhaven LEP 2009 the proponent in 2013 sought Council’s support for the preparation of a Planning Proposal for the entire Halloran land holdings in the vicinity of Culburra Beach/Callala Bay/Kinghorne, in all some 1650ha. Council recommended, and the Minister endorsed, the exclusion of all the proponent’s land from the Draft LEP pending the submission of a Planning Proposal for all the proponents land. Essentially the Planning Proposal aims to achieve a balance between land allocated for urban purposes and land to be dedicated to the enlargement of Jervis Bay National Park.

Shoalhaven LEP 2014 commenced on 22 April 2014. In it all the proponents land in the vicinity of Culburra/Callala Bay/Kinghorne, with the exception of the B2 (Local Centre) zone at Culburra, is excluded. SLEP 2014 is shown at Figure 8; the retained local centre zoning adjacent to Culburra Beach town centre is shown at Figure 9.

The sequence of zoning changes that affect the land taken up by the Concept Plan are summarised in Appendix 4.

On 16 November 2015 a 'Gateway' determination was made to allow the Planning Proposal to proceed; subject to variations and conditions. The Planning Proposal is shown at Figure 7.

Thus the proponent has three separate but inter-locking and overlapping projects in the Culburra Beach district that are currently (2017) in the planning stage. These are:-

1. The West Culburra Mixed Use Concept Plan (Figure 1);
2. The Golf Course (Figure 5); and
3. The Planning Proposal (Figure 7).

The Statutory Context also includes the following:

1. State Environmental Planning Policy No. 71 Coastal Protection.
2. State Environmental Planning Policy No. 14 Coastal Wetlands.
3. The South Coast Regional Strategy DOP 2007.
4. The Jervis Bay Settlement Strategy, SCC and DOIPNR 2003.

SEPP 71 applies because the land is identified on the relevant maps. The land has a 3.5km frontage to Crookhaven River and Curleys Bay which are classed as an estuary and bay; these lands may be subject to changing sea levels due to climate change but are otherwise unlikely to be affected by wave action or erosion. All the land the subject of the concept plan is in excess of 100m from the coastline. Lake Wollumboola is identified as a coastal lake in SEPP 71; no land in the concept plan is within 100m of the lake.

There are SEPP 14 wetlands (see Figure 10) adjacent to the area covered by the concept plan. These wetlands are discussed in the ecology report (Appendix O in the EA); the wetlands are also a material consideration in the water quality reports accompanying this RTS (see Appendix 7).

The proponent commissioned an aquatic ecology study to determine the impact, if any, of the proposed surface water treatment train on sea-grasses, saltmarsh and Mangrove forest in the Crookhaven River estuary and SEPP14 wetlands adjacent to the proposed development (see Appendix 8 West Culburra Aquatic Ecology Impact Assessment; Proposed Mixed Use

Subdivision Ecological, Australia 2017). This study is also relevant to the SEPP14 wetlands and should be read in conjunction with the water quality reports.

The South Coast Regional Strategy (SCRS) is the principal document shaping planning policy for the land covered by the Concept Plan.

The SCRS covers the local government areas of Shoalhaven, Eurobadalla and Bega Valley. It covers some 360km of coastline ranging from the more densely populated Nowra region to the relatively remote and sparsely populated SE corner of the State.

The SCRS identifies the following three regional challenges: (1) protecting the natural environment; (2) accommodating population growth and new housing; and (3) promoting the regional economy and employment growth.

These three challenges are relevant to this Concept Plan.

In 2012 the NSW Government released the Illawarra/South Coast Regional Action Plan. This plan covers the Illawarra region and Kiama and Shoalhaven LGA's. The population projection in this document indicates an expected regional growth of 85,000 between 2011 and 2031. The significance of this document is that it identifies Nowra as the location of significant urban land releases suggesting that the northern part of Shoalhaven will become progressively more integrated with the Illawarra Region centred on Wollongong. It is the proponents' view that this regional influence will be reflected in increased demand for permanent residential accommodation at Culburra Beach.

The third thrust of SCRS and Priority Number One of the Regional Action Plan is the revitalisation of the economy by attracting new industry, supporting business and creating jobs. It is not expected that Culburra Beach will attract any industry of regional significance. It is recognised that there is a deficiency of job opportunities particularly for youth and the younger age cohorts. The Scoping Study (Scoping Study of the Culburra/Orient Point Community. Appendix E in the EA) indicated a probable increase in jobs in health and aged care. This RTS also emphasises the need to promote leisure, recreation and tourism jobs and to this end seeks to secure locations that are very well suited to recreation and tourism related businesses for leisure uses and tourism related employment. The third area of employment growth will arise from new development. The construction phase will promote additional jobs in the local building industry with consequential follow-on demands for local services and facilities as the population increase.

Appendix 2 of SCRS considers the recommendations of the South Coast Sensitive Urban Lands Review Panel relating to specific sites, one of which is

Culburra Beach. In regard to the latter, the Panel's recommendation is: 'land within the catchment of Lake Wollumboola is considered unsuitable for urban development, principally on the grounds of the potential negative impacts on the lake which is a sensitive intermittently closing and opening lake or lagoon (ICOLL)'.

This recommendation has been the primary determinant of the location of the southern boundary of the proposal which is the edge of the catchment of Lake Wollumboola. There are four situations where the catchment is encroached upon. These are discussed in detail below (see Section 9). SCRS, at p. 14, sets out actions with respect to the Natural Environment. Dot point 3 states 'Local Environmental Plans will not include further residential or rural-residential zoning in the catchments of the coastal lakes and estuaries shown on Map 2 unless it is demonstrated that a neutral or beneficial effect on water quality as measured at the boundary of the proposed new zoning can be achieved'. In each of the four situations this condition is met.

The following two non-statutory planning reports reflecting the dynamics of population growth, housing demand and the changing spatial relationships in the Illawarra/South Coast region are:

1. Illawarra/South Coast Regional Action Plan – Dept. of Premier and Cabinet, NSW, December 2012
2. Illawarra-Shoalhaven Regional Plan – Dept. of Planning and Environment, NSW, November 2015.

These documents demonstrate the spreading metropolitan influence on the south coast by the recognition that the City of Shoalhaven, particularly the northern part focused on Nowra, is projected to become more urbanised and integrated with the Illawarra region focused on metro-Wollongong. There is an explicit re-ordering of priorities between the SCRS (2007) and the Illawarra-Shoalhaven Regional Plan (2015) (ISRP). The latter gives greater emphasis to identifying and facilitating growth sectors of the regional economy and to providing a wider range of dwelling types across the region including Nowra-Bomaderry.

The progressive implementation of these policies is expected to be reflected in development in the Culburra Beach/Callala Bay district, both settlements being within the Nowra catchment for higher level urban services.

The West Culburra Concept Plan is based on the zonings of Shoalhaven LEP 1985 (see Figure 4) which was the relevant instrument when the Concept Plan was being prepared and when it was submitted. Since a Part 3A (and now SSP) application cannot be used to change prescribed zonings, the Concept Plan is somewhat incomplete. Certain intended forms of development are not

permissible and are excluded from the Concept Plan. For example, it is common ground amongst Department, Council and consultant planners that the 3(f) zone at Culburra Beach town centre is far too large. There is common agreement that future commercial uses should be concentrated in and adjacent to the existing town centre of Culburra Beach. It is the proponents opinion that part of the existing 3(f) zone west of Canal Street East should be allocated to medium density residential uses but this cannot be shown on the Concept Plan because residential uses are not permissible in the 3(f) zone. Consequently the Concept Plan as presented appears to be incomplete.

6. The changes made to the Concept Plan following consideration of the submissions.

The significant changes to the physical arrangement of the Concept Plan have been outlined in the 'Response to Submission' (John Toon Pty Ltd, October 2013). Subsequent to that report, the following additional changes have been made in response to matters raised by the Department.

- 6.1** The Department advised that any amendment to the Concept Plan would require a resubmission to the Department. The Department is concerned to avoid any unnecessary re-submissions. Since detailed subdivision design may well be changed as the project develops it was decided to delete unnecessary detail.

All the local roads and indicative lot subdivision have been deleted from Stages 1, 2, 3, 4 and 5; stages 1, 2, 3 and 4 are primarily residential uses; stage 5 is the Industrial zone.

It is proposed that each stage of development will now be the subject of a separate development application to Council which may include variations in lot size, density of development, range of dwelling types and such non-residential uses as are considered appropriate and compatible with the intended residential environment. See, for example, Figure 15 which shows the layout proposal for Stage 1 (part) with different lot sizes. In selected locations detailed development control guidelines will be submitted to Council for approval. It is anticipated that these controls will embody 'green' objectives with respect to both the individual dwellings and the public domain (streets, pathways and open space where relevant). In certain locations where larger lots are proposed in anticipation of one-off dwelling designs being built standard Council controls will apply.

It is envisaged that each stage of the development will have regard to Council's subdivision code (DCP 100) with respect to the shape and

orientation of lots, solar access and road layout. The major open space located south of the collector road is considered to satisfy the requirements for active playing fields generated by the proposal. The foreshore zone and associated open space is considered to satisfy the requirements for passive and recreational open space generated by the proposal.

Consequently the mixed use development indicated on earlier plans (eg the Circus) has been deleted from the Concept Plan. If such uses are to be proposed they will be incorporated in detailed development control plans that will be submitted to Council for approval as part of the normal development control process.

6.2 Following the further review of the Water Cycle Management Report in June 2017 (see Addendum to Water Cycle Management Report, Martens, June 2017) (Appendix 7), further amendments were made to the Concept Plan as follows:

1. The area of the industrial zone (Stage 5) was reduced by half, with the deleted area being retained as woodland;
2. All the wetlands aligned alongside, but outside, the 7(a) zone have been deleted because they are no longer required for the amended water cycle treatment train (that is there is no longer a reliance on infiltration) with the wetland area now being retained woodland; and
3. The size of the pondage on the east side of the proposed oval being increased to 3200m² to satisfy the amended Water Cycle Management requirements.

No other changes are proposed. These changes are incorporated in the submitted Concept Plan (see Figure 1).

7. The key Issues to be considered in this RTS arising from The Response to Submissions, dated April 2014.

The key issues identified in the letter from DPI dated 7 April 2014 (Appendix 2) are as follows:-

1. Environmental offsets – an environmental offset package is required that is consistent with the requirements of the Office of Environment and Heritage;

2. Subdivision Layout – the subdivision layout should have regard for Council's subdivision code (DCP 100) including more usable public open space, standard shaped lots, improved solar access and a more logical and permeable road layout;
3. Water Quality – water quality information should demonstrate a neutral or Beneficial Effect (NorBE) on the Crookhaven Estuary, SEPP14 wetlands and Lake Wollumboola;
4. Traffic and Access – resolution is required regarding the Culburra Road intersection; appropriate access arrangements must be provided for Stages 1 and 5 including the electricity substation, and further consideration must be given to impacts on the surrounding road network (eg safety, pavements, car parking);
5. Bushfire Management – the concept plan should illustrate the extent of all relevant APZ's wholly within lot boundaries with appropriate emergency access arrangements for Stages 3 and 4 defined (south-west road connection to Culburra Road);
6. Foreshore Area and Zoning – the Cactus Point leisure hub requires further justification, including consideration of zoning/permissibility issues, landowners consent and the location of boat infrastructure and sea-wall revetment works on or adjacent to freehold land; and
7. Economic Impacts – consistency with Council's DCP67 with respect to the extent of commercial development in the Culburra Expansion Area should be demonstrated or sufficient justification provided for any inconsistencies.

These matters are dealt with in the following section:

8. Consideration of the Key Issues

8.1 Environmental Offsets

As noted in Section 5 above the statutory context of the West Culburra Mixed Use Concept Plan has changed since its inception in 2009. This is most evident in the Bio-diversity offset strategy for the West Culburra project which is now subsumed within a comprehensive offset strategy for the Planning Proposal. This comprehensive strategy is structured to allow each individual component including this West Culburra Concept Plan to be segregated, examined and if necessary, adjusted to changing circumstances. Over the period of time during which the Concept Plan

has been in preparation there has been an evolving framework of rules and regulations with respect to the assessment of offsets for major projects such as this. The offset strategy is consistent with the rules that currently apply to the West Culburra Mixed Use Concept Plan. The component of the offset strategy that applies to this Concept Plan is shown at Appendix 6.

In 2013 SLR prepared an ecological and riparian assessment report for the West Culburra Mixed Use Concept Plan (West Culburra Ecological and Riparian Issues and Assessment Report; SLR March 2013). The Office of Environment and Heritage (OEH) advised the proponent in letters dated June 2013 and May 2014 that the office was 'satisfied that the development is unlikely to have a significant impact on the threatened species and their habitats' and that 'the development should only proceed if suitable offsets can be located and secured to ensure overall biodiversity values are maintained'. OEH stated its position that an offset parcel should be located in the Lake Wollumboola catchment in accordance with the SCRS 2007.

In 2014 Cumberland Ecology prepared a preliminary draft biobanking assessment of the offsets for the West Culburra Project (Culburra West and Millalen: Preliminary Biobanking Assessment Report, Cumberland Ecology 2014, Appendix 5) in which the suitability of Millalen, a 266ha property adjacent to Conjola National Park, as an offset for the West Culburra project was assessed and determined to be appropriate.

In 2013 OEH published seven new principles for offsets for Major Projects (The West Culburra Mixed Use Concept Plan was at that time classed as a Major Project) which were formalised as the Draft Framework of Biodiversity Assessment (FBA) for Major Projects (OEH 2014). Cumberland Ecology used these rules to assess the Millalen Lands. Cumberland Ecology concluded 'we consider the offset to be adequate because of its high quality vegetation, its strategic location (adjacent to Conjola National Park)' and it being located 'within the area of the same catchment authority as the proposed development and contains similar vegetation communities'. This preliminary study was based on a desk-top survey of Millalen using a vegetation map (OEH 2010) and allotting corresponding Biobanking Vegetation Types (BVT's) to these vegetation communities and by allocating corresponding BVT's to the vegetation mapping and ecological assessment of the West Culburra development site (SLR, 2013).

In 2015 Ecological Australia were commissioned to undertake a detailed ecological survey of all 2500ha of the Halloran Trust Lands including the

West Culburra development site (see Figure 12), Sussex Inlet and Millalen as part of the Planning Proposal.

Appendix 6 outlines the process that has been agreed between Ecological Australia, acting for the proponents with respect to this Concept Plan, and OEH.

Ecological Australia further refined through extensive field survey the number of ecosystem credits required to offset the West Culburra Concept Plan. A total of 5472 credits were assessed as being required. This figure differed slightly from that assessed by Cumberland Ecology using a desktop method of assessment (See Appendix 5). Both used the FBA (Framework of Biodiversity Assessment) to determine the number of credits required as offsets. The Ecological Australia assessment of 5472 credits (see Table 1 in Appendix 6) has been inspected in the field by OEH who have indicated that they are satisfied with the vegetation mapping and credit calculations. Table 1 also indicates the source of credits, the majority being sourced in the catchment of Lake Wollumboola. Other material in Appendix 6 indicates that there is an ample supply of credits available in the 4 biobanking sites identified in the EA Summary for the West Culburra Concept Plan and other development sites currently foreshadowed in the Planning Proposal.

Subsequent to the preparation of this report the land uses have been amended to reflect the requirements of the water quality report addendum. Less woodland is to be cleared with a consequent reduction in credits required. The figures in Table 1. will be adjusted to reflect this minor change which will have no impact on the overall strategy.

Cumberland Ecology were also required to report on the need for a north-south Wildlife corridor through the West Culburra development site and on the ecological impact of the three proposed viewing corridors providing vistas to the Crookhaven Estuary, each involving the clearing of the riparian vegetation (see Sections 5.3 and 5.4, Appendix 5).

With regard to the wildlife corridor Cumberland Ecology, having considered the range of Fauna groups that are considered likely to travel between the estuarine habitat and the inland woodland/forest habitats, conclude 'there seems to be no ecological benefit of creating a north-south fauna corridor since such a corridor would connect two entirely different habitats. We believe that there is little ecological benefit to be gained from provision of such a link'.

The opinion of Cumberland Ecology on the issue of corridors reflects that of the proponents as outlined in the original 'Ecological and Riparian Issues and Assessment Report' (Appendix O, EA).

A letter from OEH (OEH 21/06/2013) written in response to the Concept Plan exhibition stated “the EA required the need for a local corridor to be identified linking the site to areas both north and south of the site in the Director Generals Requirements and in the SCRS recommendation. OEH considers that ‘while it is imperative to maintain a foreshore buffer for a range of environmental and cultural heritage reasons, this may not necessarily provide a functional local corridor as vegetation in the surrounding area is likely to be cleared in the future. Rather, it is critical for the potential offset options to provide enhanced connectivity at the landscape or regional scale’.

In our view there is absolutely no justification for requiring a north-south fauna corridor to be inserted into the development. The proponent strongly resists the request for the insertion of a north-south ‘wildlife’ corridor through the proposed development. The need for and value of such a corridor is not supported by the ecological evidence.

With respect to the clearing of riparian vegetation to open up visits to the aquatic setting of Culburra Beach, Cumberland Ecology reported as follows: ‘Having considered the types and quantities (areas) of vegetation that would be cleared to create these vistas, Cumberland Ecology recommend that ‘the mangrove vegetation within the viewing corridors be carefully reduced and that the lower lying areas be managed to promote the growth of shrubs and ground cover plants that are part of the Coastal Saltmarsh EEC’. The proponent concurs with and will implement this recommendation. CE continue ‘The remaining vegetation within the viewing corridors could be managed as a low shrubby version of the original vegetation community which would entail removal of the canopy stratum only’. The proponent concurs with this approach and will implement the suggested action when forming the vistas.

Cumberland Ecology conclude as follows:

‘These viewing corridors are unlikely to have any ecological impact for the following reasons:

- rather than remove the mangrove forest it will be managed as a more open habitat, Coastal Saltmarsh EEC, which increases the ecological value of the habitat; and
- the majority of mangroves (ie 99.7%) in the study area would be conserved and would be maintained in perpetuity.

Provided that other areas of vegetation are to be retained intact along the river frontage, we believe that there would be limited and manageable ecological impacts.'

It should also be noted that the three vista clearings have been allowed for in the Ecological Australia Assessment of the West Culburra project site (see Figure 3, Appendix 6). This map and the associated credits have been endorsed by OEH.

The proponent strongly presses the limited opening up of foreshore vegetation for Vista Park and the Vista avenues. It is considered that the value of the vistas in conferring legibility and a sense of place on Culburra Beach far outweighs any ecological loss that may be incurred.

8.2 Subdivision Layout

The objectives of the subdivision layout are consistent with Shoalhaven DCP 2014 (Section 911 (DCP 100: - Subdivision Code)).

The subdivision layout including arrangement of local roads and lot layout have been removed from the Concept Plan. Only the primary road network is now included in the proposal. These elements and their rationale are discussed below.

Removing the detailed subdivision design removes any consideration of 'useable open space, standard shaped lots, improved solar areas and a more logical and permeable road layout' – all issues stated to be of concern to the Department.

The main elements of the layout are as follows:

1. The Collector Road.

This is a loop road off Culburra Road of which the first section will be completed as indicated in the Planning Proposal; a second section returning to Culburra Road some 2.5ha west of the proposed roundabout is envisaged as a continuation of this development westwards (see Planning Proposal – Figure 7). The location of this intersection was verified for sight lines on Culburra Road at the on-site meeting. The collector road will, when completed, become the route for the Culburra Beach – Nowra bus service which currently runs along Culburra Road; the service will be diverted off the roundabout into Stages 2, 3 and 4 as they are completed using local roads to form a temporary loop adapted to each stage. Ultimately the bus route will be aligned along the completed collector road which will re-join Culburra Road some 2.5km west of the proposed

roundabout. The proprietor of the local bus service has indicated his willingness to service the proposal as per the routing outlined.

The location of both the roundabout and the Western T-intersection were endorsed at an on-site meeting held in 2014 with officers of DOP, SCC and RMS.

The collector road is the formative element of the layout. It is aligned to be centrally positioned in relation to the long-term view of the location of urban development west of Culburra Beach (see Figure 7 - The Planning Proposal). The major part of this predicted urban development is within 400m of the bus route when aligned along the collector road.

The design of the collector road is consistent with sections G11 of DCP 100 (DCP 2014).

2. The Vista Roads.

The two vista roads are designed to give visual legibility and physical access to the major parts of the residential area. Bus stops will be located at the intersection of the two vista roads with the collector road as well as at the proposed oval (see section 5.2, 5.3 and 5.4 Appendix R, EA).

3. The Crescents.

The location of the two crescents has been designed to (i) achieve high levels of physical access to key locations; and (ii) to minimise the area of surface water drainage that will flow by infiltration into the SEPP 14 Wetlands adjacent to Billys Island (see Water Cycle Management Report, November 2016) and the Addendum to that Report. Martens 2017 (see Appendix 7).

4. The Foreshore Drive.

The Foreshore Drive is designed to give access to the Foreshore Reserve which is expected to become a destination for both local and tourist populations. This road will act as an APZ along the foreshore.

5. The cycle/walkways

The two principal cycle/walkways are aligned east-west and connect Stages 2, 3 and 4 to the town centre. One is co-aligned on the south side of the collector road providing direct access to the town centre. The second is aligned through the foreshore reserve and is designed as a leisure/recreation route connecting items of significant heritage

interest (aboriginal middens), significant outlooks and selected locations highlighting distinctive eco-systems (eg, the saltmarshes and the mangrove forest) together with recreation uses located adjacent to but outside the foreshore reserve.

The first stage of the foreshore cycle/walkway will be constructed from Canal Street East to Vista Road East; Council has given provisional agreement to this route being located on the foreshore zone of the STP which is Council owned land.

The cycle/walkway co-aligned with the collector road will be constructed concurrently with Stage 2 of the residential development. It will be aligned along the north side of Culburra Road extending from Canal Street East to the roundabout thereafter crossing to the south side of the Collector Road where few crossings are planned.

6. Local Roads

The local roads will be planned stage by stage and will be subject to normal development applications submitted to Council.

Street tree planting will be designed in co-operation with Council having regard to Council's 'Street Tree Planting Strategy'.

It is considered that the principal road network and local road network will be designed to be consistent with section G11 of Shoalhaven DCP 2014 (DCP 100: Subdivision Code).

It is considered that the overall layout of Stages 2, 3 and 4 includes very usable public open space (the oval) well located in relation to the distribution of proposed and potential future urban (residential) development. The waterfront reserve will complement the oval providing a range of passive recreational opportunities.

It is considered that the north facing slopes are ideal for residential development and that individual lots will have excellent solar access when the detailed design of each stage of residential development is completed.

8.3 Water Quality

The water quality issue as defined by the Department (7 April 2014) was to 'demonstrate a neutral or beneficial effect (NorBE) on the Crookhaven Estuary, SEPP14 Wetlands and Lake Wollumboola'. The proponent interpreted the water quality issue as expressed to focus on the interface between the land and the Crookhaven Estuary. The initial submission on

water quality (Water Cycle Management Report: Appendix P.EA. Martens Consulting Engineers 2013) used MUSIC (the industry standard) to model the surface flows anticipated to arise from the Concept Plan and devised a treatment train to manage those flows and to achieve NorBE at the interface. The 2013 Water Cycle Management Report was revised and amended to reflect concerns raised and recommendations outlined in a peer review by BMT WBM (6 March 2014) and by NSW OEH (5 June 2014).

Flowing from those concerns and recommendations, the proponent undertook to (i) revise the water cycle management plan; (ii) to model the Crookhaven Estuary; and (iii) to assess the impact of the output of the stormwater treatment train on the Crookhaven Estuary. ,

The catchment of the Crookhaven River is estimated to be about 67 square kilometres, of which 48% is agriculture, 42% is forest (mostly swamp forest), 6% is urban and 4% is rural residential. The majority of the land is flat with significant areas of swamp forest. The southern edge, including the site of this plan, is mainly dry sclerophyll forest. The area of the concept plan is about 1% of the catchment. The dominant agricultural use is dairy farming which has a significant influence on water quality in the Crookhaven River. Both total nitrogen (TN) and total phosphorous (TP) frequently exceed ANZECC limits and the suspension of oyster farming is not uncommon, particularly following periods of heavy rainfall. The estuary is tidal and the constant flushing enables the aquatic ecology to maintain good condition (see Appendix 8 - West Culburra Aquatic Ecology Impact Assessment, Ecological Australia 2017). The characteristics of the Crookhaven catchment are set out in Section 2 of the Estuarine Process Modelling Report (EPMR) (Martens November 2016).

The model was developed over a period of some three years with close collaboration between the peer reviewers (BMT WBM) and Martens. It is a 'stand alone' model that can be used for assessing any impact on the estuary.

Section A of the EPMR outlines the process of the building of the estuary model. This is represented as a flowchart in Table A. The model building and sensitivity analysis is more fully developed in Attachments C, D, E and F and the outputs of the model are presented in Attachments J, K (with infiltration) and L (without infiltration).

The matter of infiltration became a major issue. Infiltration refers to the take-up of pollutants by vegetation. At issue was whether or not the mature woodland in the 100m wide foreshore protection zone would

absorb, and to what degree, nutrients (TN and TP specifically) after being substantially neutralised having passed through the surface water treatment train (Water Cycle Management Report, Martens November 2016). The Peer Reviewer insisted that no uptake would occur whereas the proponents' Consultants, Martens, considered uptake would occur and cited parallel cases where a degree of uptake occurred.

The output of the estuarine model was presented for both with and without infiltration scenarios. These results are presented in Tables 9 and 10, Attachment C, (EPMR, Martens 2016). The measured difference between nutrients and suspended solids demonstrated an insignificant variation between the 'with' and 'without' infiltration scenarios.

Whilst the proponents are strongly of the view that the 'with infiltration' case is technically sound it became clear that the Peer Reviewers opinion was favoured by the Department.

Consequently the proponent undertook to further review the landslide Water Cycle Management Report (WCMR, Martens 2016) with the object of achieving NorBE at the interface between the residential zone and the foreshore protection zone (SLEP 1985). The results of this review are presented in an addendum to the WCMR emailed to the proponent on 8 June 2017 (see Appendix 7).

The review required a re-assessment of the inputs into the MUSIC model with the aim of increasing the percentage of pervious surface in the area covered by the plan. The most significant improvement in the model output was achieved by reducing the area allocated to industrial uses by 50% and retaining it as woodland. Further improvements were gained by reviewing the permeability of all roads and applying Council standard carriageway widths, and also by reviewing roof areas by lot size based on surveys of recent estates in Shoalhaven.

The proposed treatment train was also modified to accord with the peer reviewers' recommendations. Consequently the wetland/infiltration systems previously adopted were removed with the areas allocated to these facilities left undeveloped – thus also increasing the percentage of pervious land.

The results of the final model run are shown in Table 2 of the Addendum, demonstrating that each of the criteria (TSS, TN and TP) achieve a beneficial effect in each of the receiving waters – the Crookhaven River, the SEPP 14 Wetlands, the seagrass and oyster leases and Curleys Bay.

To further test the impact of the Concept Plan on the water of the Crookhaven Estuary, Ecological Australia were commissioned to

undertake an assessment of the Aquatic Ecology of the Crookhaven Estuary (West Culburra Aquatic Ecology Impact Assessment. Proposed Mixed Use Subdivision. EA. May 2017 (see Appendix 8)). This study investigated the condition of existing marine vegetation (sea-grasses, mangrove forest and saltmarsh) and found it to be healthy and in good condition, despite the numerous existing catchment pressures, primarily dairy farming and poorly serviced urban development. The study then used the output of the estuarine processes model as submitted in 2016 to assess the impact of the development proposed in the Concept Plan on each of the existing marine ecologies.

Each ecology was interrogated with respect to the specific data relating to each ecology and concluded that ‘the proposed subdivision would not alter the health, extent or values of the estuarine ecology’.

The aquatic study was undertaken prior to the review of the landslide treatment train. The results of the review, reported above, indicate that all criteria in all catchments are superior to existing conditions in the estuary, achieving a beneficial effect on the waters of the Crookhaven Estuary.

The Addendum to the Water Cycle Management Report clearly sets out in Table 2 the degree on improvement, the beneficial effect, in each of the catchments. The aquatic ecology assessment demonstrates, using the 2016 data generated by the Estuarine Process Modelling Report, that there would be no significant effect on the marine ecology of the several catchments.

These results demonstrate the NorBE objective is achieved by a significant margin.

8.4 Traffic and Access

One of the key decisions that drives the shape of the West Culburra Plan was the location of the principal access to the area west of the STP. The factors to be taken into account were: (i) the divide which defined the southern boundary of the Concept Plan site; this divide progressively diverged from the alignment of Culburra Road in a westwards direction; (ii) the location of the industrial zone adjacent to the STP; whilst this was considered good zoning practice, the existence of this zone in this location was considered a negative factor in seeking to create an attractive entrance to the new residential district; and (iii) the majority of trips and the major desire line of movement generated by the new residential district was clearly going to be eastbound towards Culburra Business centre and associated facilities and services.

The solution was to select an access point at a topographically acceptable location as close as possible to the existing development at Culburra that provided an easy, efficient and shortest possible connection to the new residential district. The collector road is that connection and the roundabout is the access point.

A roundabout form of intersection was adopted because it provides a strong statement of arrival at Culburra Beach, particularly if appropriately landscaped; it fits comfortably into the topography being in a shallow defile that is the headwaters of Wattle Creek. This arrangement enables the main access to the new residential district to be aligned up a gentle slope to the divide beyond which the new residential district will be developed. This achieves the objective of creating a distinctive and attractive access to the new residential district.

A major footpath/cycleway is proposed to be aligned on the south side of the collector road. This will be the most direct access to the business centre and associated facilities. This footpath/cycleway will cross the collector road at a suitable location north of the roundabout and will then be aligned along the north side of Culburra Road to link with the existing pedestrian footpath running through the business centre. This footpath links, at its eastern end, with an existing shared cycleway/footpath aligned along Prince Edward Avenue extending to the sports ground and Crookhaven Heads.

The secondary footpath/cycleway, referred to here as the leisure route, is a less direct route being aligned along the waterfront. It is anticipated that this route will link to a possible new footpath/cycleway aligned along Brighton Parade and Mowbray Road providing access to the beach (see EA, Appendix 12 Figure 2.7 and Figure 3.4).

8.5 Bushfire Management

The Bushfire Report (EA Appendix H, ELA, March 2015) sets out the dimensions of the Asset protection zones (APZ's) required. We have made some minor modifications to the layout since that report was prepared. The current APZ's are shown on Figure 14.

The collector road with the associated footpath/cycleway forms the southern APZ generally aligned along the catchment divide. This APZ extends to the roundabout and then Culburra Road becomes the APZ through to the town centre.

The foreshore drive forms the northern APZ extending from Cactus Point (west) to the STP (east).

A 10m fire trail (APZ) surrounds the STP on the west, south and east sides; the STP has within its boundaries a somewhat depleted 100m wide retained woodland buffer zone.

The western end of Stage 4 has a 25m wide APZ within which the planned subdivision will be contained. Subject to the area to the west be rezoned for further residential development, as is proposed in the current Planning Proposal, this boundary arrangement will be designed as an integrated subdivision. The two crescents will form the temporary boundaries of the progressive development of Stages 2, 3 and 4 of the Concept Plan and will function as 25m wide APZ's during the construction phase (upon approval it is expected that the development site will be cleared).

The provisional plan for Stage 1 of the Concept Plan is bounded by a 25m APZ in the form of a road and cleared area on the south side. The west side is bounded by the Council owned former waste tip. The APZ for this boundary is a 10m fire trail with an additional no-build zone 10m wide, making this a 20m wide APZ in total. The eastern boundary of Stage 1 is a 20m roadway and a 70m wide area (zoned special uses in SLEP 1985) of grassland that the proponent intends to develop for residential uses (see Figure 7 – The Planning Proposal). The eastern boundary of the site is an existing retirement village. Detailed site investigations demonstrate that the area that can be drained by gravity is some 80-125m south of the actual divide which runs diagonally across the site, skewed to south of east with a fall of some 2.75m from west to east over a distance of some 295m. That is a gradient of less than 1% or 1 in 100. The provisional plan for Stage 1 of the Concept Plan is shown in Figure 15.

8.6 Foreshore Area and Zoning; Permissibility of proposals for the Foreshore Zone and Cactus Point Leisure Hub

The justification for the proposed Cactus Point Leisure Hub is that this location is exceptionally well suited to recreation uses. The environmental attributes are: (1) north facing grassy slope; (2) attractive outlook over expansive reach of Crookhaven River which is here some 400m wide; (3) shallow river edge safe for children; and (4) concentration of regionally significant middens around Cactus Point (see Figure 10).

The latter point underlines the natural attractiveness of this location as a gathering point. The archaeological evidence suggests this area was intensively used by aboriginals over many decades. The owner confirms that this location is also very attractive for campers, who frequently seek permission from the owner to camp at Cactus Point. In our opinion it is ideally suited as a recreation focus for a limited range of tourist facilities. The area covered by the Concept Plan is zoned 2(c) in SLEP 1985. The

objectives of this zone 'are to provide for new residential areas with a range of housing types with provision for urban services to serve the local community. Being a significant retirement and holiday destination, it is considered that recreation and tourist facilities that are compatible with a residential environment would satisfy the qualification of 'urban services that serve the local populations'. In essence the 2(c) zone in SLEP 1985 is a broad general purpose urban zone designed to facilitate urban development. In SLEP 1985 there are no sub-zones identified for open space, schools, commercial premises; it has to be assumed that these non-residential uses would be located in the detailed planning stage of the 2(c) zone. It is our view that the leisure hub as proposed in this concept plan is consistent with the intentions of the 2(c) zone in SLEP 1985.

Shoalhaven LEP 2014 also includes an R1 General Residential Zone which is appropriate for areas of new urban development where detailed designs of local roads, lot sizes etc may not be finally determined – such as this Concept Plan. Tourist and visitor accommodation is permitted in that zone with consent; tourist and visitor accommodation (hotels and motels) may include a public café or restaurant. Shops (retail premises) are permitted in the R1 zone; but cafés and restaurants as stand-alone facilities are not permitted. All are permitted with consent in the SP3 Tourist zone.

The uses considered feasible in the leisure hub include motels, tourist accommodation, cafes and kiosks as well as residential development of various kinds. All these uses are permissible with consent in the Residential 2(c) zone. SLEP 1985 also has provision for a Residential 2(d) zone which identifies land suitable for tourist facilities; permissible uses with development consent include, besides dwellings, motels but does not include food and drink premises or kiosks. SLEP 2014 has provisions for a SP3 tourist zone which permits with consent, inter alia, food and drink premises, kiosks, tourist and visitor accommodation.

It is our view that the proposed uses, a motel, tourist and visitor accommodation and food and drink premises are permissible in the Residential 2(c) zone (SLEP 1985).

It is also our view that certain combinations of accommodation and café/restaurants are permissible with consent in the Residential R1 zone of SLEP 2014.

Our preference is for tourist accommodation and public access cafes/restaurants to be located at Cactus Point. That preference is based on knowledge of other locations where such uses exist in attractive waterfront locations (Shellharbour is one example, as is Greenwell Point).

As noted elsewhere, the proposed leisure hub is located in Stage 4 of the Concept Plan which is scheduled for development in 2022-5. The lead-time available will allow the Planning Proposal to be finalised which it is expected will embrace lands covered by the concept plan, including the land proposed here as a leisure hub. The permissibility or otherwise of the leisure hub is thus a matter that is not critical to the overall project at this time.

We recommend the proposed uses be approved as being consistent with SLEP 1985.

The Aboriginal Heritage Study (EA, Appendix H; see Figure 11) identifies some 20 shell middens that are of regional representative significance located along the foreshore of the Crookhaven River adjacent to the site of the Concept Plan.

The proponent considers these middens to be at risk on account of the proposed development; it is considered inconceivable that future residents, both adult and children, will not wish to explore and utilise this waterfront for a variety of activities, and that the middens may, as a consequence, be damaged and their significance diminished.

The proponent acknowledges that some of these sites are in the 30m wide Crown foreshore reserve. All are within the proposed 100m wide foreshore reserve which will be dedicated as open space. It is the proponents' view that this foreshore zone be managed in such a way as to conserve the middens and the areas of significant ecological interest by controlling access through design. This is particularly true for the cluster of middens at Cactus Point, all of which are readily accessible; it is also true for the waterfront at Cactus point which is also readily accessible.

The proponent envisages a managed waterfront along the entire 3.3km frontage of the Concept Plan site (including the Council owned section of foreshore being part of the STP site). The principal management element will be the cycle/walkway aligned along the length of the waterfront from Canal Street East to Cactus Point with associated facilities such as viewing shelters and interpretation panels. Subordinate elements may include minor walkways, and/or boardwalks to particular features.

The initial concept for the Cactus Point waterfront identified this area as a key access zone to the Crookhaven Estuary.

The original plans for Cactus Point indicated a low sea-wall designed to 'tidy-up' the waterfront at what was considered likely to become a popular and well-used recreational area. In addition it suggested this would be an appropriate location for boat access ramps and possibly a small jetty for

craft to tie-up. It is now considered that the water depth would prohibit normal boat access but light craft such as kayaks may be appropriate for the water depths. The works envisaged would be on crown land and require a range of approvals. The waterfront concept has been deferred because this component of the plan (Stage 4) is not likely to be developed until some 5-8 years following any approval of the concept plan. Consequently it is omitted from the current concept plan.

Cactus Point lends itself to recreation activities. The land-water interface is readily accessible and the north orientation of the gentle slopes leading down to the Point are ideal for recreation. The attractive outlook over the broad expanse of the Crookhaven River estuary with Billys Island at close quarters and Mount Coolangatta in the distance marks the Point out as a place of distinction. It is ideally situated to be a low-key – local leisure hub for West Culburra. The uses that are appropriate include motels, cafes and restaurants and some unit accommodation. These leisure oriented uses are adjacent to but separated from the main residential areas. The uses are considered to be compatible with a residential environment.

The foreshore waterfront park is considered to be an important additional public good for Culburra Beach residents. The proponent envisages the design of the waterfront being a co-operative exercise between it and members of the Aboriginal community, the Culburra Beach community, Shoalhaven City Council, OEH and an Aboriginal Heritage Conservation Specialist. The foreshore waterfront park will be developed in stages and it is anticipated that the design of each stage will be put on public exhibition prior to it being adopted by Council and implemented by the proponent. The costing is expected to be incorporated in a Voluntary Planning Agreement yet to be arranged with Council.

The elements associated with this concept for a foreshore waterfront park have yet to be worked out in detail and involve numerous government agencies. Consequently they are omitted from the Concept Plan at this stage.

8.7 Economic Impacts

The economic base of Culburra Beach is very limited. There is a lack of employment opportunities in Culburra. The town's principal asset is the beach and it is this that attracts retirees, holiday home owners and visitors. Other places of interest are Lake Wollumboola and Curleys Bay. The latter is virtually inaccessible; the former is attractive for young children and ornithologists.

The bowling club and the surf club are facilities that are widely used by the local community as well as visitors. There are few other attractions.

The proponents take the view that it is both necessary and desirable to diversify the economic base for the benefit of current and future residents and visitors. To this end the proponents have identified locations where it believes the economic base can be enhanced and diversified. Opening up access to the Crookhaven River and identifying sites for activities that could take advantage of a waterfront outlook is considered one way of diversifying the array of leisure opportunities available to the Culburra Beach community. Others include strengthening the existing town centre by intensifying the shopping experience and by enhancing its sense of place (this is outside the scope of this Concept Plan). A third is by creating streets that have a distinctive appeal – an address – such as the proposed vista avenues that anchor the place to the local topography (views to Mount Coolangatta and Crookhaven Heads).

The deletion from the Concept Plan of the detailed layout of streets, specifically the Circus which was conceived as a mixed-use development, removes the concern expressed in relation to an implied competition of commercial uses with the existing town centre. The proponent has consistently supported the reinforcement of the existing town centre by both the intensification of commercial uses within the existing centre and by increasing the density of residential uses within walking distance of the town centre.

Because of the simplification of the Concept Plan there is now no proposal to introduce new mixed use commercial development in the plan. Consequently consideration of DCP67 (now DCP 2014 – Chapter G 17) does not apply (it is notable that the illustration at the head of this chapter of the DCP shows a water view being exploited with a café terrace – an illustration that exemplifies the objectives of the proponent with respect to selected locations in the Concept Plan) including Cactus Point.

Should commercial development be contemplated in Stages 1, 2, 3 and 4 of the Concept Plan, then Chapter G17 of SDCP 2014 will be fully considered.

9. The Encroachments

As noted in Section 2 of this report the ridgeline between the catchments of Lake Wollumboola and the Crookhaven River was adopted by the Department and included in the DGR's as a boundary for the definition of the site for the Concept Plan. At that time it was understood that there was significantly higher land to the south of the site that, although

technically within the lake catchment, was able to be drained to the Crookhaven River.

Subsequent to the endorsement of the Concept Plan as a Major Project, the Minister endorsed a Planning Proposal (see Section 6 above) which included land in the lake catchment, located generally south of the site of the Concept Plan. The details of and justification for the four encroachments on the ridgeline is outlined below.

9.1 The Access Road

The location of the principal access road, the Collector Road, is determined by the location of the intersection of the Collector Road with Culburra Road. The preferred location of the intersection is the most efficient in linking the proposed large residential area west of the STP with Culburra Town Centre and associated facilities. The preferred location was endorsed at an onsite meeting of representatives from RMS, SCC, DPE and the proponent. The first section of the Collector Road is, perforce, in the catchment of Lake Wollumba and linked to the roundabout (see under).

9.2 The roundabout and associated roadworks.

As outlined in Section 2 of this report, the major component of the Concept Plan is the 600 lot subdivision west of the STP. Access from Culburra Road to this new estate must be west of Strathstone Street (the access road to the industrial zone and the STP). Culburra Road west of Strathstone Street is, for a distance of some 3.5km, within the lake catchment. Any access convenient to Culburra from the new estate will unavoidably be within the lake catchment. There are 3 culverts along this section of road; two on arms of Downs Creek and one on Wattle Creek. There are no pollutant traps or other devices along this section of road or at any of the culverts.

The location of the roundabout has now been agreed by SCC and RMA. Detailed plans are shown in the accompanying plan (see Figure 12). The determination of the location is shaped by traffic safety considerations.

The location is at the head of the Wattle Creek catchment; Wattle Creek flows into Lake Wollumboola.

A drainage swale is proposed. The effectiveness of the treatment train proposed is demonstrated in Table 19 of the accompanying Water Cycle Management Report (Martens August 2014) which shows the NorBe objectives are achieved.

9.3 The Oval

The location of the oval was selected because the site analysis showed this was the only area that was sufficiently flat (almost no regrading is required) and because it was centrally located in relation to the likely future pattern of urban development north of Culburra Road (see Figure 7).

It should be noted that the area around the oval and south of the divide, and therefore in the catchment of Lake Wollumboola, is sufficiently elevated (to a height of RL30) above the divide (at RL16 adjacent to the oval) to enable it to be easily drained by gravity to the Crookhaven estuary. This topographical anomaly has led many to believe the divide is actually located along the higher ridge, as would normally be expected. The proposed residential zone in Draft SLEP 2009, for example, adopts the higher ridge as its southern boundary. The proponent has always been aware of the urban potential of the area south and west of the oval site – a fact now recognised in the Planning Proposal (see Figure 7).

The oval will drain to a wetland on its eastern side. The wetland is depicted in and the wetland input parameters are shown in of the Water Cycle Management Report and Addendum demonstrating that NorBE is achieved.

9.4 Part of the road reserve within the 3.4ha medium density site

The collector road adjacent to the oval is aligned along the catchment which hereabouts is virtually level at RL 16. The alignment of the collector road and of some of the house lots on the north side of the collector road, marginally encroaches upon the lake catchment. All the lots on the north side of the collector road, and the collector road are designed to drain by gravity to the Crookhaven (see Appendix 7).

9.5 Stage 1, South of Culburra Road

Stage 1 is part of Lot 6 DP 1065111, which, together with Lot 5 DP 1065111, form most of the lands covered by the Concept Plan. Part of both these lots appears as a single paddock on the South side of Culburra Road located between the Retirement Village and the former waste tip, owned by Council.

Stage 1 has a 195m frontage to Culburra Road, a depth of 170m and an area of 2.55ha. The eastern section is zoned 5(a) Special Uses (community purposes) and the western section is zoned Residential 2(c) (SLEP 1985). Stage 1 is limited to the area zoned for residential purposes.

The intention of the proponent is to use the whole of the paddock, with a total frontage to Culburra Road of 285m, for residential purposes, principally small lots. The paddock is substantially cleared and easily developed. A comprehensive plan for the entire paddock area has been prepared but only that section zoned for residential uses in SLEP1985 can be developed at present. Access to the site is an important determinant of the layout because it is linked to a future road north of Culburra Road aligned alongside Vista Park which will ultimately connect to a second future road being an extension to Brighton Parade. The intended Vista Park road and the access to Stage 1 are to be aligned to form a cross roads at their intersection with Culburra Road. The location selected for the access was discussed with SCC Traffic Engineer on site and no problems were foreseen in relation to the general location. Culburra Road here is straight and flat and has high quality visibility (see view 11, Appendix V, EA).

Stage 1 is near flat with a fall from west to east of 1.9m over the width of the residential zoned section, effectively a 1 in 100 slope. The dividing ridgeline is 50m south of the boundary with Culburra Road at the western boundary increasing to 80m at the eastern boundary. Detailed survey of the site for Stage 1 shows that a site 190m in depth can be drained by gravity to Culburra Road.

The water quality implications of the proposal are considered in the Water Cycle Management Report (Martens 2016).

The location of Stage 1 is within 450m of Culburra town centre. It is the only site currently available for some higher density development than that which currently prevails in Culburra Beach. A small lot subdivision of some 45 lots is proposed.

The ready availability of stage 1 for residential development, its accessibility to the town centre and its comparative low environmental impact (the adjoining retirement village has a depth of 300m+ from Culburra Road), make it ideal for a small lot development.

The encroachment on to the lake catchment is justified because Stage 1 represents the only available opportunity to implement a proposal of moderately increased density close to the town centre at virtually no environmental cost. There will be no impact on Lake Wollumboola because all drainage is to Culburra Road.

The justification for this encroachment is three-fold. In the first instance the depth to the actual ridge, circa 50m, only allows for a single row of conventional lots fronting Culburra Road; this is considered to be a very poor form of development. In the second instance this is the only site

currently available for residential development that is within comfortable walking distance (450m) of the town centre and its associated facilities. The site is considered ideal for some medium density development, particularly one that is suited to the older age cohorts and down-sizers. In the third instance the site is cleared and can be easily and economically developed.

This encroachment will have no impact on water quality in Lake Wollumboola. All surface water drainage will be to Culburra Road and the Crookhaven catchment.

9.6 Part of Stage 5, the Industrial Zone

The Industrial Zone has an area of 3.5ha of which about 1.1ha is within the catchment of Lake Wollumboola. The major part of the industrial zone is near flat with a fall from west to east of 1m over a distance of about 450m; there are slightly steeper falls from north to south and from south to north.

The drainage of the whole of the industrial zone is designed to drain to the Crookhaven catchment. The zone will be drained to the Sediment Basin located in the NW corner of the Industrial Zone, and then to the Crookhaven River as per the MUSIC Model.

10. Summary of Undertakings

The undertakings are as follows:

1. To provide the offsets as outlined in Section 8.1 of this report;
2. To undertake the monitoring program as outlined in the Water Quality Monitoring Plan (Martens August 2014);
3. To provide Asset Protection Zones throughout the entire project as indicated on the Concept Plan (see Figure 14);
4. To construct the roundabout as shown in Figure 12;
5. To comply with Councils' DCP's where relevant or to comply with a location specific DCP developed in conjunction with Council in particular circumstances (eg Stage 1 small lot residential development).
6. To make and embellish the waterfront Reserve and associated cycle/waterway including conservation of Aboriginal middens,

removal of noxious weed growth, provision of shelters as outlined in Sections 8.2 and 8.6 of this report.

7. To implement the recommendation that an Aboriginal Conservation Specialist be on hand when earthworks including the making of swales, roadworks, sewer lines and the like are undertaken within 200m of the shore line as recommended in the Aboriginal Heritage study.

11. Conclusion

We consider the proposal to satisfy all the requirements set out in the DGR's. The proponent intends to implement the proposal as soon as consent is granted.

John Toon
July 2017

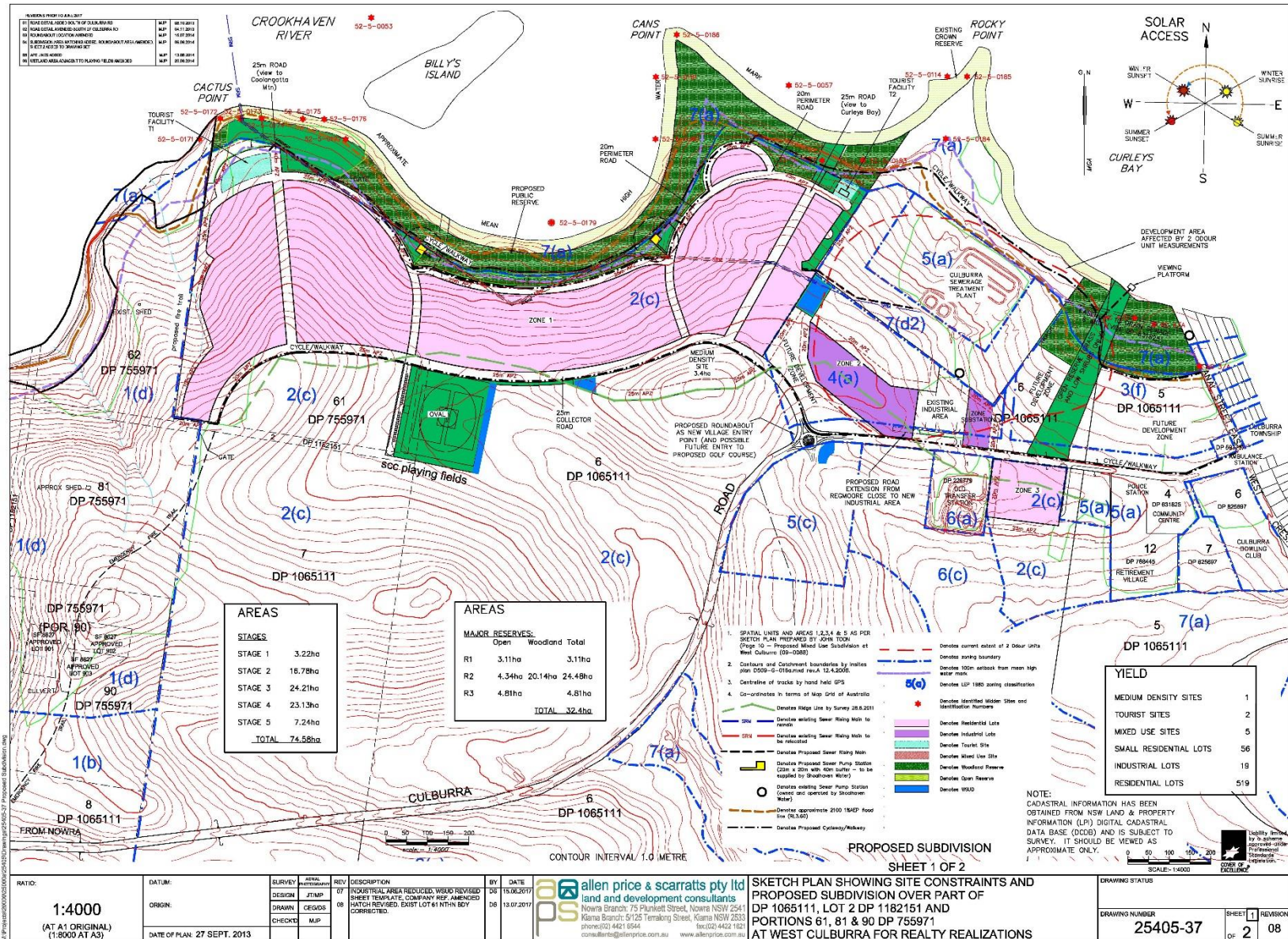


Figure 1. The Concept Plan

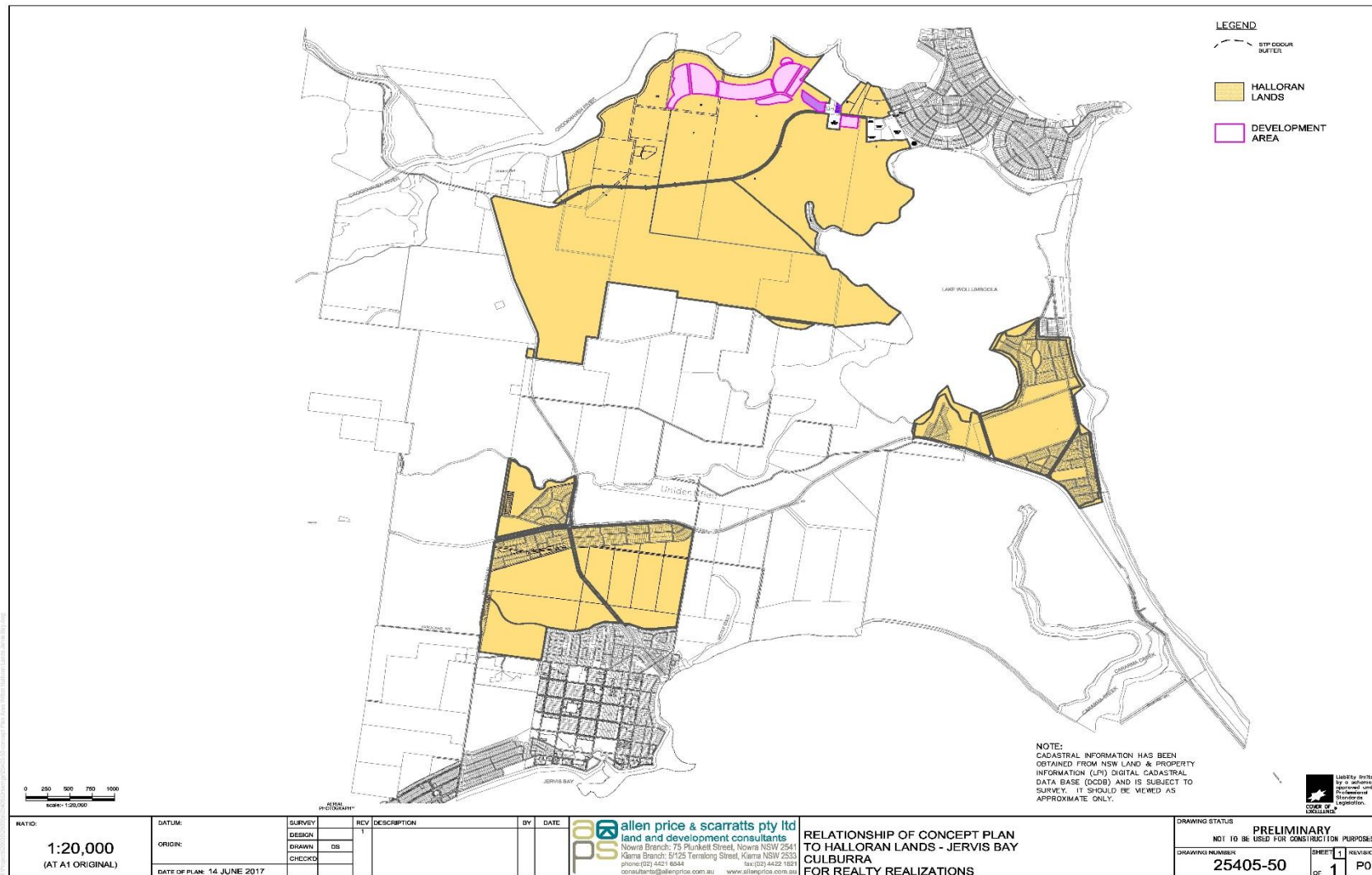


Figure 2. The Halloran Lands at Jervis Bay, showing the context of the Concept Plan

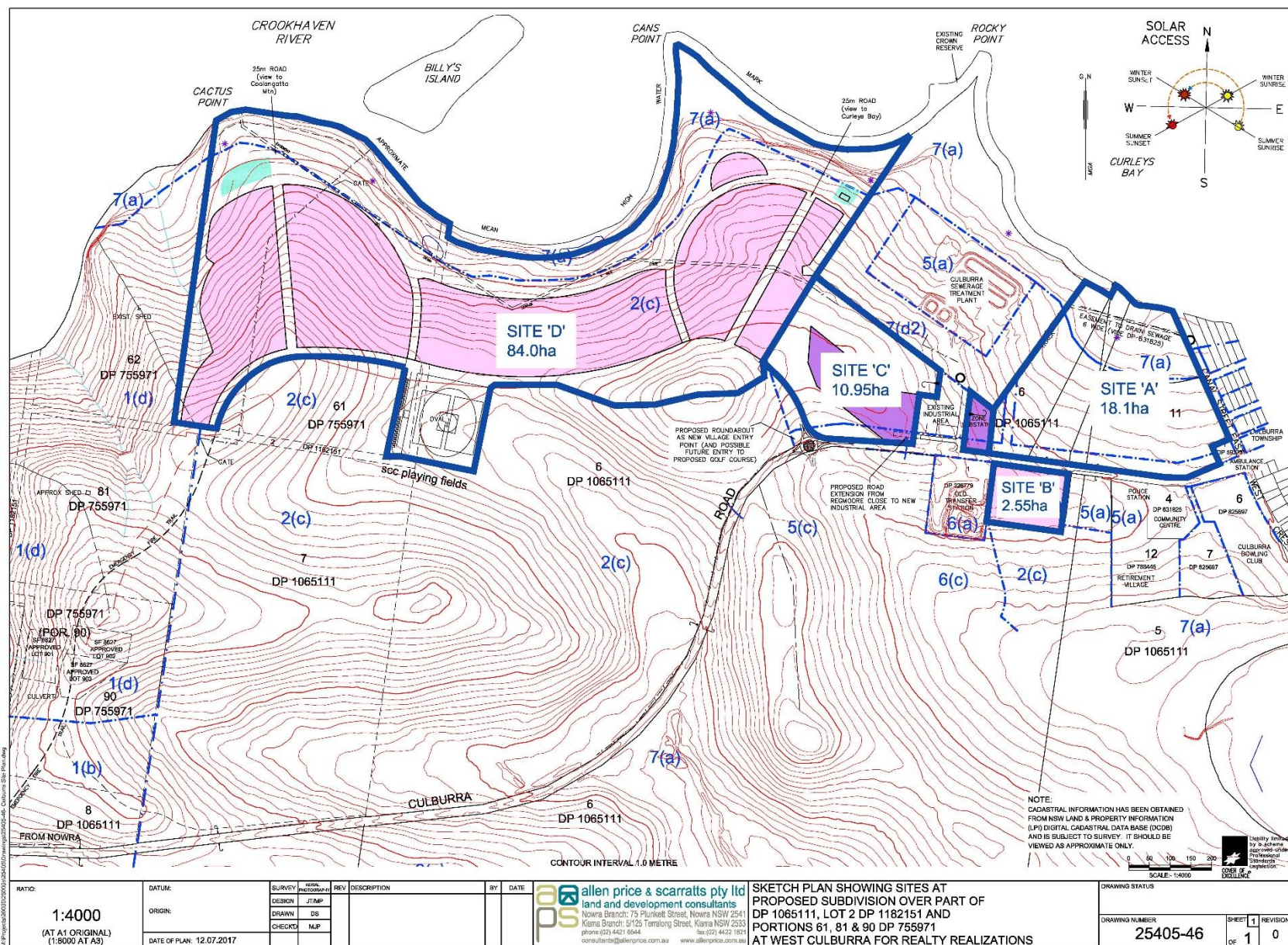


Figure 3. Lands covered by the Concept Plan

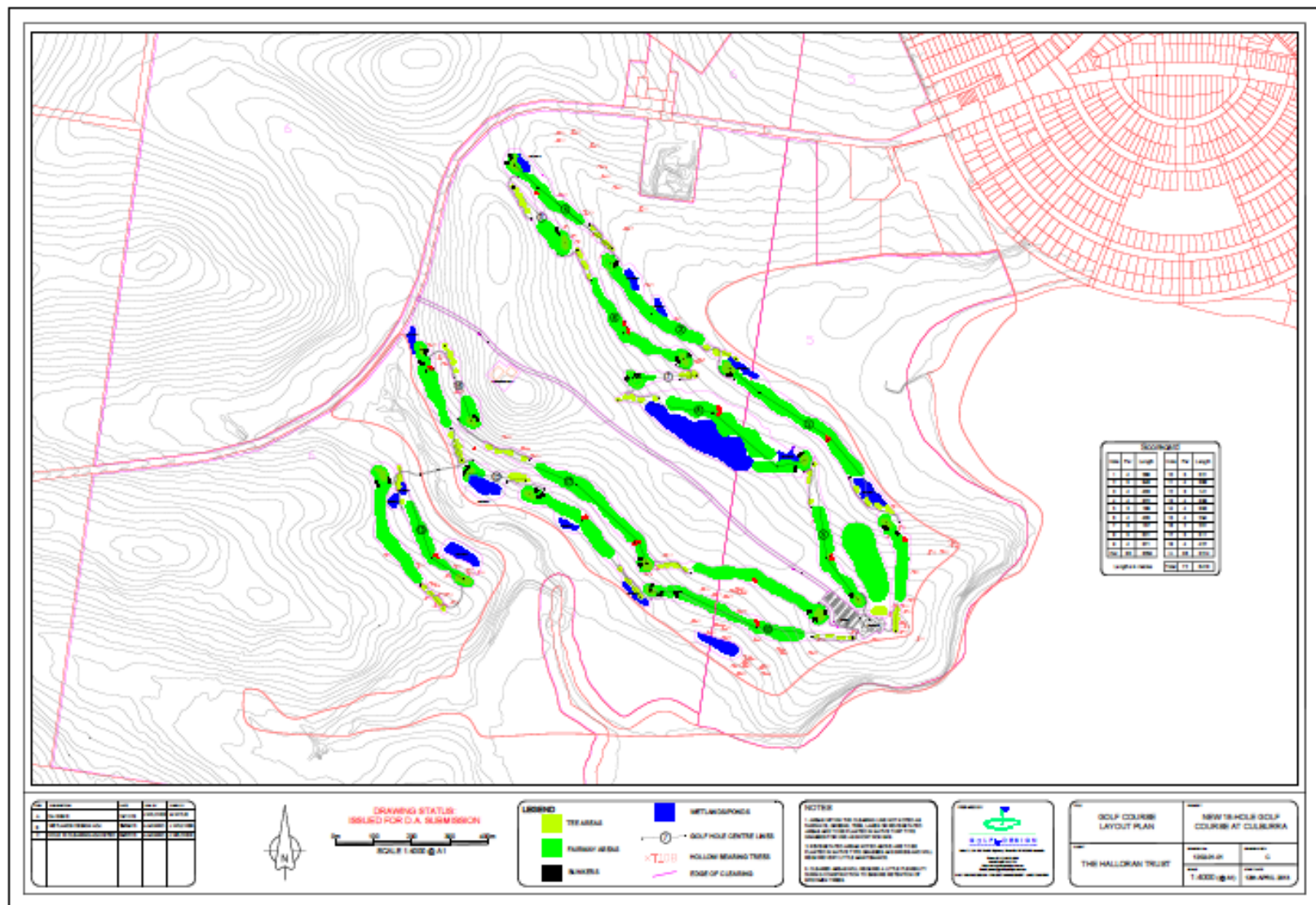


Figure 5. The Golf Course Development Application at Long Bow Point.

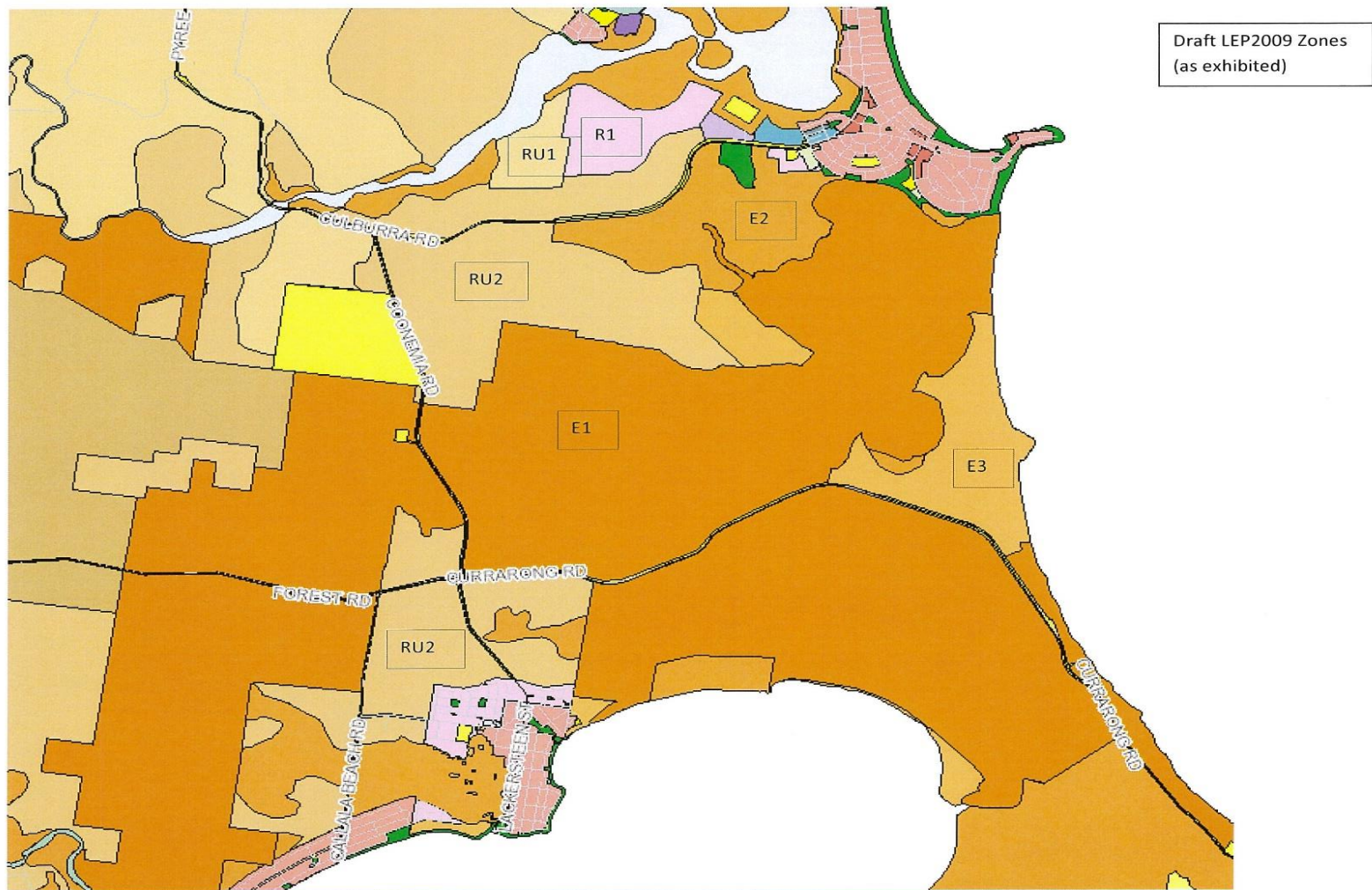


Figure 6. Draft Shoal Local Environmental Plan 2009

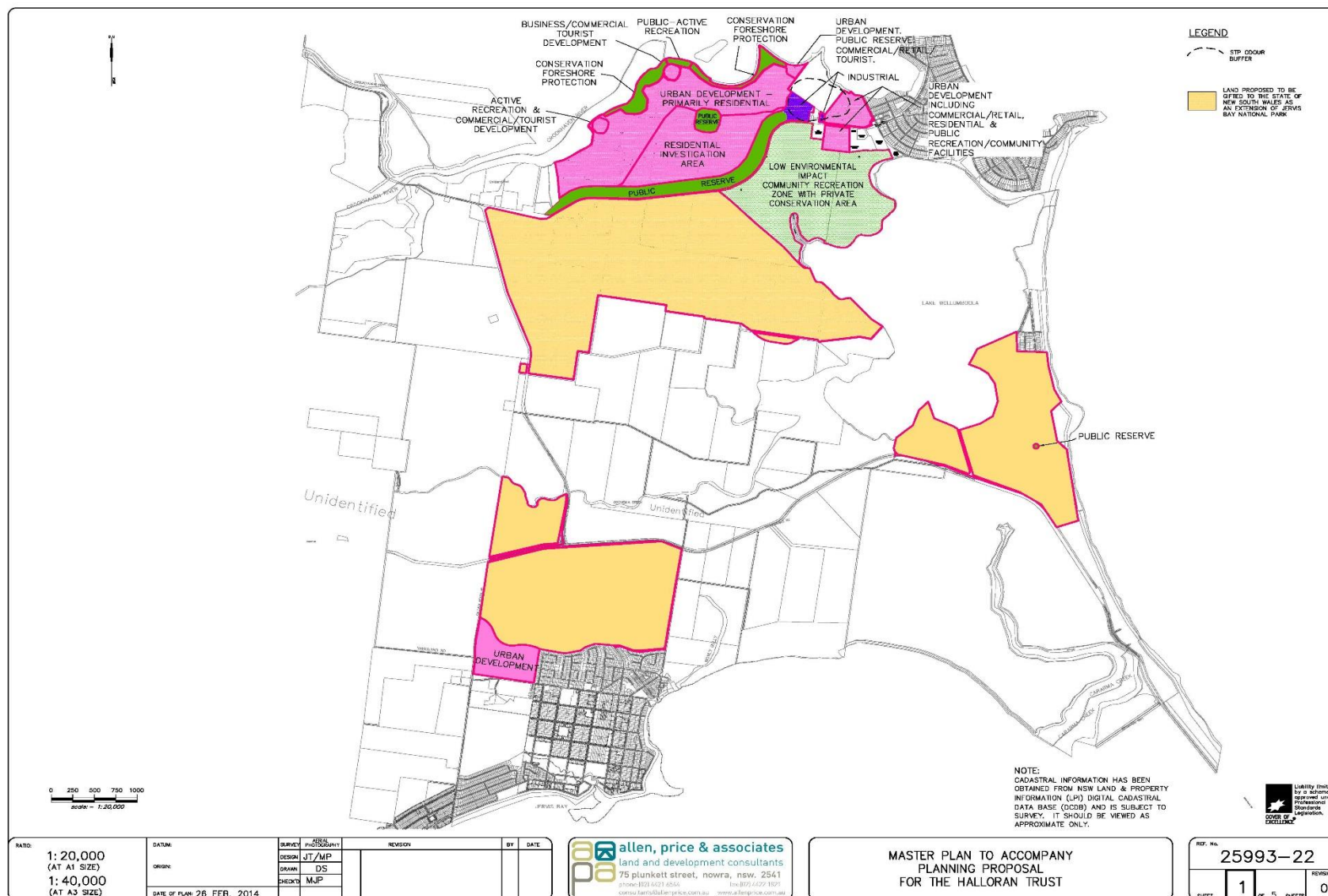


Figure 7. The Planning Proposal allowed through the ‘Gateway’ by the Minister November, 2015

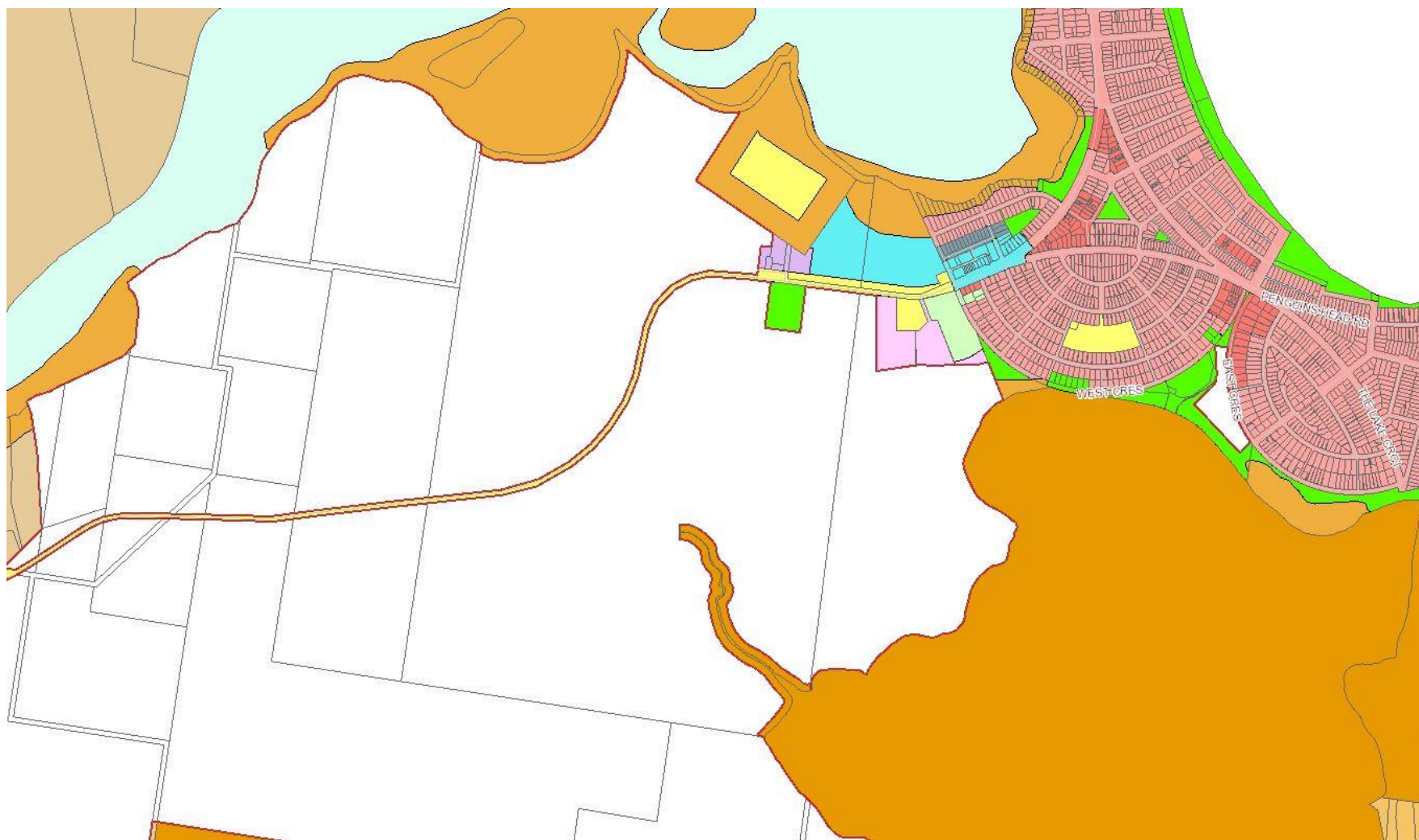


Figure 8. Shoalhaven Local Environmental Plan 2014 (Jervis Bay Area)

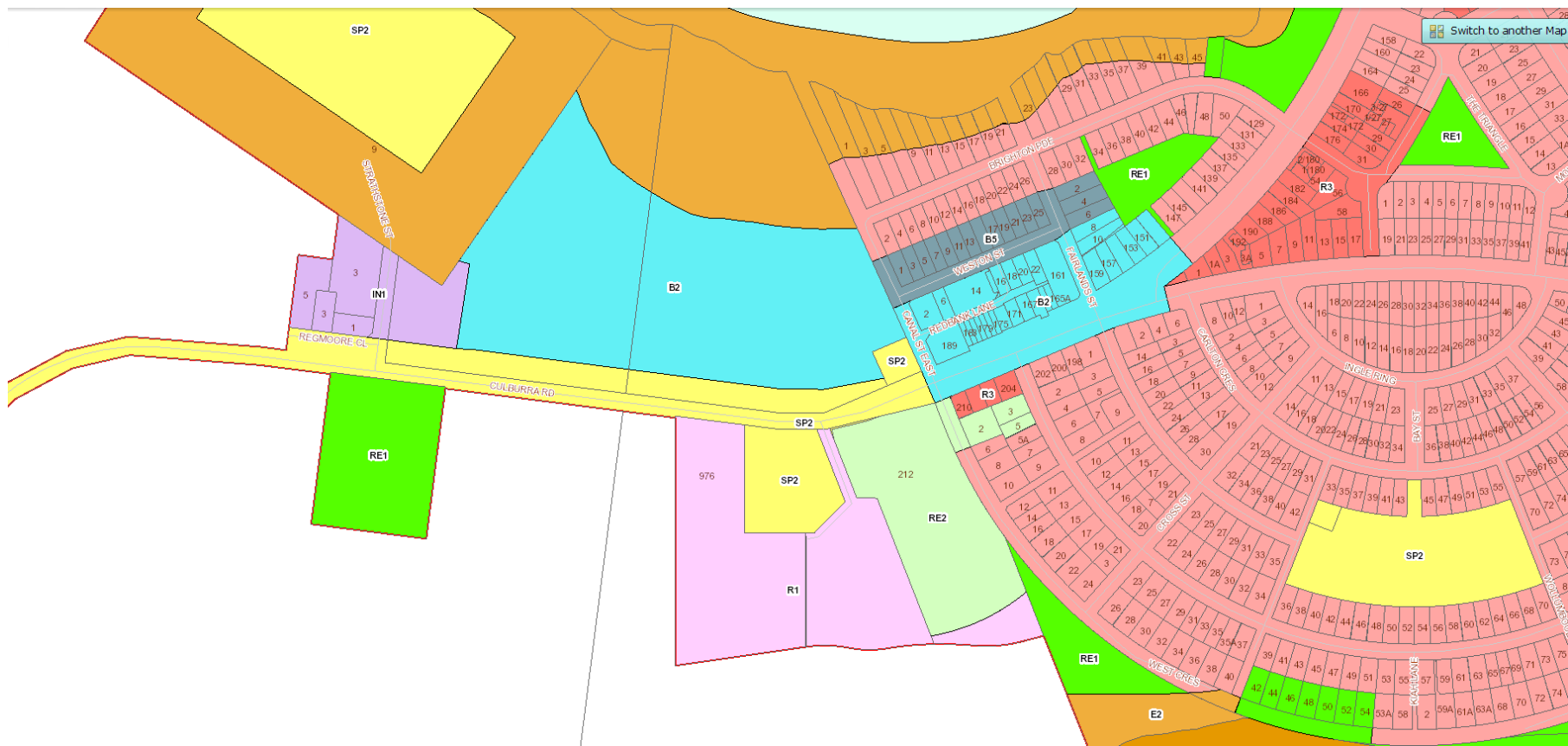
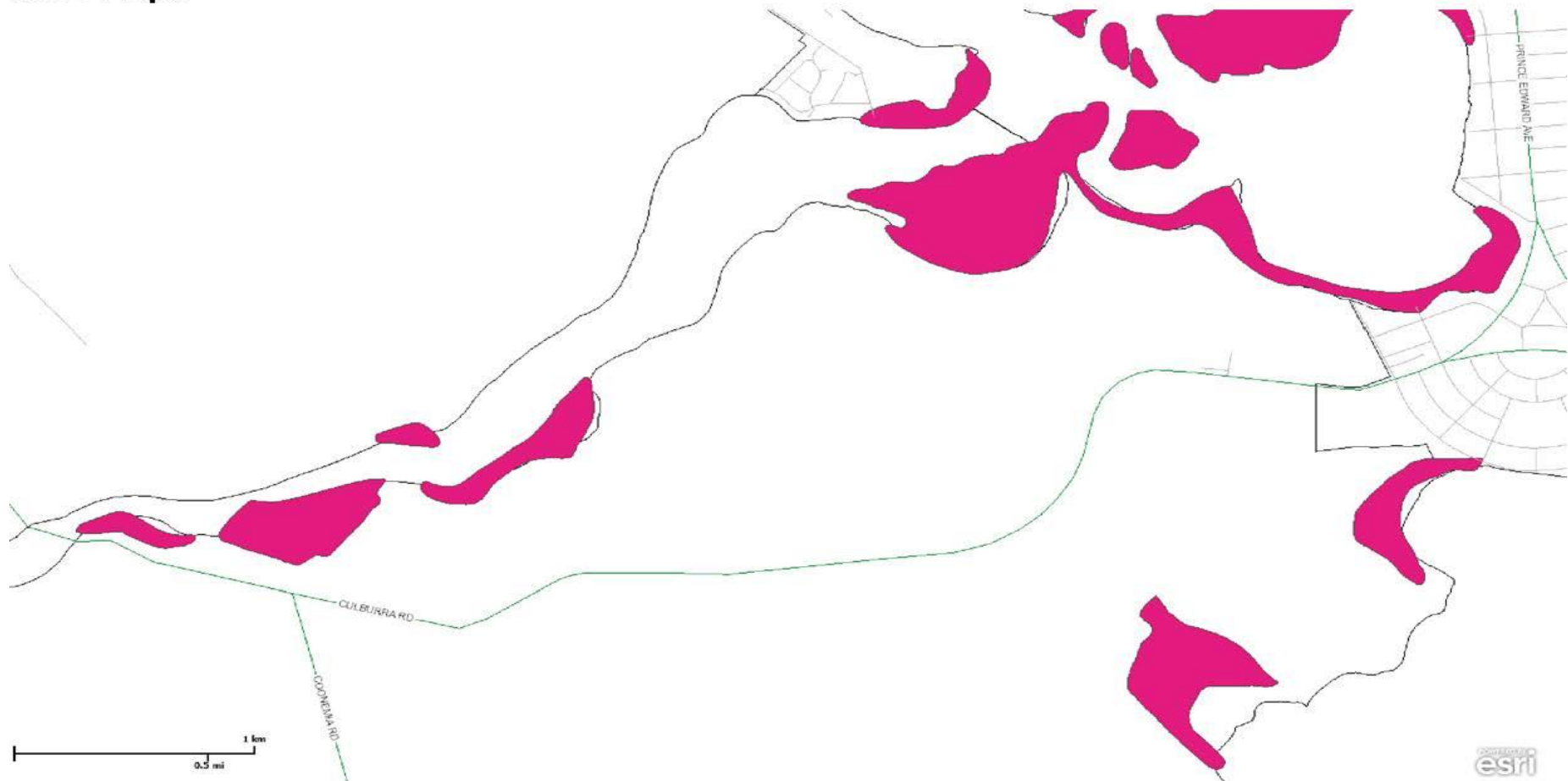


Figure 9. SLEP 2014 (detail) showing the B2 Local Centre Zone at Culburra Beach

Shoahaven City Council

SOE Maps



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Figure 10. Plan showing location of SEPP 14 Wetlands

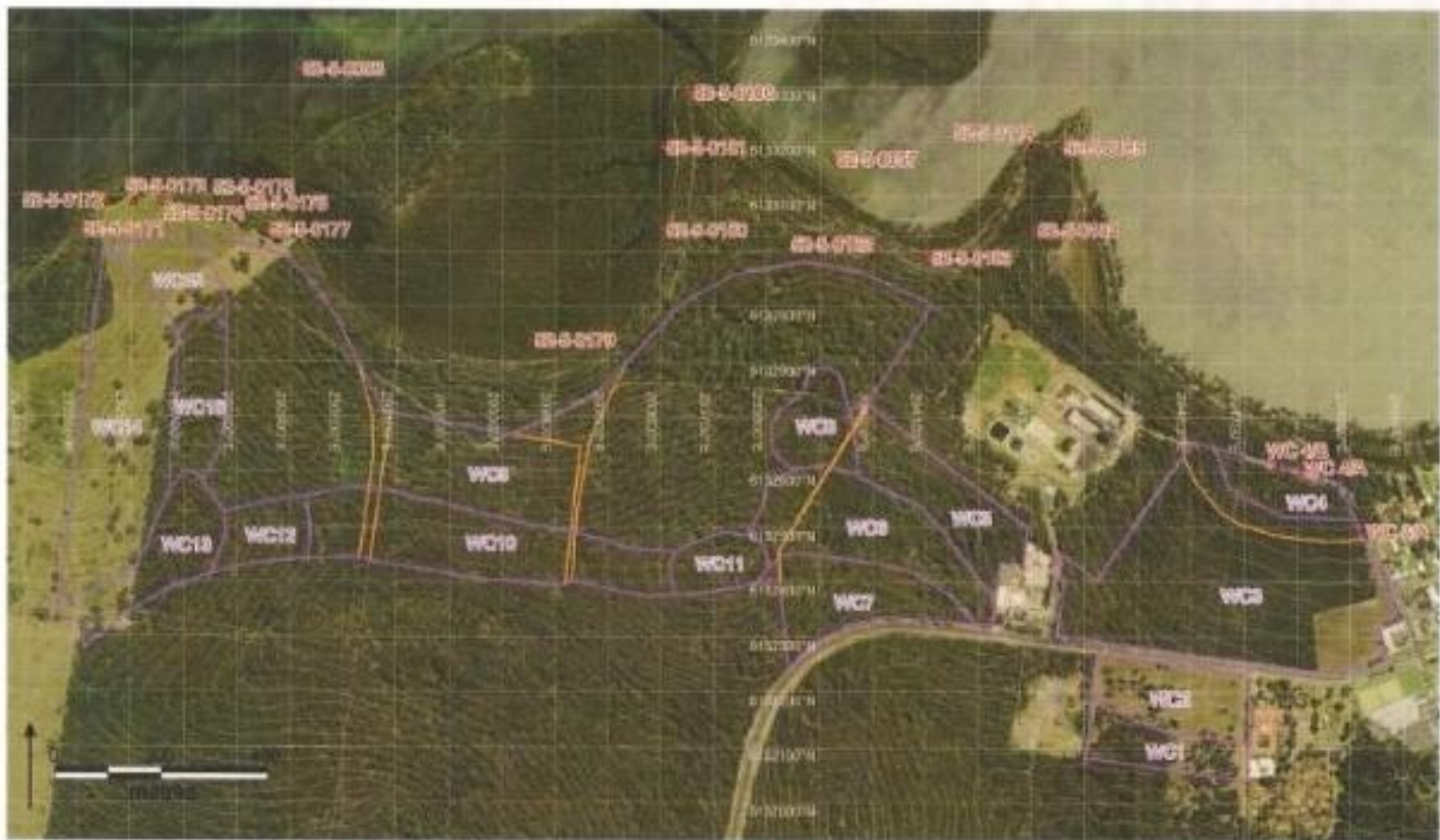


Figure 11. The location of Aboriginal Middens along the Crookhaven Foreshore

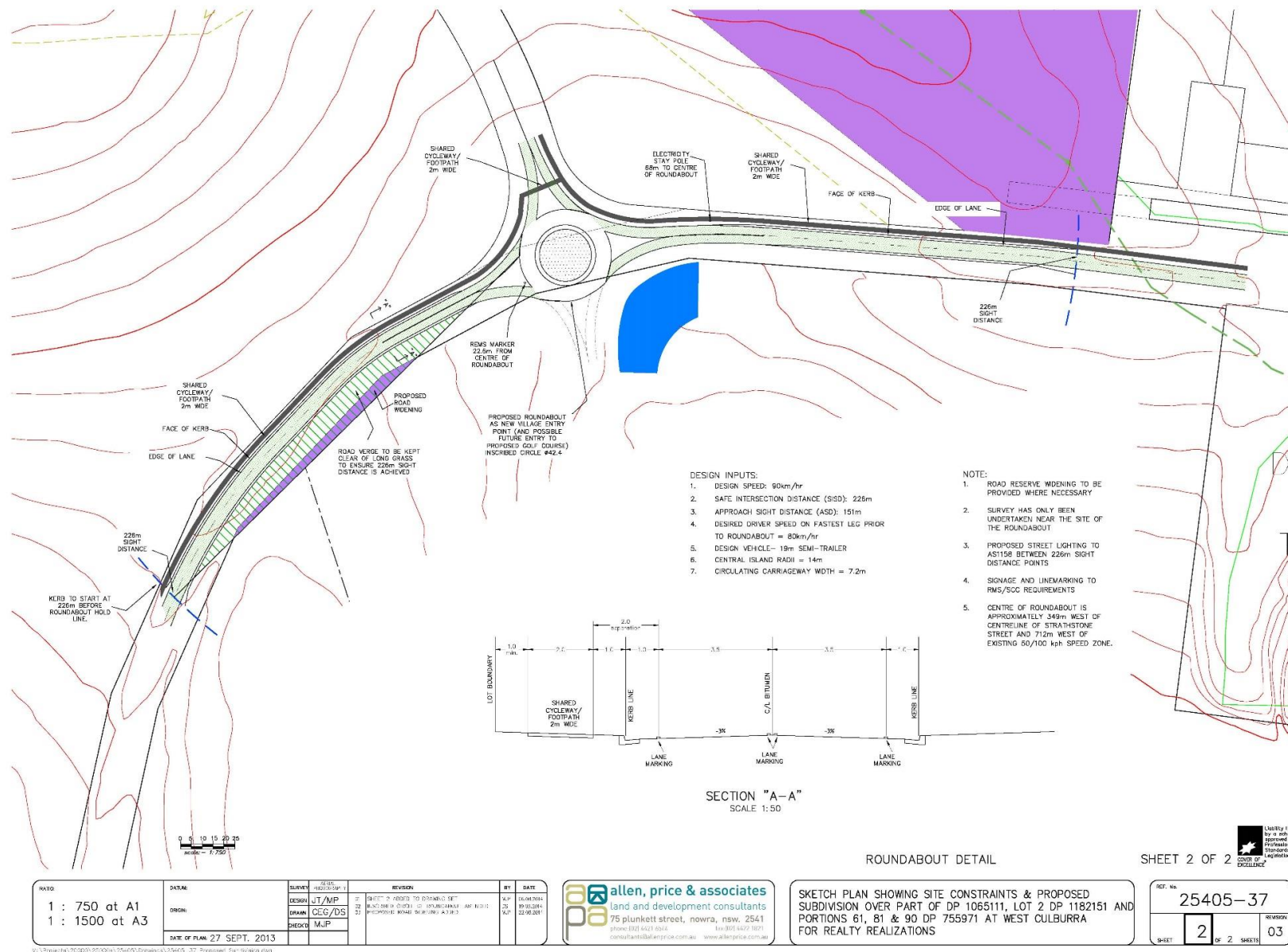


Figure 12. The layout of the roundabout



Figure 13.
Concept Plan in the Context of the Halloran Lands at Jervis Bay
covered by Planning Proposal

