



Planning &
Infrastructure

**MAJOR PROJECT ASSESSMENT:
270 LOT RESIDENTIAL SUBDIVISION
AT LOT 1 DP 1128633; PART LOT 2
DP 1128633; AND LOT 2 DP 792945**

**BELLE O'CONNOR STREET, SOUTH
WEST ROCKS**

**Proposed by MALBEC SOUTH WEST
ROCKS PTY LTD**

Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

May 2011



ABBREVIATIONS

Council	Kempsey Shire Council
Department	Department of Planning and Infrastructure
OEH	NSW Office of Environment and Heritage
RTA	NSW Roads and Traffic Authority

AEP	Annual Exceedance Probability
AHD	Australian Height Datum
AWCM Plan	Amended Water Cycle Management Plan
APZ	Asset Protection Zone
CIV	Capital Investment Value
DCP	Development Control Plan
DGRs	Director-General's Requirements
Director-General	Director-General of the Department of Planning and Infrastructure
EA	Environmental Assessment
EEC	Endangered Ecological Community
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
ESSM Report	Engineering Services and Stormwater Management Report
FPL	Flood Planning Level
GHD	GHD Pty Ltd
ICOLL	Intermittently Open and Closed Lake or Lagoon
LALC	Local Aboriginal Land Council
LoS	Level of Service
Martens	Martens Consulting Engineers
Minister	Minister for Planning and Infrastructure
MP SEPP	State Environmental Planning Policy (Major Projects) 2005
Part 3A	Part 3A of the <i>Environmental Planning and Assessment Act 1979</i>
PPR	Preferred Project Report
Proponent	Malbec South West Rocks Pty Ltd
SEPP 14 – Coastal Wetlands	<i>State Environmental Planning Policy No. 71 – Coastal Wetlands</i>
SEPP 71 – Coastal Protection	<i>State Environmental Planning Policy No. 14 – Coastal Protection</i>
The Strategy	Mid North Coast Regional Strategy
TSC Act	<i>Threatened Species Conservation Act 1995</i>
VMP	Vegetation Management Plan
VPA	Voluntary Planning Agreement
WBM	WBM Oceanics Pty Ltd
WSUD	Water Sensitive Urban Design

Cover Photograph: *Subdivision Layout – Belle O'Connor Street, South West Rocks (Source: Preferred Project Report)*

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EXECUTIVE SUMMARY

Malbec South West Rocks Pty Ltd are seeking project approval pursuant to Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for a 270 lot residential subdivision on land comprising Lot 1 DP 1128633; Part Lot 2 DP 1128633; and, Lot 2 DP 792945 at Belle O'Connor Street, South West Rocks, within the Kempsey local government area. The proposal incorporates:

- 269 low density residential lots ranging in size from 500m² to 900m², to be constructed throughout eleven stages of development;
- one medium density residue lot;
- a 14.9ha conservation zone;
- internal public road network, including connection to and extension of Belle O'Connor Street;
- 5,506m² of public open space areas with recreation facilities;
- a network of pedestrian and cyclist pathways;
- two stormwater treatment wetlands;
- on-site landscaping works; and
- works to connect to reticulated services (including water, sewerage and telecommunications).

The capital investment value of the project is estimated at approximately \$12 million, and is expected to create 40 full-time equivalent jobs throughout construction. The proposal will see an additional 269 low density residential lots established within the Kempsey local government area. The development will assist with current demands for residential housing in a location that is within close proximity to essential services, including; educational establishments; medical services; shopping and recreational facilities.

The Environmental Assessment for the proposal was publicly exhibited at five locations and also on the Department's website for a period of 33 days. Throughout the public exhibition period, the Department received a total of 68 submissions, consisting of 60 submissions from the general public, of which all objected, and 8 submissions from government authorities. Key issues considered in the Department's assessment of the proposal include;

- Strategic Context;
- Flooding Assessment;
- Stormwater Management;
- Groundwater Management;
- Impacts on Biodiversity;
- Traffic and Access; and,
- Aboriginal Cultural Heritage and Consultation.

The Department has assessed the merits of the project and is satisfied that its impacts have been addressed in the Statement of Commitments and the Department's recommended conditions of approval. The Department considers any potential impacts can be suitably mitigated and/or managed to ensure a satisfactory level of environmental performance and sustainability. The Department is satisfied that the proposed development is suitable for the site and that it will provide a number of benefits to the region. Such benefits include:

- an increased residential housing stock within South West Rocks with a variety of lot sizes;
- the protection of sensitive environmental features within and adjoining the site;
- the provision of dedicated public open space and recreation areas;
- public amenities such as picnic areas, barbeque facilities, and children's playgrounds;
- an established pedestrian and cyclist pathway network; and
- employment opportunities throughout construction of the project.

On these grounds, the Department is satisfied that the project will contribute to the protection of the New South Wales coast, and that the likely impacts of development on water quality of coastal waterbodies have been appropriately managed through the recommended conditions of approval. The Department subsequently recommends that the project be approved, subject to conditions.

1. BACKGROUND

1.1 SITE DESCRIPTION

The subject site covers an area of approximately 28ha and is formally described as Lot 1 DP 1128633; Part Lot 2 DP 1128633; and, Lot 2 DP 792945, Belle O'Connor Street, South West Rocks, within the Kempsey local government area (LGA). The South West Rocks township is located on the New South Wales mid-north coast some 28km to the north-east of Kempsey and 65km to the south of Coffs Harbour. In accordance with the most recent census data available, the township has a population of approximately 4069 (*ABS, 2006 Census Data*). Malbec South West Rocks Pty Ltd (the Proponent) is the registered owner of the site. The location of the South West Rocks township in context to the mid north coast is displayed in **Figure 1** below.



Figure 1: Locality – South West Rocks (source: Mid North Coast Regional Strategy)

1.1.1 Locality and Surrounding Development

The South West Rocks township is physically constrained by the Pacific Ocean to the north; the Hat Head National Park and Smokey Cape Range to the east; Spencers Creek to the south and the Macleay River to the west.

The subject site itself is bound to the north by an area of recently rezoned land, known as the Saltwater development site, which has been identified for future residential development. To the north-east is the Saltwater Lagoon and an extensive area of *State Environmental Planning Policy No.14 – Coastal Wetlands* (SEPP 14 – Coastal Wetlands) which borders the lagoon and encroaches within the north-eastern portion of the site. The South West Rocks Sewage Treatment Plant (STP) adjoins the north-western corner of the site, and the South West Rocks Golf Course is situated parallel to the western site boundary. A small number of rural-residential properties are located directly to the east. A Crown Road acts as the site's southern boundary with recently approved low density residential housing development located to the south-west. **Figure 2** below illustrates the site context and surrounding features.



Figure 2: Site Context (source: Environmental Assessment)

1.1.2 Existing Site Features

The site topography is relatively flat with a minor slope from the south to the north and north-east towards a tributary of the Saltwater Lagoon. The tributary runs along the north-eastern boundary of the site, extending westwards from the Saltwater Lagoon and meanders towards the adjoining golf course on the western site boundary. The maximum elevation across the site is approximately 5.5m AHD, with a minimum elevation recorded at 1m AHD in the vicinity of the tributary to the north. The site drains to Saltwater Lagoon, an Intermittently Open and Closed Lake or Lagoon (ICOLL) which meets the ocean at Front Beach, approximately 2km to the north-west. An existing residential dwelling and shed are currently located within the central portion of the site, and are to be removed as part of the proposal – see **Figure 5** below.

The subject site has predominately been used for grazing and agricultural purposes in the past. The site contains a range of different vegetation communities which were identified during ecological surveying. The dominant vegetation community is Heathland which covers approximately 16ha and encompasses most of the eastern and western portions of the site. Northern Scribbly Gums and Paperbark species are found throughout the central and southern portions of the site. One Endangered Ecological Community (EEC), was identified (Open Forest of Broad-leaved Paperbark (Fluvial Variant)), located along the northern tributary to Saltwater Lagoon. The southern portion of the site is largely cleared of any significant vegetation, with only a scattering of remnant trees and shrubs. An area of SEPP 14 – Coastal Wetlands (No. 439) encircles the Saltwater Lagoon and encroaches within the north-eastern site boundary. The location of SEPP 14 – Coastal Wetlands within and surrounding the site is illustrated in **Figure 3** below. **Figures 4 to 7** below are photographs taken of the site during a site visit by the Department in October 2009.

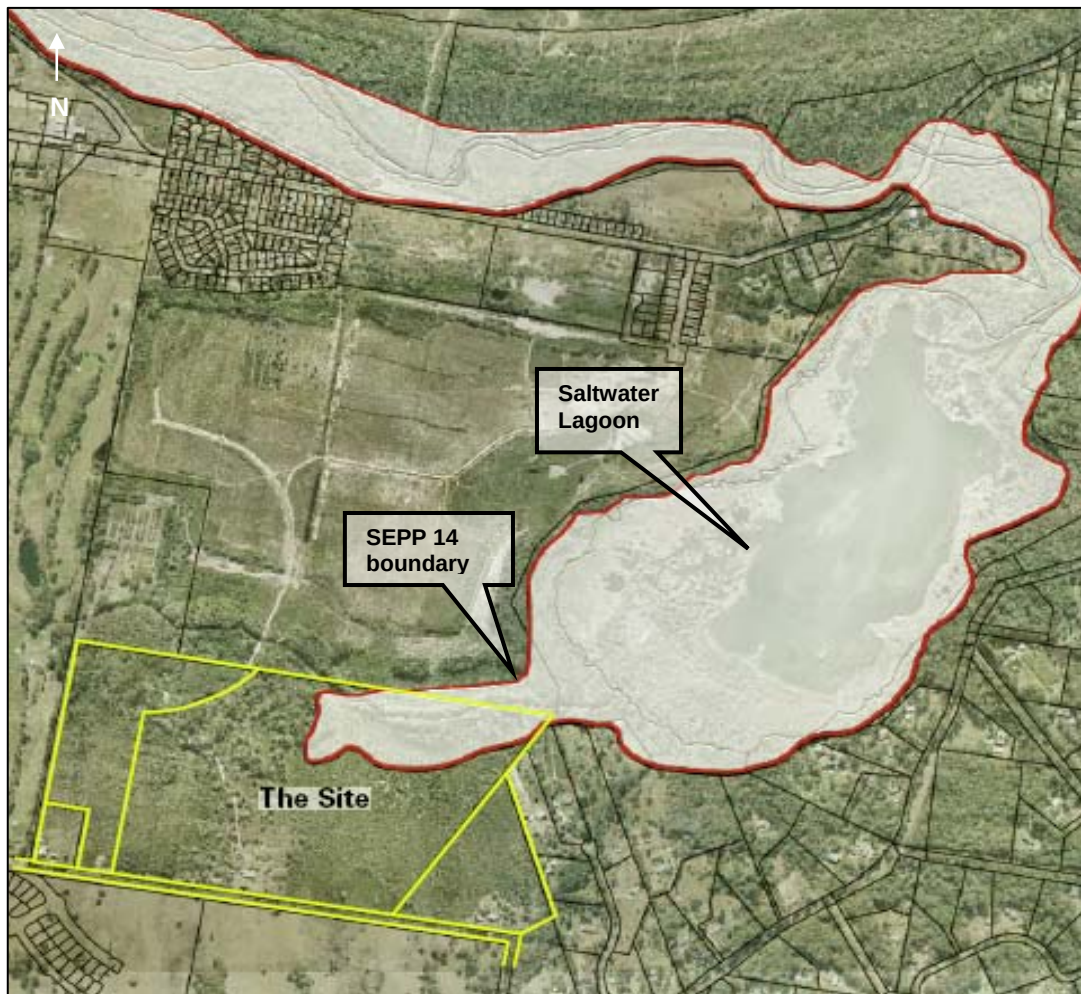


Figure 3: SEPP 14 – Coastal Wetlands within and surrounding the site
(source: Environmental Assessment)



Figure 4: A track at the north-western corner of the site looking eastwards through an area of open forest of Northern Scribbly Gums.



Figure 5: Open forest of Broad-leaved Paperbark (Sandplain Variant) in the central portion of the site.



Figure 6: Existing dwelling located within the central portion of the site to be removed as part of the proposal.



Figure 7: View from the south-eastern corner of the site looking westwards. The gravel track is the Belle O'Connor Street Crown road reserve, and the southern site boundary.

1.1.3 Site Rezoning

The subject site was rezoned in August 2009 following adoption of amendment no. 55 to the *Kempsey Local Environment Plan 1987* (Kempsey LEP). The land was rezoned from 1(c) Rural Small Holdings and 1(d) Rural Investigation; to 2(a) (Residential "A" Zone) and part 7(b) Environmental Protection (Habitat). The 7(a) Wetlands Protection Zone was retained. The rezoning encompassed the entire Saltwater site, as shown in **Figure 8** below. The proposed subdivision subject to this application is the southern portion of the Saltwater site. The site rezoning is covered in further detail in **Section 5.1.1**, whilst zoning and permissibility are further discussed in **Section 3.3**. Kempsey Shire Council (Council) are currently preparing a site specific Development Control Plan (DCP) for the entire Saltwater site, to be referred to as the Saltwater DCP. At the time of writing, the Saltwater DCP was in draft format and was yet to be adopted by Council.

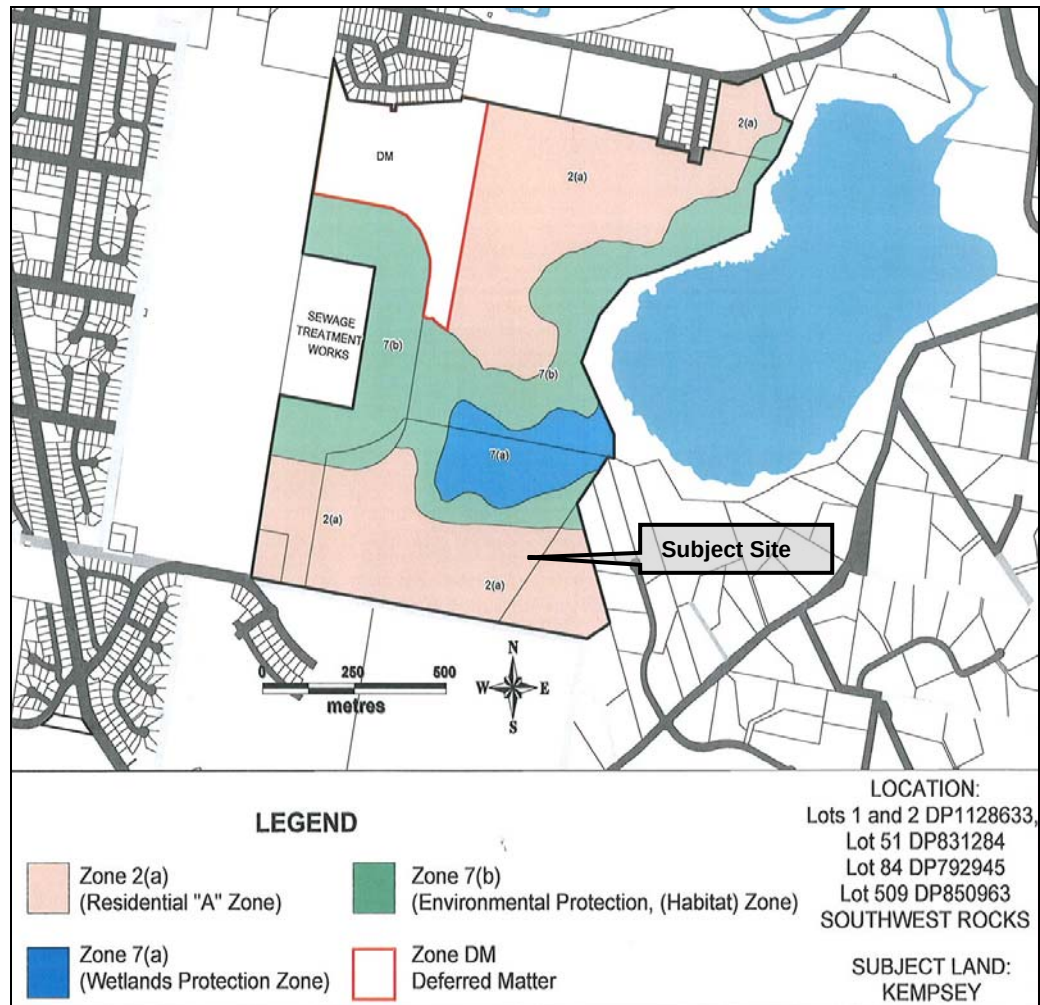


Figure 8: Rezoned Saltwater Site (source: Environmental Assessment)

2. PROPOSED PROJECT

2.1 PROJECT DESCRIPTION

This is an application seeking project approval for a residential subdivision. The project application seeks approval for development involving the following:

- 269 low density residential lots ranging in size from 500m² to 900m², to be constructed throughout eleven stages of development;
- one medium density residue lot;
- a 14.9ha conservation zone;
- internal public road network, including connection to and extension of Belle O'Connor Street;
- 5,506m² of public open space areas with recreation facilities;
- a network of pedestrian and cyclist pathways;
- two stormwater treatment wetland areas;
- on-site landscaping works; and,
- works to connect to reticulated services (including water, sewerage and telecommunications).

Figure 9 below illustrates the proposed site layout.

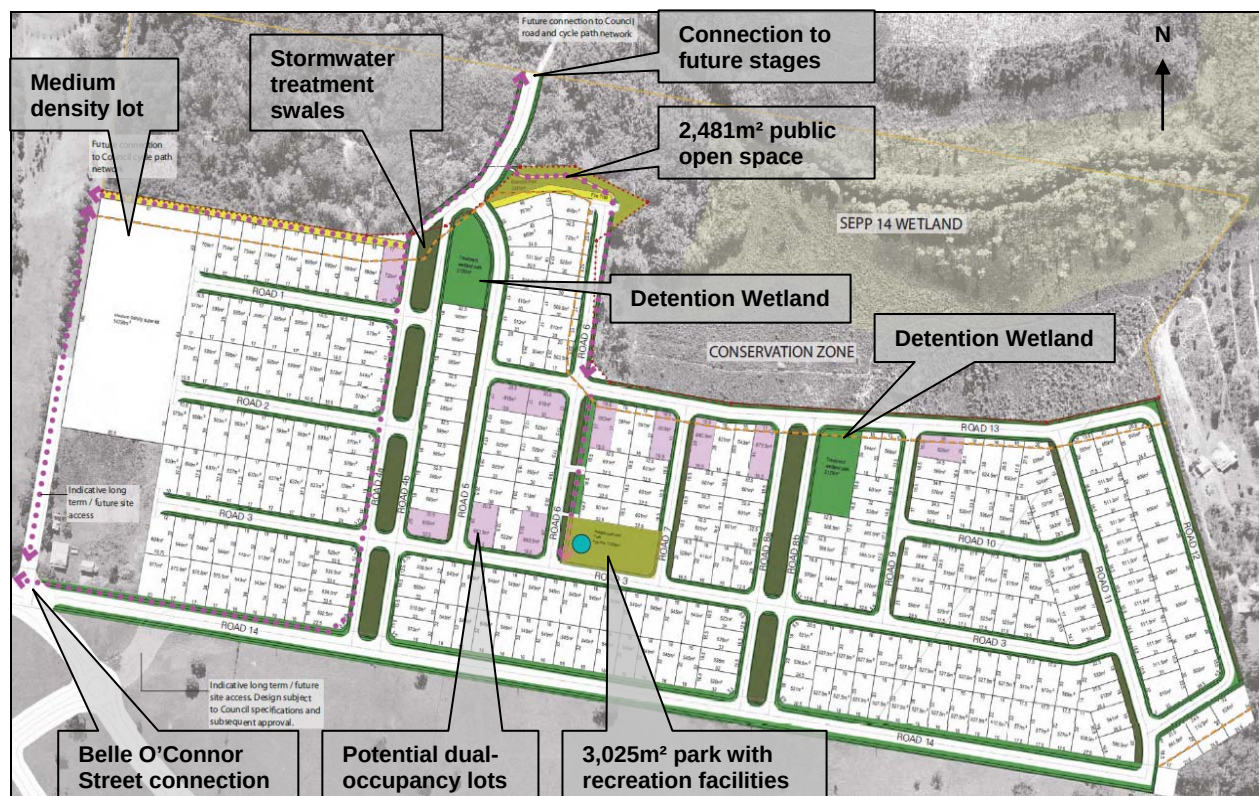


Figure 9: Proposed Subdivision Layout (source: Preferred Project Report)

2.1.1 Proposed Subdivision

The Proponent seeks approval for the creation of 269 low density residential lots and 1 medium density 'residue lot' to be constructed throughout eleven stages of development. Eleven lots are earmarked for potential dual-occupancy use. Lot sizes range from between approximately 500m² and 900m², with the majority of lots (73%) covering an area of between 500m² and 600m². A 14,798m² medium density residue lot is to be developed at a later stage and will be subject to a separate development application. **Table 1** below outlines the proposed lot sizes, while **Table 2** and **Figure 10** outline the proposed staging of the development. The subdivision layout is contained at the southern end of the recently rezoned Saltwater development site and will be constructed around the existing conservation zone and SEPP 14 – Coastal Wetlands area.

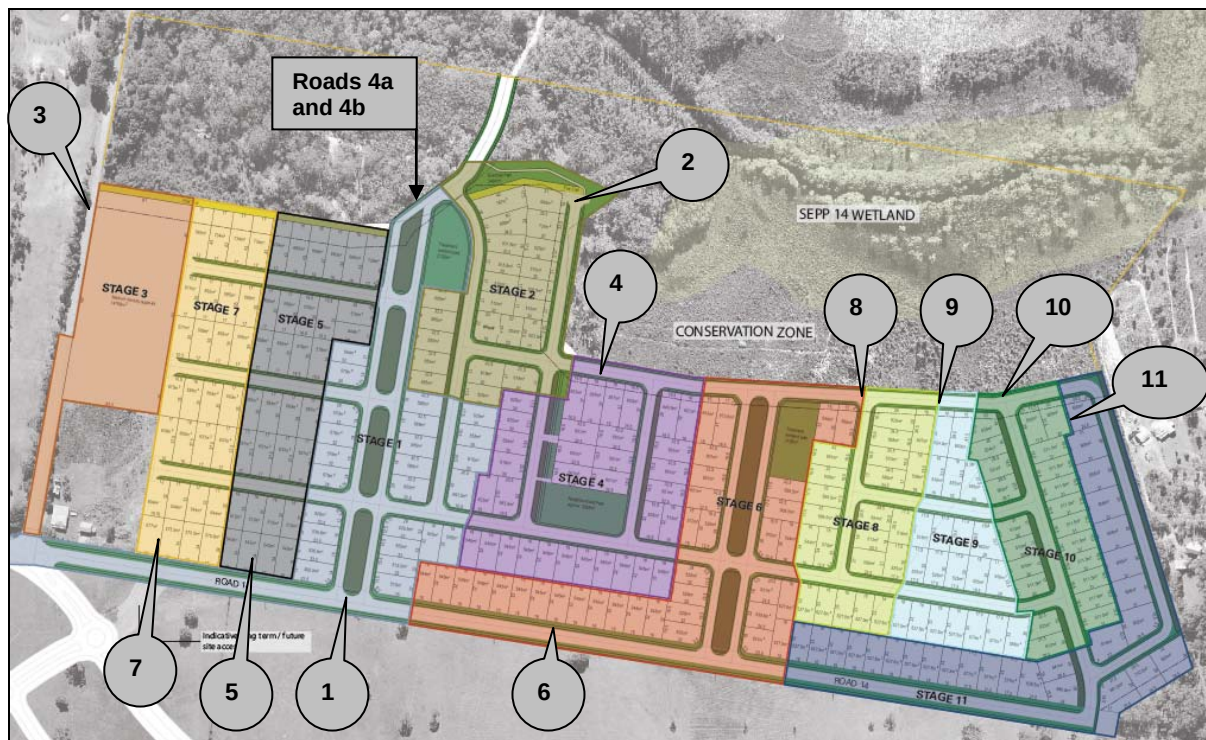
Table 1: Proposed Lot Sizes

Lot Size	Number of Lots
500m ² – 599m ²	199
600m ² – 699m ²	51
700m ² – 799m ²	9
800m ² – 900m ²	10
Medium Density Residue Lot (14, 798m ²)	1
Total	270

Table 2: Proposed Staging

Stage Number	Lot Numbers	Total Lots
1	101 - 125	25
2	201 - 223	23
3	-	1*
4	401 - 434	34
5	501 - 532	32
6	601 - 635	35
7	701 - 728	28
8	801 - 822	22
9	901 - 921	21
10	1001 - 1022	22
11	1101 - 1127	27

* Medium Density Residue Lot

**Figure 10: Proposed Staging (source: Preferred Project Report)**

2.1.2 Road Network Layout

Access to the site will be obtained via an extension to the existing Belle O'Conner Street road reserve, which is proposed to be extended approximately 1km eastwards along the southern site boundary. The internal road layout pattern provides inter-linking streets which follow a grid-like pattern and provides easy connectivity for vehicles, pedestrians and cyclists. A series of east-west and north-south roads provide access to all proposed lots throughout the subdivision. Proposed roads 4a and 4b will act as the main thoroughfare through the subdivision site, with a connection to the extended Belle O'Connor Street in the south and extending to the adjoining site to the north. Once the northern portion of the site is developed, it is anticipated that this road will connect through to Phillip Drive, which is located approximately 1km to the north. A series of grassed swales to be utilised as stormwater treatment areas have been located within the centre of proposed roads 4a and 4b; and 8a and 8b. The road network layout as proposed is shown in **Figure 9** above.

2.1.3 Open Space and Recreation Facilities

The proposal incorporates a total area of 5,506m² of public open space and recreation area, strategically located to be within at least 500m of all future dwellings. This public open space network includes a 3,025m² neighbourhood park; and a 2,481m² bushland exercise park. The neighbourhood park is centrally located within the subdivision design and will be fully landscaped with playground equipment provided. The bushland exercise park is situated towards the northern portion of the site and adjoins the 7(b) Environmental Protection (Habitat) Zone. Picnic tables and exercise facilities are to be provided at this location. Two wetland/stormwater treatment areas of 2,100m² and 2,128m² in size are located within the subdivision design and will also act as passive open space areas when stormwater treatment is not required. The public open space and wetland/stormwater treatment areas are shown on **Figure 9** above. An extensive cycleway network consisting of 2m wide pedestrian/cyclists paths are proposed throughout the subdivision. The cycleway network will provide cyclists and pedestrians with linkages to both the neighbourhood park and the bushland exercise park.

2.1.4 Conservation Zone

A 14.9ha area of 7(b) Environmental Protection (Habitat) Zone will be maintained throughout the northern portion of the site as a conservation area. No development works are proposed within this zone. All existing trees and vegetation within the conservation area are to be retained as part of the proposal. The conservation zone will also act as a buffer to the SEPP 14 – Coastal Wetlands which extend within the north-eastern portion of the site. There will be a minimum buffer distance of 50m between any physical development within the site and the SEPP 14 – Coastal Wetlands. The Proponent has advised that a Voluntary Planning Agreement will be entered into with Council regarding the management and dedication of the 7(a) and 7(b) zoned land.

2.2 PROJECT NEED AND JUSTIFICATION

The proposal is justified as it contributes towards both the current demand for residential housing supply; and the projected demand for housing anticipated as a result of increased population growth within South West Rocks, the Kempsey LGA, and the Mid North Coast region as a whole. The subject site had been identified as an appropriate location for future low density residential housing and was subsequently rezoned to allow for such development. The proposal will also positively contribute to the State's economy through the provision of employment opportunities during construction of the development.

2.2.1 PROJECT AMENDMENTS

The Proponent submitted a Preferred Project Report (PPR) in response to the issues raised in the submissions. The PPR outlined a number of amendments made to the project application originally submitted to the Department. The amendments were made in response to issues raised in submissions by the Department, government agencies, and the public. Amendments to the project include:

- a 49 lot reduction in the total number of low density residential lots (from 318 to 269 in total);
- inclusion of a medium density 'residue lot' which will be subject to future development approval;
- revisions to the proposed staging of the development;
- an increase in the size of those lots adjoining the eastern site boundary;
- exclusion of a proposed artificial wetland within the 7(b)(Environmental Protection (Habitat) Zone);
- exclusion of asset protection zones from within the 7(b)(Environmental Protection (Habitat) Zone);
- exclusion of public open space areas and a playground within the 7(b)(Environmental Protection (Habitat) Zone);
- exclusion of any pedestrian/cycleway network within the SEPP 14 – Coastal Wetlands and the 7(b)(Environmental Protection (Habitat) Zone);
- removal of all stormwater swales adjoining residential lots, and incorporating them within the centre of roads;
- incorporation of two wetlands/stormwater treatment areas of 2,100m² and 2,120m² in size within the subdivision design;
- removal of two pocket parks; and,
- the creation of a 3,025m² open space area with playground and public facilities within the centre of the subdivision design.

Refer **Figures 12 and 13** under **Section 5.0** which provide an illustration of the amendments made to the site layout.

3. STATUTORY CONTEXT

3.1 MAJOR PROJECT

The proposal is identified as a project to which Part 3A of the EP&A Act applies as it meets the criteria of *State Environmental Planning Policy (Major Projects) 2005* (Major Projects SEPP) (as in force at the time) being for the subdivision of land for residential purposes into more than 25 lots within the coastal zone (Schedule 2, clause 1(1)(j)(i) of the MP SEPP). The opinion was formed by the Director-General on 23 September 2008.

3.2 STATEMENT OF COMPLIANCE

In accordance with Section 75I of the EP&A Act, the Department is satisfied that the Director-General's Environmental Assessment Requirements have been complied with.

3.3 ZONING AND PERMISSIBILITY

The subject site was rezoned in August 2009 following adoption of amendment no. 55 to the Kempsey LEP. The land was rezoned from 1(c) Rural Small Holdings and 1(d) Rural Investigation; to 2(a) (Residential "A" Zone) and part 7(b) Environmental Protection (Habitat). The 7(a) Wetlands Protection Zone was retained. The site rezoning is covered in further detail within **Section 5.1.1**.

All proposed lots are to be contained wholly within the 2(a)(Residential "A" Zone). The objective of the zone is to provide for areas of low density residential development. The project involves the subdivision of land for 269 low density residential lots, and is permissible with consent in the 2(a) Zone.

The 14.9ha conservation zone is contained within the 7(b)(Environmental Protection (Habitat) Zone). The objectives of the 7(b) Zone are to protect the environmental qualities and values of natural habitats; and to permit roads and services to cross habitat areas in a manner that has minimal adverse impacts on habitat values. A road connecting Belle O'Connor Street in the south to future development in the north is proposed. Roads are permissible uses in the zone with development consent. There will be no subdivision of land within the 7(b) Zone.

The 7(a)(Wetlands Protection Zone) encompasses an area of SEPP 14 – Coastal Wetlands within the north-eastern portion of the site. The objective of the zone is to protect water quality and supply so that the continuing operation of wetland ecosystems is not jeopardised. No development is proposed within this zone, and it is to be conserved in its current state.

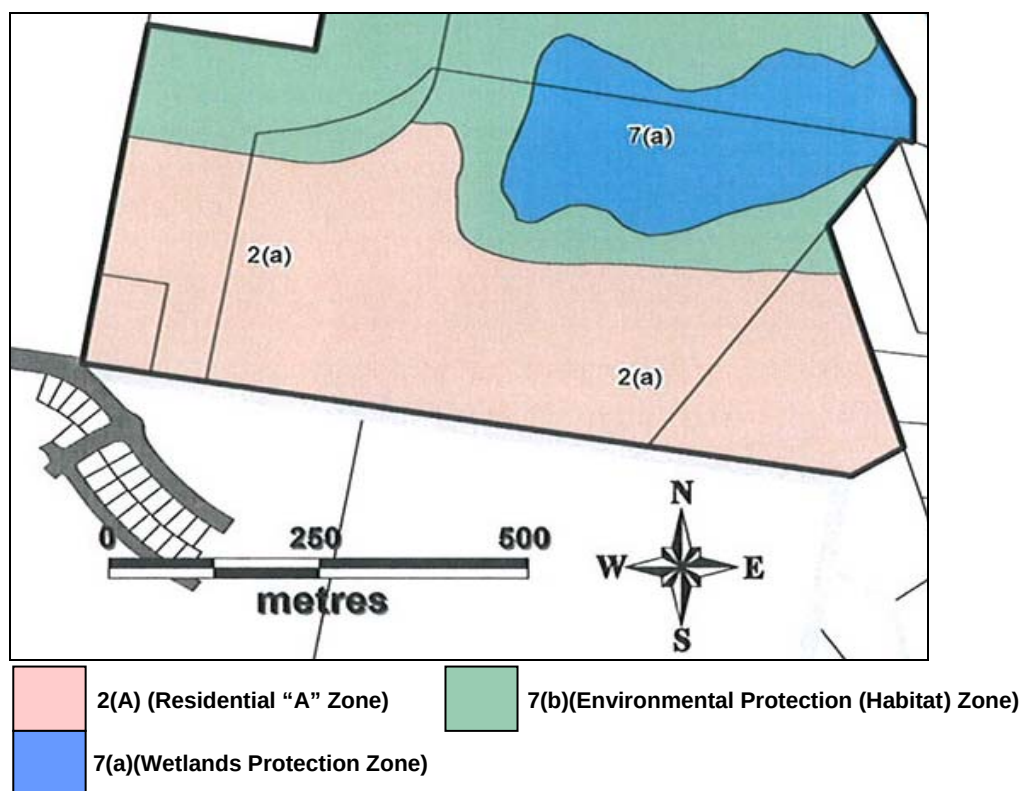


Figure 11: Site Zoning (source: Environmental Assessment)

3.4 ENVIRONMENTAL PLANNING INSTRUMENTS

Under Sections 75I(2)(d) and 75I(2)(e) of the EP&A Act, the Director-General's report for a project is required to include a copy of, or reference to, the provisions of any State Environmental Planning Policy (SEPP) that substantially governs the carrying out of the project, and the provisions of any environmental planning instruments (EPI) that would (except for the application of Part 3A) substantially govern the carrying out of the project and that have been taken into consideration in the assessment of the project.

The Department's consideration of the relevant SEPPs and EPIs is provided at **Appendix C**.

3.5 OBJECTS OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Decisions made under the EP&A Act must have regard to the objects of the Act, as set out in Section 5 of the Act. The relevant objects of the EP&A Act in context to this application are:

- (a) *to encourage:*
 - (i) *the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
 - (ii) *the promotion and co-ordination of the orderly and economic use and development of land,*
 - (vi) *the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
 - (vii) *ecologically sustainable development.*

The proposal is considered to be consistent with the objects of the EP&A Act as listed above. The Proponent is committed to conserving the natural environment both within and surrounding the site through the protection of SEPP 14 – Coastal Wetlands and the EEC which are present on the site. The conservation zone will provide a minimum buffer of 50m between any physical development on the site and these sensitive environmental areas. The provision of public open space areas within the subdivision design will also ensure that a human presence is not encouraged within the conservation zone. The proposal is expected to provide a positive impact to the economic welfare of the South West Rocks township and the Kempsey LGA by means of providing opportunities for employment during construction. The development as proposed is considered to be both economically and ecologically sustainable, and is in accordance with the relevant objects set out in Section 5 of the EP&A Act.

3.6 ECOLOGICALLY SUSTAINABLE DEVELOPMENT PRINCIPLES

With respect to ecologically sustainable development (ESD) principles, the EP&A Act adopts the definition in Section 6(2) of the *Protection of the Environment Administration Act 1991*. The five accepted principles for ESD are the:

- a) Integration Principle
- b) Precautionary Principle
- c) Inter-generational Principle
- d) Biodiversity Principle
- e) Valuation Principle.

Of particular relevance to this environmental assessment, the precautionary principle has been applied in the decision making process via a thorough and rigorous assessment of the environmental impacts of the project. The evaluation of environmental impacts is confirmed by studies, surveys and reports undertaken and prepared by qualified professionals. These reports have in turn been distributed to relevant agencies and other persons qualified to assess and comment on the adequacy of the conclusions and recommendations contained within. One example in taking a precautionary principle approach to development is in relation to potential flood hazard at the site. A minimum floor level of 0.5m above the envisaged 1 in 100 year flood event for the year 2100, with consideration of climate change impacts, has been recommended. It is considered this precautionary approach will appropriately mitigate against the potential flood hazard at the site.

The Department has considered the principles of ESD and considers that the project is consistent with these principles. Further assessment of the consistency of the project with the principles of ESD is contained within **Section 5.0** of the report.

3.7 MID NORTH COAST REGIONAL STRATEGY 2006

The Mid North Coast Regional Strategy (the Strategy) provides the framework in order to balance competing considerations of the region in a sustainable manner over a 25 year timeframe between 2006 and 2031. Throughout this timeframe, a potential population increase of 94,000 people is envisaged for the mid north coast region, requiring an additional 59,600 new homes. The Strategy outlines a planned approach to appropriately deliver land for future residential housing and jobs growth; while at the same time protecting areas of high environmental and conservation value. The proposed subdivision development will contribute towards providing additional dwellings which will be required as a result of population growth and a changing age structure within the Kempsey LGA; whilst also conserving areas of environmental significance. The proposal is therefore considered to be consistent with the objectives of the Strategy as it provides for an ecologically sustainable development within one of the mid north coast's identified growth areas.

4. CONSULTATION AND SUBMISSIONS

4.1 EXHIBITION

The Environmental Assessment (EA) for the project was publicly exhibited in accordance with section 75(H) of the EP&A Act for a period of 33 days from 30 September 2009 until 2 November 2009. The EA was made available for the public at five exhibition locations and on the Department's website. Notification of the exhibition, including instructions on how to make a submission was circulated in the Public Notices section of local publications the Kempsey Macleay Argus and the Kempsey Mid Coast Observer. The exhibition locations were:

- The Department of Planning and Infrastructure – Information Centre, 23-33 Bridge Street, Sydney;
- The Department of Planning and Infrastructure – Grafton Regional Office, 76 Victoria Street, Grafton;
- The Nature Conservation Council of NSW – Level 2, 301 Kent Street, Sydney;
- Kempsey Shire Council – Council Chambers, 22 Tozer Street, West Kempsey; and,
- Kempsey Library – South West Rocks Branch, 22 Landsborough Street, South West Rocks;

Letters were sent to all adjoining and nearby landowners notifying of the exhibition and inviting a submission.

A Preferred Project Report (PPR) was lodged on 11 August 2010. The PPR was accepted as adequate on 13 October 2010. As the changes to the nature of the project were not considered to be significant, the proposal was not re-exhibited. It was however made available to the public on the Department's website.

4.2 PUBLIC SUBMISSIONS

The Department received a total of 60 submissions from the public. All public submissions objected to the proposal. Of the 60 submissions received, 39 were form letters. The main issues raised by the public included:

- A Development Control Plan has not yet been prepared for the site - this should be prepared in order to deal with issues such as flooding and stormwater management, bushfire hazard, traffic and access issues, etc;
- The site is currently subject to flooding, and the flooding assessment has underestimated the potential maximum flood height;
- Groundwater assessment was undertaken during the driest months of the year;
- Detrimental effects on the site ecology, including impacts on threatened species, koala habitat, SEPP 14 – Coastal Wetlands, Saltwater Lagoon, and the adjoining Hat Head National Park; and,
- Recreational facilities including barbeques, picnic tables, playgrounds, cycleways etc. are proposed in the 7(b) conservation zone.

As required by clause 8B of the *Environmental Planning and Assessment Regulation 2000*, a summary of all public submissions received can be found at **Appendix E**. An assessment of the key issues raised by the public during exhibition is contained within **Section 5.0** of this report.

4.3 PUBLIC AUTHORITY SUBMISSIONS

The Department received eight submissions from public authorities. Submissions were received from:

- Kempsey Shire Council;
- NSW Office of Environment and Heritage;
- NSW Office of Water;
- Department of Primary Industries;
- Department of Trade and Investment, Regional Infrastructure and Services;
- NSW Roads and Traffic Authority;
- NSW Rural Fire Service; and,
- Northern Rivers Catchment Management Authority.

The details of issues raised by public authorities have been summarised below.

4.3.1 Kempsey Shire Council

Kempsey Shire Council made a detailed submission in relation to the proposal. The key issues included:

- The need for a Development Control Plan (DCP) to be prepared for the Saltwater site prior to the application being determined.
- An incomplete traffic impact study. The EA fails to provide an assessment of the proposed road hierarchy with consideration to adjoining existing and proposed developments.
- The Integrated Water Cycle Management Report does not address the impacts of stormwater management on existing or future development outside of the site boundary.
- Recreation facilities and constructed wetlands are not recommended within areas designated as environmental protection zones.
- Soils at the site are characterised as being poorly drained, high runoff, with acid sulfate potential and a shallow water table.
- No infrastructure servicing strategy has been provided with the EA to ensure all services are available to the development site.
- The Proponent should consult Council's *South West Rocks Open Space Strategy*.
- Impacts associated with mosquitoes and mosquito breeding habitat.

4.3.2 NSW Office of Environment and Heritage

Key issues raised by the NSW Office of Environment and Heritage (OEH) (formally the Department of Environment, Climate Change and Water) include:

- Community consultation processes with local Aboriginal community groups is considered incomplete.
- Inadequate information is provided in regards to flora and fauna. In particular, flora surveying methods are inconsistent with OEH guidelines; and, for a number of fauna groups, inadequate surveying methods have been used.
- The precautionary principle is recommended in regards to climate change mitigation for potential impacts of sea level rise, intense storm events and flooding.
- Odour and noise impacts given the site's close proximity to the South West Rocks Sewage Treatment Plant.
- Potential impacts of stormwater runoff and increases nutrient load within the Saltwater Lagoon.
- Potential impacts on groundwater contamination given the shallowness of the water table.
- Potential impacts of increased risk of fire; pests/weed intrusion; and, illegal activities such as trail biking and rubbish dumping within the nearby Hat Head National Park.

4.3.3 NSW Office of Water

Key issues raised by the NSW Office of Water include:

- It should be determined whether construction of the artificial wetland is likely to intercept the watertable, and if so, NSW Office of Water licensing officers should be consulted. The artificial wetland must also be constructed above the watertable and lined with impermeable material.
- Concerns that groundwater will be contaminated should acid sulfate soils be disturbed during construction of the development. Further testing is recommended in the high risk areas if disturbances are likely to occur.
- All works within riparian areas are to be undertaken with minimal disturbance, erosion and sediment control measures, adequate drainage, maintenance of hydrological flow regimes and appropriate revegetation and rehabilitation of all disturbed areas.
- Appropriate buffers between urban development and riparian areas should be provided.
- Development should be consistent with the Estuary Management Plan and Study developed for Saltwater Creek and Lagoon.

4.3.4 Department of Primary Industries

The Department of Primary Industries (formally the Land and Property Management Authority) requires the Crown road to the south of the site required for access to part of the development (being Belle O'Connor Street) to be transferred to Council prior to commencement of works.

4.3.5 Department of Trade & Investment, Regional Infrastructure & Services

The Department of Trade and Investment, Regional Infrastructure and Services (formally NSW Industry and Investment) were generally satisfied with the EA and the proposed mitigation strategies. It was recommended that a detailed monitoring and adaptation plan be developed with respect to stormwater management during both construction and occupation of the development.

4.3.6 NSW Roads and Traffic Authority

The NSW Roads and Traffic Authority advised that there were no objections to the proposed development provided the road network connection to Phillip Drive is designed and constructed as proposed in the EA.

4.3.7 NSW Rural Fire Service

The NSW Rural Fire Service raised no objections with the proposal, however did provide advice to ensure the development incorporates appropriate bushfire protection measures in accordance with *Planning for Bush Fire Protection 2006*. This includes compliance in regards to asset protection zones, water and utilities, access, fire trails and landscaping.

4.3.8 Northern Rivers Catchment Management Authority

The Northern Rivers Catchment Management Authority recommended that the development comply with the document *Living and Working in Rural Areas – a handbook for managing land use conflict issues on the NSW North Coast* in order to ensure protection of the existing SEPP 14 – Coastal Wetlands.

5. ASSESSMENT

Key issues considered in the Department's assessment of the Environmental Assessment (EA) and the Preferred Project Report (PPR) and consideration of the Proponent's Statement of Commitments include the following:

- Strategic Context
 - Subdivision Design and Layout
 - Need for a Development Control Plan
- Water Cycle Management
 - Flooding Assessment
 - Stormwater Quality Assessment
 - Groundwater Quality Assessment
- Impacts on Biodiversity
 - Consideration of Threatened Fauna Species
 - Consideration of Endangered Ecological Communities
 - Consideration of SEPP – 14 Coastal Wetlands and the Saltwater Lagoon
- Traffic and Access
- Aboriginal Cultural Heritage
 - Aboriginal Community Consultation

5.1 STRATEGIC CONTEXT

5.1.1 Subdivision Design and Layout

The proposed subdivision site is located in close proximity to a number of sensitive environmental areas including the Saltwater Lagoon approximately 500m to the east-northeast; an area of *State Environmental Planning Policy No. 14 – Coastal Wetlands* (SEPP 14 – Coastal Wetlands) within the north eastern portion of the site; and, a 7(b) conservation zone extending throughout the northern half of the site. The potential impact of urban development on these sensitive environmental locations was a concern raised by both the public and government agencies.

At the time of public exhibition, the proposal involved the subdivision of land into 318 residential lots; a limited amount of public open space; and, the provision of community infrastructure within the 7(b) conservation zone and SEPP 14 – Coastal Wetlands.

Following public exhibition of the proposal, the Department raised a number of issues with the Proponent in regards to the subdivision design and layout as proposed in the Environmental Assessment (EA). The issues raised by the Department included:

- The excessive number of lots proposed on an environmentally sensitive site, subsequently creating a dense residential population in an otherwise rural residential setting;
- The size of lots adjoining the eastern site boundary fails to provide an appropriate aesthetic transition to the rural residential area directly adjacent to the east;
- Public open space areas and community facilities including pedestrian and cyclists pathways are inappropriately located within the 7(b) conservation zone and within the SEPP 14 – Coastal Wetland area;
- The artificial wetland and asset protection zones (APZs) are inappropriately located within the 7(b) conservation zone; and,
- Stormwater treatment swales adjoining residential lots may attract people to use areas designated for stormwater detention and treatment as recreational space.

Figure 12 below illustrates the original subdivision design and layout as proposed at the time of public exhibition.

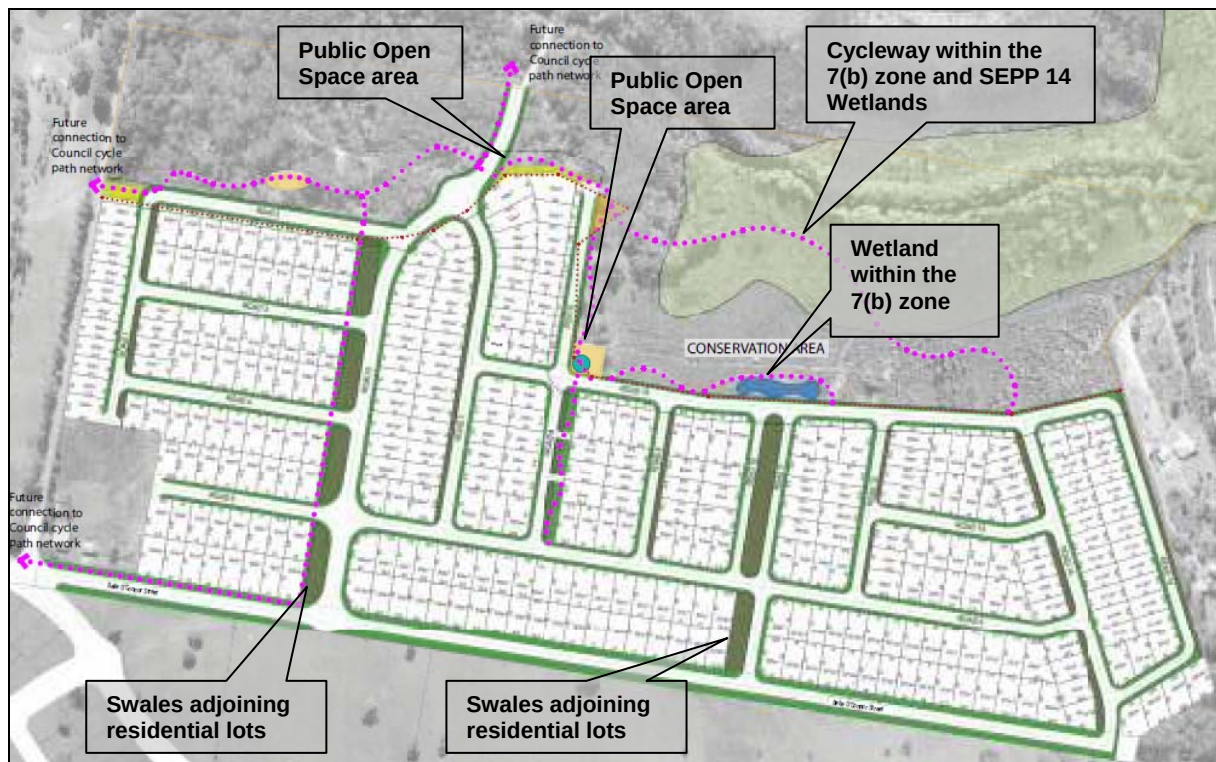


Figure 12: Subdivision Layout as Originally Proposed (source: Environmental Assessment)

In response to the Department's concerns, the Proponent subsequently redesigned certain aspects of the proposal, and provided a revised subdivision layout as part of the Preferred Project Report (PPR). The revised layout has been designed to ensure potential impacts and physical intrusion into nearby sensitive environments are minimised; and incorporates enhanced urban design principles.

Amendments made to the original proposal include:

- A reduction of 49 residential lots from 318 to 269 in total;
- The creation of a medium density 'residue lot' which will be subject to future development approval;
- Lots adjoining the eastern boundary of the site have been increased in size from 511m² to 806m² each, providing a greater aesthetic transition to the adjoining rural residential area;
- A 3,025m² public open space area has been incorporated within the centre of the proposed subdivision;
- The proposed wetland within the 7(b) conservation zone has been removed, and replaced with two wetland/stormwater treatment areas of 2,100m² and 2,128m² in size within the subdivision design. These areas will also be utilised as passive open space areas when not required for stormwater detention and treatment;
- Exclusion of all APZs from the 7(b) conservation zone;
- Removal of all proposed cycleways through the SEPP 14 – Coastal Wetland area and the 7(b) conservation zone and located alongside internal roads; and,
- Stormwater treatment swales are now provided within the centre of proposed roads, no longer adjoining residential lots.

Figure 13 below illustrates the revised subdivision layout as proposed in the PPR.

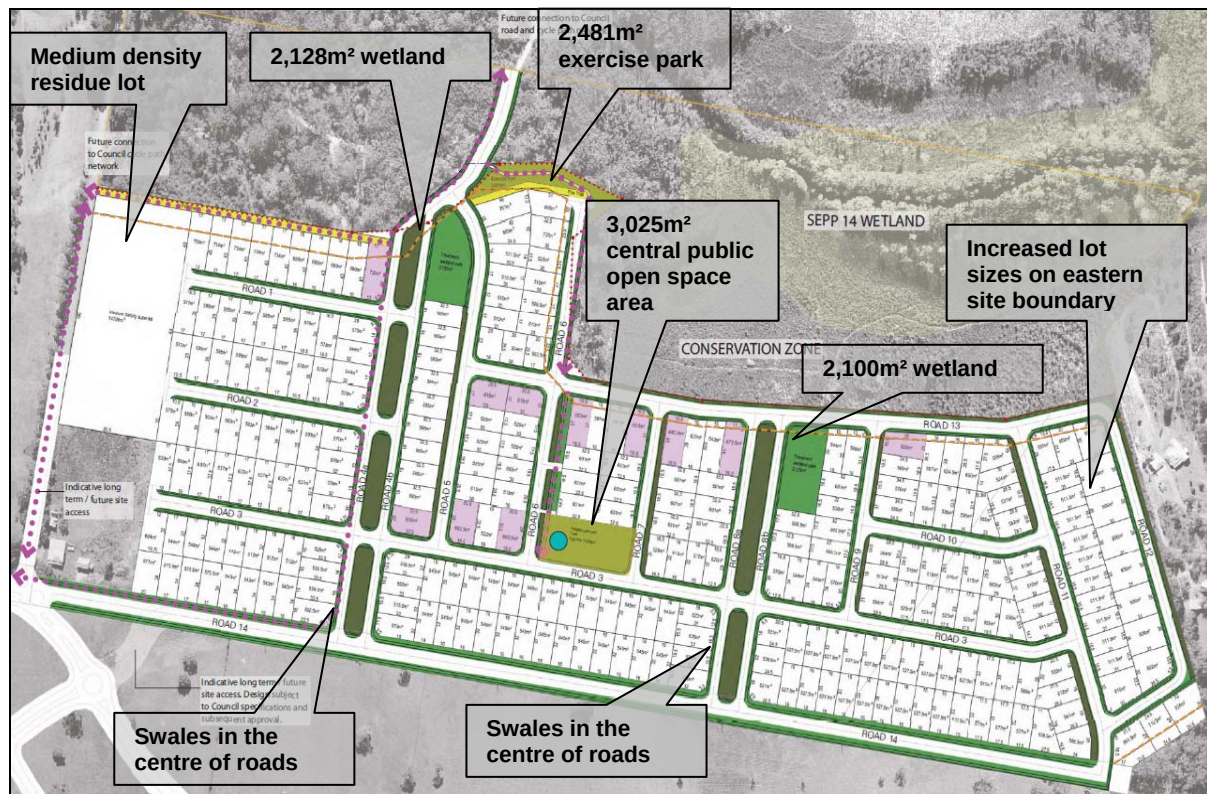


Figure 13: Proposed Subdivision Layout (source: Preferred Project Report)

The Department considers the amendments made to the subdivision layout provides for a more sustainable approach to urban development and provides a greater level of protection to adjoining environments. In relation to site density, the reduced number of residential lots will decrease the overall density of the site and lessen the impacts of urban development on adjoining areas of conservation value and SEPP 14 – Coastal Wetlands. The medium density residue lot will require future development approval and will be subject to the provisions of the Saltwater DCP (currently in draft format), including any requirements in regards to site density.

The removal of public infrastructure, public open space areas, and APZs from the 7(b) zone will ensure this area is maintained in its current form by not attracting a human presence within the conservation zone. The Proponent has also ensured that any future residents of the site will be within at least 500m of a public open space area. The Department considers the proposed amendments satisfactorily addresses the issues raised and that the potential impacts on adjoining sensitive environmental areas have been minimised as a result of the redesigned subdivision layout.

5.1.2 Need for a Development Control Plan

The subject site is located within an area subject to a recent rezoning decision which was gazetted in August 2009. The rezoning allows for residential development to occur on the site – the zoning and permissibility requirements for the site have been discussed in greater detail within **Section 3.3**. The Saltwater site has been identified as an appropriate location to accommodate future residential development to meet the projected population growth and demand for residential housing land within the Kempsey LGA and specifically within the South West Rocks township. Significant areas for conservation and environmental protection have been provided as part of the rezoning. **Figure 14** below illustrates the zoning arrangement applicable to the subject land following adoption of amendment No. 55 to the Kempsey LEP.

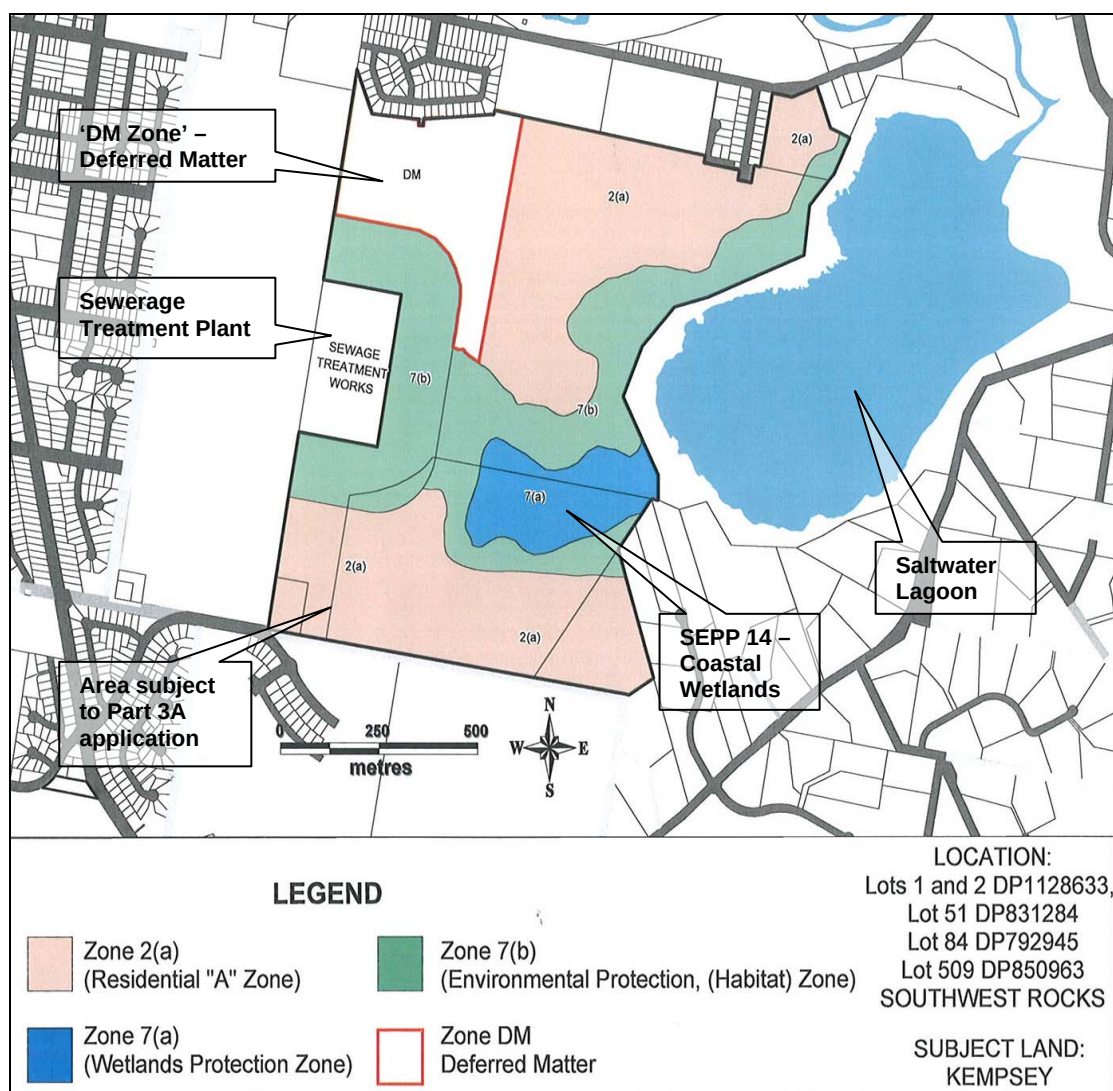


Figure 14: Rezoned Saltwater site as part of amendment No. 55 to the Kempsey LEP (source: Environmental Assessment)

An issue raised by both Council and members of the public was the need for a Development Control Plan (DCP) to be adopted for the entire area of land subject to amendment No. 55 of the Kempsey LEP (this includes the subject site and land immediately to the north, as shown on **Figure 13** above) prior to any approval for subdivision within the site. Council is in the final stages of adopting a DCP for the Saltwater site; having recently placed the draft *Saltwater Development Control Plan* (draft Saltwater DCP) on public exhibition. The DCP will set out the strategic requirements for future development of the site in relation to land use, site density, road network, traffic management, stormwater management, waste disposal, management of the 7(a) and 7(b) land, urban design, etc.

Council acknowledged in its submission on the EA that the Minister is not legally required to consider the provisions of a DCP in order to grant approval to a project under Part 3A of the EP&A Act. However, Council considered it a necessary requirement for the DCP to be prepared and gazetted prior to any determination being made. The draft Saltwater DCP was placed on public exhibition in September and October 2010, and at the time of writing and is being considered by Council for adoption. The Department has considered the provisions contained within the draft Saltwater DCP, specifically in regards to transport connectivity, flood planning levels (minimum floor levels), provision of open space areas, and subdivision infrastructure. It is considered that the key design requirements and development controls are adequately addressed, and that the proposed subdivision adequately meets the acceptable solutions as outlined in the draft Saltwater DCP.

5.2 WATER CYCLE MANAGEMENT

The subject site is situated within the Saltwater Creek catchment, which covers an area of 8.7km² and encompasses Saltwater Creek and Saltwater Lagoon. Saltwater Creek is approximately 6km long and drains the Saltwater Lagoon at Trial Bay (an intermittently open creek). The lagoon's wet surface area varies in size from between 0.25km² to 0.4km² depending on tidal and rainfall conditions. The Proponent engaged Martens Consulting Engineers (Martens) to assess the impacts of development on the site's flood regime; capacity to manage stormwater flows; and, potential impacts on the groundwater conditions. An *Engineering Services and Stormwater Management Report* (ESSM Report) prepared by Martens was provided with the EA. Given the known constraints to development in relation to flooding, stormwater run-off quality, and groundwater conditions; the Department engaged a specialist consultant from GHD Pty Ltd (GHD) to undertake a peer review of both the Proponent's ESSM Report and subsequent information provided with the PPR.

5.2.1 Flood Assessment

The site is situated in an area known to be subject to inundation during significant rainfall events. Martens recommended a flood planning level (FPL) for the site based on information contained within WBM Oceanics Pty Ltd (WBM) 2005 flood study of the Saltwater Creek and Saltwater Lagoon catchment area. The WBM flood study was commissioned by Council in response to proposed rezoning of low lying areas of land for residential purposes within the catchment. The study examined flood behaviour within the Saltwater Creek and Lagoon, taking into consideration a range of different rainfall and runoff conditions, as well as varied berm height conditions at the mouth of Saltwater Creek. It should be noted that flood behaviour at the site is determined by a combination of the Phillip Drive bridge and the level of the entrance sand berm. A series of design flood events considered varied Annual Exceedance Probability (AEP) events; as well as different berm height conditions (including 2m, 2.5m and 3m crest elevations). The study did not account for specific climate change scenarios (such as sea level rise or increased rainfall intensity).

The WBM 2005 study found that a 1% AEP flood (1 in 100 year event) for the site would reach 3.2m AHD based on a berm height of 2.5m. The ESSM Report submitted with the EA subsequently recommended a FPL of 3.7m AHD be developed for the site – this being based on WBM's maximum design flood level for the 1% AEP flood inundation (being 3.2m AHD), plus a 0.5m freeboard.

The Department engaged GHD to review the Proponent's flood assessment and proposed FPL for the site. Following GHD's review and the recommendations provided, the Department requested the Proponent provide further consideration of all implications of climate change on the hydrological regime at and adjacent to the site. This included;

- a sea level rise increase of 0.9m by the year 2100;
- increased storm surge levels during a 1% AEP flood event;
- an increase in rainfall intensity; and,
- an increase in berm height conditions.

In regards to the berm height conditions, it was noted that the berm height increase will be approximately in proportion to the increase in sea levels. WBM's 2006 *Saltwater Creek and Lagoon Estuary Management Study and Plan* states that a worst case sea level rise scenario (with no berm entrance management) will see a berm height of 3m AHD as being the most appropriate design conditions for planning purposes to the year 2100.

The Proponent subsequently submitted an *Amended Water Cycle Management Plan* (AWCM Plan) prepared by Martens Consulting; and an *Additional Flood Modelling Report* prepared by BMT WBM Pty Ltd (formally WBM) with the PPR. The additional flood modelling for the site was undertaken in March 2010. The modelling was based on the TUFLOW hydraulic-morphological model and was assessed with consideration of three scenarios and combinations, these being; an increase surface runoff from the developed site; a 30% increase in rainfall intensity; and, a 0.9m increase in sea level rise. **Table 3** below outlines six scenarios modelled by BMT WBM involving varied AEP events, rainfall intensities and berm height conditions, and the resultant predicted maximum flood levels.

Scenario	Rainfall Intensity	Ocean Boundary	Inclusion of additional runoff from development site	Berm Height (m AHD)	Predicted Maximum Flood Level (m AHD)
1	100 year ARI	Neap tide cycle (0.6m AHD)	Yes	2.0	3.2
2	100 year ARI	Neap tide cycle (0.6m AHD)	Yes	3.0	3.4
3	100 year ARI + 30%	Neap tide cycle (0.6m AHD)	Yes	2.0	3.4
4	100 year ARI + 30%	Neap tide cycle (0.6m AHD)	Yes	3.0	3.6
5	5 year ARI	100 year storm surge (2.6m AHD)	Yes	3.0	3.1
6	5 year ARI	100 year storm surge plus 0.9m (3.5m AHD)	Yes	3.0	3.2

Table 3: Flood Model Scenarios (Additional Flood Modelling for South West Rocks Development – BMT WBM Pty Ltd, March 2010)

Scenario 4 (with a 1% AEP event, 30% increase in rainfall intensity, and a 3m berm height) predicted the highest flood level within the subject site at 3.6m AHD. The Proponent's AWCM Plan submitted with the PPR continues to outline a FPL of 3.7m AHD as being an acceptable level for future residential development, based on the revised modelling results. The Proponent is of the view that a FPL of 3.7m AHD as initially proposed continues to provide an inundation buffer of 0.1m from the scenario 4 outcome of 3.6m AHD; and is therefore considered to be an acceptable FPL for future development at the site.

The NSW Government's *Coastal Planning Guideline: Adapting to Sea Level Rise* (August 2010) provides guidance on how climate change related impacts are to be considered in land use planning and development assessment. The policy states that the most conservative method in determining FPL's for areas at risk of coastal inundation is to consider the predicted 1% AEP for the year 2100, plus freeboard. The proposed FPL of 3.7m AHD provides only a 0.1m freeboard to the 1% AEP for the year 2100. Whilst it is acknowledged that a FPL of 3.7m AHD for the site is not in conflict with the policy; the Department takes preference to a more conservative approach to development in areas where a degree of uncertainty in regards to flood behaviour is present.

Figure 15 below is an illustrated method of determining a suitable FPL in accordance with the policy. The NSW Office of Environment and Heritage (OEH) made note in its submission on the PPR that the FPL is required to be 0.5m above BMT WBM's 1 in 100 year level of 3.6m AHD, equating to a FPL of 4.1m AHD. OEH recommended the Proponent revise the development design accordingly. It is also noted that the Proponent's FPL is not in accordance with Council's Draft Saltwater DCP which outlines a residential FPL of 3.6m AHD for land south of the Saltwater Lagoon and Creek, with an additional 0.5m freeboard providing a minimum floor level of 4.1m AHD to all future habitable structures.

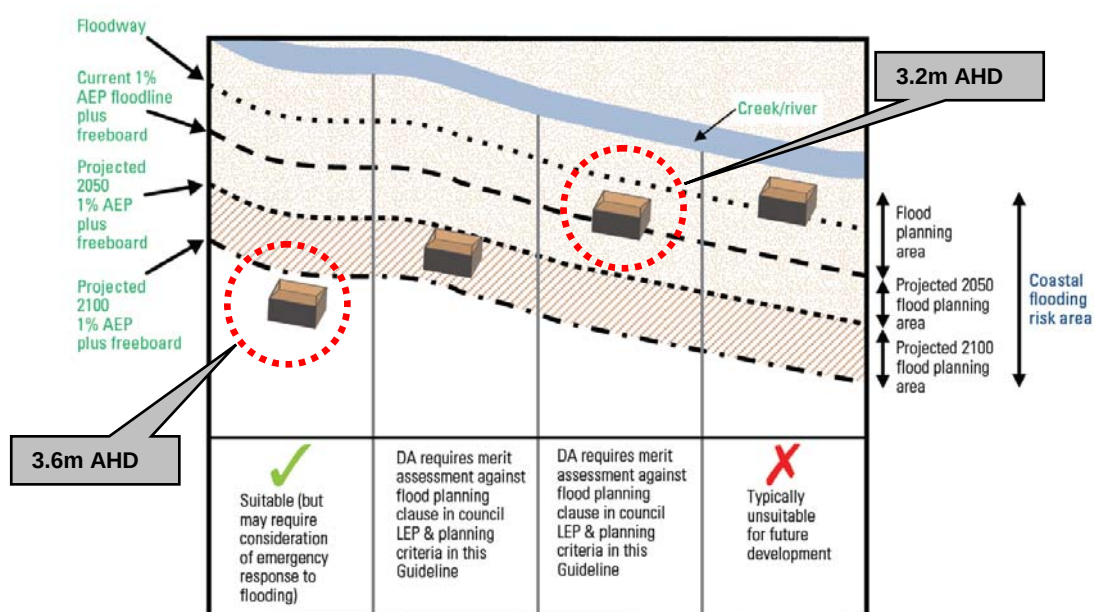


Figure 15: Extract from NSW Coastal Planning Guideline: Adapting to Sea Level Rise (August, 2010).

The Department requested GHD to review the Proponent's AWCM Plan and *Additional Flood Modelling Report* to determine whether the proposed FPL of 3.7m AHD was acceptable. GHD advised that BMT WBM's modelled scenario 4 considers two potential maximum climate change effects occurring concurrently with a rise in the berm height of 1m, and that this did not represent a likely result of future climate change impacts. This conclusion was made in response to a 2010 Queensland Government report titled *Increasing Queensland's resilience to inland flooding in a changing climate*, stating that rainfall intensities are unlikely to increase by as much as 30%, with current best estimates suggesting rainfall intensities will increase by only 5% per degree of global warming, and the best estimate of the increase in average temperature for the year 2100 is 4°C. GHD also considered Council's commitment to an interim berm opening policy at a berm height level lower than 3.0m. GHD therefore concluded that a FPL of 3.9m AHD is appropriate for the site.

The Department has considered the information provided in the Proponent's AWCM Plan and Additional Flood Modelling Report, as well as the review document prepared by GHD. It is the Department's view that a precautionary principle approach best be applied for this particular site given the low-lying nature of the land; uncertainty of flood behaviour in conjunction with Saltwater Creek and Saltwater Lagoon; and, the predicted impacts of increased sea level rise and rainfall intensity. Whilst GHD have recommended a FPL of 3.9m AHD as adequate in dealing with future flood risk at the site, the method in determining this level differs from the Department's policy (which considers a sea level rise of 0.91m and 30% increase in rainfall intensity by the year 2100); and is not in accordance with Council's Draft Saltwater DCP. A number of public submissions received during the exhibition period also made note of the fact that the site is in a flood prone area and requested that consideration of climate change be applied to any future flood mitigation measures.

The recommended conditions of approval therefore provide for a FPL for all future residential areas within the site to be set at 4.1m AHD. This includes the requirement of a 0.5m freeboard to achieve the required minimum floor level. It is considered that a FPL of 4.1m AHD will adequately protect future dwellings from inundation during significant flood events, and will assist in alleviating the potential implications of climate change. A FPL of 4.1m AHD will also ensure the proposal is in accordance with the NSW Government's coastal planning policy and Council's Draft DCP for the site.

5.2.2 Stormwater Quality Assessment

The subject site is located to the north of two upslope catchment areas which drain through the site from the south. The location of the two external catchments is shown on **Figure 16** below. As part of the Director-General's Environmental Assessment Requirements, the Proponent was required to demonstrate measures for Integrated Water Cycle Management for stormwater run-off based on Water Sensitive Urban Design (WSUD) principles in order to address the potential impacts of drainage from the site on the surrounding environment and existing water quality conditions within the catchment.

The proposed stormwater management system has been designed with regard to downstream Endangered Ecological Communities (EECs), riparian areas and the Saltwater Lagoon ecosystem. The Proponent's ESSM Report provided with the EA notes that the stormwater management system has been prepared in accordance with Council's DCP No. 36 – *Guidelines for Engineering and Subdivision*, and the Saltwater Creek Estuary Management Plan with the goal of ensuring post-development pollutant loads discharged from the site are equal to or better than pre-development flows.

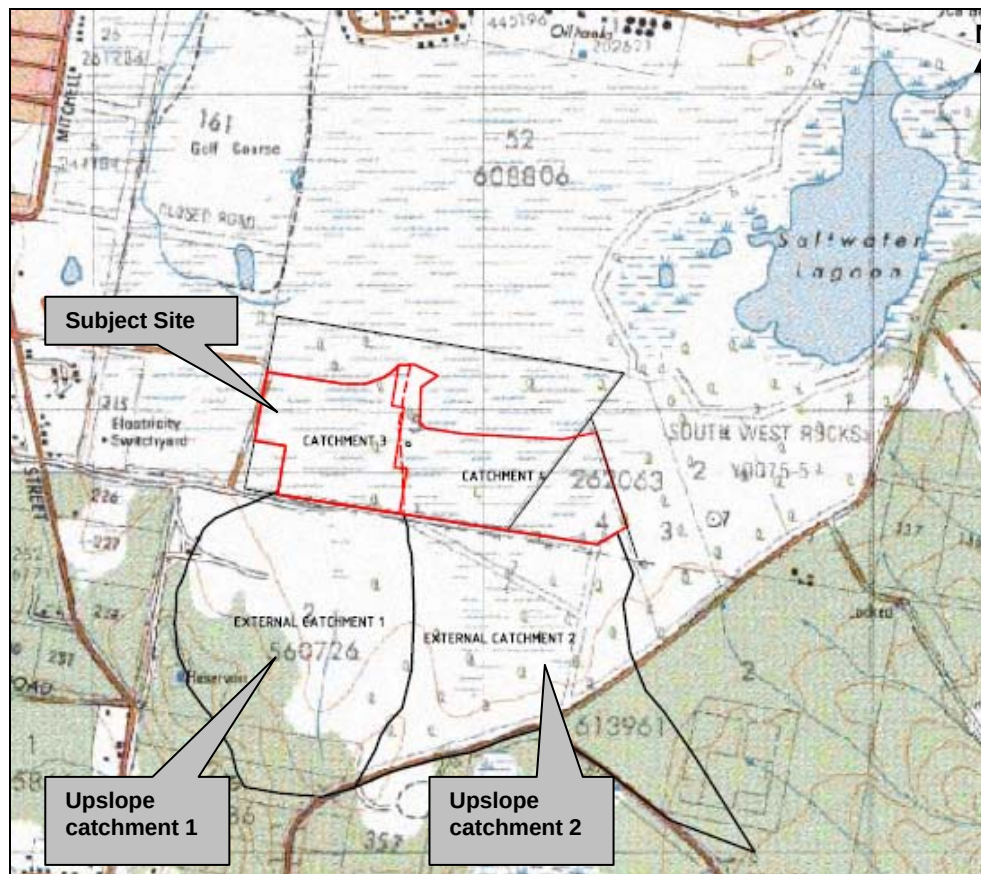


Figure 16: External Catchment Locations (source: Environmental Assessment)

The subject site drains to the adjacent vegetated lands to the north – including the Saltwater Creek, and ultimately the Saltwater Lagoon. The potential impacts of the site's hydrological regime on downstream environments have been considered in hydrological assessment and modelling undertaken by Martens. The Proponent's ESSM Report submitted with the EA notes that the proposed stormwater management measures for the site will ensure that post-development stormwater flows entering the Saltwater Creek and Lagoon are treated to a standard that is equal to or better than the existing water quality; and that the proposed development will have no impact on the current recreational use of the Saltwater creek and lagoon, or on downstream vegetation communities. Given the sensitive nature of the surrounding ecosystems, the Department requested GHD to undertake a peer review of the Proponent's stormwater management assessment provided in the ESSM Report.

GHD advised the Department that without a rigorous review of the MUSIC model in light of additional groundwater modelling, it is not possible to accurately state what impact the proposed development will have on downstream ecosystems. GHD therefore recommended the Proponent be required to produce a more robust drainage strategy incorporating a complete consideration of the existing groundwater conditions and the manner in which the conveyance devices fit within the road reserves. The Proponent subsequently undertook further groundwater modelling of the site to gain a clearer understanding of the site's subsurface conditions. The results of the sub-regional groundwater model were provided in the Proponent's AWC Plan, and have been discussed further in **Section 5.2.3** below.

The Proponent's AWC Plan provided with the PPR outlines a number of WSUD measures to ensure the proposed drainage design (stormwater treatment train) for the site achieves an acceptable post-development outcome. The stormwater treatment train includes:

- A network of roadside drainage swales designed to convey site run-off to two main drainage swales traversing the site. The grassed swales are designed to divert upslope catchment drainage to downstream receiving waters whilst providing treatment prior to discharge, including the removal of suspended solids and nutrients and capturing of pollutants;
- Outlet structures are proposed to control and disperse flows and prevent the erosion of flow paths downslope of the site. Such structures may include energy dissipaters and channel reinforcement, and shall be designed to ensure that sensitive receiving environments are not adversely impacted during a significant storm/rainfall event; and,

- Two stormwater quality treatment wetlands to treat flows from the two main grassed drainage swales. The wetlands cover an area of 2,100m² and 2,128m², and are proposed to be constructed as part of Stages 1 and 6 respectively. The proposed wetlands will act primarily as water quality treatment structures (the location of these wetlands is shown on **Figure 13** above).

Martens utilised a number of models and software packages to assess the stormwater treatment and management system to confirm the relevant water quality criteria is achieved. The models used included:

- DRAINS – to analyse site hydrology, design of road swales, and to determine the likely impacts on the performance of swales for design storm events;
- MUSIC – to evaluate post-development pollutant loads from the site. In particular, the model was used to assess the hydrological impacts on downstream wetlands and vegetation areas to the north of the site. The model was run for existing conditions and developed conditions to determine preliminary requirements for water quality treatment structures; and,
- RAFTS – to determine peak flow rates from catchments upslope of the site for both existing climatic conditions and climate change conditions.

The Department again requested GHD to review the information provided in the Proponent's AWC Plan, including the proposed stormwater treatment train and the models used to assess stormwater treatment and management (including the model set up and parameters contained within them). GHD undertook its own modelling and collaborated with Martens to ensure consistency between the models was achieved. Following advice from GHD, the Department has recommended a condition that ensures stormwater can be treated to an acceptable level prior to discharge from the site. In particular, the Proponent is to provide grassed treatment swales at a rate of 125 linear metres of swale per hectare of developed land. The swales are to have a minimum width of 2.5m and designed so that no less than 95% of the total developed site drains through them. In addition, the recommended conditions of approval also require the Proponent to provide a minimum area of 3,400m² of onsite wetlands to provide treatment of stormwater flows derived from the two main drainage swales. The Department considers the recommended conditions in relation to stormwater detention and treatment will ensure that any post-development pollutant loads (including Total Suspended Solids, Total Nitrogen and Total Phosphorus) entering downslope ecosystems will not exceed pre-development loads. The final design plans of the stormwater drainage systems within the site are to be prepared by a qualified practicing Civil Engineer, in accordance with the requirements of Council, and shall be approved by the Certifying Authority prior to issue of a Construction Certificate.

5.2.3 Groundwater Quality Assessment

The Proponent also engaged Martens to consider potential impacts of development on groundwater conditions. Hydrological analysis of the site indicates that a shallow and variable groundwater table is present and is a constraint that will need to be appropriately managed to avoid degradation of road pavements and poor drainage. Martens outlined a number of mitigation measures to deal with the shallow groundwater conditions, including:

- Construction of sub-soil drainage for road pavements to be placed as low in the profile as possible to maximise the moisture stability of sub-grade and pavements;
- Construction of road drainage swales to form a series of artificial drains across the site which will act to limit the rise of groundwater tables on the site; and,
- Building foundation zones will be drained with sub-soil drainage systems to maximise soil moisture stability.

The treatment measures outlined by the Proponent were derived from the recommendations provided in the *Report on Hydrogeological Assessment: Proposed Residential Subdivision off Phillip Drive, South West Rocks*, prepared by Douglas Partners in October 2007. As part of the Department's engagement of GHD, a review of the Proponent's ESSM Report regarding groundwater management was undertaken. GHD advised that prior to undertaking the mitigation measures listed above, a clearer understanding of the site's subsurface conditions is required to ensure that the appropriate treatment measure is implemented at the appropriate location.

The Proponent subsequently developed a Sub-regional Groundwater Model and presented the results as an appendix to the AWC Plan provided with the PPR. The Department again referred this information for GHD to review. GHD considered the groundwater model presented in the Proponent's AWC Plan to be generally sound, although uncertainties remain with groundwater predictions. As a result, GHD recommended some level of sensitivity analysis be undertaken. GHD also advised that despite the predicted changes in groundwater levels to be relatively small, the anticipated impacts of these changes on groundwater dependant ecosystems is unclear. It is therefore recommended that an ongoing

groundwater and vegetation monitoring program be developed, as well as a response plan should actual groundwater level changes exceed predicted changes. The Department is satisfied that the results obtained from the Proponents additional groundwater modelling indicates that an appropriate outcome for the site can be achieved subject to the recommended conditions.

The Department has subsequently considered the advice from GHD and included a recommended condition of approval that requires the Proponent to prepare a Groundwater Monitoring and Contingency Program in consultation with the NSW Office of Water to assess the impacts of the project on existing groundwater conditions. In addition, the recommended conditions of approval also require the two wetland areas proposed for the site are to be lined with an impermeable material such as ELCOseal geosynthetic clay liner or an appropriate HPDE liner in order to prevent stormwater flows from intercepting with groundwater. The Department considers these measures will ensure groundwater conditions at the site are appropriately monitored and managed.

5.3 IMPACTS ON BIODIVERSITY

The subject site and surrounding areas are considered to have significant biodiversity values given the close proximity of Saltwater Lagoon and SEPP 14 – Coastal Wetlands, as well as the presence of known threatened flora and fauna species. Submissions were received from both the public and government agencies concerning potential impacts of urban development on the ecological values within and surrounding the site. The Proponent engaged Environmental Insights to prepare an ecological study to outline the potential impacts of the proposal on existing and adjoining environments and ecosystems. The Proponent also engaged Cumberland Ecology to undertake a fauna investigation of the site, with particular emphasis on the recording of threatened species listed under the NSW *Threatened Species Conservation Act 1995* (TSC Act). These reports collectively identify a number of threatened flora and fauna species known to occur within the site. The impacts on threatened species, EEC's, and on surrounding areas of ecological significance are discussed in Sections **5.3.1 – 5.3.3** below.

5.3.1 Consideration of Threatened Fauna Species

Cumberland Ecology undertook fauna surveying of the site using a range of different surveying methods including mammal trapping, diurnal bird surveying, bat surveying, spotlight surveys and nocturnal call playbacks. A total of ten threatened fauna species listed as 'Vulnerable' under Schedule 2 of the TSC Act were recorded during the surveying efforts. The threatened species identified at the site included:

- Wallum Froglet (*Crinia tunnula*)
- Squirrel Glider (*Petaurus norfolcensis*)
- Glossy Black Cockatoo (*Calyptorhynchus lathami*)
- Yellow-bellied Sheath-tail Bat (*Saccolaimus flaviventris*)
- Eastern Free-tail Bat (*Mormopterus norfolkensis*)
- Hoary Wattled Bat (*Chalinolobus nigrogriseus*)
- Little Bent-wing Bat (*Miniopterus australis*)
- Greater Broad-nosed Bat (*Scoteanax rueppellii*)
- Eastern Cave Bat (*Vespadelus troughtoni*)
- Grey-headed Flying Fox (*Pteropus poliocephalus*)

Figure 17 below shows the location of threatened fauna species located within and adjoining the subject site as a result of surveying work undertaken by Cumberland Ecology in November and December 2007. As indicated in **Figure 17**, the majority of threatened species identified on the site were recorded within the 7(b) conservation zone. The only species recorded outside of the conservation zone were four threatened bat species.

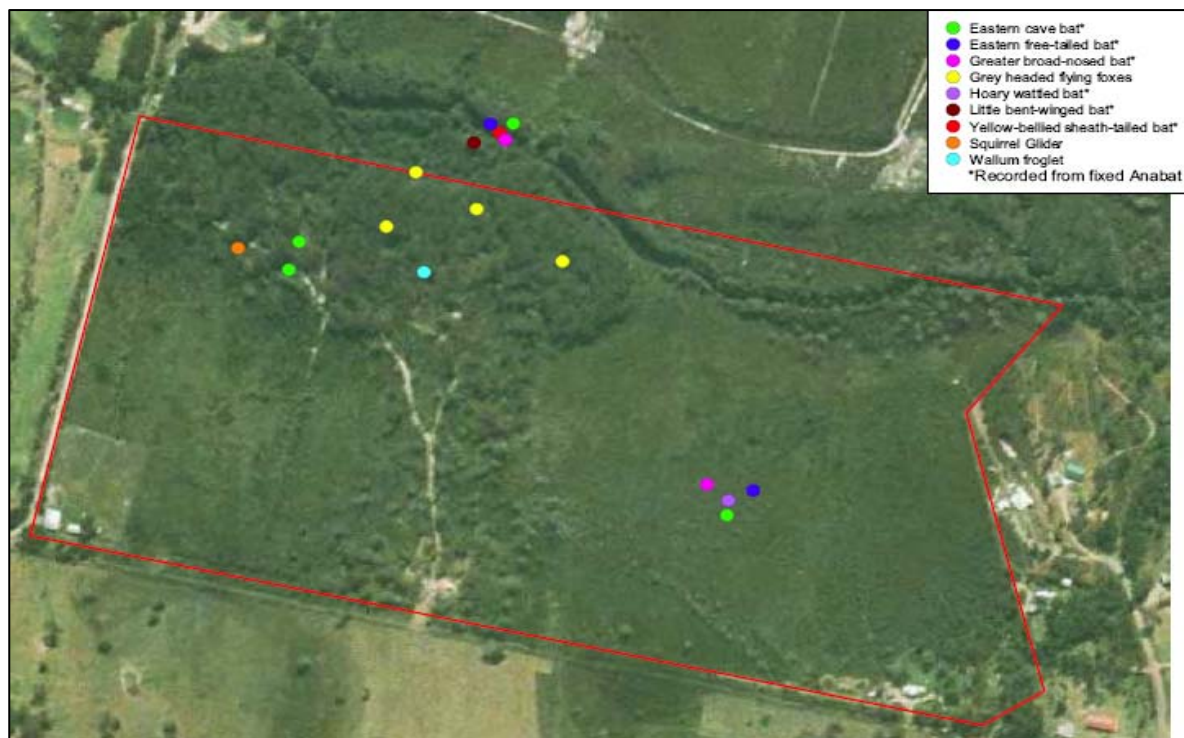


Figure 17: Location of Recorded Threatened Species within and surrounding the site (source: Environmental Assessment)

OEH raised concern that the ecological surveying efforts undertaken by the Proponent were not sufficient enough to accurately gauge the total number of threatened species present at the site. In response, the Proponent advised the Department at a meeting in September 2010 that the site and surrounding lands have been surveyed by several different consulting organisations over a period of eight years using a variety of surveying techniques and methods. In consideration of OEH's concerns, the Department subsequently requested the Proponent to provide a chronological history of previous fauna surveying efforts and results that had been undertaken across the site. The surveying chronology and results were provided with the PPR.

The Department reviewed the Proponent's chronological history of surveying efforts across the site which indicates that varied surveying methods have been undertaken by a number of different consultancies. Given the amount of surveying work undertaken over an eight year period, it is considered that an accurate indication of the threatened species known to inhabit the site has been provided.

As illustrated in **Figure 17** above, the majority of listed threatened species recorded at the site were located within the 7(b) conservation zone. The 7(b) zone is to be maintained in its current form and no physical works are proposed within the zone. It is the Department's view that the Proponent has provided a satisfactory amount of information to demonstrate that a sufficient amount of fauna surveying efforts have been undertaken, and that there is unlikely to be any threatened fauna species inhabiting the site that have not been detected in the past.

In consideration of those threatened species that were located during site surveying, concern was raised by the public particularly in regards to the Wallum Froglet which is vulnerable under the TSC Act. Surveys undertaken in 2003 and 2007 recorded the Wallum Froglet within the northern portion of the subject site. The Proponent's Ecological Report notes that core refuge and breeding habitat for this species is within the wet heath and sedgeland areas located towards the north of the site, and contained wholly within the conservation zone. Non-breeding areas which may be utilised by this species include forested areas with an open groundcover layer following heavy rainfall (also within the conservation zone). The Department is of the opinion that the 7(b) conservation zone will continue to provide refuge and breeding habitat for the Wallum Froglet post-development; and that the project will not have a significantly detrimental impact on the remaining population of the species. Furthermore, the construction of bio-retention swales and wetland areas within the subdivision design will provide for additional habitat area and resources for the species.

5.3.2 Consideration of Endangered Ecological Communities

The EEC on the site covers an area of 2.27ha and is categorised in the Proponent's Ecology Report as Open Forest of Broad-leaved Paperbark (Fluvial Variant). It would appear that this vegetation community conforms to the final determination of the EEC known as *Swamp Sclerophyll Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregions*. The vegetation is located alongside the Saltwater tributary which traverses through the northern portion of the site and within the 7(b) conservation zone, as indicated in **Figure 18** below.

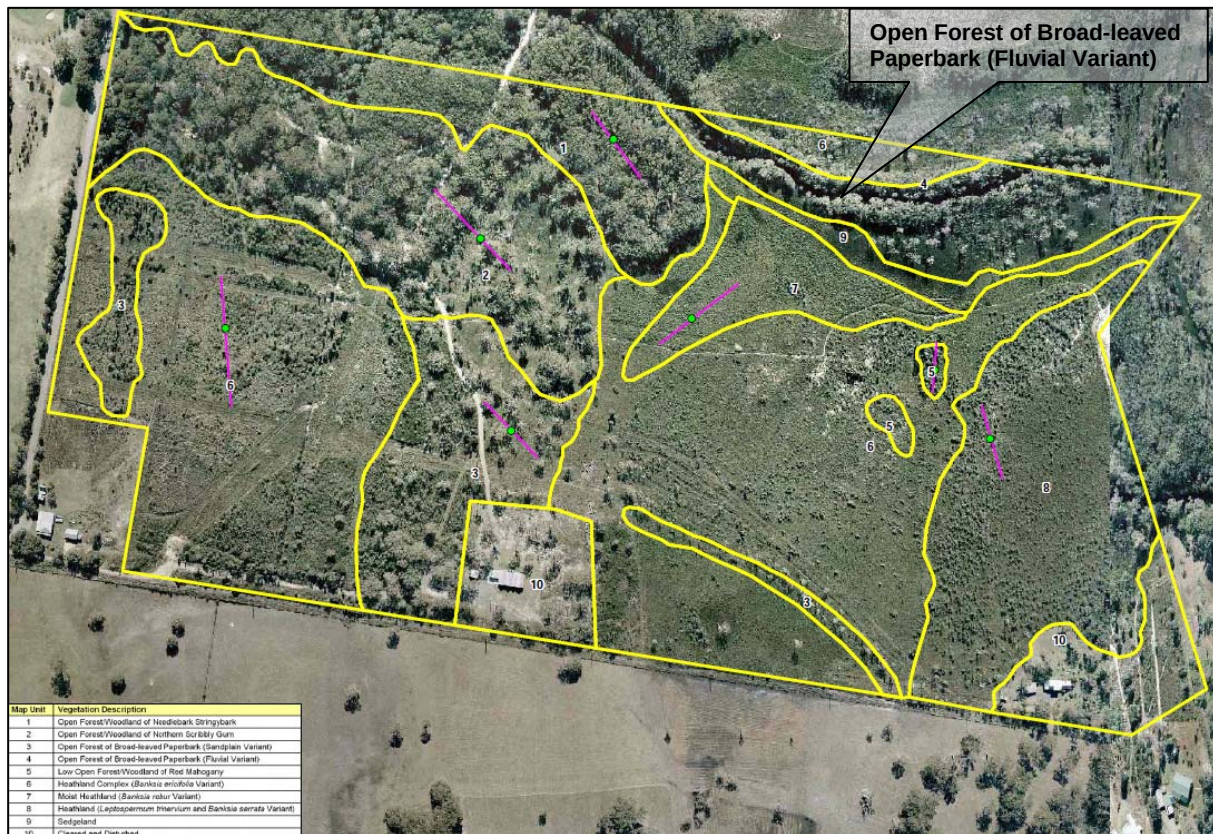


Figure 18: Endangered Ecological Community – Open Forest of Broad-leaved Paperbark (Fluvial Variant) (source: Environmental Assessment)

The Department requested the Proponent outline specific measures to ensure the EEC remains protected from any adverse impacts of the proposal. The Proponent advised in the PPR that the EEC is limited to the north-eastern portion of the 7(b) conservation zone and is located approximately 50m from any proposed development within the site. The Proponent also advised that best practice WSUD measures are to be implemented with the intention of maintaining the quality of stormwater and soils, and subsequently minimising the impacts of urban stormwater run-off on downstream communities. The Proponent is also committed to the preparation of a comprehensive Vegetation Management Plan (VMP) to be prepared for the 7(a) and 7(b) zoned lands in consultation with Council and OEH, as outlined in the Statement of Commitments. The Department supports the preparation of the VMP and this is reflected in the recommended conditions of approval. The Department considers that the proposed WSUD principles; the preparation of a VMP for the site; and, a minimum 50m buffer distance to any future development will ensure that the EEC is protected and maintained in its current form.

5.3.3 Consideration of SEPP 14 – Coastal Wetlands and the Saltwater Lagoon

The Saltwater Lagoon is an Intermittently Open and Closed Lake or Lagoon (ICOLL) and is located approximately 500m east-northeast of the site. Bordering the lagoon is an area of SEPP 14 – Coastal Wetlands. The protection and preservation of these sensitive environmental features was a key consideration during the assessment of ecological impacts of the proposal. The Department requested the Proponent to consider the impacts of large-scale residential development on the functioning of nearby SEPP 14 – Coastal Wetlands; the Saltwater Lagoon; and, Saltwater tributaries, including any mitigation measures to ensure potential impacts are minimised. **Figure 19** below shows the location of SEPP 14 – Coastal Wetlands and the Saltwater Lagoon in context to the subject site. Of particular concern to the Department and OEH was the impact on vegetation and water quality as a result of urban stormwater

run-off being directed towards the wetlands or within the vicinity of the Saltwater Lagoon. A number of public submissions also raised concern in regards to the impacts of urban development on the health of the lagoon and wetland ecosystems.

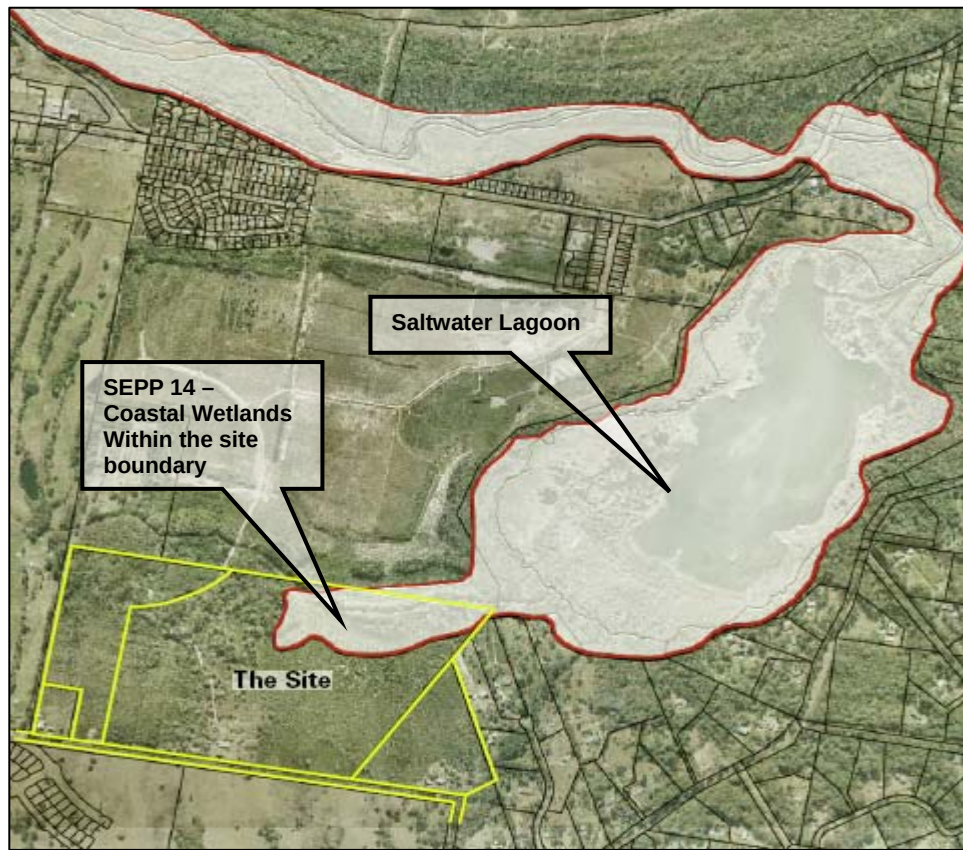


Figure 19: SEPP 14 – Coastal Wetlands and the Saltwater Lagoon in proximity to the site
(source: Environmental Assessment)

As discussed in **Section 5.3.2** above, an innovative stormwater drainage system incorporating best practice WSUD principles is to be implemented as part of the proposal in order to minimise adverse impacts on water quality and water quality discharge from the site. This includes the creation of vegetated treatment swales with the road reserve; and two stormwater treatment wetlands of 2,100m² and 2,128m² within the subdivision design (refer **Figure 12**). The WSUD measures are proposed in order to protect the surrounding environment, including the SEPP 14 – Coastal Wetlands and associated ecosystems. Also as discussed in **Section 5.3.2**, a minimum 50m buffer will be established between any physical development and areas of SEPP 14 – Coastal Wetlands.

In response to the PPR, OEH advised that the proposed arrangements for stormwater management and disposal are adequate in order to maintain water quality with the Saltwater Lagoon. A recommended condition of approval requires the Proponent to prepare a Water Quality Monitoring Program to be approved by Council prior to the issue of a construction certificate for Stage 1. The program must outline details of a baseline study to establish the pre-development water quality. Subsequent to this, a report on water quality is to be submitted with each application for a construction certificate for future stages. A construction certificate will not be issued until such time the Proponent can demonstrate that water quality is equal to, or better than pre-development water quality discharging from the site based on the results of the baseline study required prior to commencement of any construction works for Stage 1.

The Department considers that appropriate measures and conditions have been included to ensure the proposed subdivision will not detrimentally impact on SEPP 14 – Coastal Wetlands areas or water quality within the Saltwater Lagoon.

5.4 TRAFFIC AND ACCESS

The proposal incorporates extension of the Belle O'Connor Street road reserve in an easterly direction, forming the southern boundary of the site. The extended road reserve is referred to as 'Road No. 14' on the submitted plans. A roundabout is to be constructed by the Proponent at the Belle O'Connor Street and Road No. 14 intersection. A connection to future subdivision to the north of the Saltwater site is also proposed. **Figure 20** below shows the location of the proposed roundabout at Belle O'Connor Street and

Road No. 14; and the northern connection. The internal road network is to be constructed in accordance with Council's DCP 36 – *Guidelines for Engineering and Subdivision*. In order to assess potential impacts on the existing and future road network, the Proponent engaged Colston Budd Hunt & Kafes Pty Ltd to prepare a Traffic Report examining traffic and transport implications of the project.

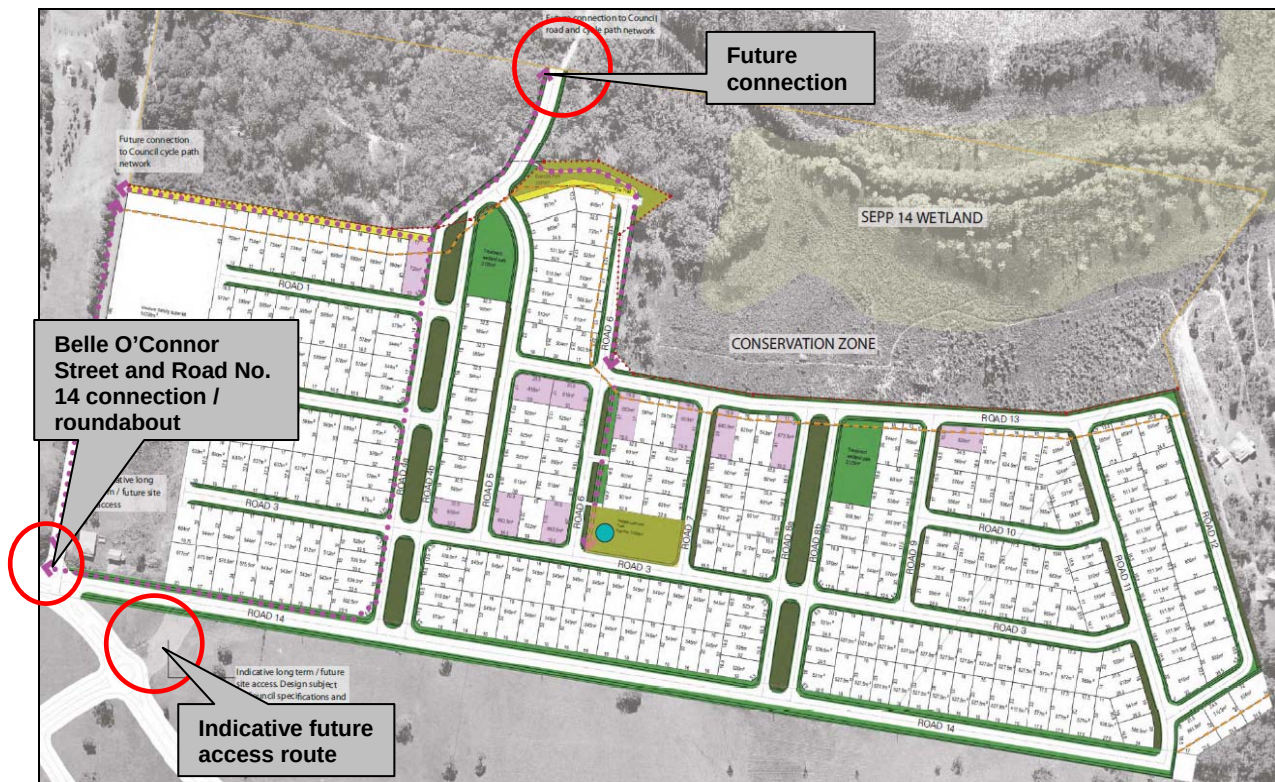


Figure 20: Indicative Future Access and Connection Routes (source: Preferred Project Report)

Traffic Volumes

In order to assess the increased level of traffic generated by the proposal, the Traffic Report considered total vehicle movements during morning and afternoon peak periods. Using the RTA's trip generation rate for residential subdivisions of 0.85 vehicle movements per hour, per lot two-way during peak periods; the proposed subdivision is predicted to generate a total of 250 vehicle movements during peak periods (this being based on 269 low density residential lots, plus the equivalent of 20 residential lots to compensate for the proposed medium density lot). The analysis found that with an additional 250 vehicle movements generated by the proposed development, the existing roundabout intersection of Gregory Street with Belle O'Connor Street and Steve Eagleton Drive to the west of the site would continue to operate at an "A" to "B" Level of Service (LoS). LoS "A" is considered good, while LoS "B" is considered good with minimal delays and spare capacity.

Council raised concern in its submission on the project that the Proponent's Traffic Study failed to take into account the cumulative traffic impacts of recently approved and future subdivision proposals which adjoin, or are in close proximity to the site. This includes the approved Seascope Grove development which adjoins the site to the south; the proposed development of the northern portion of the Saltwater site (approximately 460 lots proposed); as well as local growth in other parts of South West Rocks, including areas subject to residential rezoning.

The Proponent subsequently provided an amended Traffic Report with the PPR, as well as revised peak hour traffic generation figures. The revised information takes into consideration an additional 180 vehicle movements during peak periods to account for the approved Seascope Grove residential development to the south (210 residential lots). This combined with the 250 vehicle movements generated by the proposed subdivision will see a total of 430 vehicle movements experienced at the proposed intersection of Belle O'Connor Street and Road No. 14 during peak periods. The amended Traffic Report noted that traffic generation of this magnitude will continue to see the intersection operating a LoS "A" to "B".

It is acknowledged that the Proponent's revised Traffic Report does not take into account traffic volumes generated from future development of the northern portion of the Saltwater site, or for areas around Arakoon which are subject to residential rezoning. The Department considers the Proponent to have adequately taken into account the impacts the proposed subdivision will have on existing traffic

conditions, and should not be required to consider traffic volumes for developments that are in preliminary or draft stages; or for areas that are yet to have rezoning applications approved. Once these areas of land are to be developed, it will be expected that an assessment of traffic associated impacts generated from these developments will be submitted with these applications. Furthermore, the development of the northern portion of the Saltwater site will eventually see a road network connection to Phillip Drive in the north. It is therefore considered unreasonable to assume all traffic generated from the development of this northern parcel of land will utilise the southern intersection at Belle O'Connor Street. In the RTA's submission on the EA, it was noted that the roundabout at Belle O'Connor Street and Gregory Street to the west of the site has sufficient capacity to support the additional traffic generated by the proposal.

The Department considers the information provided by the Proponent ensures traffic generated from the proposed subdivision will not detrimentally impact on existing road network conditions, and that the proposed roundabout at Belle O'Connor Street and Road No. 14 will operate at an acceptable level of service.

Traffic Access

Council's Draft Saltwater DCP outlines an indicative future access route to service the proposed subdivision, as illustrated in **Figure 20** above. Council has indicated this to be the preferred access route to the site in terms of road network safety and functionality. However, in order to achieve the desired connection, an agreement between Council and the land owner to the south of Road No. 14 is required so the necessary portion of land to construct the connection can be acquired. Council has advised that negotiations with the land owner have commenced, with the view of acquiring the land as soon as possible to allow for construction of the desired connection. Until such time that Council and the adjoining land owner reach an agreement, access to and from the proposed subdivision will need to be provided via a proposed roundabout to be constructed by the Proponent at the Belle O'Connor Street and Road No. 14 intersection. It was stated in Council's submission on the EA that the proposed intersection is inappropriate given the adverse site constraints, such as insufficient sight distances and the horizontal curvature of Belle O'Connor Street. The Department acknowledges that the Belle O'Connor Street and Road No. 14 intersection is not the ideal access arrangement to service the site. However, until the preferred road network connection can be constructed, this is considered to be an appropriate temporary arrangement in order to provide access to and from the site. To ensure the proposed roundabout functions safely, the Department has included a recommended condition of approval which requires the Proponent to construct the roundabout in accordance with the relevant RTA and AUSTROADS standards to the satisfaction of Council. In addition, the Proponent is to liaise with both the RTA and Council prior to the issue of a Construction Certificate to ensure the proposed roundabout will be constructed in such a way that allows for an acceptable level of safety for future road users, and appropriate sight distances are achieved.

A recommended condition of approval has been also requires the Proponent to close access to the site from Road No. 14 where it connects to the Belle O'Connor Street roundabout following construction of Council's preferred access route. The preferred route will connect to Road No. 14 via an extension of Burrawong Drive, with a cul-de-sac to be created at the western end of Road No. 14. Consequently, all access to and from the site will be obtained via a new intersection at Burrawong Drive and Road No. 14. The timing of closure of access from Road No. 14 is to be determined by Council. The Department considers this to be an acceptable arrangement to allow access to the site in the short term, and that the predicted traffic volumes generated by the project will not place an unacceptable strain on the temporary intersection arrangement.

5.5 ABORIGINAL CULTURAL HERITAGE

5.5.1 Level of Aboriginal Cultural Heritage Assessment

The Proponent provided an Aboriginal Heritage Assessment prepared by consultant Archaeologist Jacqueline Collins. Collins was engaged by Council in 2004 to undertake an Aboriginal cultural heritage assessment as part of the Local Environment Study (LES) in support of a rezoning application of the Saltwater site. The Proponent provided a copy of Collins' 2004 LES assessment with the EA in order to address the DGR requirements in relation to Aboriginal cultural heritage. The LES study area incorporated the entire Saltwater site subject to amendment No. 55 to the Kempsey LEP. An issue raised by the Department was that the LES considered an area significantly larger than the actual development site subject to this application; and was prepared prior to OEH's *Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (2005)*. **Figure 21** below illustrates the study area subject to the LES report, as well as the area subject to this application.

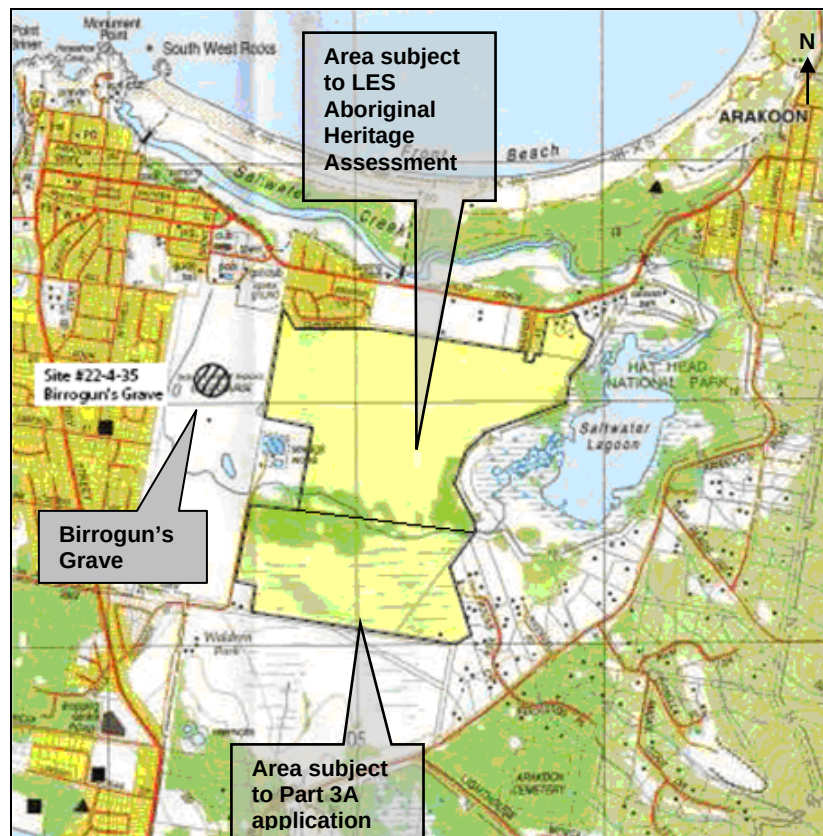


Figure 21: LES Study Area of Aboriginal Cultural Heritage Significance (source: Collins, J. 2004. Aboriginal Heritage Assessment)

The Department consulted OEH to ascertain whether further Aboriginal archaeological assessment should be undertaken given the LES report was not site specific and was prepared prior to the relevant guidelines. OEH advised that the information provided within the LES was relevant to the subject site, and that an appropriate level of assessment had been undertaken. The background information of the study area, the archaeological context of the site, field investigations and management recommendations were all appropriate given the subject site was located within the study area. Although there are known features of Aboriginal archaeological significance throughout the South West Rocks region, including Birrogun's Grave located within the golf course to the north-west of the site (see **Figure 20** above); there were no items of Aboriginal archaeological significance found within the actual development site itself. In response to the advice received from OEH, the Department is satisfied that an appropriate level of archaeological assessment and field surveying has been undertaken, and that no items of Aboriginal cultural heritage significance will be impacted upon by the proposal. A number of recommended conditions of approval and Statement of Commitments have been provided to protect objects of Aboriginal heritage value and Aboriginal human remains should they be recovered during construction works.

5.5.2 Consultation with Local Stakeholder Groups

OEH raised concern with the amount of community consultation the Proponent had undertaken with local Aboriginal community groups and other interested parties. OEH's *Interim Community Consultation Requirements for Applicants* states that Proponents must actively seek to identify local stakeholder groups or people wishing to be consulted about a project and invite them to register their interest. OEH provided the Proponent with a list of 18 stakeholder groups with potential interest in the proposal. The Proponent subsequently notified all known Aboriginal stakeholder groups in the Kempsey and Port Macquarie-Hastings local government areas, including the Kempsey Local Aboriginal Land Council; the Dunghutti Elders; and, Council's Aboriginal Liaison Officer. The notification letters invited stakeholders to register their interest in the proposed development. It is noted that there was no interest registered from any of the other stakeholder groups that were notified. In addition to individual notification, the Proponent also placed a Public Notice in the Macleay Argus on 11 August 2009 requesting a registration of interest from local Aboriginal stakeholders. The Department considers the level of community consultation undertaken by the Proponent in regards to Aboriginal cultural heritage as satisfactory; and that the requirements as outlined in the DGR's have been adequately addressed.

6. CONCLUSION

The Department has assessed the proposal on its merits and considered the submissions received during the public exhibition period. The key issues raised in the submissions were in relation to the subdivision layout; flooding and stormwater management; impacts on threatened species; impacts on adjoining ecosystems including SEPP 14 – Coastal Wetlands and Saltwater Lagoon; Aboriginal cultural heritage; and, traffic and access. The Department has considered the issues associated with the project and a number of conditions are recommended in conjunction with the Proponent's Statement of Commitments to ensure any detrimental impacts of the proposal are avoided or appropriately mitigated.

The project will provide for:

- an additional 269 low density residential lots within the Kempsey local government area;
- a total of 5,506m² of active public open space area with recreational and exercise facilities;
- an extensive pedestrian and cyclist pathway network linking public open space areas;
- a comprehensive Vegetation Management Plan for environmentally significant areas of land; and,
- the creation of 40 full-time jobs during construction of the project.

The project has largely demonstrated consistency with the applicable environmental planning instruments and is consistent with the *Mid North Coast Regional Strategy 2006*. The Department considers the proposal will achieve a satisfactory level of environmental performance and is in the public interest.

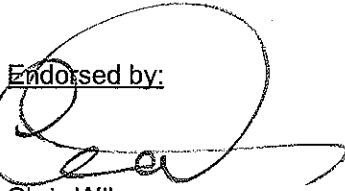
7. RECOMMENDATION

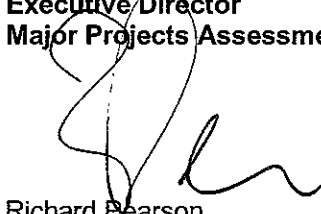
The Department considers that the project modifications as outlined in the Preferred Project Report, including a revised subdivision layout with a reduced number of residential lots; increased public open space area; and, improved stormwater management system as a beneficial outcome for the site. Consequently, the Department recommends that the project be approved, subject to conditions of approval and the Proponent's Statement of Commitments.

Prepared by:


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Endorsed by:


Chris Wilson
Executive Director
Major Projects Assessment

 13/5/11
Richard Pearson
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Development Assessment & Systems Performance

APPENDIX A ENVIRONMENTAL ASSESSMENT

See the Department's website at <http://majorprojects.planning.nsw.gov.au/>

APPENDIX B RESPONSE TO SUBMISSIONS / PREFERRED PROJECT REPORT

See the Department's website at <http://majorprojects.planning.nsw.gov.au/>

APPENDIX C ENVIRONMENTAL PLANNING INSTRUMENTS

• STATE ENVIRONMENTAL PLANNING POLICIES

The proposal has been considered against the following State Environmental Planning Policies and is considered to be generally in compliance with the provisions contained within the following:

• State Environmental Planning Policy No. 14 – Coastal Wetlands

The aim of *State Environmental Planning Policy No. 14 – Coastal Wetlands* (SEPP 14 – Coastal Wetlands) is to ensure that coastal wetlands are protected from clearing, draining, filling and levee construction and are preserved in the environmental and economic interests of the State. The subject site contains a small portion of SEPP 14 – Coastal Wetlands (No. 439) within the site's north-eastern corner. The Department has considered the potential impacts of the proposal on existing coastal wetlands within and adjoining the site. Requirements to ensure protection of wetland areas include; the preparation of a comprehensive Vegetation Management Plan for 7(a) and 7(b) zoned land; incorporation of best practice water sensitive urban design features; and, the establishment of a 50m vegetated buffer between the wetland areas and any physical works.

• State Environmental Planning Policy No. 71 – Coastal Protection

State Environmental Planning Policy 71 – Coastal Protection (SEPP 71 – Coastal Protection) applies to land within the coastal zone. It aims to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast. The provisions of SEPP 71 – Coastal Protection have been considered in the assessment of the proposal, particularly in regards to the management of likely impacts of development on the water quality of coastal water bodies. The Proponent is required to prepare a comprehensive Vegetation Management Plan in order to provide protection of the existing SEPP 14 – Coastal Wetlands within the site.

OTHER ENVIRONMENTAL PLANNING INSTRUMENTS & POLICIES

The Proposal has been considered against the following non-statutory documents and is considered to be generally in compliance with the provisions contained within these documents:

• North Coast Regional Environmental Plan

The North Coast Regional Environmental Plan (North Coast REP) provides a framework for policy preparation for the North Coast region and specifies objectives for the future planning and development of land throughout the NSW north coast. The proposal is generally consistent with the provisions of the North Coast REP, in particular the objectives of Part 4 – Urban Development, which aims to provide for the orderly and economic release of urban land; and Part 4, Division 2 – Urban Housing which aims to promote the provision of a range of adequate, affordable and suitable housing to meet the needs of the region's population.

• Mid North Coast Regional Strategy 2006

The Mid North Coast Regional Strategy (the Strategy) provides the framework in order to balance competing considerations of the region in a sustainable manner over a 25 year timeframe. The Strategy outlines a planned approach to appropriately deliver land for residential housing and jobs growth; while at the same time protecting areas of high environmental and conservation value. South West Rocks is identified in the Strategy as a future growth area within the Kempsey Shire.

• Draft Saltwater Development Control Plan

The Draft Saltwater Development Control Plan (draft Saltwater DCP) provides detailed provisions to expand upon the Kempsey LEP 1987 for development within the Saltwater land release area. The draft Saltwater DCP aims to:

- Contribute to the growth and character of the South West Rocks township and surrounding areas;
- Protect and enhance the public domain; and,
- Provide for future settlement and ancillary services as the population increases to meet the needs of the South West Rocks locality.

The proposal is considered to be in accordance with the aims of the draft Saltwater DCP. This is discussed in greater detail within **Section 5.1.2** of this report.

- **NSW Coastal Policy 1997**

The NSW Coastal Policy 1997 (the policy) provides for the coordinated management of the coast's unique physical, ecological, cultural and economic attributes to ensure an ecologically sustainable coastline. The provisions contained within the policy have been considered during assessment of the proposal.

APPENDIX D DIRECTOR-GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

Director-General's Environmental Assessment Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

Application number
08_0167
Project
Residential subdivision comprising approximately 310 residential lots and 90 medium density units
Location
Lot 52 DP 831284 and Lot 84 DP 792945, Belle O'Connor Street, South West Rocks, Kempsey LGA
Proponent
Malbec South West Rocks Pty Ltd
Date issued
17 October 2008
General requirements
The Environmental Assessment (EA) for the Project Application must include: 1. An executive summary; 2. A detailed description of the proposal including: • any development options; • justification for the project taking into consideration any environmental impacts of the project, the suitability of the site and whether the project is in the public interest; • outline of the staged implementation of the project if applicable; 3. A thorough site analysis including constraints mapping and description of the existing environment; 4. Consideration of any relevant statutory and non-statutory provisions and identification of any non-compliances with such provisions, in particular relevant provisions arising from environmental planning instruments, Regional Strategies (including draft Regional Strategies) and Development Control Plans; 5. Consideration of the consistency of the project with the objects of the <i>Environmental Planning and Assessment Act 1979</i>; 6. Consideration of impacts, if any, on matters of National Environmental Significance under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>; 7. An assessment of the potential impacts of the project and a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures to be implemented to minimise any potential impacts of the project; 8. The plans and documents outlined in Attachment 2; 9. A signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading; and 10. An assessment of the key issues specified below and a table outlining how these key issues have been addressed.

Key Issues	
The EA must address the following key issues:	
1. Strategic Planning	
1.1	Ensure that the proposal is consistent with the draft Local Environmental Plan for the site (Amendment 55 to <i>Kempsey Local Environmental Plan 1987</i>).
1.2	Justify the proposal with reference to relevant local, regional and State planning strategies. Provide justification for any inconsistencies with these planning strategies.
1.3	Consider the provisions of the <i>Saltwater Creek and Lagoon Estuary Management Plan and Saltwater Creek Catchment Flood Study</i> in regard to all relevant issues, including but not limited to, water quality and quantity, flooding and flora and fauna.
2. Subdivision Design, Layout and Desired Future Character	
2.1	Demonstrate the consistency of the proposal with the character of existing development in terms of the locality, street frontage, scale, building envelopes and future built form controls, aesthetics, energy and water efficiency and safety.
2.2	Demonstrate the consistency of the proposed subdivision design and layout with the <i>Coastal Design Guidelines for NSW</i> , <i>NSW Coastal Policy 1997</i> and <i>SEPP 71 – Coastal Protection</i> .
2.3	Identify the type of subdivision proposed across the site ie. community, Torrens, strata. A draft community management statement should be provided if community title is proposed.
2.4	Provide details of potential building envelope, built form and design quality controls and the means for implementing them.
2.5	Provide details of any staging that demonstrates the lots will be released in an orderly and coordinated manner.
2.6	Provide details of land proposed to be used for recreational purposes. Outline the long-term management and maintenance of these areas of open space and any conservation areas including ownership and control, management and maintenance funding, public access, revegetation and rehabilitation works and bushfire management.
3. Visual Impact	
3.1	Address the visual impact of the proposal in the context of surrounding development and relevant mitigation measures. In particular address impacts on the amenity of the foreshore, overshadowing of public reserves, loss of views from public places and cumulative impacts.
4. Infrastructure Provision	
4.1	Address existing capacity and requirements of the development for sewerage, water, electricity, waste disposal, telecommunications and gas in consultation with relevant agencies. Identify and describe staging, if any, of infrastructure works.
4.2	Address and provide the likely scope of any planning agreements and/or development contributions with Council/ Government agencies (including relevant community/state infrastructure contributions).
5. Traffic and Access	
5.1	Prepare a traffic impact study in accordance with Table 2.1 of the RTA's <i>Guide to Traffic Generating Developments</i> .
6. Hazard Management and Mitigation	
<i>Contamination</i>	
6.1	Identify any contamination on site and appropriate mitigation measures in accordance with the provisions of <i>SEPP 55 – Remediation of Land</i> .
<i>Acid Sulfate Soils</i>	
6.2	Identify the presence and extent of acid sulfate soils on the site and, where relevant, appropriate mitigation measures. Identify the need for an Acid Sulfate Management Plan

(prepared in accordance with ASSMAC Guidelines).	
Bushfire	
6.3	Address the requirements of <i>Planning for Bush Fire Protection 2006</i> (RFS).
Geotechnical	
6.4	Provide an assessment of any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations that address these limitations.
Flooding	
6.5	Provide an assessment of any flood risk on site (for the full range of floods including events greater than the design flood, up to probable maximum flood; and from coastal inundation, catchment based flooding or a combination of the two) and having consideration of any relevant provisions of the <i>NSW Floodplain Development Manual 2005</i> . The assessment should determine: the flood hazard in the area; address the impact of flooding on the proposed development, address the impact of the development (including filling) on flood behaviour of the site and adjacent lands; and address adequate egress and safety in a flood event.
6.6	Assess the potential impacts of sea level rise and an increase in rainfall intensity on the flood regime of the site and adjacent lands with consideration of <i>Practical Consideration of Climate Change – Floodplain Risk Management Guideline</i> (DECC, October 2007).
Air Quality	
6.7	Address the potential odour impacts from the adjacent sewage treatment plant and mitigation measures proposed with reference to <i>Assessment and Management of Odour from Stationary Sources in NSW</i> (DEC, 2006).
Mosquito Risk	
6.8	Address the potential impacts of nearby potential mosquito habitat for future residents of the development.
Rural Land	
6.9	Address the provisions of <i>Living and Working in Rural Areas: A handbook for managing land use conflict issues on the NSW North Coast</i> .
7. Water Cycle Management	
7.1	Address and outline measures for Integrated Water Cycle Management (including stormwater) based on Water Sensitive Urban Design principles which addresses impacts on the surrounding environment, drainage and water quality controls for the catchment, and erosion and sedimentation controls at construction and operational stages.
7.2	Assess the impacts of the proposal on surface and groundwater hydrology and quality during both construction and occupation of the site.
8. Heritage and Archaeology	
8.1	Identify whether the site has significance to Aboriginal cultural heritage and identify appropriate measures to preserve any significance. The assessment must address the information and consultation requirements of the draft <i>Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation</i> (DEC 2005) and <i>Interim Community Consultation Requirements for Applicants</i> (DEC 2004)
8.2	Identify any items of non-indigenous heritage significance and, where relevant, provide measures for the conservation of such items.
9. Flora and Fauna	
9.1	Assess the potential direct and indirect impacts of the development on flora and fauna taking into consideration impacts on any threatened species, populations, ecological communities and/or critical habitat and any relevant recovery plan in accordance with DECC's <i>Guidelines for Threatened Species Assessment</i> (2005). Particular consideration should be given to SEPP 14 wetland no. 439 and any endangered ecological communities associated with it. Provide

	measures for the conservation of flora and fauna, where relevant with consideration of the <i>Saltwater Creek and Lagoon Estuary Management Plan and Saltwater Creek Catchment Flood Study</i> .
9.2	Outline measures for the conservation of existing wildlife corridor values and/or connective importance of any vegetation on the subject land.
9.3	Address measures to protect and manage the riparian corridor and adjacent aquatic habitats.
9.4	Assess the impacts of any native vegetation clearing including details of an offset strategy, where relevant, to ensure that there is no net loss of native vegetation.
10. Socio-economic Impacts	
11.1	Provide a social impact assessment for the development. Address the social and economic context of the development in terms of infrastructure requirements, public transport, community services and facilities (including schools and medical services).
Consultation	
You should undertake an appropriate and justified level of consultation with the following agencies during the preparation of the environmental assessment:	
(a) <i>Agencies or other authorities:</i>	
• Kempsey Shire Council; • Department of Environment and Climate Change; • Department of Primary Industries; • NSW Rural Fire Service; • Department of Water and Energy; • Roads and Traffic Authority; • Department of Lands; • State Emergency Service; • Northern Rivers Catchment Management Authority; • Local Aboriginal Land Council/s and other Aboriginal community groups; • Mid Coast Water; and • Utility and infrastructure providers.	
(b) <i>Public:</i>	
Document all community consultation undertaken to date or discuss the proposed strategy for undertaking community consultation. This should include any contingencies for addressing any issues arising from the community consultation and an effective communications strategy.	
The consultation process and the issues raised should be described in the Environmental Assessment.	
Deemed Refusal Period	
60 days	

APPENDIX E SUMMARY OF PUBLIC SUBMISSIONS

Key issues raised in the public submissions for Major Project 08 0167 – Belle O'Connor Street, South West Rocks

Total Public Submissions – 60 (including 39 form letters)

Development Control Plan (DCP) has not been prepared
• LEP Amendment 55 states that development consent must not be granted for development on the land unless a DCP has been prepared by Council. • A DCP is necessary to resolve issues associated with ongoing ownership and management of the land known as Saltwater. • The Proponent is trying to push the development through without regard to the DCP. • A DCP is necessary to deal with stormwater and hazard control.
Hydrology, Flooding and Climate Change
• Assessment of groundwater was undertaken during the driest months of the year. The site is normally waterlogged, and hydrological data is unreliable. • The site is low lying and on a flood plain at the bottom of a constrained catchment. • Predicted sea level rise with major rain events will see future homes permanently inundated. • The flooding assessment has grossly underestimated the probable maximum flood height.
Ecology
• The 7(b) zone will not sufficiently protect threatened species on the site. • The development footprint will have a major impact on local ecology, particularly the endangered Wallum Froglet. • The subject site is located adjacent to a wetland catchment which contains an endangered ecological coastal saltmarsh community. • The area is an important Koala habitat. • The impacts of invasive weeds, domestic pets and destructive human activities have not been properly considered. • The subdivision will destroy native wildlife and wetlands surrounding Saltwater Lagoon. • There will be impacts on endangered species due to an increase in domestic animals/pets. • The EA fails to address impacts on the adjacent Hat Head National Park and Saltwater Lagoon. • Housing development will expose the lagoon to increased levels of recreational use, rubbish dumping, vegetation clearing, weed growth etc.
Environment Protection 7(b) Zone
• Proposal provides for recreational purposes including BBQ/picnic facilities, playground, roads, cycleways, utilities and stormwater detention areas within the 7(b) zone. • The Voluntary Planning Agreement proposes to retain part of the 7(b) land under the ownership of the Proponent with a view of rezoning it later. This will reduce the available 7(b) land. • There is no formal agreement on how the 7(b) zone will be managed. • The 7(b) zone also acts as an Asset Protection Zone (APZ) for bushfire purposes. APZs are required to have reduced vegetation levels to lessen bushfire risk.
Other Issues
• The EA does not provide information on how the stormwater swales are to be maintained once the development is complete. • Traffic impacts have not been assessed with regard to proposed development to the north.

APPENDIX F INSTRUMENT OF APPROVAL – PROJECT APPLICATION
