



NSW GOVERNMENT
Department of Planning

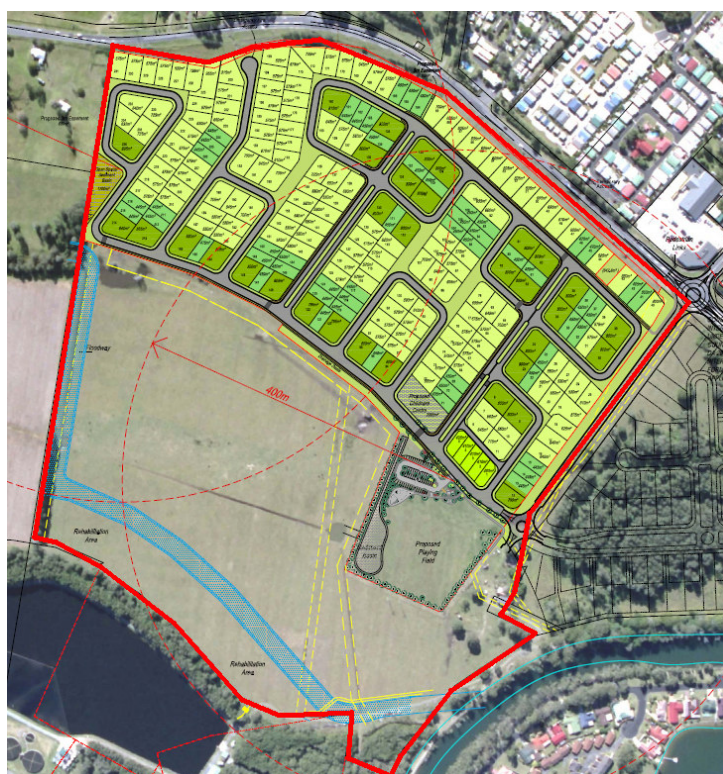
***239 lot residential subdivision
Lot 1, 2, 3 and 5 DP 10704242 and
Lot 269 DP 7555684***

***THE RIVEROAKS ESTATE
PACIFIC HIGHWAY, BALLINA***

Proposed by Rayshield Pty Ltd

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

December 2008



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1. EXECUTIVE SUMMARY

1.1. The Proposal

Rayshield Pty Ltd (the proponent) is proposing to undertake a residential subdivision at Lots 1, 2, 3 and 5 DP 10704242 and part Lot 269 DP 755684 Pacific Highway, Ballina (the project). The project seeks the Minister for Planning's approval to subdivide land known as Riveroaks (the site) into 239 lots. The project comprises of subdivision of land (providing for up to 270 future dwellings), the provision of roads (including the link road), open space, playing field, allocated land for a childcare centre, a pedestrian link/ cycleway and infrastructure services including minor land recontouring for drainage purposes.

The subdivision will be accessed from the Pacific Highway via the proposed Link Road which is located partially on Lot 2 DP 1074242 and Lot 269 DP 755684. The proposed Link Road's intersection with the Pacific Highway was approved under development consent DA 2002/566 issued by Ballina Shire Council (Council) and is not subject to this project application.

The estimated project cost of the project is \$40,000,000. The proposal will create 50 full time equivalent construction jobs and provision of a number of future equivalent full time operational jobs.

During the exhibition period, the Department received a total of four (4) submissions from the public objecting to the project. Submissions were also received from public authorities including; Ballina Shire Council, Department of Environment and Conservation, Department of Primary Industries, Rural Fire Service, Department of Water and Energy, State Emergency Service and the Roads and Traffic Authority.

Key issues considered in the Department's assessment included:

- Urban design
- Climate change
- Flood evacuation
- Hydraulic performance
- Groundwater
- Flora and fauna impacts
- Traffic and access impacts

The Department has assessed the merits of the project and is satisfied that the impacts of the project have been addressed via the proponent's Statement of Commitments and the Department's recommended conditions of approval, and can be suitably mitigated and/or managed to ensure a satisfactory level of environmental performance. On these grounds, the Department is satisfied that the site is suitable for the project and all statutory requirements have been met.

The Department recommends that the project be approved, subject to the recommended conditions of approval.

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2. BACKGROUND

2.1. Site context and location

The site incorporates Lots 1, 2, 3 and 5 DP 10704242 and part Lot 269 DP 755684 and is located on the south side of the Pacific Highway, Ballina in the Ballina local government area. The site is owned by Rayshield Pty Ltd and Mr Don Cook. Refer to **Figure 1**.

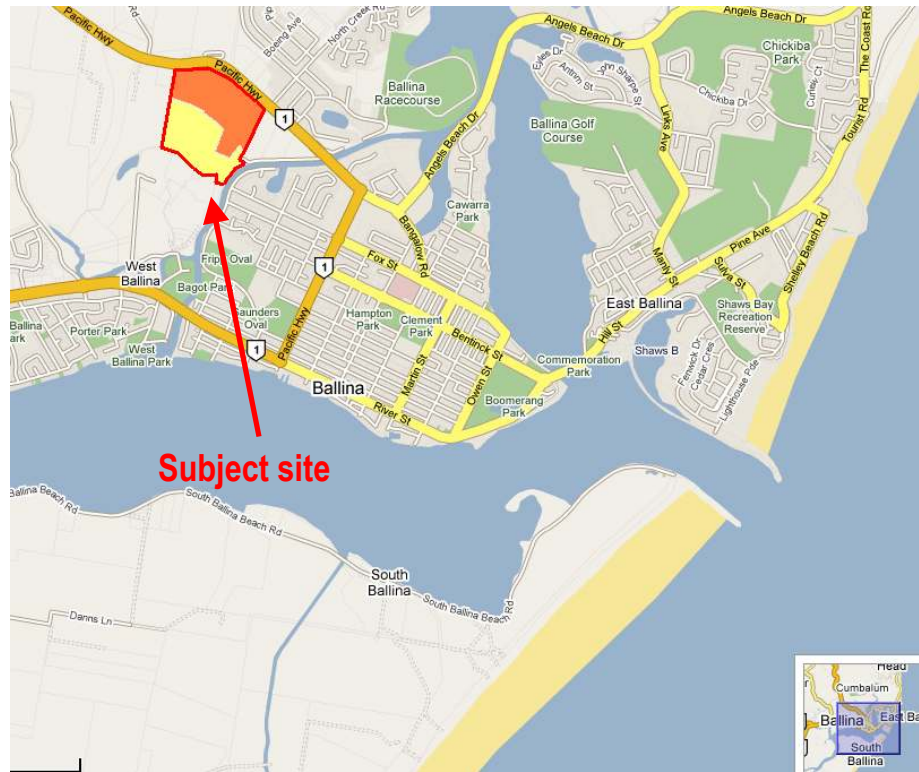


Figure 1 – Site context and location

The site is situated on the northern approach to Ballina via the Pacific Highway and has a total area of 44.2 ha. Although the subject land proposed for residential subdivision as part of this project application is contained within Lot 1 DP 10704242, the proposal incorporates a number of land parcels relevant to the project for acoustic attenuation, traffic access and drainage purposes. The following table (**Table 1**) provides clarification regarding the relevant land parcels utilised within the site. The land also the subject of consent 2002/566 (see **Section 2.2**) which includes Lot 268 DP 755684 and Lot 1 DP 799238 is described for completeness sake.

Table 1 –Relevant land parcels

Parcel	Size	Use/ Relevance
Lot 1 DP 10704242	24.26 ha	Residential subdivision
Lot 2 DP 10704242	20 ha (approx.)	Drainage channels/ floodway
Lot 3 DP 10704242	642 m ²	Residential subdivision
Lot 5 DP 10704242	450 m ²	Acoustic mound
Lot 269 DP 755684	2,500 m ² (approx.)	Link road/ Residential subdivision (DA 2002/566)
Lot 268 DP 755684	6 ha (approx.)	Vegetation adjoining land (see Section 6.7)
Lot 1 DP 799238	2 ha (approx.)	7A Environmental Protection Zone (see Figure 6; Section 6.7)

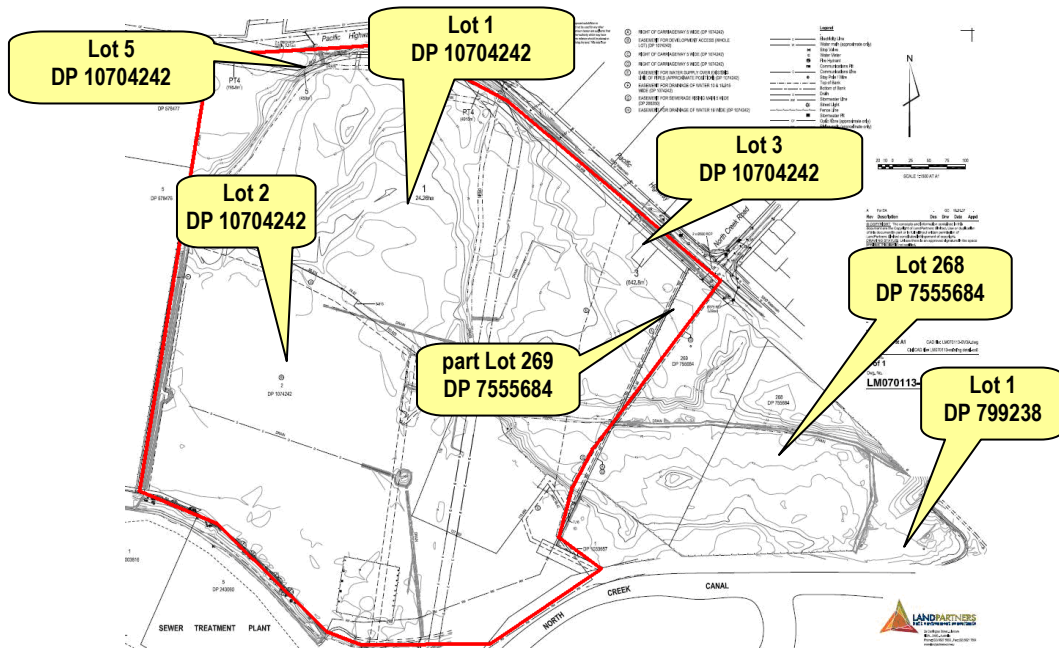


Figure 2 – Relevant land parcels related to the current project

Existing site features

The site is predominately flat with a gradual landfall descending towards the south. The eastern portion of Lot 1 DP 10704242 has been filled to approximately RL 2.0 m AHD in accordance with the development consent DA 2002/566 issued by Ballina Shire Council (Council). The western half of the site remains as cleared grazing land with a natural watercourse flowing from the site's western boundary, and meandering north until meeting current bulk filling earth works underway on the eastern sector of Lot 1 DP 10704242. A compensatory vegetation rehabilitation area approved under development consent DA 2002/566 has been established on the southern boundary of Lot 2 DP 10704242 (south portion of the site), this vegetation area is an off-set planting stipulated in the previous consent for the removal of vegetation on the site and adjoining Lots 268/ 269 7555684. A single dwelling currently exists on the south-east portion of Lot 2 DP 10704242. This dwelling will not be affected by the current application. Existing infrastructure primarily consists of high voltage overhead power lines traversing the site in a north-south direction and a cattle loading ramp situated in the north-east area of the site.



Plate 1 - Aerial photograph of the site prior to commencement of bulk earth works in accordance with development consent DA 2002/566.

Surrounding development

The site is bound to the north by the Pacific Highway and Ballina airport (about 2 km north), to the south by the North Creek Canal and West Ballina Sewerage Treatment Works, to the west by cleared grazing land, and to the east by (Lots 268/269 DP 7555684) densely vegetated land, understood to have been recently cleared under existing consent (see **Plate 3**) and subsequently subdivided under development consent DA 2002/566. East of Lot 268 DP 7555689 is an environmental protection zone (Refer to **Figure 7**). Contiguous development on the northern side of the Pacific Highway consists of a caravan park, Aldi supermarket and general industrial estate. On the southern side of North Creek Canal is residential development and to the north-west is the Ballina Fair Shopping Centre.



Plate 2 – North Creek Canal.



Plate 3 – Densely vegetated land on adjoining Lots 268/269 DP 7555684 understood to have been recently cleared (Everick Heritage Consultants Pty Ltd 2008).

2.2. Site History

Previous applications

Development consent DA 2002/566

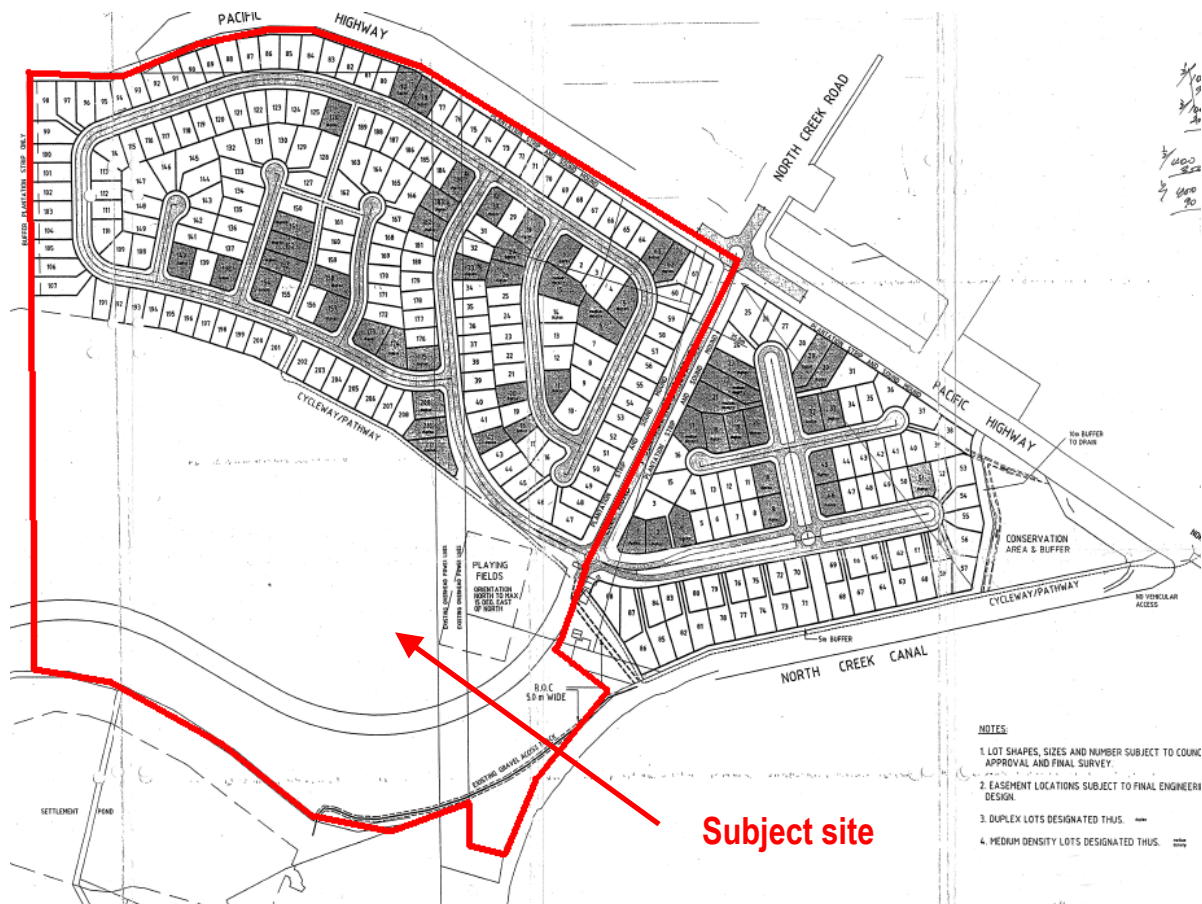


Figure 3 - Existing development consent DA 2002/566

Development consent DA 2002/566 was issued by Council in 2003. This consent gave approval for 294 lot subdivision incorporating the subject site and land associated with the adjoining Lots 268/ 269 DP 7555684, creation of residential lots, open space areas including playing field, bulk filling works, Pacific Highway/ Link Road intersection, Link Road and roundabout, noise attenuation mounds, pedestrian link/ cycle way and infrastructure services. Development consent DA 2002/566 was envisaged to be constructed as one (1) complete residential development. This has not occurred, however, and has resulted in the proponent moving forward with the subject project application, whilst the adjoining landowner of Lots 268/269 DP 7555684 is understood to be proceeding with part of development consent DA 2002/566 on its site.

The proponent has sought to rely on development consent DA 2002/566 in order to undertake bulk earth works on site which has already commenced. The proponent also intends to rely on the existing consent for the construction of a number of other components. The following table (**Table 2**) provides a schedule of the development components included/ excluded from the current project application.

Table 2 – Schedule of development components excluded from project application

DA 2002/566 component	Excluded from project
Bulk earth works	Yes
Pacific Highway intersection	Yes
Link road	No
Link road roundabout	No
Noise attenuation mounds	Yes
Residential lots	No
Internal roads	No
Pedestrian footpaths	No
Cycleway	No
Playing field and amenities	No
Landscaping	No
Floodway	No
Stormwater drainage	No
Compensatory vegetation plantings	Yes
Infrastructure services	No
Combined sewer pump station	Yes

Development consent DA 2006/650

Determined by Council on 11 May 2006 development consent DA 2006/650 gave consent for removal of one hectare of vegetation, rubbish removal, and the clearing of the watercourse traversing Lot 1 DP 1074242 within the subject site. Development consent DA 2006/650 primarily relates to preliminary site preparation of Lot 1 DP 1074242 for bulk filling works carried out in accordance with development consent DA 2002/566. It should be noted that as a compensatory measure for clearing the existing vegetation along the site's watercourse, the proponent was required to pay a \$60,000 monetary contribution for restoration of the Chickiba Wetland in the Ballina Shire. Works associated with this consent are understood to have been completed.

Relationship of existing development consents and project

In order to provide clarity and distinction between the Part 3A approval and relevant Part 4 consents, development components utilised by the project under existing consent (**Table 2**) will need to be incorporated as part of the Part 3A approval. To ensure in perpetuity of these Part 4 components approved under development consent DA 2002/566, conditions of approval have been included in the Department's recommendation stipulating the continuation of these development component's as part of the project's approval.

In order for the development of land to proceed in a coordinated and orderly manner and to avoid potential conflicts between the existing consent and Part 3A approval, the Department recommends that the Minister require surrender of the existing consent applying to the site. A condition of approval requiring the surrender of the existing consent prior to the issue of a Subdivision Certificate has been included in the Department's recommendation.

3. THE PROPOSED DEVELOPMENT

3.1. Project Description

This is an application for approval to carry out a project application as follows:

- subdivision providing for 237 residential lots and up to 270 future dwellings;
- one (1) lot designated for a future child care centre;
- one (1) reserve be used as open space;
- landscaping;
- provision of a 2.25 ha playing field;
- provision of roads, services and infrastructure as necessary to support the site;
- provision of link road; and
- land recontouring to facilitate a drainage works and floodway on Lot 2 DP 1074242.



Figure 4 - Proposed subdivision layout, note floodway in south-east portion of site (Conics 2008).

Residential allotments

The residential allotments are generally rectilinear and range in size from 405 m² to 800 m². The subdivision will provide for the future development of a range of housing types, including detached houses and duplexes. The majority of lots have an east-west/ north- orientation. Refer to **Figure 4** for the proposed subdivision layout.

The future dwellings of the site will be subject to separate development approval by Council. To enable appropriate built form outcomes for future housing in regards to residential amenity, the proponent has provided indicative building envelopes for each lot. The indicative building envelopes identify suitable building setbacks for future housing, private open space, garages and driveways.

Playing field

The proposed playing field is located in the south-east portion of Lot 1 DP 1074242 adjacent to the proposed Link Road. The general playing field area is to be constructed by the proponent and dedicated to Council prior to the release of the Subdivision Certificate for Stage 3. The playing field area will be capable of accommodating a junior sized, synthetic pitch cricket oval, children's play equipment, and 20 sealed car parking spaces and additional all weather overflow parking area for a further 20 vehicles. As a recommended condition of approval, the playing field will be constructed to the satisfaction and requirements of Council and the proponent has raised no objection to this condition.

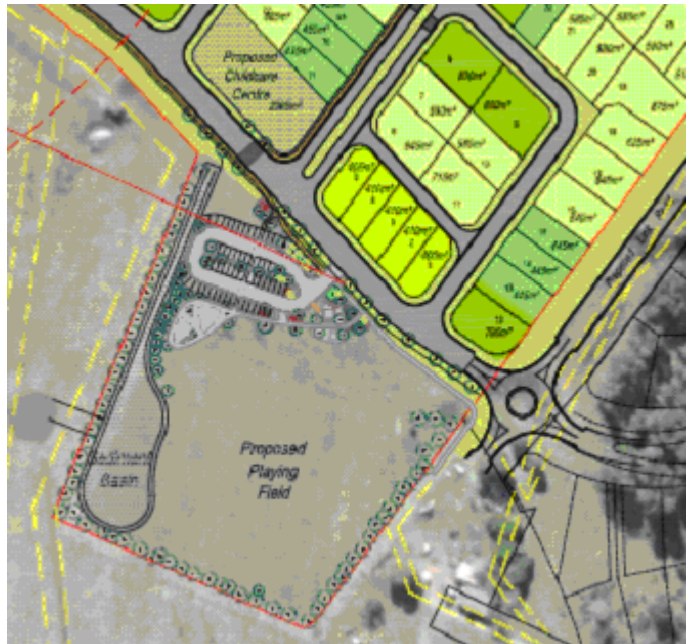


Figure 5 – Proposed playing field adjacent to Link Road (Conics 2008).

Infrastructure

The project includes land recontouring to facilitate stormwater drainage and flood management on Lot 2 DP 1074242. The land recontouring will result in a series of drainage swales and channels diverting storm and flood waters south of the proposed residential subdivision into the North Creek Canal. The project will seek the dedication of all roads, access ways, footpaths/ cycleway, open space, drainage infrastructure and public recreation areas to Council.

Vehicular access to the site is via the proposed Link Road on the eastern perimeter of the site. The new Link Road will include access from the Pacific Highway approved under development consent DA 2002/566, this Pacific Highway/ Link Road access point will include the construction of a new four-way roundabout at the Pacific Highway/ North Creek Road intersection with the roundabout at the southern end of the Link Road providing access to the subdivision site. Approval for construction of the Pacific Highway access is not included as part of this project application as it is understood the construction of this intersection will be shared with the adjoining land owner. Nevertheless, the subdivision will be dependent on construction of this intersection for access to the Pacific Highway, therefore, a condition of approval requiring its completion prior to release of the Subdivision Certificate for Stage 1 has been included in the Department's recommendation.

The proposed internal road network provides for a contemporary grid style street pattern with only one cul-de-sac street proposed for the entire project, which is an overall improvement to the previous subdivision pattern of the existing DA 2002/566 consent. All roads (other than the lane servicing lots 1-5) make provision for a road reserve between 16 and 22 metres and allowance for pedestrian footpaths and underground utilities. The internal road network also achieves adequate levels of connectivity with acceptable travel paths for pedestrians and cyclists with the proposed pedestrian/ cyclist movement plan also providing for access across the Pacific Highway via implementation of a pedestrian refuge. The proposed shared footpath/cycleway link connects the site to the existing Council cycleway network at the North Creek Canal Bridge east of the site (**Figure 14**). Reticulated power, water and sewerage are available to the site. A combined sewer pump station and rising main is proposed to be constructed as part of development consent DA 2002/566 between the proponent and adjoining land owner. It is recommended that the completion of this facility be reflected in the conditions of this approval.

Staging

It is proposed that the subdivision be constructed in five (5) stages. Market demand will influence the timing of construction and release of each stage. Below is a plan indicating the proposed staging (**Figure 6**).



Figure 6 – Proposed staging plan (Conics 2008).

3.2. Project Amendments

A Preferred Project Report (PPR) was submitted on 27 August 2008 incorporating the following amendments:

- Inclusion of pedestrian footpath/ cycleway;
- Dedication of access ways to Council;
- Provision of parking within access ways;
- Safe crossing of Pacific Highway;
- Amended stormwater concept plan; and
- Inclusion of previous stormwater reserve as public open space area.

4. STATUTORY CONTEXT

4.1. Major Project Declaration

The proposal is subject to assessment under Part 3A of the *Environmental Planning and Assessment Act 1979* (the Act) and the approval of the Minister for Planning is required to carry out the project. On 8 May 2006 the Director-General as delegate of the Minister formed the opinion that the development was a project to which Part 3A of the Act applies. However, on 9 October 2007 the proponent added additional land to the project and as a result, the Minister revoked the original declaration and on 30 November 2007, subsequently formed a new opinion that the amended project is a project to which Part 3A of the Act applies. Subsequently, the proponent sought the Minister's approval for this project application pursuant to section 75J of the Act.

Schedule 2, clause 1(1)(i) of the *State Environmental Planning Policy (Major Projects) 2005* (MP SEPP) identifies development for the subdivision of land in a residential zone into more than 25 lots in the coastal zone as a project to which Part 3A of the Act applies.

4.2. Permissibility

The site is zoned under the *Ballina Local Environmental Plan 1987*. Land uses zoned within the subject site include:

1(d) Rural Investigation

Proposed works within the 1(d) zone include the construction of the southern link road, drainage works, landscaping and construction of the playing field and associated amenities. In accordance with the objectives of the 1(d) zone, these works are permissible and will not inhibit the possible future release of land within the 1(d) zone for subdivision.

2(a) Living Area

Proposed works within the 2(a) zone include residential subdivision, construction of roads, landscaping and provision of associated infrastructure. In accordance with the objectives of the 2(a) zone, these works are permissible and compatible with the character and amenity of the surrounding residential area.

The project is permissible within these zones subject to the Minister's approval.

The zoning of the site is shown in **Figure 7**.

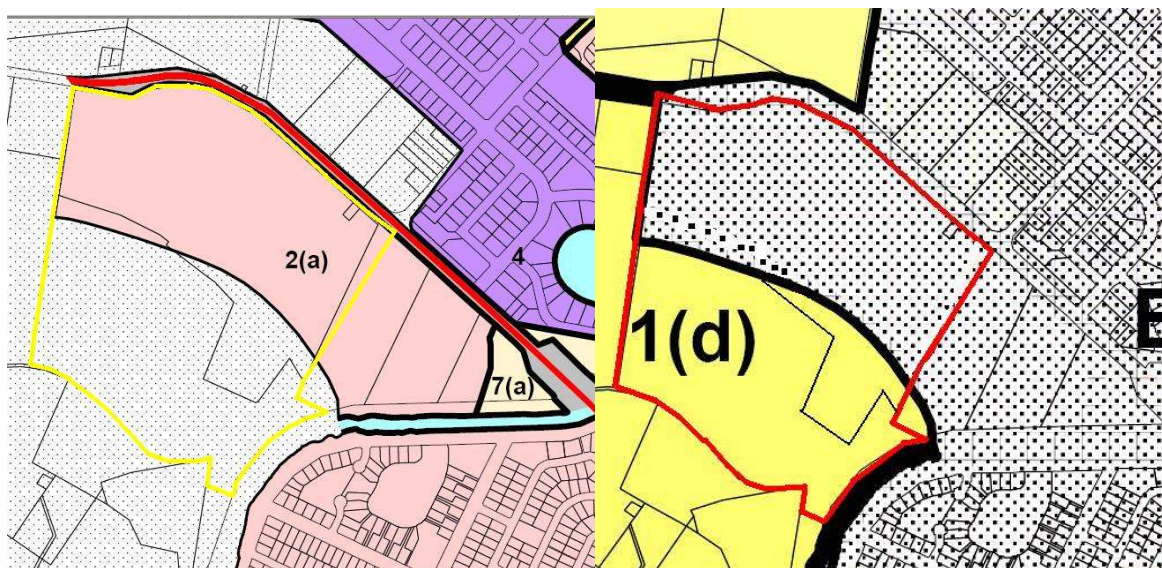


Figure 7 – Zoning for the subject site, 2(a) Living area (left) and 1(d) Rural investigation (right).

4.3. Minister's Approval Power

The Department exhibited the Environmental Assessment (EA) in accordance with section 75H(3) of the Act as described in **Section 5** below. The project is permissible and meets the criteria of the Major Projects SEPP. Therefore, the Department has met its legal obligations and the Minister has the power to determine this project.

4.4. Director-General's Environmental Assessment Requirements

The Director-General's Environmental Assessment Requirements (DGRs) were issued on 30 April 2007 and amended 2 January 2008, on 11 April 2008 the EA was considered to be compliant with the DGRs for the purposes of section 75I(2)(g) of the Act.

4.5. Objects of the Environmental Planning and Assessment Act 1979

The objects of any statute provide an overarching framework that informs the purpose and intent of the legislation and gives guidance to its operation. The Minister's consideration and determination of a project application under Part 3A must be informed by the relevant provisions of the Act, consistent with the backdrops of the objects of the Act.

With respect to Ecologically Sustainable Development (ESD), the Act adopts the definition in the *Protection of the Environment Administration Act 1991* including the precautionary principle, the principle of inter-generational equity, the principle of conservation of biological diversity and ecological integrity, and the principle of improved valuation, pricing and incentive mechanisms.

The Department has considered the Objects of the Act, including the encouragement of ESD in the assessment of the project application.

4.6. Consideration of Ecologically Sustainable Development Principles

The Department has considered the Objects of the Act, including the encouragement of ESD in the assessment of the project application. The principles of ESD have been considered in this assessment as follows:

There are five (5) accepted ESD principles:

- a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations (the integration principle);
- b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation (the precautionary principle);
- c) the inter-generational principle;
- d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making (the biodiversity principle); and
- e) improved valuation, pricing and incentive mechanisms should be promoted (the valuation principle).

The Department has considered the proposed development in relation to the ESD principles and has made the following conclusions:

Integration Principle

The project will provide economic benefits to the Ballina area. The environmental impacts are addressed through the proponent's EA, and amended PPR including the Statement of Commitments, and recommended conditions of approval. The Department's assessment has duly considered all issues raised by the community and public authorities. The proposal as recommended for approval does not compromise a particular stakeholder or hinder the opportunities of others.

Precautionary principle

The EA submitted has identified and assessed the range of environmental impacts of the project. The proponent has demonstrated that the subdivision design and appropriate mitigation measures will be

implemented to prevent any potential environmental impacts. Mitigation measures are outlined in the proponent's statement of commitments and/or the recommended conditions of approval.

Inter-generational principle

The principle of inter-generational equity is to ensure that the present generation should make certain the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.

The project will provide the following benefits to the community of Ballina:

- provision of additional residential accommodation;
- future site for childcare centre; and
- provision of future open space and sports playing fields.

Biodiversity principle

The site has been largely cleared of native vegetation. However, in order to conserve the aquatic environment and maintain the ecological integrity of the existing watercourse traversing the site, a redesign of the stormwater concept plan was required. These proposed measures will improve aquatic habitats in areas contiguous to the site.

Valuation principle

The system is designed to promote an environmentally sustainable outcome through provision of the management of stormwater runoff incorporating water sensitive urban design and nil pollutant load measures, monitoring of groundwater and acid sulfate soils as reflected in the proponent's Statement of Commitments.

Consequently, the Department is satisfied that the proposal is consistent with the principles of ESD.

4.7. Environmental Planning Instruments

To satisfy the requirements of section 75(2)(d) and (e) of the Act, this report includes references to the provisions of the environmental planning instruments (EPs) that substantially govern the carrying out of the project and have been taken into consideration in the environmental assessment of the project. A summary of compliance with the relevant EPs is at (**Appendix B**).

The provisions, including development standards of local environmental plans, and development control plans are not required to be strictly applied in the assessment and determination of major projects under Part 3A of the Act. Notwithstanding, these standards and provisions are relevant considerations as the DGRs require the proponent to address such standards and provisions. Accordingly the objectives of a number of EPs and the development standards therein and other plans and policies that substantially govern the carrying out of the project are appropriate for consideration in this assessment as follows:

State Environmental Planning Policy (Major Projects) 2005

As discussed in **Section 4.1** the MP SEPP applies to the site. The proposal achieves the Major Project criteria in the Major Projects SEPP, being subdivision of land in a residential zone creating more than 25 lots in the coastal zone.

State Environmental Planning Policy No. 71 – Coastal Protection

The *State Environmental Planning Policy No. 71 – Coastal Protection* (SEPP 71) was formulated to ensure that development in the NSW coastal zone is appropriate and suitably located, there is a consistent and strategic approach to coastal planning and management and there is a clear development assessment framework for the coastal zone. The major objectives of SEPP 71 include retention of visual amenity, protection of the coastal foreshore in relation to amenity, public access, wildlife corridors, water quality, views, items of heritage and suitability of development within the area. SEPP 71 applies to the land and development within the coastal zone (clause 4) as defined by the *Coastal Protection Act 1979*. The subject site is located within the coastal zone. SEPP 71 provides aims of the Policy (clause 2) and matters for consideration (clause 8) when assessing

development proposals. The proposal is considered to be generally consistent with the provisions of SEPP 71 and this is discussed in more detail at **Appendix B**.

State Environmental Planning Policy No. 55 – Remediation of land

The aim of *State Environmental Planning Policy No. 55 – Remediation of land* (SEPP 55) is to provide for remediation of contaminated land for the purpose of reducing the risk of harm to human health or the environment and requiring that any remediation work meets certain standards and notification requirements. In accordance with SEPP 55 the Department raised issues with the site's previous land use pertaining to sugar cane cultivation, the proponent has responded to the issue which is discussed further in **Section 6**.

State Environmental Planning Policy No. 11 – Traffic generating development

The *State Environmental Planning Policy No. 11 – Traffic generating development* (SEPP 11) was repealed upon commencement of *State Environmental Planning Policy (Infrastructure) 2007* ("Infrastructure SEPP") which came into effect 01 January 2008. Clause 11(1)(b) of the Infrastructure SEPP, however, makes provision for SEPP 11 to continue to apply to the determination of a project application made under Part 3A of the Act, if such an application is yet to be determined prior to commencement of the Infrastructure SEPP.

Schedule 2 of SEPP 11 applies to subdivision of land into 50 lots or more. SEPP 11 aims to provide the Roads and Traffic Authority (RTA) an opportunity to make representations in respect of developments which are significant generators of traffic. In this regard, the proposal was referred to the Regional Traffic Committee in which the RTA is represented. The application was also referred directly to the RTA and their response is discussed in more detail in **Section 6**.

North Coast Regional Environmental Plan

North Coast Regional Environmental Plan (North Coast REP) applies to the northern coastal local government areas between the Tweed Shire and the Hastings-Port Macquarie Shire. The broad aims of the North Coast REP are to protect natural environment, encourage an efficient and attractive built environment and guide development into a productive yet environmentally sound future. Specifically, the objectives of the North Coast REP as they apply to development of urban housing is to promote the provision of a range of adequate, affordable and suitable housing to meet the needs of the region's population. Assessment of the proposal in accordance with the North Coast REP is discussed in more detail at **Appendix B**.

Ballina Local Environmental Plan 1987

The *Ballina Local Environmental Plan 1987* (Ballina LEP 1987) sets the broad planning framework for development in the Ballina local government area and establishes permissible forms of development and land use. The general aims of the Ballina LEP 1987 are to encourage the proper management, development and conservation of resources, while promoting the social and economic welfare of the community and to providing for a better environment. The proposed development is consistent with the provisions of the Ballina LEP 1987. An assessment of the project in accordance with the relevant provisions of Ballina LEP 1987 is at **Appendix B**.

4.8. Other Plans and Policies

The proposal has been considered against the following non-statutory documents and issues discussed in further detail at **Appendix C**)

NSW Coastal Policy 1997

The *NSW Coastal Policy 1997* (the Policy) responds to the fundamental challenge to provide for population growth and economic development without placing the natural, cultural, spiritual and heritage values of the coastal environment at risk. The Policy is based on the principles of ecologically sustainable development and addresses a number of key coastal themes including population growth, coastal water quality issues and

establishing a comprehensive and representative system of reserves. Assessment of the project against the Policy is at **Appendix C**.

NSW Coastal Design Guidelines

The *NSW Coastal Design Guidelines* (the Guidelines) aim to ensure that future developments and redevelopments are sensitive to the unique natural and urban settings of coastal places in NSW. The Guidelines provide an urban design focus for the coastal context. A detailed assessment of the project in accordance with the Guidelines is at **Appendix C**.

Ballina Shire Combined Development Control Plan

The *Ballina Shire Combined Development Control Plan (DCP)* applies to all land within the Ballina local government area and provides standards and requirements for permissible development. A detailed assessment of the project in accordance with the DCP is at **Appendix C**.

Far North Coast Regional Strategy

The *Far North Coast Regional Strategy* (Strategy) was adopted in 2007 to ensure a well balanced long-term vision is achieved for the coastal areas of NSW. The Strategy aims to ensure provision is made for future growth whilst protecting the environment. The Strategy has a 25 year time frame and predicts population growth on the far north coast to increase by 60,400 people with 35 % of future housing to be located in the regional centres of Tweed Heads, Ballina and Lismore alone. A summary of the project's consideration of the Strategy is at **Appendix C**.

Ballina Urban Release Strategy

The *Ballina Urban Release Strategy* is an urban land release strategy formulated to provide a basis for the consideration of land use rezoning proposed to supplement existing infrastructure and the supply of residential land in accordance with Australian Bureau of Statistics figures and future housing demand. A summary of the project's consideration of the Strategy is at **Appendix C**.

5. CONSULTATION AND ISSUES RAISED

5.1. Public Exhibition Details

The EA was exhibited from 24 April 2008 to 26 May 2008 and notice of its exhibition was published in *The Northern Star* and the *Ballina Courier*. The EA was made available to the public in the Department's Information Centre, the Nature Conservation Council of NSW; and Ballina Shire Council.

The EA was also provided for download on the Department's website. The Department has exhibited the EA in accordance with section 75H(3) of the Act. Letters were sent to adjoining owners and residents notifying of the exhibition and inviting a submission. The PPR was accepted on 16 September 2008 and as the changes to the nature of the project were not significant, there was no requirement to re-exhibit.

5.2. Submissions from Public Authorities

The Department received a total of seven (7) submissions in response to the public exhibition of the EA. The submissions were received from the following public authorities:

Ballina Shire Council

Council has worked extensively with the proponent on the site in relation to certification matters associated with development consent DA 2002/566. Key issues raised by Council include:

- Acid sulfate soils management
- Acoustic impact
- Infrastructure
- Hydraulic performance
- Mosquito management
- Site contamination
- Traffic and access

These issues are further discussed in **Section 6** of this Report.

Department of Environment and Climate Change

Key issues raised by the Department of Environment and Climate Change (DECC) predominately relate to overall loss of vegetation and habitat corridors and filling of existing watercourse. Key issues raised by DECC are further discussed in **Section 6** of this Report.

Department of Primary Industries

In its submission, the Department of Primary Industries (DPI) highlighted that the former NSW Fisheries and now Aquatic Habitat Protection Unit within DPI have had considerable involvement with the proponent and Council in assessing impacts of works carried out under development consent DA 2002/566. DPI's input on the project was provided in response to exhibition of the EA and the proponent's PPR. Key issues raised by DPI include the following:

- Acid sulfate soil management
- Hydraulic performance
- Climate change
- Impact on aquatic habitats

These issues are further discussed in **Section 6** of this Report.

Rural Fire Service

The Rural Fire Service (RFS) has reviewed the project in accordance with the *Planning for Bushfire Protection 2006* and the *Standards for asset protection zones* documents and recommended appropriate conditions of approval pertaining to asset protection zones; location of water, electricity and gas services and public road access requirements. The conditions of approval recommended by the RFS have been adopted as part of the Department's recommendation.

State Emergency Service

The State Emergency Service (SES) provided a submission in response to exhibition of the EA and raised concerns in regards to flood evacuation of the site during extreme events. Flood evacuation of the site is further discussed in **Section 6** of this Report.

Department of Water and Energy

Key issues raised by Department of Water and Energy (DPI) include:

- Acid sulfate soil management
- Hydraulic performance
- Filling of existing watercourse
- Flooding
- Climate change
- Ground water
- Loss of vegetation and habitat corridors

These issues are further discussed in **Section 6** of this Report.

Roads and Traffic Authority

As the site has direct vehicular/ pedestrian access to the Pacific Highway, an arterial road, the project was referred to the NSW RTA for comment on 22 April 2008 and considered by the Regional Traffic Committee on 19 June 2008. The RTA raised a number of concerns pertaining to the safety of pedestrians and cyclists crossing the Pacific Highway on the site's north boundary, bus servicing within the project and incorporation of traffic calming measures within the proposed road network. These issues are discussed in further detail in **Section 6** of this Report.

5.3. Submissions from the Public

The following issues were raised in the public submissions:

- Hydraulic performance
- Easement location

Discussion on the key issues from the above is in **Section 6** of this Report.

6. ASSESSMENT OF ENVIRONMENTAL IMPACTS

In addition to the EPIs and planning policies addressed in **Section 3** of this report, key issues considered in the Department's assessment of the EA, assessment of the PPR and consideration of the proponent's amended draft Statement of Commitments include the following:

6.1. Urban design

The proposed lot pattern of the subdivision incorporates a substantial number of higher density Torrens title lots (from 410 – 450 m²). The Ballina Combined DCP stipulates a minimum residential lot size of 600 m², however, the project proposes a substantial number of allotments below this minimum lot size. The smaller lots raise potential issues for the future amenity of residents with regards to solar access, privacy, overshadowing and amenity, and the Department raised this as an issue in response to exhibition of the EA. Council has not raised any objection to the non-compliance with 600 m² minimum lot size.

In comparison to the development controls of other contiguous coastal local government areas to the Ballina Shire, the 600 m² lot size standard is upheld to preserve residential amenity in the absence of more prescriptive built form controls. Although smaller lot sizes such as the ones currently proposed are more consistent with contemporary planning practice, as the size of an allotment is reduced, good site planning and the relationship between sites become increasingly important to ensure that each dwelling site has an appropriate aspect, solar access, useable private open space and protection from overshadowing and overlooking.

To address this issue, the proponent provided building envelope plans showing indicative future building footprints. These envelope plans identify maximum building footprints for each lot proposed and helps demonstrate how future buildings will correspond to the project's internal road network, acoustic mounds, services, footpaths and landscaping, while ensuring housing will be positioned to achieve acceptable private open space areas and not affect residential amenity. **Figure 8** displays the indicative building envelopes for lots within the north-east section of the site.



Figure 8 – Indicative building envelopes (Conics 2008).

The building envelope plans demonstrate that a substantial number of future dwellings will be built on smaller lots. The Department recognised that the proposed building footprints are indicative only and emphasises a maximum building envelope for each of these smaller lots, and that construction of housing on the site will be subject to future development applications lodged with Council, it is considered important to demonstrate that appropriate privacy, solar access, ventilation and private open space can be achieved on these smaller lots. The Department's review of the building envelope plans in accordance with the proposed indicative housing layouts has identified a number of lots with potential impacts on residential amenity. As a result, conditions of approval are recommended requiring specified building setbacks as a covenant restriction, importantly with these recommended setbacks, a suitable house is still capable of being constructed on these lots.

6.2. Flooding

The site is located in a low lying coastal floodplain and subject to flood impacts. In 1997 Council completed the Ballina Floodplain Management Study which identified the site as being affected by the 1:100 year flood event. The Study considered options for future development in the Ballina Shire, including the subject site and relevant flood impacts. The Study also found that a floodway would be required on the subject site to alleviate flood impacts due to filled development in the area and assist draining of the floodplain east of the site into the North Creek Canal during major flood events. The existing development consent DA 2002/566 did not include construction of this floodway, however, the current application makes provision for this floodway between the proposed residential lots and the Ballina Sewage Treatment Plant (Refer to **Figure 4**).

Further to the 1997 Study, in March 2008 Council adopted the Ballina Flood Study Update 2007 (BFSU). The BFSU concluded formal reporting of the design flood events and presentation of other flood hazard mapping in addition to the 1997 Study. The design flood events utilised in the BFSU include 1:5 year, 1:20 year, 1:50 year, 1:100 year, 1:500 year and the Probable Maximum Flood (PMF) event. As a result of the BFSU, Council revised its freeboard policy (minimum building height above the flood level) in accordance with the NSW Floodplain Development Manual (2005), meaning all new residential development in the Ballina Shire will be required to have a 0.5 m freeboard above the 1:100 year flood level. Therefore, the minimum floor level for the construction of new buildings on the site (subject to separate application from Council) will be RL 2.5 m.

6.3. Climate change

Climate change is expected to have adverse impacts upon sea levels and rainfall intensities, both of which may have significant influence on flood behaviour in coastal areas. With regard to flooding, the 100 year event level for the site is 2.0 m AHD. This level is derived from the BFSU discussed in **Section 6.2** which was finalised by Council earlier this year. The BFSU considered the impacts of sea level rise based on an extensive literature review in consultation with DECC and the content of the Third Assessment Report by the Intergovernmental Panel on Climate Change (IPCC, 2001). As a result, the BFSU identified future sea level rise over a 50 year timeframe to be 200 mm and this was incorporated into its modelling.

The DGRs issued on 2 January 2008 (**Appendix A**) required the proponent to provide an assessment of flood risk in accordance with the Ballina Floodplain Management Study. However, further to the findings of the BFSU, the latest modelling estimates from the Fourth Assessment Report Intergovernmental Panel on Climate Change (IPCC 2007) identifies increased risk to coastal areas from sea level rise. In addition, the DECC document "Floodplain Risk Management Guideline - Practical Consideration of Climate Change" and recent CSIRO modelling indicate that mean sea level change along the NSW coast is expected to be in the range of 0.18 to 0.91 metres by between 2090 and 2100. This Guideline also identifies climate change impacts on flood producing rainfall events, showing a trend for larger scale storms (providing a range of climate change management strategies that could be considered for the project rainfall totals for the 40 year average recurrence interval (ARI) 1 day storm events) to increase by 2030 and 2070

In light of the findings from the IPCC's Fourth Assessment Report and the DECC Guideline, Council has applied for a funding grant from the Minister for the Environment and Climate Change to commission a new floodplain management plan for the Ballina Shire. The new study will assist Council with managing climate change impacts and associated risk with development within floodplains, including the subject site. However, at the time of writing this report no new progress regarding this funding grant has emerged. Therefore, as a degree of precaution a condition of approval has been included in the Department's recommendation requiring the proponent to demonstrate to the satisfaction of Council that the project will achieve adequate flood protection measures for the site in the future. The recommended condition specifically requires each relevant stage of the project to be flood immune up to the 1:100 year flood event, as determined by Council's flood policy in force at the time of issue of the construction certificate. Therefore, the recommended condition gives consideration to the future floodplain management plan currently being formulated. The recommended condition also has the support of Council.

6.4. Flood evacuation of the site

As specified previously in **Section 6.2** the site is subject to risk from future flooding impacts as indeed many areas of Ballina Shire. Strategic management of flood evacuation measures for the site is an important consideration in relation to the safety of future residents of the site. In response to exhibition of the EA, the State Emergency Services (SES) raised concerns regarding the flood evacuation plan included in the EA (**Figure 10**) as it did not provide evacuation measures in relation to the PMF event or other extreme events other than the 1% Annual Exceedance Probability (AEP) event.

The NSW Floodplain Development Manual 2005 provides for a flexible merit based approach to selection of appropriate flood planning levels for development of flood prone land. The Manual specifically states that residential development is generally to be based around the 1% AEP event which has been adopted in the project's flood modelling. **Figures 9** and **11** demonstrate the site's flood immunity during the 100 year and PMF events respectively, however the flood evacuation plan only displays one (1) single emergency exit during a flood evacuation occurrence which is located in the south-east sector of the site.



Figure 9 – Base Case Peak Flood Impacts 100 Year ARI Combined Event (BTM WBM 2007).

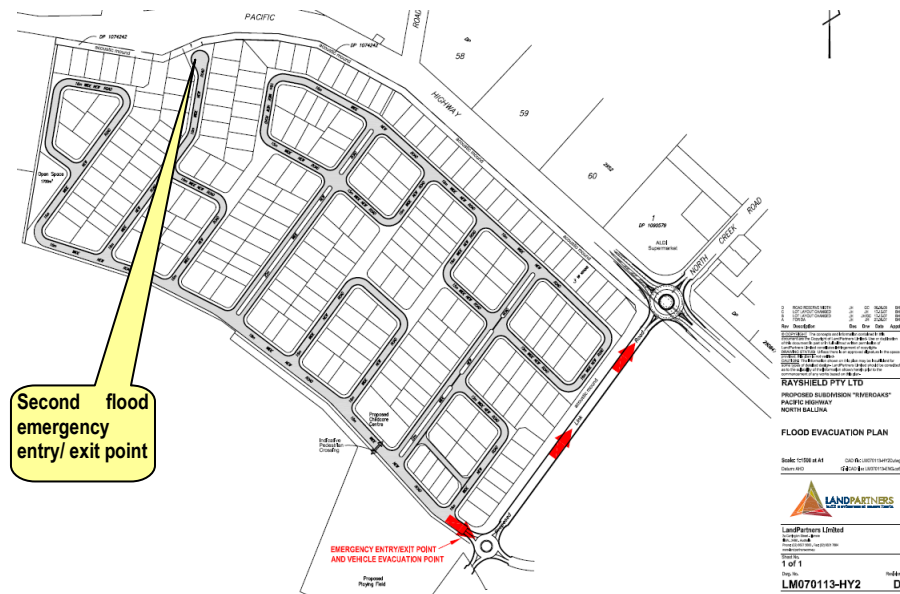


Figure 10 – Flood evacuation plan.

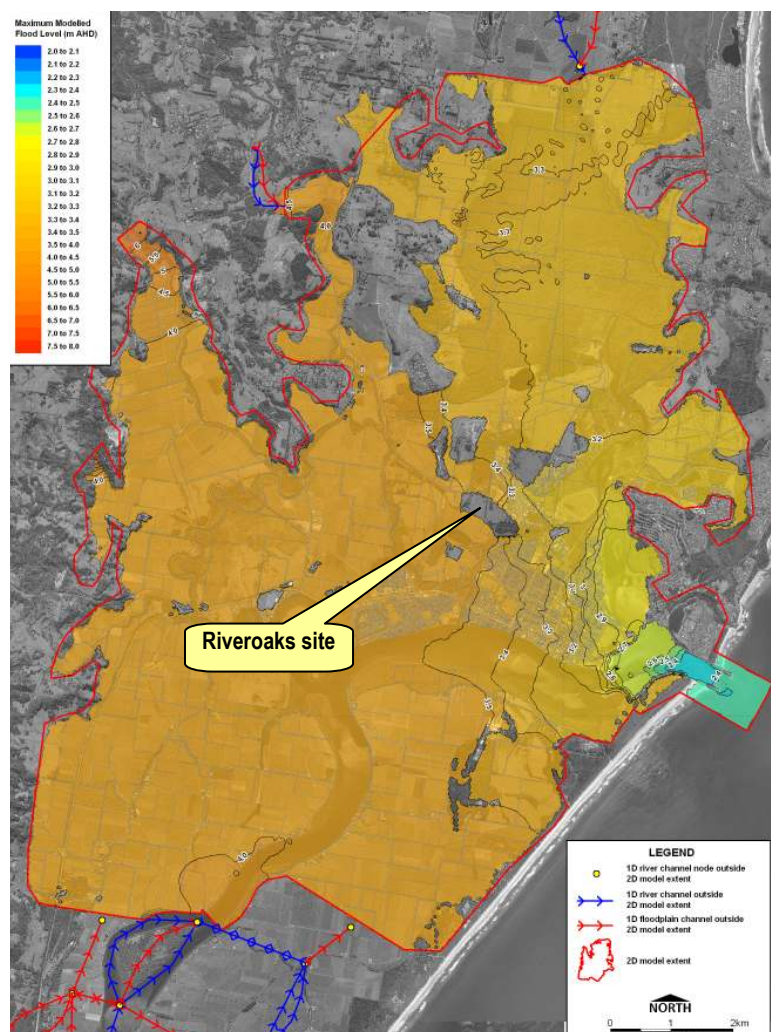


Figure 11 – Base case levels PMF event (BTM WBM 2007).

The SES also recommended that the Department request the proponent to specifically conduct an evacuation capability assessment based on the ability of the site's future community to evacuate from flood hazards to locations above the PMF. The proponent's PPR responded to this by arguing that no emergency evacuation planning for the PMF event has been undertaken by Council or local SES authorities, and that conducting such a capability assessment for the PMF is outside the scope of works possible for a developer seeking development approval.

In response to the proponent's PPR the SES indicated that the flood evacuation point for evacuees of the Ballina population is designated to be Tintenbar (north of the site) and/or East Ballina. The SES did acknowledge that Ballina's local flood response does lack some tactical detail about how the evacuation would be implemented, including evacuation triggers and time frames, though, as indicated in its original response to exhibition, the SES has generally recommended the proponent carry out an evacuation capability assessment in consideration of the PMF event.

Although flood evacuation for the PMF or other extreme event is a critical consideration for Ballina's general emergency response strategy, requiring the proponent to carry out an evacuation capability assessment (for such a flood event) for a site on the north-western fringe of the Ballina township is difficult to implement in the absence of a detailed evacuation plan for the surrounding area. The Manual specifically states that residential development is generally to be based around the 1% AEP event and the proponent's evacuation plan has been drafted in consideration of such an event. In order to increase the safety of future residents of the Riveroaks site during an extreme flood event, a condition of approval has been included in the Department's recommendation requiring the proponent to create a second emergency exit in the north-west sector of the site. This second exit will utilise the site's cul-de-sac, servicing residents on the western end of the site in the event of a residential evacuation in response to an extreme flood event such as the PMF event.

6.5. Hydraulic performance

Prior to the commencement of bulk filling operations, the site's surface water regime entered the site from the western boundary, meandered north before traversing south-east and exiting via the adjoining Lot 269 DP 755684. In accordance with the existing DA 2002/566 consent, this watercourse was to be filled and diverted south along the site's western boundary (**Plate 7**). This hydraulic diversion scheme of the existing consent has been adopted as part of this application and works associated with filling the existing water course is understood to have commenced on-site.

In response to exhibition of the EA, Council, the objectors, DWE and the Department raised concerns pertaining to the project's capacity to replace the hydraulic function of the existing watercourse traversing the site (**Plate 4**) with an equivalent new watercourse travelling along the site's western boundary. In particular, Council as the Principal Certifying Authority for the bulk earthworks already commenced on-site has informed the Department that subsequent to the commencement of filling works, it has become apparent to Council that the new drainage channel does not provide an equivalent hydraulic performance to the original watercourse traversing the site. Furthermore, objections to the project received from residents west of the site raised concerns regarding flooding and increased build-up of surface water on their properties which previously drained via the watercourse travelling through the site.



Plate 4 – View west showing the site post clearing of site's watercourse (Everick Heritage Consultants Pty Ltd 2007).

In order to maintain the hydraulic capacity of the existing stormwater regime and watercourse flows entering the site, the proponent's PPR has amended the stormwater concept plan submitted with the EA to incorporate a drainage channel along the site's northern boundary. This drainage channel will divert stormwater from the Pacific Highway and areas from the north (which previously traversed the site) and convey these flows into Council's existing drainage system which drains to North Creek Canal adjacent to the bridge. These drainage works are to be carried out pursuant to section 68 of the *Local Government Act 1993* and section 138 of the *Roads Act 1993*. As specified above an appropriate condition of approval requiring the stormwater flows to match the pre-developed levels has been included in the conditions of approval.

The new drainage regime will also incorporate flows entering the site from the west and then divert these flows south along the site's western boundary drainage channel. Council has indicated that in order to satisfactorily drain the water catchment west of the site a minimum drainage invert of RL 0.00 m AHD must be provided for this new western boundary channel. Once stormwater flows from the western boundary channel reach the southern boundary of Lot 2 DP 1074242, the proponent has committed to merging the western channel along the edge of the rehabilitation plantings at the southern boundary then flowing west to east until discharging into North Creek Canal via a reinforced concrete outlet.

The final measure to be undertaken by the proponent to ensure adequate hydraulic performance of the stormwater concept plan is to drain the flows from new residential areas of the site and south via detention pond and separate swale directly through Lot 2 DP 1074242 within approved easements. Drainage will be to a discharge point in the existing low areas on the site's southern boundary. Plans for this works have been approved by Council under a section 68 application.

These stormwater flow measures proposed as part of the site's new watercourse regime will allow for diversion of flows (from the Pacific Highway and northern areas entering the site) east along the northern boundary into Council's network; runoff from the residential area on Lot 1 DP 1074242 to be transported south via a series swales and retention systems into low areas on the southern portion of Lot 2 DP 1074242; and finally diversion of the existing watercourse traversing the site from the western boundary into a southern channel discharging into North Creek Canal. In order to ensure these stormwater measures are carried out accordingly, a condition of approval requiring the project to provide a suitable drainage system and demonstrate that the pre-development performance of the existing stormwater and overland drainage system is maintained will be incorporated as conditions of approval in the Department's recommendation.



Plate 5 – Drainage channel running south on site's western boundary with mangroves in background (Landpartners 2007).



Plate 6 –Looking north western boundary drainage channel flowing from vegetated area on adjoining property (Everick Heritage Consultants Pty Ltd 2008).



Plate 7 – Western boundary drainage channel and new ecological measures providing connectivity for riparian vegetation.

6.6. Groundwater

The groundwater regime under the locality is generally described as a coastal sand bed groundwater system. Due to high infiltration rates, water quality, particularly at shallow levels, can often be of reasonable quality. However, such a system can also be relatively fragile and needs to be managed appropriately. The acid sulfate soil layers need to be maintained in an anaerobic or waterlogged condition to minimise risk. Therefore, maintenance of this water table at existing levels is an important requirement to prevent adverse damage to this groundwater system from acidic drainage. Residential development across the site is likely to affect infiltration and drainage patterns, particularly as a result of stormwater discharge off site. If water tables experience a steady decline post-development, then acidic conditions may be exacerbated with the risk of subsequent movement of acid leachate after extreme events.

Therefore the operation of the proposed drainage swales and roadside green areas may be critical in maintaining infiltration after rainfall events to stabilise the water table, particularly after a period of dry weather conditions. Any longer term decline in the water table may also affect native vegetation on surrounding land, particularly the EEC on the nearby Lot 1 DP 799238 which is considered to be a partially groundwater dependent ecosystem.

In order to detect any long term trends and acid generation, DWE has indicated in its response to exhibition of the EA that it will be essential for the proponent to monitor the water regime under and around the site upon commencement of works. The proponent has committed to establishing a piezometer network of shallow groundwater monitoring bores at key points around the site. A condition of approval has been included to provide adequate monitoring of local groundwater conditions to enable the identification of potential deleterious impacts and allow for implementation of suitable best practice mitigation and management measure should the need arise, this condition of approval has been included in the Department's recommendation.

6.7. Loss of vegetation and habitat corridors

The project will potentially impact nearby vegetation on adjoining properties owned by separate land holders (Plate 3). In particular, there are ecological impacts associated with disturbance to the Swamp Oak Floodplain Forest located on Lots 268/ 269 DP 755684 and Lot 1 DP 799238. This dense vegetated area east of the site contains swamp oak floodplain forest of the NSW North Coast listed under the *Threatened Species Conservation Act 1995* as endangered ecological community (EEC). It is noted that Swamp Oak Floodplain Forest was declared to be an EEC in 2004 after development consent DA 2002/566 was issued by Council to clear the vegetation on this land.

The Department understands that vegetation on this neighbouring land (Lots 268/ 269 DP 755684) is owned by a separate landholder and there is an existing consent for complete clearing with the residual land (Lot 1 DP 799238 zoned as 7A Environmental Protection) to be retained as a conservation reserve. To compensate for the loss of riparian and wetland areas on Lot 268/ 269 DP 755684, conditions issued under development consent DA 2002/566 required the establishment of a two hectare compensatory rehabilitation area to be established on the southern area of the site (Lot 2 DP 1074242). While it is unfortunate that previous development consents have/ will allow for native vegetation and EECs in these areas to be completely cleared, the practical complexity of achieving new ecological outcomes on land subject to a pre-existing consent and under separate ownership is difficult to achieve. The Department's assessment has therefore focussed on continuing these compensatory rehabilitation measures intended as part of development consent DA 2002/566 (Plate 8/9).



Plate 8 – Vegetation clearing under existing development consent



Plate 9 - Compensatory rehabilitation area located on southern portion Lot 2 DP 1074242.

In order to continue the compensatory rehabilitation measures established under development consent DA 2002/566, a condition of approval has been recommended requiring the proponent to regenerate and maintain the compensatory rehabilitation area identified in the southern portion of Lot 2 DP 1074242 for a period of at least four (4) years from the 27 December 2007 which was when these plantings were established. The condition has been discussed with the proponent and no objections were raised regarding its inclusion.

6.8. Impact on aquatic habitats

As discussed previously in **Section 6.5** the project's stormwater regime will incorporate a new drainage channel on the western boundary of Lot 2 DP 1074242 diverting the site's water course south to the North Creek Canal. DPI raised concern to this western drainage channel as its proposed depth (RL 0.2 m AHD) could potentially necessitate intersection with groundwater which could lead to potential discharge of acid groundwater and impact on surrounding marine vegetation.

Further to this issue raised by DPI, Council has indicated that in order for the site to adequately drain upstream catchments to the west, it will be necessary to provide for a drainage channel on the western boundary to set as low as RL 0.00 m AHD. In response to this issue, the proponent amended the stormwater concept plan to retain the drainage channel on the site's western boundary exclusively for the diversion of flows entering the site from the western catchment where these flows are to be drained in a southerly direction, while flows from the site's North is to be diverted west-south to Council's system and the site's stormwater post-development will be directed south via detention pond and separate swale.

The proponent has consulted with DPI in regards to the amended stormwater concept plan and has indicated that although the western drainage channel is to be set at RL 0.0 m AHD, locating the drainage channel on the southern side of Lot 2 DP 1074242 (which is set at RL 1.2 m AHD) avoids direct and ongoing maintenance impacts on marine vegetation and avoids installation of a floodgate. Whilst DPI remain somewhat concerned at the invert of the drainage channel being set at RL 0.0 m AHD, DPI officers have acknowledged that the new drainage channel is considerably shallower than the old agricultural drain channel that transacted the property with a variable invert as deep as -0.7 m AHD.



Plate 10 – Existing mangroves south of site.

Evaluating the above advantages associated with the amended stormwater concept plan, it should also be noted that relocating the drainage channel on the southern side of Lot 2 DP 1074242 reduces the area of the compensatory plantings. In this instance DPI readily accepts this shortcoming, however, in recognition of the requirements of the proponent pertaining to the compensatory planting area the amended stormwater concept plan is the preferred option considering that it affords ongoing and greater protection to an established stand of

mangroves. Furthermore the proponent has also committed to removing an illegally constructed block bank impacting on aquatic habitats under the powerlines and DPI has acknowledged that these improvements to aquatic habitats represent an adequate off-set for the reduction in compensatory plantings. The Department considers the above amendments to be adequate measures allowing for general improvement to the condition of aquatic habitats south of the site. Conditions of approval have been included in the Departments recommendation to reflect these improvements to aquatic habitats.

6.9. Filling of existing watercourse

There are potential impacts associated with filling the site's existing watercourse (as permitted under consent 2002/566) on the EEC east of the site as it is understood that the watercourse may be necessary for the integrity of this vegetation. DECC sought commitments from the proponent to undertake a more detailed assessment of the project's impact on adjoining EECs east of the site from filling the watercourse traversing the site. In particular, DECC specifically pointed out that potential hydrological change to the EEC in question resulting from approved filling works upstream remains a possibility and that impacts on the downstream vegetation communities is not known conclusively. DECC therefore suggested that this is a matter which should be handled with a degree of precaution in the absence of certainty.

As discussed in section 6.7, the majority of vegetation on the adjoining property has consent to be cleared and it is understood that this has occurred since the EA was exhibited. In its response to the proponent's PPR, DWE indicated its disappointment to the clearing of this vegetation as well as filling of the existing watercourse permitted under the development consent DA 2002/566, however, indicated that there was little to be achieved by revisiting the issue under the current project application. DWE has signified a preference for the project to provide a surface flow of stormwater runoff to the remnant 7A Environmental Protection Zone though conceded the practical difficulties of the proponent gaining cooperation between the neighbouring land owners to achieve this final outcome.

DECC and DPI's concerns are acknowledged, however, it is noted that these are largely a product of the existing consent which allowed the watercourse to be filled and the vegetation on the site to be cleared, which DWE acknowledges. Furthermore, as the site has been cleared in accordance with the consent and partially filled, there are clear practical difficulties with revisiting these issues in this approval. Indeed, it is from the site's present condition (that being cleared and significantly filled) that the Department must consider the ecological impacts of the project. The Department acknowledges the compensatory plantings already undertaken to offset the loss of vegetation and supports its presentation through this approval. As discussed above the Department recommends this vegetation (**Plate 9**) to be maintained for four (4) years. The Department also supports the removal of an illegally constructed blockbank, recognising the importance it will play in the health of mangroves in the area and the requirement for its removal is recommended in the conditions of approval.

6.10. Traffic and access

6.10.1 Proposed Pacific Highway/ Link Road intersection

The site will be accessed from the Pacific Highway via the proposed Link Road located partially on Lot 2 DP 1074242 and Lot 269 DP 755684. As discussed in **Section 2.2** the proposed Pacific Highway/ Link road intersection was approved as part of development consent DA 2002/566 (**Figure 12**). The existing consent required the intersection to be designed between the subdivision estate and the Pacific Highway as a two laned roundabout sized and configured to meet the contemporary engineering practices for designed traffic flows generated by the proposed subdivision with the intersection of North Creek Road and the Pacific Highway.

The Department requested further information with regards to the time frame for when works related to this intersection were scheduled for completion. The proponent's PPR included information outlining the preliminary design of the roundabout as endorsed by Council and the RTA. These preliminary design details were a requirement of deferred commencement conditions under development consent DA 2002/566 and have since been satisfied. The PPR specifies that construction works for the proposed intersection will be synchronised with construction of the Link Road and civil engineering works (approved as part of this project) for Stages 1 and 2 to ensure the intersection is operational prior to the release of the Subdivision Certificate for Stage 1.

The proponent has committed to constructing the Pacific/ Link Road intersection (under DA 2002/466) prior to release of subdivision certificate for Stage 1 of the project, this commitment been adopted as a condition of approval.



Plate 11 – Existing intersection North Creek Road/ Pacific Highway.

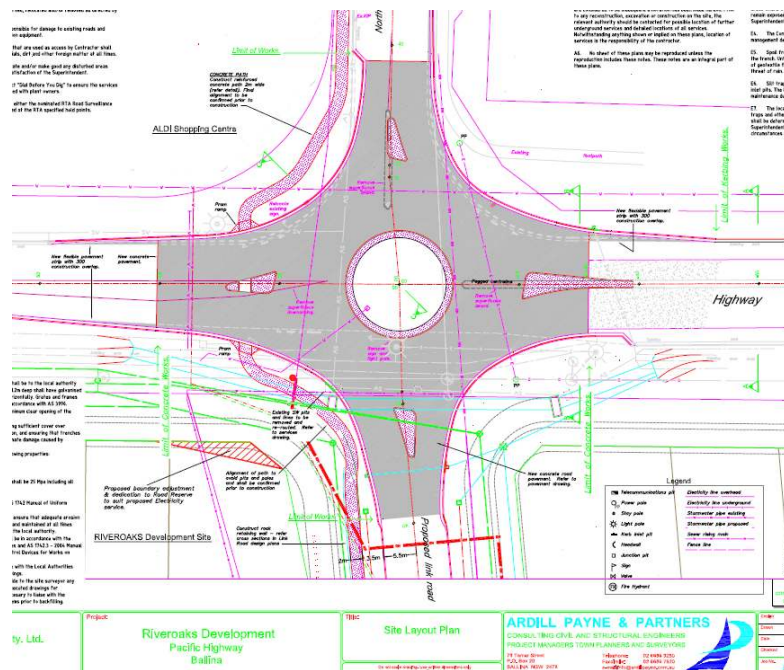


Figure 12 – Proposed intersection Pacific Highway/ Link Road (Ardill Payne Partners 2008).

6.10.2 Access ways

The proposed access ways (servicing lots 77, 87, 102, 112, 113, 114, 154, 155, 178 and 179) were of concern as there is no guarantee of the future maintenance for these areas, resulting in a poor outcome for future residents. The Department suggested that the proponent also explore the provision of on-street parking and vehicle turning bays within these access ways. The proponent responded to this issue by arranging for the access ways to be dedicated to Council, redesigning the access ways to incorporate on-street car parking, in addition to embellishing these access ways to the requirements of Council. The Department is satisfied with these amendments and Council has indicated its support to these measures. Conditions of approval reflecting these improvements to the access ways have been included in the Department's recommendation.



Figure 13 – Access ways incorporating public parking spaces to be dedicated to Council.

6.11. North Creek Canal Bridge footpath/ cycleway

Under development consent DA 2002/566, the development (incorporating the two sites) provided a shared footpath/cycleway link connecting the development to the existing network at the North Creek Canal Bridge east of the site via the adjoining landowner. This design provided a continuous link from the internal areas of that development through to the adjoining industrial estate (north of the Pacific Highway) and the Ballina township. The Department and Council indicated to the proponent that connection to the existing network was the preferred outcome as it allowed for grade separation between vehicular traffic and pedestrians/cyclists by allowing safe passage underneath the Pacific Highway at the North Creek Canal Bridge.

The exhibited EA, however, only proposed the construction of the cycleway along the southern portion of the site, relying on the adjoining landowner to provide connectivity to Council's network. The Department and Council raised concern with this as there was the potential for the cycleway to lack connectivity to Council's broader network if the adjoining landowner decided not to proceed with its development.

The proponent has responded to this issue by committing to providing a footpath/ cycleway connecting to Council's existing network at the North Creek Canal Bridge. The Department is satisfied with this amendment and a condition of approval has been included in the recommendation.



Figure 14 – Pedestrian/ cycle network approved under development consent DA 2002/566 and Pacific Highway crossing (Ardill Payne & Partners 2008).

6.11.1 Pacific Highway Crossing

The exhibited EA identified a new pedestrian/ cycle link running out along the northern section of the proposed Link Road and across the Pacific Highway to the Aldi shopping centre and Bunnings, contiguous to the site. This proposal presented difficulties as the proponent is proposing to rely upon the existing consent to construct the Link Road/ Pacific Highway intersection, which did not envisage a cycleway/ pedestrian crossing at this point and hence, does not cater for this in its design.

Whilst Council's North Creek Canal footpath/cycleway network described above does provide a connection from the site to these retail facilities it is understood that, given human nature, future residents may opt to take the shortest path possible and proceed across the Pacific Highway at the location indicated as opposed to utilising the above pedestrian/ cycleway network (bottom green line **Figure 14**).

The proponent has since consulted with the RTA and Council and responded to these issues via a series of design amendments to the proposed Pacific Highway/ Link Road intersection approved as part of development consent DA 2002/566. The design of this intersection now incorporates safe pedestrian/ cycleway passage across the Pacific Highway via a series of splitter islands forming part of the intersection (**Figure 15**).

The proponent has committed to constructing the Pacific Highway/ Link Road intersection incorporating the abovementioned splitter islands, and the Department considers that subject to this amendment being reflected as a condition of approval, these safety measures for pedestrians will be met.

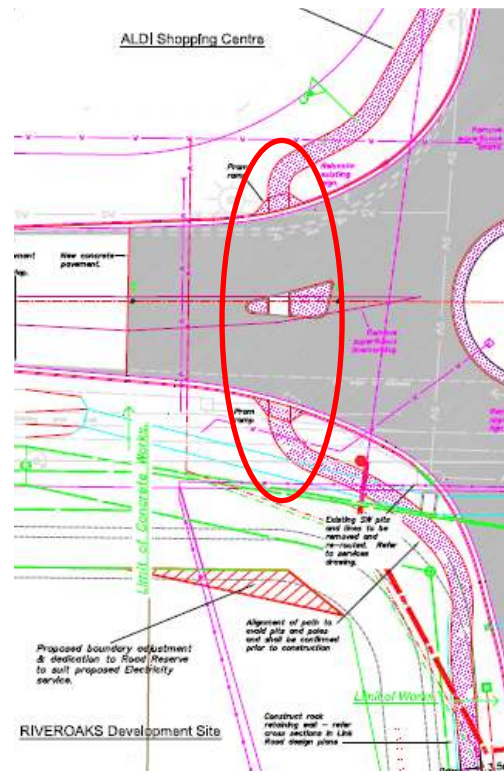


Figure 15 – Proposed splitter island facilitating pedestrian access from site to shopping centre (Ardill Payne & Partners 2008).

6.11.2 Public access adjoining land parcels

The Department requested further information from the proponent regarding public access arrangements to land parcels adjoining the site, in particular, measures to be made controlling access to riparian areas along the North Creek Canal, the compensatory rehabilitation plantings (component of DA 2002/566) south of Lot 1 DP 1074242 and the stormwater retention basin on the site's western boundary.

The proponent's PPR responded to this issue by indicating that the lot boundary separating Lot 1/2 DP 1074242 will consist of a five strand barbed wire fence combined with landscaping measures approved as part of development consent DA 2006/650 (requiring 2,840 m² of landscaping) in addition to the landscaping plans LM70113.001-LA04B/LOA07B prepared by Landpartners. A site inspection carried out by Departmental officers on 28 July 2008 confirmed that the above mentioned barbed wire fence has already been erected.

The proponent has also committed to providing embellishment plans for the western drainage reserve which will facilitate a stormwater detention basin and permitter footpath, prior to release of construction certificate. The Department, is satisfied with these plans being provided at the construction certificate phase and therefore included conditions of approval in the recommendation.

6.11.3 Road reserve lots 1-5

In response to exhibition of the EA, Council raised concerns with the proposed road reserve serving lots 1-5 as the Northern Rivers Local Government Design Manual requires the provision of a six (6) metre wide carriageway for local access roads with a minimum road reserve width of 14 m to allow for the provision of kerb and gutter. In response to this issue, the proponent met with Council on 10 June 2008, and agreed upon a minimum road reserve of 7 m with a minimum carriageway of 6 metre (for provision of kerb/ gutter) to the rear of Lots 1 to 5. The Department considers the reduced standard for this lane way to be acceptable in this circumstance as it will only be predominately used by the occupants of these lots. A condition in regards to this lane way has been included in the Department's recommendation.

6.12. Acid sulfate soils management

The site is generally underlain by acid sulfate soils (ASS) or potential acid sulfate soils (PASS). The ASS Management Plan dated January 2008 and prepared by Landpartners (Appendix 4 of the EA) confirms the presence of ASS at around 1.4 m below the ground surface and PASS between 0.75 and 1.5 m below the surface (RL-0.3 to 0.8 m in AHD terms). The ASS Management Plan also confirmed the significant generating capacity of these sub-soils and classified them in the Very High Treatment Category.

The proposed drainage works associated with the site will expose soil and water requiring treatment. The project's ASS Management Plan is generally consistent with the *Acid Sulfate Soils Manual* but the critical aspect pertaining to the ASS Management Plan is the use of qualified and experienced staff and thorough supervision of sampling, treatment processes and subsequent monitoring. The ASS Management Plan recommends regular auditing by qualified staff, however, DWE in response to exhibition of the EA requested clarification in regards to the extent of the monitoring proposed. In response to this, the proponent's PPR has committed to undertake regular monitoring of ASS on site by appropriately qualified staff. Subject to this commitment being adopted as a condition of approval, the Department considers issues associated with ASS and PASS have been adequately addressed.

6.13. Acoustic impact

In accordance with the requirements of development consent DA 2002/566 a landscaped noise attenuation mound and acoustic barrier is to be constructed along the Pacific Highway and the Link Road frontages for the site. The original purpose of the mound and barrier was to visually screen the site from roads, provide an attractive landscaped acoustic barrier, minimise road/ traffic noise impacts on incoming residents, and restrict vehicular access to these roads from any adjoining lot.

Although approval for the noise attenuation mound/ acoustic barrier has not been sought as part of this project application, the conditions of consent stipulating its construction under DA 2002/566 will need to be incorporated as conditions of approval under Part 3A. The proponent's amended Environmental Noise Impact Assessment dated August 2008 prepared by Carter Rytenskild Group and submitted with the PPR puts forward a recommended barrier height of RL 5.4 m AHD in addition to recommendations for future building orientations and appropriate acoustic treatment for noise affected lots within the site in accordance with *Australian Standard 3671 – 1989 Road traffic noise intrusion – building siting and construction*. The proponent has committed to the measures recommended by the Environmental Noise Impact Assessment and the Department considers that subject to these commitments being reflected as conditions of approval of this project, the acoustic requirements of the original consent will be met.

6.14. Bushfire protection

The site is mapped as containing bushfire prone vegetation and the exhibited proposal recommended a series of Asset Protection Zones (APZs) to buffer areas of the site which aim to protect human life and property from bushfire hazard. The RFS recommended conditions of approval for the project requiring APZs to be incorporated within the site. Specifically, the RFS's advice requires the proponent to maintain the entire site as an Inner Protection Area in accordance with the site assessment methodology set under the *Planning for Bush Fire Protection 2006*. It is understood that this condition was recommended on the basis of vegetation being present on the site and adjoining property.

Subsequent, to the RFS's submission received on 10 June 2008, vegetation (and associated bushfire hazard) is understood to have been cleared from the site and adjoining land, and the proponent has indicated that these vegetation clearing activities has reduced the level of bushfire hazard for the site. Therefore, in order to ensure the project complies with the *Planning for Bush Fire Protection 2006* criteria whilst reflecting the updated level of fire hazard associated with the site, a condition of approval will be included in the Department's recommendation requiring the proponent to further consult with the RFS with regards to APZs prior to release of subdivision certificates for each stage of the project.

6.15. Mosquito management

The Ballina Combined DCP (Chapter 11 – Mosquito Management) identifies the site in proximity to areas at high risk for mosquitoes (refer to **Figure 16**), but is not a known or suspected breeding area. In order to determine the potential risk for existing and future residents of the site, a Mosquito Impact Assessment (MIA) dated 30 November 2007 was prepared by Mosquito Consulting Services Pty Ltd on behalf of the proponent. The MIA demonstrates that development of the site will eliminate a portion of currently identified fresh water mosquito breeding habitat. However, from time to time, *Aedes vigilax*, *Aedes procax* and *Culex annulirostris* will have some impact on the site.

To reduce the potential impacts of mosquito nuisance and mosquito borne disease on the site, conditions of approval have been included in the Department's recommendation requiring standard type mosquito screening to be fitted to future rainwater tanks, residential windows, external doors and other openings as a covenant restriction on future lots.



Plate 12 - Mosquito light traps at site (Mosquito Consulting Services Pty Ltd 2007)

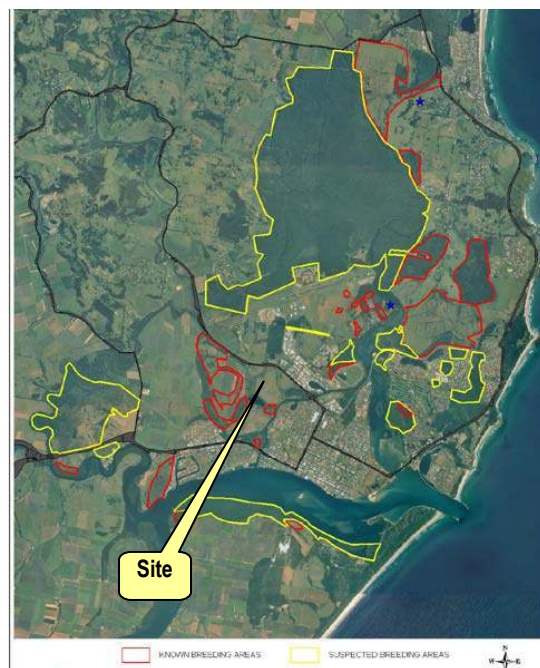


Figure 16 - Known and suspected mosquito breeding areas in Ballina Shire (Council 2003).

6.16. Infrastructure

6.16.1 Sewer mains

In its response to exhibition of the EA, Council informed the Department that the project encroaches on the zone of influence for several sewer rising mains located within the site. Council has indicated that these rising mains will need to be relocated to a suitable alignment at the proponent's expense. The proponent concurred to draft conditions stipulating relocation of these sewer mains at no expense to Council, these conditions have therefore been recommended as conditions of approval.

6.16.2 Easement location

In response to exhibition of the EA, the owner of an adjoining land parcel forwarded a written submission to the Department objecting to the proposed location of a sewer easement through its property for infrastructure purposes. The proponent's PPR responded to this issue by indicating that there is to be no sewer easement through the objector's property and that Council's has now granted approval to allow under boring of the proposed sewer rising main through the existing Ballina Sewage Treatment Plant swale instead, which is located along the site's western boundary.

6.16.3 Overland powerlines

The site currently has two (2) high voltage overhead power lines traversing the site from the north to the south. Under development consent DA 2002/566, relocation of these power lines were originally required as a condition of consent. In order to continue the intention of development consent DA 2002/566 and ensure proper relocation of the power lines in a timely manner a condition of approval has been recommended requiring the proponent to relocate these lines prior to release of a Construction Certificate for the first stage of this project.

6.16.4 Bus Servicing

In response to exhibition of the EA, Council and the RTA both raised concerns pertaining to bus servicing within the site. In particular the RTA indicated that the road network should cater and provide facilities for town and school bus routes while Council specified a requirement for bus stops to be required at approximately 400 m intervals within the site in addition to the provision of one (1) bus shelter.

The proponent has since committed to providing two (2) bus shelters within the site at approximately 400 m intervals or as otherwise specified by Council. Installation of the bus shelters are to be completed prior to the release of the subdivision certificates. Subject to this commitment being fulfilled, the Department is satisfied that the site will have adequate bus servicing. Therefore, a condition of approval reflecting this commitment has been included in the Department's recommendation.

6.17. Geotechnical

As specified in **Section 2** of this Report, the proponent is seeking a final outcome for development of the site whilst utilising a number of components approved (and in various stages of completion) under development consent DA 2002/566. The proponent has commenced bulk earth works associated with development consent DA 2002/566 on the site and subsequently commenced filling the watercourse which previously passed through Lot 1 DP 1074242. In its response to exhibition of the EA, Council indicated that some areas of the site will require specific footing designs to achieve a low susceptibility to settlement. Council therefore recommended geotechnical conditions of approval to be included in the determination of the project. Although bulk filling works associated with the site were approved under a separate development consent, the project is directly dependent on the completion of these associated filling works. Accordingly, the Department has recommended conditions of approval to permit the completion of bulk earthworks to be carried out in accordance with the existing consent. The timing for completion of the works is to be matched to the proposed staging of this project.

6.18. Open Space and community facilities

The provision of open space was identified in the EA as comprising the playing field within Lot 2 DP 1074242 and the stormwater reserve along the site's western boundary. The Department considered this to be inadequate. In order to increase the residential amenity of the project, the Department recommended provision be made for "pocket park" open space areas servicing the north-west precinct of the site.

The proponent responded in its PPR to this issue by committing to establishing the proposed access way areas (**Figure 13**) servicing lots 77, 87, 102, 112, 113, 114, 154, 155, 178 and 179 as de facto parks and dedicating these areas to Council. Furthermore, as a result of the amended stormwater concept plan and subsequent relocation of it the western drainage reserve detention pond to near the playing field, the open space area on the western boundary will also have more a structured function under the amended project. The Department supports these amendments. As discussed in **Section 6.10**, embellishment and construction materials of these public space areas will be to the requirements of Council and included as a condition of approval.

6.19. Site contamination

The proponent's Preliminary Contaminated Site Investigation (Phase 1) identified the site's historical land uses to be predominately related to cultivation and grazing activities which are considered to be an activity that may cause contamination in accordance with Table 1 of the SEPP 55 contaminated land planning guidelines. The Phase 1 specifically outlined that the site had been used for the cultivation of sugar cane between 1963 and 1985. Sugar cane fields in production before June 1985 and sites where "mill mud" (a by-product of the cane crushing process) has been applied may have organochlorine contamination. In response to exhibition of the EA, Council and the Department raised concerns with the site's previous use.

Organochlorines are a generic term for pesticides containing chlorine, however, the term is also used to refer to the older persistent materials including aldrin, benzene-hexachloride, chlordane, dichloro-diphenyl-trichloroethane, dieldrin, heptachlor, lindane or toxaphene. These chemicals are of particular concern because of their toxicity and persistence in the environment. Soil contamination of former agricultural sites including cane fields is characteristically widespread but at relatively low concentrations, with the contaminants usually confined to the surface soils.

In response to this issue, the proponent has carried out a systematic soil sampling program based upon 91 individual topsoil sampling points. The sampling program characterised both the remaining unfilled portion of the site and the replaced topsoil section. The Soil Analysis was limited to identifying organochlorine pesticides as these are the primary CoC.

Results from the Soil Analysis display no indication of organochlorine pesticides present in the soils that have been spread over the filled portion of the site, nor were there any present in the top soils on the unfilled portions of the site, as such the Department is satisfied with the site being used for residential use and no further investigations are required.

6.20. Section 94 and Section 64 contributions

To ensure growing and changing communities have adequate future public amenities and services, community contributions are levied to help provide for municipal amenities, local road improvements, libraries, community centres and the like. Community contributions including road, community facilities, sewage and water supply calculations have been provided for in **Table 3**. These calculations are supported by Council and have been determined based on the creation of 238 equivalent tenements (ETs) for the new lots with a two ET credit provided for existing Lots 1 and 3 DP1074242 (with the exception of sewer credit of Lot 3). As per development consent DA 2002/566 contributions for open space are offset by the provision of the playing field, associated amenities and playground equipment. No open space contribution is required.

The road contribution has been allocated a further credit to compensate for the value of the additional land dedicated to Council to increase the road reserve width of the Link Road (from a standard 20 m width to 35 m). In regards to this credit, \$100,000 was to be provided to the two property owners under development DA 2002/566, this credit has been apportioned on the basis of the quantity of land dedicated (for the construction of a future arterial corridor by Council).by each property owner being 5788 m² from the existing Rayshield property and 6742 m² from the Natuna property (owner of Lots 268/269 DP 7555684). The credit offered to Lot 1 DP1074242 under this application would therefore be \$46,193.14 equalling 46.19% of the \$100,000.

On 10 October 2008, the proponent concurred to draft conditions of approval stipulating the following calculations in **Table 3**.

Table 3 – Calculations for contributions

Section 94 Contributions	
Area of Contribution	Amount payable
Community Facilities	\$261,960
Open Space	In lieu
Ballina Road Contribution Plan	\$417,547
Total	\$679,507
Section 64 Contributions	
Area of Contribution	Amount payable
Augmentation of water supply mains and storage	\$720,272
Augmentation of sewerage headworks	\$1,566,807
Amplification and provision of water supply infrastructure	\$849,600
Total	\$3,136,679

7. CONCLUSION

The Department has assessed the EA and PPR and considered the submissions in response to the proposal. The key issues raised in submissions related to urban design, climate change, flood evacuation, hydraulic performance, groundwater, flora and fauna impacts, and traffic and access impacts.

The Department has considered these issues and conditions of approval are recommended to ensure these issues are satisfactorily addressed and minimum impacts occur as a result of the proposal. The project has largely demonstrated compliance with existing environmental planning instruments, and relevant plans and policies.

Accordingly, the Department considers the site suitable for the proposal, and the project to be in the public interest.

8. RECOMMENDATION

It is recommended that the Minister:

- (A) consider the findings and recommendations of this Report; and
- (B) approve the carrying out of the project, under Section 75J *Environmental Planning and Assessment Act 1979*; subject to modifications of the project and conditions and sign the Determination of the Major Project ("**Tag A**").

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APPENDIX A. DIRECTOR-GENERAL'S ASSESSMENT REQUIREMENTS

ENVIRONMENTAL

APPENDIX B. ENVIRONMENTAL PLANNING INSTRUMENTS, DEVELOPMENT CONTROL PLANS, GUIDELINES CONSIDERATION

As required by the Director General Requirements of 2 January 2008 (to consider relevant statutory and non-statutory requirements) and having consideration to the provisions of Part 3A and section 75R of the Act, the environmental planning instruments, draft environmental planning instruments, development control plans, guidelines and other documents that could otherwise apply are as follows:

- State Environmental Planning Policy No. 71 – Coastal Protection;
- State Environmental Planning Policy No. 55 – Remediation of Land;
- State Environmental Planning Policy No. 11 – Traffic Generating Development;
- North Coast Regional Environmental Plan;
- Ballina Local Environmental Plan 1987;
- NSW Coastal Policy 1997;
- Coastal Design Guidelines;
- Far North Coast Regional Strategy;
- Ballina Urban Release Strategy 2000; and
- Ballina Shire Combined Development Control Plan.

The following tables provide an assessment of the applicability of these instruments and plans to the application.

State Environmental Planning Policy No 71 – Coastal Protection (SEPP 71)

MATTERS	COMPLIANCE	CONSIDERATION
Clause 2 AIMS OF THE POLICY		
(a) To protect and manage the natural, cultural, recreational and economic attributes of New South Wales coast, and	Yes	The proposal will provide additional lots for residential development in an area zoned for residential development. The proposal includes a range of environmentally sustainable outcomes.
(b) To protect and improve existing public access to and along coastal foreshores to the extent that it is compatible with the natural attributes of the coastal foreshore, and	Yes	Existing public access to coastal foreshores will not be affected by the development.
(c) To ensure that new opportunities for public access to and along coastal foreshores are identified and realised to the extent that this is compatible with the natural attributes of the coastal foreshore, and	Yes	The proponent has committed to constructing a shared pedestrian/cycling path along the North Creek Canal.
(d) To protect and preserve Aboriginal cultural heritage, and Aboriginal places, values, customs, beliefs and traditional knowledge, and	Yes	An Aboriginal Heritage Information Management System (AHIMS) database search for the site did not show any known Aboriginal objects or declared Aboriginal places. The Aboriginal Cultural Heritage Assessment Report found that it is unlikely that Aboriginal cultural heritage exists as a result of the site's landform, erosional processes, soil type and extent of disturbance. The Jali LALC were consulted in regard to the proposed development and confirmed the findings of the proponent's environmental assessment.
(e) To ensure that the visual amenity of the coast is protected, and	Yes	The proposal is approximately 4km from the coast and therefore unlikely to have an impact on the visual amenity of the coast.
(f) To protect and preserve beach environments and beach amenity, and	N/A	
(g) To protect and preserve native coastal vegetation, and	N/A	The subject site has been completely cleared of vegetation as a result of activating the existing DA/2002/566 consent issued by Council.
(h) To protect and preserve the marine environment of New South Wales, and	Yes	Conditions of approval have been included to ensure protection of the existing marine environment.
(i) To protect and preserve rock platforms, and	N/A	There are no rock platforms affected by the proposal.
(j) To manage the coastal zone in accordance with the principles of ecologically sustainable development (within the meaning of section 6(2) of the <i>Protection of the Environment Administration Act 1991</i>), and	Yes	The proposal is unlikely to result in any serious or irreversible environmental damage. There are no likely adverse intergenerational impacts. The proposal will result in additional housing without any significant environmental impacts.
(k) To ensure that the type, bulk, scale and size of development is appropriate for the	Yes	The proposed subdivision is located on a cleared site representing a north-west void

location and protects and improves the natural scenic quality of the surrounding area, and		on the peripheral of Ballina's urban spatial pattern. Residential development of this site is of a type and scale compatible with the surrounding locality and will preserve the scenic quality of the area.
(l) To encourage a strategic approach to coastal management.	Yes	The proposal is consistent with a strategic approach to development of this area. It is consistent with the zoning of the site and the provisions of the Far North Coast Regional Strategy.
CLAUSE 8: MATTERS FOR CONSIDERATION		
(a) The aims of this Policy set out in clause 2	Yes	These are addressed above.
(b) Existing public access to and along the coastal foreshore for pedestrians or persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved	Yes	The subject site currently does not have any existing formal public access, however the proponent has committed to constructing a shared pedestrian/cycling path along the North Creek Canal which improve access to the foreshore and the Ballina town centre.
(c) Opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability	Yes	Construction of the new 3m wide shared pedestrian/cycling path along the North Creek Canal will benefit pedestrians or persons with a disability.
(d) The suitability of development given its type, location and design and its relationship with the surrounding area	Yes	Residential development of this site is of a type compatible with the surrounding area's land uses. The design of the subdivision adopts contemporarily coastal planning practice in accordance with the Coastal Design Guidelines.
(e) Any detrimental impact that development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss of views from a public place to the coastal foreshore	Yes	The project is consistent with the zoning for the site and will not overshadow the coastal foreshore or result in view loss from public places.
(f) The scenic qualities of the New South Wales coast, and means to protect and improve these qualities	Yes	The visual or potential scenic impacts of the proposal have been considered in this report. Conditions of approval requiring implementation of the proposed landscaping plan have been included in the Department's recommendation.
(g) Measures to conserve animals (within the meaning of the Threatened Species Conservation Act 1995) and plants (within the meaning of that Act) and their habitats	Yes	The subject site has been cleared of all existing terrestrial vegetation in accordance with the DA 2002/566 consent activated on the site. The existing consent included conditions requiring mangrove rehabilitation areas on the southern portion of the site, these conditions have been incorporated as conditions of approval for the current proposal.
(h) Measures to conserve fish (within the meaning of Part 7A of the <i>Fisheries Management Act</i> 1994) and plants (within the meaning of that Act), and their habitats	N/A	There will be no impacts on fish, aquatic plants or their habitats. A detailed sediment and erosion control plan will be required prior to issue of the construction certificate for Stage 1.
(i) Existing wildlife corridors and the impact of development on these corridors	N/A	The site has been cleared in accordance with the current DA/2006/650 consent

		issued by Council. Impact on existing wildlife corridors is negligible.
(j) The likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards	Yes	The site is approximately 1.5 km from the North Creek foreshore, risks to property and people from coastal processes and hazards are minimal.
(k) Measures to reduce the potential for conflict between land based and water based coastal activities	Yes	No conflicts are expected.
(l) Measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals	Yes	Jali LALC were consulted in regard to the proposed development and confirmed that they concurred with the findings of the proponent's Heritage Assessment. Conditions of approval outlining measures to be carried out if articles of cultural significance are uncovered on the site post-determination.
(m) Likely impacts of development on the water quality of coastal water bodies	Yes	No significant impacts are likely. The development will be connected to reticulated sewer services and water sensitive urban design measures will be used for stormwater disposal.
(n) The conservation and preservation of items of heritage, archaeological or historic significance	N/A	There are no identified matters of European heritage or significance. Aboriginal cultural heritage significance is addressed above.
(o) Only in cases in which a council prepares a draft local environmental plan that applies to land to which this Policy applies, the means to encourage compact towns and cities	N/A	There is no draft LEP for the site.
(p) Only in cases in which a development application in relation to proposed development is determined: (i) the cumulative impacts of the proposed development on the environment, and (ii) measures to ensure that water and energy usage by the proposed development is efficient.	Yes	No potential unacceptable cumulative impacts of the proposal on the environment have been identified. The proposed stormwater management system for the site has been based on water sensitive urban design principles. In addition, any future dwelling approval is subject to a BASIX certificate.
CLAUSE 14: PUBLIC ACCESS		
A consent authority must not consent to an application to carry out development on land to which this Policy applies if, in the opinion of the consent authority, the development will, or is likely to, result in the impending or diminishing, to any extent, of the physical, land-based right of access of the public to or along the coastal foreshore.	Yes	<u>D</u> irect public access along the foreshore will not be affected by the proposal.
CLAUSE 15: EFFLUENT DISPOSAL		
The consent authority must not consent to a DA to carry out development on land to which this Policy applies in which effluent is proposed to be disposed of by means of a non-reticulated system if the consent authority is satisfied the proposal will, or is likely to, have a negative effect on the water quality of the sea or any nearby beach, or an estuary, a coastal lake, coastal creek or other similar	N/A	The project will be connected to reticulated sewerage service.

body of water, rock platform.		
CLAUSE 16: STORMWATER		
The consent authority must not consent to a development application to carry out development on land to which this Policy applies if the consent authority is of the opinion that the development will, or is likely to, discharge untreated stormwater into the sea, a beach, or an estuary, a coastal lake, a coastal creek or other similar body of water, or onto a rock platform.	Yes	Untreated stormwater will not be discharged off the site. The proponent has addressed the matter of the treatment of stormwater in a stormwater management plan (SWMP) incorporating water sensitive urban design features. As a condition of approval, the proponent will be required to meet the requirements of the SWMP.

State Environmental Planning Policy No 55 – Remediation of Land

MATTERS	COMPLY	COMMENT
CLAUSE 7: CONTAMINATION AND REMEDIATION TO BE CONSIDERED IN DETERMINING DEVELOPMENT APPLICATION		
(1) A consent authority must not consent to the carrying out of any development on land unless: (a) it has considered whether the land is contaminated, and (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.	Yes	The proponent has carried a Preliminary Contaminated Site Investigation ("Phase 1") in order to identify the potential for contamination of the subject lands from previous land uses. The Phase 1 identified historical land uses associated with the site to be predominately cultivation and grazing activities which are considered to be an activity that may cause contamination in accordance with Table 1 of the SEPP 55 contaminated land planning guidelines. The Phase 1 has indicated that contamination of the site is unlikely, however, the proponent has adopted an analysis and sampling program to be conducted as a condition of approval.
(2) Before determining an application for consent to carry out development that would involve a change of use on any of the land specified in subclause (4), the consent authority must consider a report specifying the findings of a preliminary investigation of the land concerned carried out in accordance with the contaminated land planning guidelines.	Yes	The site is agricultural land and is therefore described in subclause (4). The EA submitted for the proposal included a Phase 1 site assessment prepared by Landpartners.
(3) The applicant for development consent must carry out the investigation required by subclause (2) and must provide a report on it to the consent authority. The consent authority may require the applicant to carry out, and provide a report on, a detailed investigation (as referred to in the contaminated land planning guidelines) if it considers that the findings of the preliminary investigation warrant such an investigation.	Yes	The site is agricultural land and is therefore described in subclause (4). The EA submitted for the proposal included a Phase 1 assessment prepared by Landpartners. Due to potential contamination from the previous agricultural use, the proponent will be required to carry out further testing and sampling for organochloride pesticides prior to release of the construction certificate for the development.
(4) The land concerned is: (a) land that is within an investigation area, (b) land on which development for a purpose	Yes	The subject site has been used for cultivation and grazing purposes in the past and is therefore described as agricultural activities in Table 1 of the

referred to in Table 1 to the contaminated land planning guidelines is being, or is known to have been, carried out, (c) to the extent to which it is proposed to carry out development on it for residential, educational, recreational or child care purposes, or for the purposes of a hospital—land: (i) in relation to which there is no knowledge (or incomplete knowledge) as to whether development for a purpose referred to in Table 1 to the contaminated land planning guidelines has been carried out, and (ii) on which it would have been lawful to carry out such development during any period in respect of which there is no knowledge (or incomplete knowledge).		guidelines. Although major contamination of the site is unlikely, the potential presence of Organochloride pesticides associated with the previous use remain. The proponent will therefore be required to carry out further testing and sampling for Organochloride pesticides prior to release of the construction certificate for the development.
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State Environmental Planning Policy No. 11 – Traffic Generating Development

As the development has direct vehicular and pedestrian access to Pacific Highway, an arterial road, the proposal was referred to the NSW Roads and Traffic Authority for comment on 22 April 2008 and was considered by the Regional Traffic Committee on 19 June 2008. The RTA had the following concerns with the proposal:

The application was referred to the NSW Roads and Traffic Authority for comment on 22 April 2008 and was considered by the Regional Traffic Committee on 19 June 2008. Comments were provided to the Department for consideration in the assessment. The following issues were raised:

- Provisions will have to be made for pedestrians and cyclists to cross the highway safely to connect to the existing retail/industrial development and shared path back to Ballina.
- The internal road network should be designed to create a safe environment that manages speed.
- Cross-junctions should be avoided unless they are appropriately treated.
- The road network should cater and provide facilities for town and school bus routes.
- A safe pedestrian/cycle route through the subdivision should be provided that connects to the existing network.
- Any potentially hazardous curve should be delineated in accordance with RTA or Australian Standards.
- Issues relating to traffic generation and the provision of appropriate road works.

North Coast Regional Environmental Plan

MATTERS	COMPLIANCE	COMMENTS
PART 1 PRELIMINARY		
2 AIMS		
(1) The aims of this plan are: (a) to develop regional policies that protect the natural environment, encourage an efficient and attractive built environment and guide development into a productive yet environmentally sound future,	Yes	The project complies with the regional policies existing for the site.
(b) to consolidate and amend various existing policies applying to the region, make them more appropriate to regional needs and place them in an overall context of regional policy,	N/A	

(c) to provide a basis for the co-ordination of activities related to growth in the region and encourage optimum economic and social benefit to the local community and visitors to the region, and	Yes	The proposal is compliant with the relevant policies and represents an orderly development of the site.
(d) to initiate a regional planning process that will serve as a framework for identifying priorities for further investigation to be carried out by the Department and other agencies.	N/A	
CLAUSE 2B: EFFECT OF AIMS AND OBJECTIVES OF THIS PLAN ON DETERMINATION OF DEVELOPMENT APPLICATIONS		
(1) This clause applies: (a) to a consent authority when determining an application for development consent for the carrying out of development on or in relation to land within the region, and (b) to the Minister or a public authority when determining whether or not to grant concurrence to the granting of such a consent.	Yes	The Minister is the approval authority for this project.
(2) When this clause applies, the consent authority, Minister or public authority must take into consideration such of the aims and objectives of this plan as are relevant to the making of its determination.	Yes	The aims and objectives of this plan are considered in this table.
CLAUSE 3: LAND TO WHICH PLAN APPLIES		
This plan applies to the LGA's of Ballina, Bellingen, Byron, Casino, Coffs Harbour, Copmanhurst, Grafton, Hastings, Kempsey, Kyogle, Lismore, Maclean, Nambucca, Nymboida, Richmond River, Tweed and Ulmarra declared by the Minister under section 4(6) of the Act to be a region, known as the North Coast and shown edged heavy black on the map.	Yes	The plan applies to Ballina LGA.
PART 2 RURAL DEVELOPMENT		
DIVISION 2 CATCHMENT MANAGEMENT		
CLAUSE 15 WETLANDS OR FISHERIES HABITAT		
The council shall not consent to an application to carry out development for any purpose within, adjoining or upstream of a river or stream, coastal or inland wetland or fishery habitat area or within the drainage catchment of a river or stream, coastal or inland wetland or fishery habitat area unless it has considered the following matters:	N/A	
(a) the need to maintain or improve the quality or quantity of flows of water to the wetland or habitat,	Yes	The proponent has committed to a number of measures considered to improve existing wetland and habitat. These include removing an illegally constructed block bank and raising the levels of previous drainage channels set too deep.
(b) the need to conserve the existing amateur and commercial fisheries,	N/A	Runoff from the site will not impact on amateur or commercial fisheries.

(c) any loss of habitat which will or is likely to be caused by the carrying out of the development,	Yes	Ecological investigations carried out for the site conclude that due to the removal of nearly all vegetation and ground disturbance from filling activities in accordance with the DA/2002/566 consent, few opportunities for fauna habitat exist within the site.
(d) whether an adequate public foreshore reserve is available and whether there is adequate public access to that reserve,	Yes	Although the site is not directly adjacent to the coastal foreshore. The proposal will improve public access to the North Creek Canal via the construction of the shared pedestrian/cycle path south west of the site.
(e) whether the development would result in pollution of the wetland or estuary and any measures to eliminate pollution,	Yes	The proposed water cycle management system for the site includes measures to improve the water quality of stormwater such as gross pollutant traps and bioretention swales. Conditions of approval have been recommended to ensure stormwater pollutant levels post-development will be approximately equal or below that of the pre-developed levels of the site.
(f) the proximity of aquatic reserves dedicated under the Fisheries Management Act 1994 and the effect the development will have on these reserves,	N/A	The site is not within close proximity of an aquatic reserve and will therefore not impact on one.
(g) whether the watercourse is an area of protected land as defined in section 21AB of the Soil Conservation Act 1938 and any measures to prevent soil erosion, and	Yes	The potential for soil erosion on the site will be managed by the implementation of an erosion and sediment control plan. This is included as a condition of approval.
(h) the need to ensure that native vegetation surrounding the wetland or fishery habitat area is conserved, and	Yes	The development proposes works within and adjacent to the waterway to reinstate a riparian corridor. The proponent has included a statement of commitment to ensure conservation of native vegetation south of the site.
(i) the recommendations of any environmental audit or water quality study prepared by the Department of Water Resources or the Environment Protection Authority and relating to the river, stream, wetland, area or catchment.	N/A	No environmental audit or water quality study exists for the waterway.

PART 3: CONSERVATION AND THE ENVIRONMENT

DIVISION 2 COASTAL DEVELOPMENT

CLAUSE 30: OBJECTIVES

(1) the objectives of this plan in relation to coastal planning are:	N/A	
(a) to enhance the visual quality of the coastal environment,	Yes	The proposed development will have a moderate visual impact on existing residential areas closest to the site. Any potential impact will be minimised through implementation of the development's landscape management plan and the measures for the design of future dwellings.
(b) to provide for the appropriate recreational use of beaches,	N/A	
(c) to protect the water quality of the coastal environment,	Yes	A stormwater management plan for the site has been designed to ensure that water quality of

		runoff leaving the site will be maintained.
(d) to minimise risks to people and property resulting from coastal processes,	N/A	The site is approximately 1.5 km from the North Creek foreshore, risks to property and people from coastal processes are minimal.
(e) to minimise changes to coastal processes resulting from development, and.	N/A	The site is approximately 1.5 km from the North Creek foreshore, development of the site will have a limited impact on coastal processes.
(f) to encourage retention of natural areas and regeneration of those natural areas which are already degraded.	Yes	The proponent has committed to a number of measures considered to improve existing ecological measures on the site. These establishment of the compensatory planting area south of the site, removal of an illegally constructed block bank and raising the levels of previous drainage channels set too deep.
CLAUSE 32B: DEVELOPMENT CONTROL – COASTAL LANDS		
(1) This clause applies to land within the region to which the NSW Coastal Policy 1997 applies.	Yes	The proposal is within the coastal zone.
(2) In determining an application for consent to carry out development on such land, the council must take into account: (a) the <i>NSW Coastal Policy 1997</i> , (b) the <i>Coastline Management Manual</i> , and (c) the <i>North Coast: Design Guidelines</i> .	Yes	These policies/guidelines have been incorporated within the Part 3A environmental assessment process and considered as part of the proposal's final assessment.
(3) The Council must not consent to the carrying out of development which would impede public access to the foreshore.	Yes	The proposal will not impede public access to the foreshore.
(4) The Council must not consent to the carrying out of development: (a) on urban land at Tweed Heads, Kingscliff, Byron Bay, Ballina, Coffs Harbour or Port Macquarie, if carrying out the development would result in beaches or adjacent open space being overshadowed before 3pm midwinter (standard time) or 6.30pm midsummer (daylight saving time), or (b) elsewhere in the region, if carrying out the development would result in beaches or waterfront open space being overshadowed before 3pm midwinter (standard time) or 7pm midsummer (daylight saving time).	Yes	The proposed development will not result in overshadowing of the beach or adjacent public reserve at any time.
PART 4 – URBAN DEVELOPMENT		
DIVISION 2 – URBAN HOUSING		
CLAUSE 41 Objectives		
The objectives of this plan in relation to housing are to promote the provision of a range of adequate, affordable and suitable housing to meet the needs of the region's population	Yes	The project entails an improved subdivision pattern incorporating different lot sizes, the subdivision layout will therefore promote a range of housing types suited for the different needs of the region's growing population.
CLAUSE 43: DEVELOPMENT CONTROL – RESIDENTIAL DEVELOPMENT		
(1) The Council shall not grant consent to development for residential purposes unless: (a) it is satisfied that the density of the dwellings have been maximised without	Yes	The project will result in a variety of lot densities providing a range of housing choice for the locality. The site has maximised the number of dwelling sites, due to the relatively

adversely affecting the environmental features of the land, (b) it is satisfied that the proposed road widths are not excessive for the function of the road, (c) it is satisfied that, where development involves the long term residential use of caravan parks, the normal criteria for the location of dwellings such as access to services and physical suitability of land have been met, (d) it is satisfied that the road network has been designed so as to encourage the use of public transport and minimise the use of private motor vehicles, and (e) it is satisfied that site erosion will be minimised in accordance with sedimentation and erosion management plans.		flat unconstrained nature of the site (filled in accordance with the existing consent). The road widths are appropriate for the purpose and meet the requirements of Council The road network has also been designed to cater for buses and the proposed cycleway will provide an alternative to motor vehicle use for future residents. Site erosion will be controlled through the implementation of an erosion and sediment control plan during construction.
PART 5 – REGIONAL INFRASTRUCTURE		
DIVISION 4 – COMMUNITY SERVICES		
CLAUSE 64 Objectives		
The objective of this plan in relation to community services is to ensure that full account is taken of the need for community services in the planning process.	Yes	The site is located on the north-western outskirts of Ballina, a well established regional centre and in close proximity to retail services at the Pacific Highway/ North Creek Road intersection north of the site. In addition, the development is approximately 1km west of the Ballina town centre.
CLAUSE 66 Development Control – adequacy of community and welfare services		
Before granting consent to a development application for the subdivision of land intended for residential or rural residential purposes, the council shall consider the adequacy of community and welfare services available to the land and take into account the results of that consideration.	Yes	There are a range of community and welfare services available to service the future population of the development. The Ballina Shire and neighbouring Lismore LGA provides a range of such facilities including multiple hospitals, school and education establishments, aged care facilities and youth services.
CLAUSE 81 Development control – development adjacent to the ocean or a waterway		
The council shall not consent to a development application for development on land within 100 metres of the ocean or any substantial waterway unless it is satisfied that: (a) there is a sufficient foreshore open space which is accessible and open to the public within the vicinity of the proposed development, (b) buildings to be erected as part of the development will not detract from the amenity of the waterway, and (c) the development is consistent with the principles of any foreshore management plan applying to the area.	Yes	Appropriate conditions of approval have been included to ensure sufficient public amenity of the North Creek Canal and associated foreshore area.

CLAUSE 82 Development control – sporting fields or specialised recreation facilities		
The council shall not grant consent to the development of sporting fields or other specialised recreational facilities unless it has considered the need for access by the community to the facilities and included relevant conditions in its approval to achieve an acceptable level of public access	Yes	The proposal includes approximately 2 ha of playing fields to be dedicated to Council. The proposed fields will provide a multi-use sports facility for use of residents in the local area. Appropriate conditions of approval will be included to ensure adequate embellishment public access to this facility.

Ballina Local Environmental Plan 1987

MATTERS	COMPLIANCE	COMMENTS
CLAUSE 2 – Aims, objectives etc		
(1) The general aims of this plan are to encourage the proper management, development and conservation of natural and man made resources, to promote the social and economic welfare of the community and to provide a better environment. (2) The particular aims of this plan are - (a) to divide land into the zones referred to in clause 8 and to achieve in respect of land within each of those zones the objectives specified for that land in the Table to clause 9; (b) to encourage the council to make development control plans regulating the carrying out of development in any zone- (i) by restricting the carrying out of that development to a specified area within the zone; or (ii) by fixing standards or specifying requirements in respect of any aspect of that development; (c) to promote the efficient utilisation of land, services and support facilities in existing urban areas and to provide for the orderly growth of new urban areas which promise a high level of residential amenity; (d) to recognise and provide for the variety of agricultural, recreational, natural and other land uses which form the rural environment of the Shire of Ballina; (e) to contribute to continued economic growth of the Shire of Ballina by encouraging a pattern of development which will help to diversify and increase local employment opportunities; (f) to take account of the physical nature of the environment of the Shire of Ballina so that development is in harmony with scenic and ecological resources; (g) to co-ordinate the economic and equitable provision and utilisation of community	Yes	The proposed development represents an appropriate and orderly development of the site. The proposal has been designed, and subsequently amended, taking account of the site constraints.

facilities and services; (h) to provide for appropriate and efficient transportation and utility services; and (i) to encourage further development of tourist and recreational activities within the Shire of Ballina, while minimising its adverse impact on the natural attractions and amenity enjoyed by permanent residents.		
CLAUSE 9 – ZONE OBJECTIVES AND DEVELOPMENT CONTROL TABLE		
Zone 1(d) Rural (Urban Investigation Zone)		
A The primary objectives are: (a) to identify land which may be needed in the future and will be thoroughly investigated with respect to its suitability or otherwise for urban land uses and the environmental consequences associated with the land's release for urban purposes, (b) to regulate the subdivision and use of land so as to prohibit development which could prejudice the possible future release of land within this zone for urban purposes, and (c) to ensure that the release of land for urban purposes, by rezoning, shall not take place unless: (i) urban structure planning has been completed by the council, (ii) the council reviews urban suitability investigations for individual planning units, and detailed land use allocations for each planning unit have been determined by the council, (iii) sufficient demand exists for the release of urban land, and (iv) appropriate urban infrastructure and facilities are available to the land or can be provided to the land in a manner which does not create an unreasonable or uneconomic demand, or both, for the provision or extension of such services. B The secondary objective is to regulate the subdivision and use of land to permit development for agriculture and a range of other purposes complementary to the prime objectives, particularly tourist facilities, recreation establishments and recreation facilities, subject to these developments: (a) maintaining the semi-rural character of the locality, (b) by their nature being compatible with the possible urban development, particularly residential uses, of the land in the locality, in the future, and	Yes	Works within the 1(d) zone include the construction of the southern link road and the playing field., these works are permissible with in the 1(d) zone and will not prejudice the possible future release of land within the 1(d) zone.

(c) not creating unreasonable and uneconomic demands, or both, for the provision or extension of public amenities or services. C The exception to these objectives are development of land within the zone for public works and services, outside the parameters specified in the primary and secondary objectives.		
Zone 2(a) Residential (Living Area Zone)		
A The primary objectives are: (a) to regulate the subdivision and use of land to permit housing and ancillary development where the scale, type and traffic generating characteristics of the ancillary development are compatible with the character and amenity of the surrounding residential area, (b) to permit development which is considered by the council to be an essential land use within the urban living area, but not including a shop (other than a general store), and (c) to allow detailed provision to be made, by means of a development control plan, to set aside specific areas within the zone for varying housing densities as well as other associated urban and tourist facilities. B The secondary objective is to allow a variety of housing types and designs and to encourage greater visual amenity by requiring site landscaping. C The exception to these objectives is development of land within this zone for public works and services, outside the parameters specified in the primary objectives.	Yes	The project will provide an additional 236 residential lots. Although a large proportion of the proposed lots are do not comply with the relevant council development controls, the proposed lots vary in size and include a number of lots for duplex housing and other housing types. Appropriate conditions of approval have also been recommended to encourage quality site landscaping and greater visual amenity.
CLAUSE 17 Limitation on Building Height		
(1) In this clause height, in relation to a building the topmost floor of which has a ceiling, means the distance measured vertically from any point on the ceiling of the topmost floor of the building to the ground level immediately below that point. (2) Except as provided by subclauses (2A), (4), a person shall not, only any land to which this plan applies, erect a building taller than 6.4 metres in height unless the council is satisfied that the building will not: (a) adversely affect the existing or future amenity of adjoining properties by overshadowing or causing loss of privacy, (b) significantly obstruct views from adjacent buildings and public places, (c) have an adverse impact on the scenic or landscape quality of the locality, or	N/A	The construction of buildings is not included as part of the application.

(d) exceed 2 storeys.		
CLAUSE 23 Development within Zone No 1 (d), 7 (c), 7 (d), 7 (d1), 7 (f), 7 (i) or 7 (l)		
A person shall not, on land within Zone No 1 (d), 7 (c), 7 (d), 7 (d1), 7 (f), 7 (i) or 7 (l): (a) notwithstanding clause 8 of the Environmental Planning and Assessment Model Provisions 1980, cut down, top, lop or otherwise destroy a tree (other than a tree planted for commercial or landscaping purposes), or (b) clear, fill or otherwise alter the surface level of land, without the consent of the council.	N/A	Any potential impacts associated with construction of the proposed drainage swale on southern proportion of the site will require ongoing monitoring as per conditions of approval.
CLAUSE 36 – Development on land identified on Acid Sulfate Soils Planning Maps		
A person must not, without the consent of the Council, carry out works on land identified as being class 1, 2, 3, 4 or 5 land on the Acid Sulfate Soils Planning Maps.	N/A	Conditions of approval stipulating on-going sampling, testing and monitoring of acid sulfate soils have been included in the Department's recommendation.

Coastal Design Guidelines

Matters	Compliance	Comments
PART 1 – DETERMINING A HIERARCHY OF SETTLEMENTS		
Coastal city	Yes	The site is in Ballina which is identified as a coastal city.
Relationship to the environment	Yes	Any potential environmental impacts have been minimised through amendments to the design, commitments and conditions of approval.
Visual sensitivity	Yes	The EA submitted for the proposal included a landscape management plan and covenant setbacks for future development which will assist in mitigating visual impacts to surrounding areas.
Edges to the water and natural areas	Yes	The proposal provides pedestrian and cyclist linkages toward the foreshore.
Streets	Yes	The street layout responds to the topographical and geotechnical constraints of the site.
Buildings	Yes	The form of future buildings on the site will be influenced by the design guidelines for the site and Council's development controls.
Heights	Yes	The height of future buildings will be subject to the 2 storey statutory height limit of the Ballina LEP 1987.
PART 2: DESIGN PRINCIPLES FOR COASTAL SETTLEMENTS		
Defining the footprint and boundary	Yes	The site is within the identified boundary of Ballina in the Far North Coast Regional Strategy.
Connecting open spaces	Yes	The proposed development will provide for a 2 hectare playing field with pedestrian/ cycle path connecting to Council's path network at North Creek Bridge.
Protecting the natural edges	Yes	The site is not directly adjacent to the coastal foreshore and will therefore not impact on protecting the natural edges.
Reinforcing the street pattern	Yes	The project provides for a distinctive traditional street grid pattern without compromising legibility and efficient land use principles. Permeability and pedestrian linkages are also provided throughout the site.
Appropriate buildings for a coastal context	Yes	The covenant setbacks submitted with the EA will guide the form of future buildings on the lots.

NSW Coastal Policy 1997

Matters	Compliance	Comments
Protecting, rehabilitating and improving the natural environment of the coastal zone.	Yes	The project will incorporate conditions of the DA/2002/566 consent stipulating the compensatory mangrove plantings south of the site.
Recognising and accommodating the natural processes of the coastal zone.	N/A	The site is not affected by coastal processes.
Protecting and enhancing the aesthetic qualities of the coastal zone	Yes	The visual impact assessment for the proposal concluded that the proposal would result in a

		more balanced and cohesive entrance to Ballina from the west. The landscaped areas and buffer planting along the sound barrier will assist in providing screening for existing residences and motorists of the Pacific Highway.
Protecting and conserving the cultural heritage of the coastal zone.	Yes	An Aboriginal Heritage Information Management System (AHIMS) database search for the site did not show any known Aboriginal objects or declared Aboriginal places. The Aboriginal Cultural Heritage Assessment Report found that it is unlikely that Aboriginal cultural heritage exists as a result of the site's landform, erosional processes, soil type and extent of disturbance. The Jali LALC were consulted in regard to the proposed development and confirmed the findings of the Assessment Report.
Providing for ecologically sustainable development and use of resources.	Yes	The proposal provides for ESD by ensuring ongoing monitoring of groundwater and conditions of approval stipulating the recommendations of the EA's water cycle management plan.
Providing for ecologically sustainable human settlement in the coastal zone.	Yes	The proposal allows for ecologically sustainable settlement through designing the proposal around the site constraints. The site is also in close proximity to existing services ensuring that future residents will have access to these services.
Providing for appropriate public access and use.	Yes	The proposal will not impact on existing public access to the foreshore. The development will provide a shared pathway for existing and future residents to use.
Providing information to enable effective management of the coastal zone.	Yes	The project has contributed to the studies pertaining to the flood characteristics of the locality. This will contribute to the effective management of the coastal zone.
Providing for integrated planning & management of coastal zone.	Yes	The proposal includes covenant setbacks for the site that outlines details regarding appropriate future development on the site.

Far North Coast Regional Strategy

The Far North Coast Regional Strategy nominates that the Ballina Shire will need to accommodate approximately 8,400 additional new dwellings by 2031. The Riveroaks site is identified as an existing urban area in the Strategy and supports the developing regional centre of Ballina. The project will contribute to achieving dwelling targets in the region as it will provide for 270 future dwellings either as attached or detached housing types within 2 km the Ballina township.

Ballina Urban Release Strategy 2000

The proposed Riveroaks site is identified within the West Ballina planning precinct. Population growth between 2001 and 2021 for the West Ballina precinct is projected to continue at a rate of approximately 40 dwelling per year.

Ballina Combined DCP Chapter 1 – Urban Land

Pursuant to the provisions of Ballina DCP No. 1, the subject site is designated as "L2", "D" and "M1" areas. In these DCP areas, the preferred land uses include "dwelling houses, dual occupancies, duplexes, and residential flat buildings". The establishment of the proposed residential development is consistent with the abovementioned preferred land uses. Various policy statements under the DCP No. 1 apply in relation to the subject land.

The policy statements particularly relevant include:

Policy Statement No. 1 - Multiple Dwellings		
(a) 800m ² minimum lot size: duplex	*	The majority of the indicative duplex lots meet the 800m ² minimum lots size stipulated in Policy Statement No.1 – Multiple Dwellings, with the exception of lot 12.
(b) 6.0m building line (c) Residential flat building – average 4m side and rear	*	Although the DCP identifies that building lines should be 6.0 m from the lot boundary, the indicative reduced front setbacks will allow for larger rear yards and therefore reduce overshadowing of private open space areas and improved ventilation outcomes. Variations to the 6.0 m control are considered acceptable in this case as it allows for more attractive streetscapes and larger rear yards.
(d) Garage setbacks i) rear lane setback – 3.5m ii) any other property boundary – 5.5m	N/A	Subject to separate application.
(3) Boundary setbacks Duplex and dual occupancy buildings are subject to 900mm setback from an allotment boundary other than the boundary adjoining a road alignment or other public space;	N/A	

Policy Statement No. 2 – Car parking and access

Policy Statement No. 4 – Urban subdivision		
(a) Preferred lot size i) 400sqm integrated housing development ii) 600sqm dwelling house iii) 800sqm duplex size	*	Approximately 50% of the proposed dwelling house lots do not meet the 600sqm standard stipulated. The application includes a mix of dwelling house lot sizes ranging from small “villa” lots (400 sqm), medium “courtyard” lots (445-500 sqm) and traditional lots (575-875 sqm). The proponent has formulated design principles guiding future dwelling design in accordance with the above lot size types. Indicative building envelopes provided with the application display that the proposed lot size types can be implemented without having an adverse impact on residential amenity. Restriction to user covenants requiring building free zones on certain areas of dwelling lots have been included as a condition of approval. All duplex lots meet the 800 sqm standard.
(b) Irregular Shaped Allotments (or fan-shaped) as occur at the end of cul-de-sacs are to be at least 15 m wide, measured at the front building line for standard depth blocks. For lots of greater than standard depth, the absolute minimum road frontage is to be 4m and a minimum lot width of	Yes	All irregular shaped allotments comply with 15 m minimum

15m is to be provided 20m from the front boundary.		standard.
(c) Hatchet shaped allotments The minimum area of a battleaxe lot is 800sqm, excluding the access handle, which is to be a minimum of 3.6m wide and to extend no further than 45m from the road alignment.	Yes	Lots 19 and 225 are hatchet shaped allotments. Both lots comply with minimum 800 sqm area standard and include access handles approximately 5 m in width and extend no greater than 10 m from road alignment.
(d) Minimum 18m frontage	*	Frontages less than 18 m are supported.
(f) Minimum 20m frontage corner lots	*	Corner lots have suitable splay section to facilitate traffic sight distances, generally 4m but varying in accordance with the angle of the intersection.

Policy Statement No. 6 – Landscaping guidelines

Policy Statement No. 6 sets out Council's guidelines concerning landscape design. (a) Street Frontages Screen and soften the impact of buildings and improve the view along the street. (b) Outdoor recreation Usable and attractive for workers and residents (c) Outlooks Take advantage of good views and screening unattractive views through plant selection.	*	The landscape design will provide for basic elements of streetscape, public and amenity. By providing a minimum provision of street trees, public open space areas will establish naturally over time. As a condition of consent, general landscaping for the site will be in accordance with the landscape concept plan LM070113-LS01B. The proposed access ways (de facto parks) and playing fields will be embellished to the requirements of Council.
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Policy Statement No. 11 – Flood levels

Policy Statement No. 11 provides for the establishment of a minimum fill height and minimum floor level at the subject site of RL 2.1 m.	Yes	The subject proposal provides for a minimum habitable floor level of RL 2.5 m AHD (depending on location). Accordingly, the project is consistent with the provisions of Policy Statement No. 11.
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Policy Statement No. 15 – Riveroaks

(a) Residential 600 square metres applies to single residence housing Approximately 9.7 tenements per hectare. Development of the structured open space shall proceed as follows: (i) An oval including carpark to be constructed and dedicated to Council on release of Stage 2 lots. (ii) Playground equipment to be provided with Stage 1 release.	* * Yes Yes	Refer to Policy Statement No.4 – Urban subdivision assessment. Approximately 11.25 tenements per hectare. Subject to conditions. Subject to conditions.
(b) Open Space & Landscaping (i) The provision of a structured open space area (sports field) and casual open space to service the projected population. (ii) The provision of a structured open space area (sports field) and casual open space to service the projected population. (iii) To provide for adequate establishment of a sporting field and environmentally sensitive areas dedicated to Council. (iv) To protect significant vegetation along North Creek Canal embankment. (v) To provide areas for efficient stormwater management. (vi) To augment the natural beauty and appeal of the development through an intensive landscaping approach.	Yes	Subject to conditions.
(c) Structured Open Space (i) The developer will provide embellished open space for a multi-purpose sports field. The sports field shall be dedicated to Council on completion of shaping, levelling and grassing works. (ii) An oval including carpark to be constructed and dedicated to Council on release of Stage 2 lots. (iii) Playground equipment to be provided with Stage 1 release.	Yes	Subject to Conditions.
(d) Casual Public Open Space (a) The developer is required to dedicate casual open space at various locations. This generally includes: (i) playground recreation area and North Creek Canal frontage (ii) conservation and buffer area (iii) mangrove regeneration area	Yes	Subject to conditions.

(e) Areas for Stormwater Management & Buffer Significant area to be reserved for stormwater management purposes situated generally on the southern side of the site.	Yes	Subject to conditions.
(f) Landscaping The proposed landscaping will: a) Beautify the streetscape and total amenity of the development; b) Clearly identify and where necessary, shield and beautify key components; c) Identify walking tracks and cycleways; d) Assist in traffic control; e) Provide buffering to assist in visual and acoustic amenity.	Yes	Subject to conditions.
(g) Community Facilities No provision for land for the purpose of community facilities, owing to the proximity of such facilities in Ballina.	Yes	Subject to conditions.
(f) Fill Levels & Flood Impacts Based on the WBM study the River Oaks land would require filling to RL 2.1m AHD to be above the 1 in 100 year flood.	Yes	Subject to conditions.
(g) Building Height A two (2) storey height limit applies to the site pursuant to clause 17 of the Ballina Local Environmental Plan.	N/A	
(h) Setbacks and Buffers The layout shall provide for the incorporation of plantation buffer strips and sound mounding between the Link Road and rear boundaries to the adjacent allotments. Mounded plantation buffer strips shall also be provided between allotment rear boundaries and the Pacific Highway.	Yes	Subject to conditions.
(i) Infrastructure The River Oaks Project will be fully serviced, the costs of which are to be borne by the developers and Ballina Shire Council where appropriate.	Yes	Subject to conditions.

Arrangements are to be made by the developer for the provision of an underground telephone service throughout the residential area covered by this plan. Arrangements are to be made with Country Energy for the provision of underground reticulation of electricity throughout the area covered by this plan.		
(j) Water supply Bulk water supply is provided to Ballina Shire by Rous County Council, distributed from the Knockrow reservoir and gravitated to Ballina. Water will be reticulated from the existing 300m ϕ water main located in the Pacific Highway road reserve adjacent to the site a) All lots used for urban use shall be connected to an approved reticulated domestic water supply. b) Water supply contribution charges shall be in accordance with Council's headworks charges nominated in the annually revised "Fees and Charges". c) The developer will generally be responsible for the cost of water supply services provided within the site to Council's satisfaction. d) Water supply construction shall be in accordance with Council's Subdivision Code.	Yes	Subject to conditions.
(k) Sewage All development to be connected to the Ballina Shire Council West Ballina sewage treatment works. a) All lots used for urban use shall be connected to an approved reticulated sewerage system and treated at the Ballina Council West Ballina sewerage treatment works. b) Sewerage contribution charges shall be in accordance with Council's headworks charges in the annually revised "Fees and Charges". c) In general terms the developer will be responsible for sewerage services provided within the site to Council's satisfaction. d) The sewerage system construction shall be in accordance with Council's Subdivision Code.	Yes	Subject to conditions.
(l) Electricity a) Headworks charges will be levied by Country Energy as part of the subtransmission system Augmentation Cash Contribution (SSACC) system. b) Arrangements are to be made with Country Energy for the provision of underground reticulation of electricity throughout the area covered by this plan. c) Council shall not consent to the carrying out of development of land within an Electricity Transmission Line Corridor without having regard to any representation made by Country Energy. d) Arrangements have been made with Country	Yes	Subject to conditions.

Energy for the relocation of existing overhead transmission lines on the site.		
(m) Telephone Arrangements are to be made by the developer for the provision of an underground telephone service throughout the residential area covered by this plan.	Yes	Subject to conditions.
(n) Traffic Management Guidelines For all proposed roads the developer will be responsible for the construction of the roads to Council's standards. These roads are to be dedicated to Council as Public Roads.	Yes	Subject to conditions.
(o) Stormwater All stormwater infrastructure will be designed in accordance with the requirements of Council's Subdivision Code.	Yes	Subject to conditions.

Ballina Combined DCP Chapter 11 – Mosquito Management

Chapter 11 of the DCP applies to all residential development within the LGA. The DCP maps the site as part of the Coastal Plain and Lowlands area which requires that a condition of consent be applied to all developments that effective insect screening is provided to all rooms capable of being used for sleeping, such conditions can be applied to future development applications of the subdivision. The proponent has however committed to draining low flow water storing devices and maintaining quality water management practices within the site.

Ballina Combined DCP Chapter 13 – Stormwater Management

Chapter 13 of Ballina's Combined DCP requires that stormwater management for new urban developments result in no net increase in the average annual load of key stormwater pollutants and peak discharge flow rates, above that occurring under existing conditions. The proposed water cycle management system has incorporated water quality and quantity measures to ensure that post development water quality and quantity is maintained or improved from the current conditions.

Additionally, the DCP requires that stormwater management be based on water sensitive urban design (WSUD) principles. The proposed water cycle management system has been designed based on WSUD principles and responds to the site topography and soil conditions. Conditions of approval pertaining to stormwater management have also been included in this recommendation.

APPENDIX C. SUMMARY OF PUBLIC SUBMISSIONS

Summary of Public Submissions (4 submissions received in objection)

Topic	Details / Comment
Hydraulic Performance	The proposed recontouring of land for drainage purposes will result in poor drainage of western properties adjoining the subject site.
Sewer Easement	Proposed sewer easement through Lot 5 DP 133632 is not favoured.

APPENDIX D. PREFERRED PROJECT REPORT

APPENDIX E. ENVIRONMENTAL ASSESSMENT
