



NSW GOVERNMENT
Department of Planning

**COASTAL GROVE
RESIDENTIAL SUBDIVISION
LOT 2 DP 622475
1 SURVEY ST, LENNOX HEAD
*Proposed by SAKE DEVELOPMENT***

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

July 2007



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Cover photos: Aerial photographs showing the site boundary
(from Visual Assessment and Design Guidelines, Hassell Pty Ltd, October 2006)

1 EXECUTIVE SUMMARY

1.1 The Proposal

SAKE Development (the Proponent) is proposing a 42 lot subdivision at 1 Survey St, Lennox Head (Lot 2 DP 622475) ("the proposal").

The proposal comprises the following:

1. Torrens title subdivision of the site into 39 residential lots ranging in size from 519sqm to 2237sqm, fronting three culs-de-sac;
2. the establishment of a landscaped open space corridor (lot 46, 40,400sqm), including a play area, a series of raingardens for stormwater control, landscaping and open space for the protection of a threatened grass species known as Hairy Joint Grass. This Lot is to be dedicated to Council; and
3. the creation of two residue lots: proposed Lot 45 (9814sqm) to the south of the site which contains a stand of rainforest vegetation (not SEPP 26 but already zoned 7(l) Environmental Protection (Habitat)) and proposed Lot 47 (46,900sqm) on the northern escarpment containing SEPP 26 vegetation, zoned 7(d) Environmental Protection (Scenic/ Escarpment). These lots will remain in the current ownership.

The proposed subdivision layout can be seen at Figure 4.

As the site is constrained by steep slopes, a draft DCP has been prepared and submitted which sets out proposed building envelopes and design guidelines. A recommended condition of approval requires Council to adopt this DCP to ensure future dwellings are suitably sited and designed to minimise geotechnical, access and visual impacts.

The estimated capital investment value of the development is \$3.15M. The proposal will create 45 full time equivalent construction jobs and no full time equivalent operational jobs.

During the exhibition period, the Department received a total of 219 submissions from the public were received including one petition with 115 signatures. These submissions included 140 letters of objection and 79 letters of support. After the exhibition period, and following the discovery of a larger distribution of the threatened species, Hairy Joint Grass, a further 17 public submissions were received. Submissions were received from six public authorities including; Ballina Shire Council, Department of Environment and Conservation, Department of Natural Resources, Rural Fire Service, Roads and Traffic Authority and Department of Lands.

Key issues considered in the Department's assessment included:

- Subdivision layout;
- Geotechnical constraints;
- Stormwater, drainage and flooding impacts;
- Flora and fauna;
- Traffic and access;
- Bushfire;
- Aboriginal Cultural Heritage;
- Mosquito Impact; and
- Contamination.

The Department has assessed the merits of the project and is satisfied that the impacts of the proposed development have been addressed via the amended plans, 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 proposed development. All statutory requirements have been met.

The Department recommends that the project be approved, subject to the recommended conditions at Tag A.

CONTENTS

1	EXECUTIVE SUMMARY	3
	1.1 The Proposal	3
2	BACKGROUND.....	5
	2.1 The Site	5
	2.1.1 Site location	5
	2.1.2 Site context	6
	2.1.3 Existing site features.....	6
	2.1.4 Zoning	8
	2.2 Site History	9
	2.3 Project Chronology	11
3	PROPOSED DEVELOPMENT	13
	3.1 The proposed development.....	13
	3.2 Project Amendments	13
4	STATUTORY CONTEXT.....	15
	4.1 Major Project Declaration	15
	4.2 Permissibility.....	15
	4.3 Minister's Power to Approve	15
	4.4 Director General's Environmental Assessment Requirements (DGRs).....	16
	4.5 Environmental Planning instruments (EPIs)	16
	4.6 Consideration of Ecologically Sustainable Development (ESD)	17
	4.6.1 Precautionary Principle	17
	4.6.2 Intergenerational Equity	17
	4.6.3 Conservation of Biological Diversity and Ecological Integrity.....	18
	4.6.4 Improved Valuation, Pricing and Incentive Mechanisms.....	18
5	CONSULTATION AND ISSUES RAISED	19
	5.1 Public Exhibition Details	19
	5.2 Public Submissions	19
	5.2.1 Summary of issues raised in public submissions	19
	5.3 Submissions from Public Authorities	20
	5.4 Proponent's Response to Submissions.....	21
6	ASSESSMENT OF ENVIRONMENTAL IMPACTS.....	22
	6.1 Subdivision Layout	22
	6.1.1 Subdivision Design	22
	6.1.2 Visual Impact	22
	6.1.3 Children's Play Area.....	25
	6.2 Geotechnical Assessment	25
	6.3 Water Cycle Management	27
	6.4 Flora and Fauna	28
	6.4.1 Coastal Fontainea	28
	6.4.2 Hairy Joint Grass	28
	6.4.3 SEPP 26 Littoral Rainforest	31
	6.4.4 Other Vegetation.....	32
	6.5 Traffic and Access	32
	6.6 Bushfire	32
	6.7 Aboriginal Cultural Heritage.....	33
	6.8 Mosquito Management	33
	6.9 Contamination	34
7	CONCLUSION.....	35
8	RECOMMENDATION.....	36

2 BACKGROUND

2.1 The Site

2.1.1 Site location

The site, at 1 Survey Street, Lennox Head (Lot 2 DP 622475) is located within the local government area of Ballina and is owned by DM and RD Dosser.

Although the site is 14.71ha in area, the area proposed for subdivision covers only 10ha in the southern portion of the irregular shaped lot. The land is located on the southern outskirts of the village of Lennox Head. The site is approximately 250 metres from the coast and within the “coastal zone” as defined by the Coastal Protection Act, 1979 where the provisions of State Environmental Planning Policy No. 71 – Coastal Protection (SEPP 71 – Coastal Protection) apply.

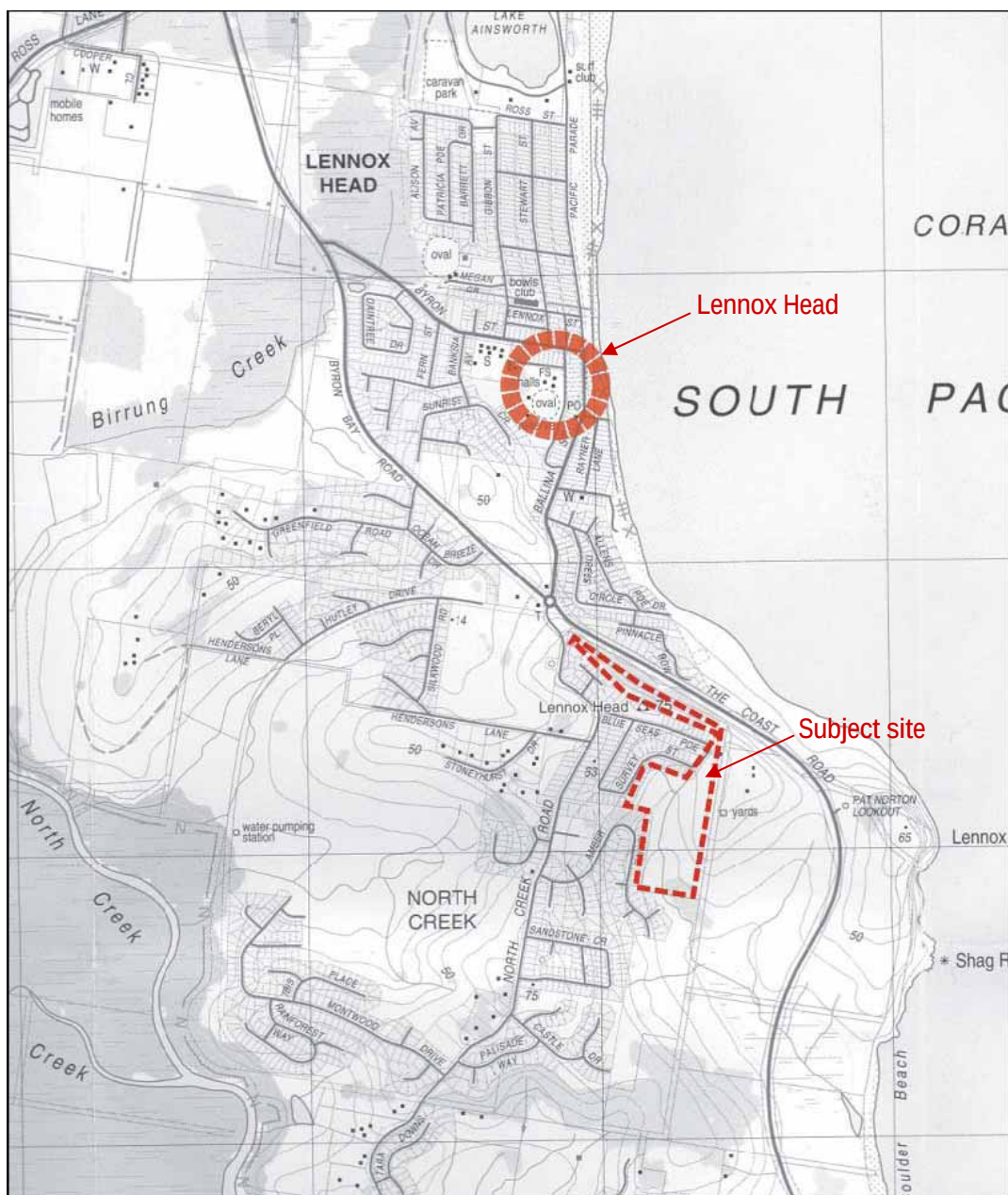


Figure 1. Site location

2.1.2 Site context

The site is accessed from Blue Seas Parade, which is a public road. The main access to Lennox Head is via The Coast Road. The site is located to the west of The Coast Road beyond an escarpment.

The existing residential area of Lennox Head lies to the west of the site. This area is characterised by single dwellings of one or two storeys. An area of State Environmental Planning Policy No. 26 – Littoral Rainforests (SEPP 26) is located to the west of the site. This area is listed as Littoral Rainforest No. 36 and is known as the Amber Drive Reserve (this reserve also contains the threatened Coastal Fontainea tree which is discussed in Section 6.4).

To the south of the site lies more residential development. Some land to the south of the site is zoned for residential development, but has not yet been developed. There is also an area of remnant vegetation in the south of the site that extends beyond the site boundary. To the east of the site is an area of undulating cleared land which contains a large homestead and shed. This area is zoned for environmental protection. To the north of the site is The Coast Road which is regional road connecting Ballina with Lennox Head and north to Byron Bay.

2.1.3 Existing site features

The site is irregularly shaped and can be divided into two distinct parts – the northern area and the southern area (refer to Figure 2).

The northern area of the site slopes steeply down from approximately 70m AHD in the south to 30m in the north. This area is heavily treed and contains an area of littoral rainforest which is identified under the provisions of State Environmental Planning Policy No. 26 - Littoral Rainforests (SEPP 26) as Littoral Rainforest No. 38A. Accordingly, the subject site is also recognised as a “*sensitive coastal location*” pursuant to clause 3 of SEPP 71.

The southern area of the site is largely cleared of vegetation, although there is a stand of vegetation in the south-east corner. While this vegetation is rainforest vegetation, it is not identified under SEPP 26.

This southern area of the site occurs at the head of a valley. Both sides of the site slope to an unnamed north south oriented drainage line. Slopes across the site vary from 18°-20° on the upper slopes to 3°-5° on the valley floor.

The drainage line flows south from the site and flows into the ocean at Boulder Beach, southeast of the site.

The site is currently used for grazing purposes.



Figure 2: Identification of site constraints

2.1.4 Zoning

The subject site is zoned by Ballina Local Environmental Plan 1987 (BLEP). Land uses zoned within the subject site include:

- 1(d) Rural Investigation;
- 2(a) Living Area;
- 6(a) Open Space;
- 7(d) Environmental Protection; and
- 7(l) Environmental Protection.

The zoning of the site is shown in Figure 3.

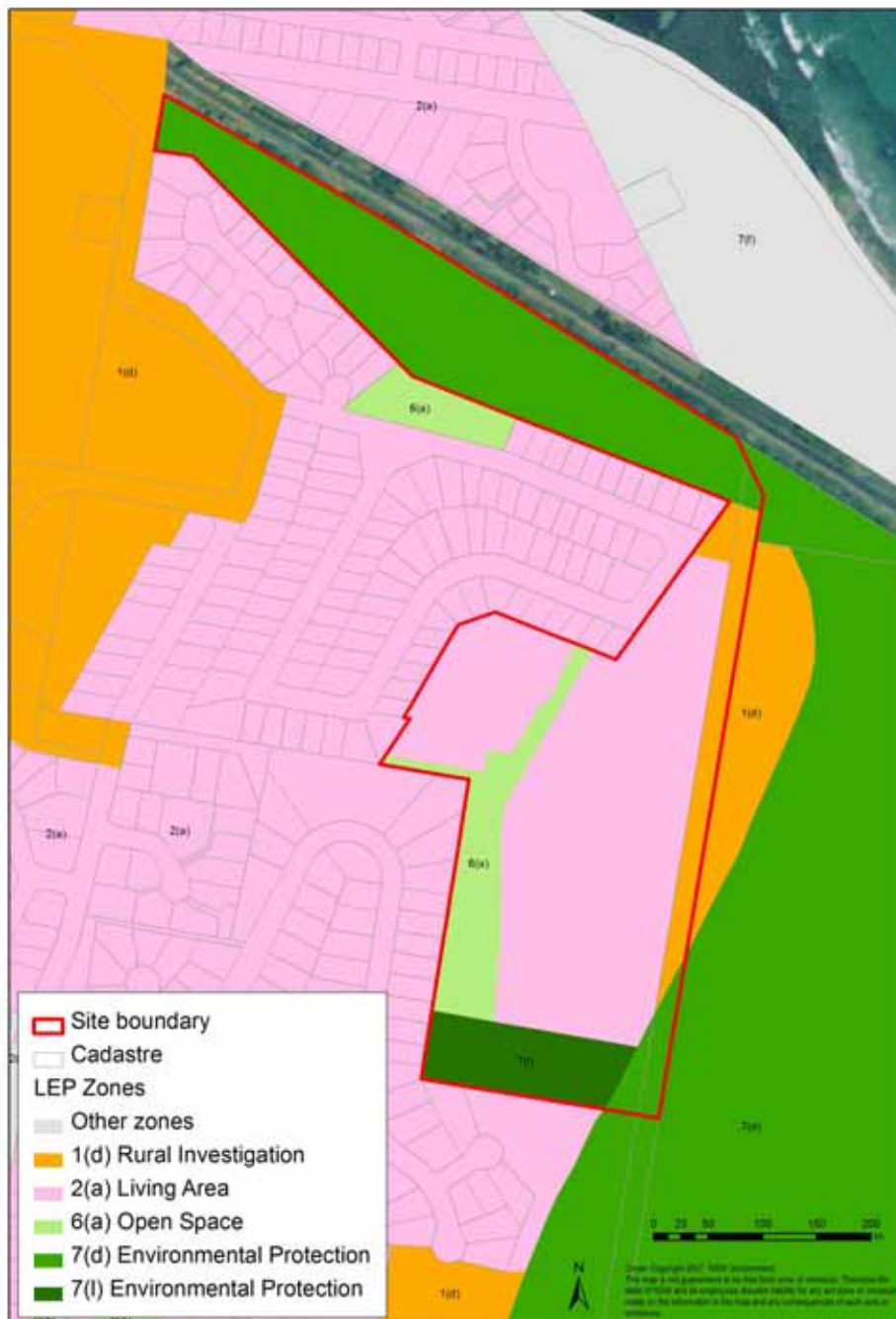


Figure 3: Zoning map

2.2 Site History

Re-Zoning - 1999

The subject site was rezoned from Zone 1(d) Rural Investigation to predominantly Zone 2(a) Living Area and 6(a) Open Space in May 1999.

Application to Council for 54 residential lots - 2000

Following the rezoning, Development Application No. 2000/608 for a 54 lot residential subdivision including associated roads and open space was lodged with Ballina Shire Council in January 2000 (ie: prior to gazettal of SEPP 71 – Coastal Protection). The application was refused by Council in June 2000 on the following grounds:

1. The development would intrude unreasonably on the amenity of nearby residents;
2. The development would exceed the capacity of the external road system;
3. Council had not been satisfied that the submitted stormwater management plan would effectively operate to prevent pollution of the downstream receiving environment;
4. The development would be likely to exacerbate drainage problems presently being experienced on land adjoining the development site;
5. Council considered the environment protection measures to be employed to rehabilitate the site as inadequate in the circumstances;
6. The subject land is located within an area which cannot be catered for in compliance with NSW Fire Service response times; and
7. For the reasons outlined above, granting development consent would be contrary to the public interest.

Land and Environment Court Appeal - 2001

The applicant subsequently lodged an appeal against Council's refusal of DA 2000/608 in the Land and Environment Court. The Appeal was dismissed in August 2001 on ten grounds, each of which has been addressed below.

1. The current proposal represents an overdevelopment of the subject land, the visual impacts of which would be considerable (but in my view not determinative).

Response: The current proposal is for 39 residential lots. This is a reduction of 28% from the proposal for a 54 lot residential subdivision considered by the L&E Court. A visual assessment submitted with EA has determined that the visual impact from most vantage points will be minor. Two vantage points will be subjected to a moderate visual impact. Any potential impacts would be minimised through canopy planting within the open space corridor. Additionally, the draft DCP for the site addresses the design of future dwellings to ensure that they are appropriate for the site.

2. Too much of the proposed development of the subject land has been left for definition at the design stage.

Response: Adequate information has been provided regarding the proposal, specifically, stormwater management and geotechnical conditions. While more detailed design will be required, it is considered that adequate information has been provided to determine the major project.

3. There should be a riparian buffer of up to 20m between any residential development and the watercourse on the subject land for both environmental protection, and watercourse maintenance purposes. (The EPA suggests 20m, but there is evidence that less may be adequate, perhaps 10m. The problem with the proposed development is that there is evidence that in some locations there is less than 10m, even zero).

Response: The current proposal provides a 20m buffer between the proposed residential lots and the watercourse.

4. The stormwater runoff from all residential and roadway development on the subject land should all be treated off-line before discharge into that watercourse and the sensitive environment downstream.

Response: All stormwater from the residential lots and roadways will flow through one of five proposed gross pollutant traps and one of seven proposed raingardens. Water quality monitoring will be undertaken to ensure that water leaving the site complies with relevant guidelines.

5. The substitution of infiltration swales for the originally proposed wetland/macrophytic pond treatment system cause more problems for the proposal than it solves, and has not been demonstrated to be suitable and/or effective for the subject land.

Response: The stormwater system proposed for the current development has been extensively modified since the original application to Council (and the subsequent appeal). Stormwater is further discussed in Section 6.3 of the report.

6. Mere reinstatement, to the development, of the wetlands/ponds system originally proposed, by imposition of a condition, and without detailed design as part of the proposal, is not an acceptable response to the applicants' failure to convince the court that the swales proposal should be approved.

Response: As discussed above, the proposed stormwater system has been extensively modified from the original proposal which included wetlands/ponds. The currently proposed stormwater system is considered adequate for water cycle management on the site. This is further discussed in Section 6.3 of the report.

7. The site stability issues should be fully addressed before consent is given for any residential development of the subject land.

Response: The proponent submitted a slope stability assessment with the EA. An independent review of the geotechnical information was undertaken during the assessment of the current proposal. It was determined that some remediation was required of the site. The proponent has submitted a methodology for the required remediation and the Statement of Commitments requires this work to be undertaken prior to the commencement of any works on site.

8. The likely flooding of any proposed lots on the subject land – and/or the increased likelihood or extent of flooding of the Newton land downstream in consequence of the development – is not acceptable.

Response: The proposed water cycle management for the proposal will ensure that flows from the 1 in 100 year annual recurrence interval (ARI) flood do not flood any of the proposed residential lots on site. Additionally, the management system ensures that flows leaving the site are maintained at the existing levels, or reduced.

9. Open Space suitable for children's recreation should be provided within the subject site, and the proposed swales, and the Survey Street playground proposal, are inadequate and unsafe responses to that requirement.

Response: The current development proposes a children's playground in an area central to the site and surrounding residential areas which can suitably graded for the purpose. The safety of the raingardens has been considered through the maximum ponding depth of 500mm and suitable grading of the side slopes.

10. The subsurface drainage proposals which directly affect residential development on the individual lots of the subject land should be fully designed and evaluated before consent is granted (par 106 above).

Response: An independent assessment was provided of the slope stability and water cycle management information. Amendments have been made to the proposed management measures and groundwater seepage will be dealt with in a separate system to stormwater. It is considered that the proposed management measures are adequate for the development. This is further discussed in Sections 6.2 and 6.3 of the report.

The Department is satisfied that each concern has been addressed and where necessary satisfied in this application.

Application to waive the need for a Masterplan made to the then DIPNR - 2003

In March 2003, the applicant lodged a development application with DIPNR to waive the requirement for a master plan pursuant to the provisions of SEPP 71. The application to waive the requirement for a master plan was on the basis of a revised subdivision layout comprising forty two (42) residential lots, associated roads and open space.

That application was refused under delegation of the Minister in August 2003 on the basis that:

1. The subdivision of the subject site was considered to be a substantial development in a *sensitive coastal location*;
2. No site specific development control plan, formulated after consideration of the provisions of SEPP 71 – Coastal Protection, had been prepared which would ensure that the type, bulk, scale and size of development would be appropriate for the location and would protect and improve the natural scenic quality of the surrounding area;
3. A master plan would provide a comprehensive way of addressing the complex environmental issues which are prevalent on the site and which were highlighted in the previous development application process;
4. A master plan would be beneficial in addressing matters raised by agencies in submissions and it was considered that there was still scope for further design of the development to address those issues, including the layout of the proposed development, provision of drainage infrastructure and buffering of littoral rainforest areas; and
5. Certain agencies consulted in relation to the matter, including the former NSW Coastal Council (now Natural Resources Commission), did not support the application for a master plan waiver.

The applicant was advised of the decision in August 2003 and was advised to prepare a draft master plan should they wish to proceed with a development proposal for the subject site.

Application for a draft Masterplan made to the then DIPNR - 2004

In October 2004, The Chester Group Pty Ltd lodged the Coastal Grove Estate Lennox Head Draft Master Plan with the then DIPNR. This application sought adoption of the following development:

- Forty five (45) residential lots;
- 3 new public roads;
- provision of open space; and
- a residual lot separate from the development site which would not be developed.

The proposal was subsequently considered an unsatisfactory proposal as it did not satisfy the aims and objectives of SEPP 71, specifically, the matters identified in Clause 20(2) had not been addressed adequately nor had the zoning provisions within BLEP. The draft master plan lacked detail and failed to clearly demonstrate how the proposed revised scheme addressed the issues raised during the assessment of previous applications. This application was refused on 6 May 2005.

2.3 Project Chronology

- 10 January 2006 – request for clause 6 opinion lodged with the Department
- 27 January 2006 – Director-General, as delegate for the Minister formed the opinion that the proposal is a Project and that Part 3A of the Act applies
- 16 March 2006 – Preliminary Assessment lodged with the Department
- 15 May 2006 – Director- General's Environmental Assessment Requirements (DGRs) signed by the Director- General's Delegate and provided to the proponent.

- 21 September 2006 - Environmental Assessment (EA) lodged with the Department. EA deemed adequate.
- 19 October – 17 November 2006 – EA placed on public exhibition
- 4 December 2006 – Summary of submissions provided to proponent and issues from the Department
- 18 December 2006 – Response to issues received.
- 25 January 2007 – Additional information required following independent review of geotechnical issues.
- 7 February 2007 – Response by SAKE Development to geotechnical issues
- 15 February 2007 – Meeting with geotechnical and stormwater experts to finalise issues.
- 20 February 2007 – Information required from 15/02/07 meeting received
- 22 February 2007 – Ballina Shire Council's comments on SAKE's 18/12/06 response received by the Department.
- 28 March 2007 – distribution of the threatened species, Hairy Jointgrass identified to be extended
- 29 May 2007 – Draft amended plans, including review of Hairy Jointgrass distribution and updated mosquito report received.
- 22 June 2007 – Preferred Project Report lodged. These plans along with the additional information were made publicly available on the Department's website on 26 June 2007.

3 PROPOSED DEVELOPMENT

3.1 The proposed development

The Coastal Grove development proposes subdivision of the site into 42 lots comprising the following:

4. Torrens title subdivision of the site into 39 residential lots ranging in size from 519sqm to 2237sqm, fronting three culs-de-sac;
5. the establishment of a landscaped open space corridor (lot 46, 40,400sqm), including a play area, a series of raingardens for stormwater control, landscaping and open space for the protection of a threatened grass species, known as Hairy Joint Grass. This Lot is to be dedicated to Council; and
6. the creation of two residue lots: proposed Lot 45 (9814sqm) to the south of the site which contains a stand of rainforest vegetation (not SEPP 26) and proposed Lot 47 (46,900sqm) on the northern escarpment containing SEPP 26 vegetation. These lots will remain in the current ownership.

Each lot will accommodate a single dwelling with the exception of proposed lots 11, 12, 25 and 26 which will be designated as dual occupancy lots. These lots range in size from 1100sqm to 2237sqm and are located so as to be suitable for two dwellings (subject to compliance with Council's DCP).

Due to the site's natural constraints, having relatively steep slopes, a draft DCP has been prepared and submitted which sets out proposed building envelopes and design guidelines. Council supports the draft site specific DCP. A recommended condition of approval requires Council to adopt this DCP to ensure future dwellings are suitably sited and designed to minimise geotechnical, access and visual impacts. However, should the DCP not be adopted prior to the issue of a subdivision certificate, the condition states that all controls in the DCP will be adopted as conditions of approval.

The proposal is depicted in Figure 4 with plans at Tag B.

3.2 Project Amendments

The project application has been amended on a number of occasions as follows:

December 2006: in response to the Department's and other agencies' (Council and DEC) concern regarding an inadequate buffer to the Coastal Fontainea (a threatened species), the proposal was amended to delete proposed Lot 1, thereby achieving a suitable 50m buffer to this species (discussed in Section 6.4.1).

March 2007: in response to findings from the Department's independent assessment of geotechnical and stormwater/ drainage issues, some amendments were made to the drainage design and a management plan for remediation of geotechnical scars was submitted (discussed in Sections 6.2 and 6.3).

June 2007: following the discovery of the 'vulnerable' species Hairy Jointgrass, the subdivision layout was amended to protect areas of high density distribution (discussed in Section 6.4). Five proposed residential lots were removed from the southern most part of the site, with subsequent changes to the road layout, water cycle management system and other related features.

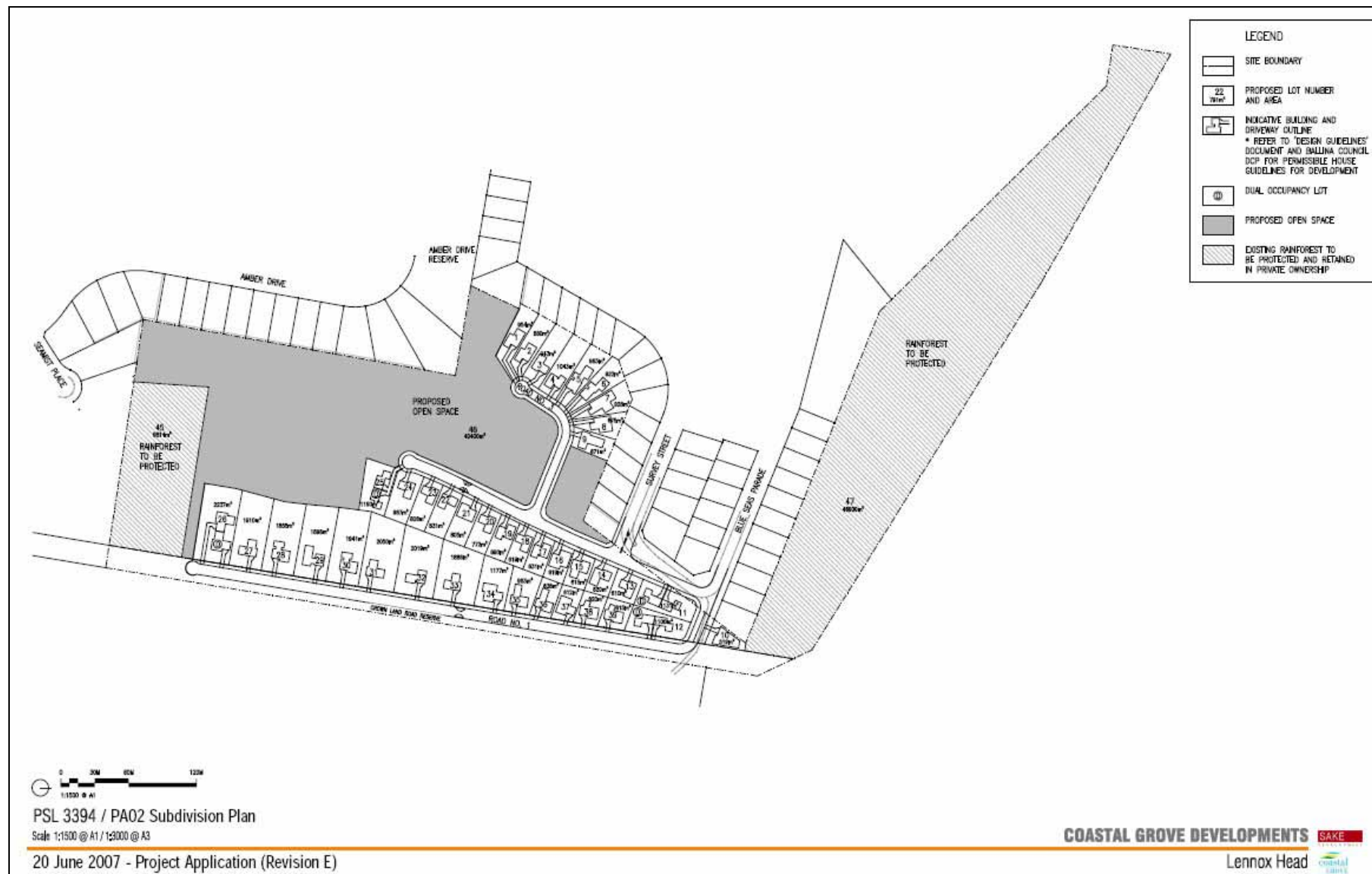


Figure 4: Proposed development layout

4 STATUTORY CONTEXT

4.1 Major Project Declaration

The project is a Major Project under State Environmental Planning Policy (Major Projects) 2005 being development for subdivision of land in a residential zone into more than 25 lots in the coastal zone (Schedule 2, clause 1(1)(i)). The opinion was formed by the Director-General as delegate on 27 January 2006.

4.2 Permissibility

Under *Ballina Local Environmental Plan 1987*, the site is zoned a mix of 2(a) – Living area; 1(d) Rural Investigation; 6(a) Open Space; 7(d) Environmental Protection (Scenic Escarpment); and 7(l) Environmental Protection (Habitat). The development is permissible within all of these zones.

Lot 10 however, which is located within the 1(d) Rural Investigation zone does not meet the minimum lot size of 40ha, identified in Clause 11 of the Ballina LEP. While the proposal does not comply with the minimum lot size it is considered in the interest of orderly development to allow the proposal to proceed for a number of reasons. The zoning of this section of the site as 1(d) is considered an anomaly. The proposed lot is located at the end of an existing row of residential dwellings on Blue Seas Parade. The other existing lots are of a comparable size to proposed Lot 11 therefore the lot would not appear out of character with this existing development. While proposed Lot 10 is in close proximity to the SEPP 26 littoral rainforest in the north of the site, other existing lots on Blue Seas Parade are closer and they have not compromised the viability of this vegetation. It is therefore considered that proposed Lot 10 would not impact on this SEPP 26 vegetation. .

4.3 Minister's Power to Approve

The Department has exhibited the Environmental Assessment (EA) in accordance with section 75H(3) of the *Environmental Planning and Assessment Act, 1979*, as described in Section 5 below. The project is predominantly permissible and meets the requirements of the MP SEPP.

Section 75I(2) sets out the scope of the Director General's report to the Minister. Each of the criteria set out therein have been addressed below, as follows:

(a) a copy of the proponent's environmental assessment and any preferred project report; and

The proponent's EA is included at Tag D. The Preferred Project Report (PPR) is at Tag G.

(b) any advice provided by public authorities on the project; and

A summary of advice provided by public authorities on the project for the Minister's consideration is set out in Section 5.3.

(c) a copy of any report of a panel constituted under Section 75G in respect of the project; and

No independent hearing and assessment panel was undertaken in respect of this project.

(d) a copy of or reference to the provisions of any State Environmental Planning Policy (SEPP) that substantially govern the carrying out of the project; and

An assessment of each relevant SEPP is at Tag E.

(e) except in the case of a critical infrastructure project – a copy of or reference to the provisions of any environmental planning instrument that would (but for this Part) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project under this Division; and

An assessment of the development relative to the prevailing EPI's is provided at Tag E.

(f) any environmental assessment undertaken by the Director General or other matter the Director General considers appropriate.

The environmental assessment of the project is this report in its entirety.

(g) a statement relating to compliance with the environmental assessment requirements under this Division with respect to the project.

The environmental assessment requirements under this Division are at Tag C.

The Department is satisfied that the requirements have been complied with and has met its legal obligations and that the Minister has the power to determine this project.

4.4 Director General's Environmental Assessment Requirements (DGRs)

The DGRs were issued on 15 May 2006 and required the following issues to be addressed:

- Statutory and other requirements;
- Impacts on waterways, stormwater management and water quality;
- Flora and fauna impacts;
- Aquatic habitats;
- Geotechnical;
- Erosion and sediment control;
- Bushfire;
- Traffic;
- Contamination and remediation of site;
- Aboriginal and cultural heritage;
- Landscaping and revegetation/ rehabilitation;
- Design, Visual Impacts and Design Quality Principles;
- Noise;
- Provision of public service and infrastructure; and
- Construction management.

The DGRs are at Tag C.

The EA was lodged by the proponent on 21 September 2006. The proponent was advised that the EA was adequate on 29 September 2006. The proponent's EA is at Tag D.

4.5 Environmental Planning instruments (EPIs)

There are no EPIs that apply to the proposal that substantially govern the carrying out of the development with the exception of *State Environmental Planning Policy No. 71 – Coastal Protection* (SEPP 71) and *Ballina Local Environmental Plan 1987* (Ballina LEP).

The proposal is compliant with the provisions of SEPP 71 as seen at Tag E.

Ballina Local Environmental Plan 1987

The proposed development is largely consistent with the provisions of the Ballina LEP, except for Lot 10 which does not comply with the minimum lot size for the 1(d) zone. The development complies with the zone objectives for all other zones on the site. An assessment of the development in accordance with the relevant provisions of Ballina LEP is at Tag E.

Other EPIs, plans and policies which have been considered in the assessment of this proposal include:

- SEPP 26 – Littoral Rainforest;
- SEPP 55 – Remediation of Land;
- North Coast Regional Environmental Plan 1988;
- Ballina Combined DCP - Chapter 1 – Urban Land, Chapter 11 - Mosquito Management and Chapter 13 – Stormwater Management;
- NSW Coastal Policy 1997;
- Coastal Design Guidelines;

- Far North Coast Regional Strategy;
- Lennox Head Community Aspirations Strategic Plan; and
- Lennox Head Structure Plan.

The proposal has been assessed against these controls (Tag E) and is generally consistent with the objectives of these controls.

4.6 Consideration of Ecologically Sustainable Development (ESD)

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.

The objects of the Act in section 5 are as follows:

- (a) to encourage:
 - (i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,
 - (ii) the promotion and co-ordination of the orderly and economic use and development of land,
 - (iii) the protection, provision and co-ordination of communication and utility services,
 - (iv) the provision of land for public purposes,
 - (v) the provision and co-ordination of community services and facilities, and
 - (vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and
 - (vii) ecologically sustainable development, and
 - (viii) the provision and maintenance of affordable housing, and
- (b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and
- (c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.

Of particular relevance to the assessment of the application is consideration of the objects under section 5(a). Relevantly, the objects stipulated under section 5(a) (i), (ii), (iv), (v), (vi) and (vii) are significant factors informing the determination of the application. The project does not raise significant issues with regards to 5(a)(iii) and (viii).

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. The principles of ESD have been considered in this assessment as follows:

4.6.1 Precautionary Principle

The EA submitted has identified and assessed the range of environmental impacts of the proposal. 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.

4.6.2 Intergenerational Equity

The development provides the following benefits to the Lennox Head community now and into the future:

- Provision of additional residential accommodation;
- Provision of additional open space;
- Protection of a species of Coastal Fontainea;
- Protection and enhancement of Hairy Joint Grass; and

- Protection and enhancement of SEPP 26 No. 38A through weed removal.

4.6.3 Conservation of Biological Diversity and Ecological Integrity

The proposed development site has been largely cleared of native vegetation, Hairy Joint Grass exists in the damp areas of the site and a single Coastal Fontainea exists on an adjacent site. The proponent undertook an assessment of the development's compliance with the following environmental planning instruments;

- *Environment Protection and Biodiversity Conservation Act* (1999);
- *Threatened Species Conservation Act* (1995) (NSW); and
- *State Environmental Planning Policies* (26 and 71).

Section 6.4 discusses measures that ensure the protection of these species.

4.6.4 Improved Valuation, Pricing and Incentive Mechanisms

The subdivision has been designed in accordance with the principles of Water Sensitive Urban Design and includes provision for a dual reticulated system. The system is designed to promote an environmentally sustainable outcome through management of the stormwater runoff, groundwater, potable water and sewerage. These measures will help future development applications for the site to comply with BASIX.

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

5 CONSULTATION AND ISSUES RAISED

5.1 Public Exhibition Details

The proposal was exhibited from 19 October to 17 November 2006 for 30 days and was published in the Ballina North Coast Advocate on 19 October 2006. The EA was made available to the public in the Department's Information Centre, North Coast Regional Office and at Ballina Shire Council.

Amendments to the proposal were presented in a Preferred Project Report, lodged on 22 June 2007. The PPR was made available on the Department's website on 26 June 2007.

5.2 Public Submissions

In response to the public exhibition of the EA, the Department received 219 submissions from the public and one petition with 115 signatures. These submissions included 140 letters of objection and 79 letters of support. The main issues raised are summarised below.

An additional 17 public submissions were received after the exhibition period, as a result of the discovery of an increase in the extent of the population of the threatened species, Hairy Joint Grass (refer to Section 6.4).

5.2.1 Summary of issues raised in public submissions

The following issues were raised in the public submissions:

ISSUE	CONSIDERATION
The proposal is an overdevelopment of the site. There are too many lots proposed for the constraints of the site.	Section 6.1.1
The proposal does not consider the previous Land and Environment Court outcomes and recommendations.	Section 2.2
The development will cause significant impact on downstream areas, in terms of scour from additional stormwater runoff.	Section 6.3
The proposed drainage is inadequate and will impact the downstream wetlands.	Section 6.3
The site is subject to flooding during times of high rainfall, the proposed drainage system is inadequate to cater for potential volumes of water.	Section 6.3
The proposal is unsuitable in terms of the steepness of the site and potential geotechnical details.	Section 6.2
Driveway access will be steep and inappropriate. It is also unsafe for children who may play in the area.	Section 6.2
The existing road network does not have adequate capacity for the proposal without potential causing traffic safety concerns.	Section 6.5
The roads proposed are very steep and will require extensive cut and fill which is inappropriate on the site due to the location of natural springs on the hill slopes.	Section 6.2
The raingardens have potential to cause safety concerns for children, particularly when inundated there is a risk of children drowning in ponds.	Section 6.3

The child's play area is unsafe and inappropriately located.	Section 6.1.3
Open space is located in wet boggy areas which is unsuitable.	The open space is proposed where the 6(a) Open Space zone exists. Large areas of the open space will be useable by residents with the provision of pedestrian and cyclist shared pathways and a children's playground.
The proposal will destroy existing vegetation on site and impact on Threatened Species.	Section 6.4
The proposal has an inadequate buffer the Coastal Fontainea.	Section 6.4
The proposal will impact on SEPP 26 Littoral Rainforest.	Section 6.4
The proposal will cause loss of visual amenity for existing residents.	Section 6.1.2
The proposal will have predominantly western orientated housing blocks which is inconsistent with BASIX requirements	The proposal incorporates water sensitive urban design measures which will allow BASIX requirements to be met in future development applications for dwellings on the site.
Significant glare is likely to be caused from the number of dwellings that will be west facing.	Visual impact is addressed in Section 6.1.2. Specific impacts with regard to residences will be assessed in future dwelling specific development applications to Council.
Residents to the west of the development will experience noise impacts as the valley acts as an amphitheatre.	Section 6.5
The proposal does not meet the provisions of the Lennox Head Strategic Plan.	Section 4.5 and Tag E

5.3 Submissions from Public Authorities

Submissions were received from Ballina Shire Council and five State government agencies:

- Ballina Shire Council** – raised a series of concerns relating to the following issues: stormwater management; geotechnical concerns; future driveway access and garage construction; ecological issues; open space; Draft DCP; mosquito management; bushfire; proposed lot 10; residue land; site contamination assessment; children's play area; BASIX compliance; roads and traffic; water; sewer; reclaimed water; SEPP 1 standards; and construction environmental and waste management plan. These issues, which have now been resolved and are addressed in section 6.
- Department of Environment and Conservation (DEC)** - did not object to the proposal however raised the following issues: need for a 50m open space buffer to the boundary of the Amber Bay Reserve and the need for a rehabilitation management plan for the proposed open space areas and northern escarpment, fencing of bushland areas and the need to undertake further survey work to identify the extent of Hairy Joint Grass. These issues are addressed in Section 6.4.

The second submission received from DEC dated 18 December 2006 raised concern regarding a lack of consultation in the Aboriginal Cultural Heritage Assessment Report. DEC state that in all other respects the Aboriginal Cultural Heritage Assessment Report appears adequate. Aboriginal heritage is discussed further in Section 6.7.

In response to amended plans, DEC provided an additional response dated 5 June 2007 in relation to ecology. DEC raised the following issues:

- the proponent should compensate for the loss of Hairy Joint Grass on the subject site by rehabilitating an area downstream, on the adjacent lot.
- the littoral rainforest area on the northern escarpment should be included in the Environmental Management Plan for the site for restoration and management.
- the buffer distance between the Hairy Joint Grass and Lots 25, 26, 29-31 should be increased.

These issues are discussed further in Section 6.4.

- *Rural Fire Service (RFS)* – did not object to the proposal subject to the following: Lot 10 shall be located so as to achieve the Asset Protection Zone's (APZs) as determined and required under Planning for Bushfire Protection 2001. This may include the development of a Bushfire Management Plan for the residual lot to the north of Lot 10 so as to manage the vegetation for the life of the development that will provide the required APZ for Lot 10. A Bushfire Management Plan should be developed for the management of the remaining vegetation within the proposal so as to provide for the required Asset Protection Zone's for the proposal. These issues are discussed in Section 6.8.
- *Department of Natural Resources (DNR)* – did not object to the proposal subject to the DCP being an essential component of any approval that is given for the future development of the site; DNR also recommended that the buffer to the rainforest vegetation at the south of the site should be increased to 50m. These issues are discussed in Section 6.1.2 and Section 6.4.
- *Department of Lands (DoL)* – did not object to the proposal, and confirmed the unformed Crown Road located immediately adjacent to the site could be used for access for this proposal, however they are not responsible for construction and maintenance of any road and this should become the responsibility of Council.
- *Roads and Traffic Authority (RTA)* – did not object or raise issues relating to the proposal as the subdivision is located on local roads which are owned and maintained by Council.

5.4 Proponent's Response to Submissions

The proponent responded to these submissions on 18 December 2006 and the proponent's response to these submissions is at Tag F.

Further amendments were made to the proposal following discussions with government agencies and independent assessment of the geotechnical and water cycle management documentation. The proponent's Preferred Project Report (PPR) incorporating final plans was lodged on 20 June 2007. The PPR is at Tag G.

6 ASSESSMENT OF ENVIRONMENTAL IMPACTS

Key issues considered in the Department's assessment of the Environmental Assessment and consideration of the proponent's draft Statement of Commitments includes the following:

- Subdivision Layout;
- Geotechnical Assessment;
- Water Cycle Management;
- Flora and Fauna;
- Traffic and Access;
- Bushfire;
- Aboriginal Cultural Heritage;
- Mosquito Management;
- Contamination; and
- Ecologically Sustainable Development.

6.1 Subdivision Layout

6.1.1 Subdivision Design

The proposed subdivision comprises 39 residential lots, two residue lots (for protection of significant vegetation) and one lot for open space which is to be dedicated to Council. The lot layout includes three roads, all of which are a cul-de-sac.

Generally the proposed layout has responded to previous concerns raised for applications on the same site. The number of lots has been reduced from the initial 54 lots proposed in 2000 (DA2000/608) to Council, to 39 lots. This represents a decrease of 28%.

The proposal now includes a greater setback (at least 25m) from the drainage corridor which responds to previous comments from the L&E Court and DNR, and the stormwater/ drainage system has been amended to an off-line system without the incorporation of any wetlands. This also responds to previous concern by the L&E Court, Council and the community. This issue is discussed in detail in Section 6.3.

With regard to the road layout, while the originally proposed subdivision in the EA included a loop road and one cul-de-sac, this road continuity was not able to be maintained in the final plans. Due to the ecological constraint of the distribution of the Hairy Joint Grass (refer to Section 6.4), the loop road was removed from the design (as well as five proposed lots). A number of layout options were proposed by the proponent to try and reinstate a loop road, but each option was dismissed due to the site constraints, as explained below (refer to Tag H for options):

- Options 1 and 2: These options would fragment the Hairy Joint Grass population, reducing the population's future viability. In addition, DEC noted that they would not support a road within the Hairy Joint Grass population.
- Options 3 and 4: While these options reduced the impacts on the Hairy Joint Grass, the roads were located in steeper areas of the site where the road would need to be heavily engineered, resulting in retaining walls above and below the road surface. Due to the need for the retaining walls, the road is likely to result in greater visual impacts for the surrounding areas.

Throughout this assessment process the subdivision layout has further been amended to achieve a 50m buffer to the threatened species, Coastal Fontainea, located in the Amber Drive Reserve to the west of the site and to eliminate the impact on areas of high density Hairy Joint Grass (discussed in Section 6.4). As such, the Department is satisfied that the proposed layout responds to both the site's constraints and previous concerns.

6.1.2 Visual Impact

Submitted with the EA was a Visual Assessment and Design Guidelines prepared by HASSELL Pty Ltd dated September 2006 and a draft DCP titled Coastal Grove Lennox Head prepared by MG planning, dated September 2006.

It is noted that the draft DCP takes on the recommendations and findings of the HASSELL document in regard to dwelling design to minimise visual impacts. The draft DCP provides controls for future dwellings such as siting, setbacks, height and design of roofs, garages and driveways. Specific controls are provided for buildings on sloping areas of the site. Council supports the adoption of a site specific DCP for the development. Council have requested that ongoing consultation occur between the proponent and Council to facilitate the implementation of the DCP. A recommended condition of approval requires that the proponent finalise the DCP in consultation with the Council.

The HASSELL document establishes visual assessment categories of minor, moderate or major to determine the potential impact of this proposal. These categories consider the visual impact plus visual sensitivity as viewed from various vantage points, including distance views from public open space, beaches and from the adjacent residential areas. Figures 5 and 6 illustrate the locations and visual impacts of the proposed development.

The assessment concluded that moderate visual impact would be caused from two vantage points, these were both taken within close proximity of the site being Amber Drive and Survey Street (refer to Photos 5 and 6 in Figure 6).

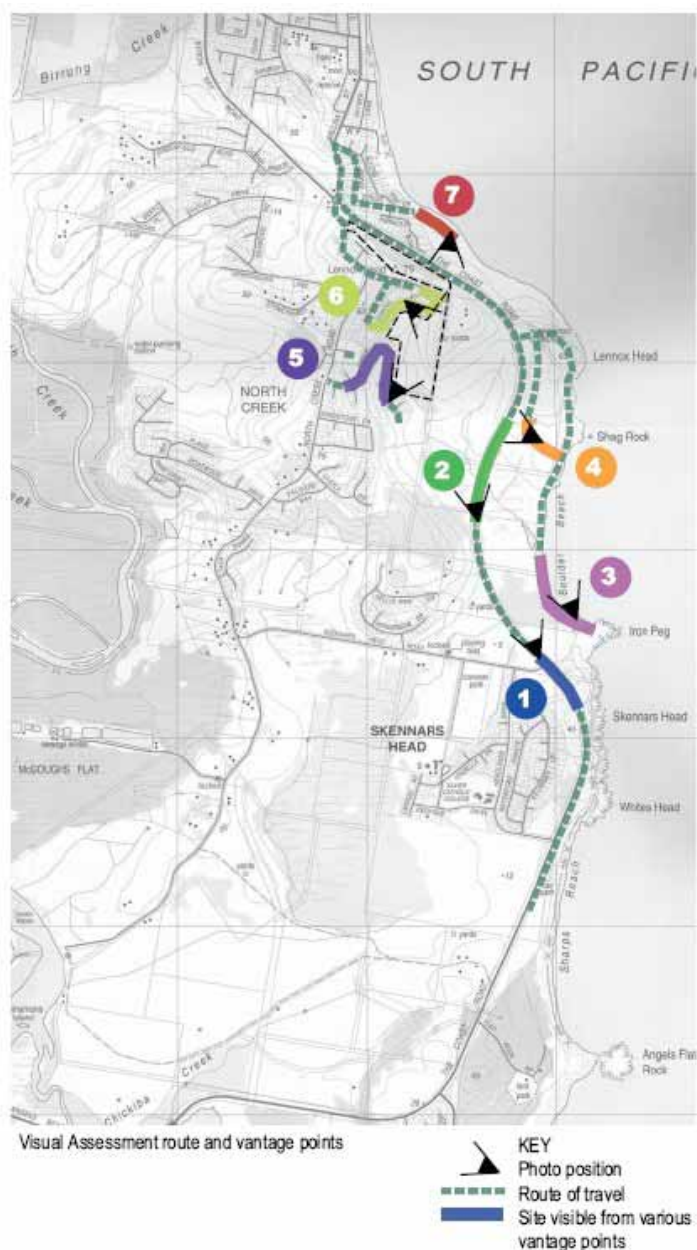


Figure 5 Locations of the visual assessments undertaken (from proponent's Visual Assessment, September 2006).



Figure 6 Visual impacts from each of the viewing points (from proponent's Visual Assessment, September 2006).

This category of impact was determined as currently these areas look across paddocks towards the ridgeline with some glimpses of the Pacific Ocean. Should the proposed development proceed and future dwellings be built this current view will be substantially modified in the foreground.

The assessment determined that with respect to visual impact from distant vantage points the impact would be minor as generally no future building will be permitted to have a height beyond the ridgeline and in most cases there is already a backdrop of existing residential development.

In considering the conclusions of this assessment, it is considered that although the existing residents will be visually impacted upon, the level of impact is acceptable. The subject land is zoned for residential development and therefore it has been anticipated that future dwellings would be built on the site. Further, the proposal includes the establishment of raingardens along the north south oriented drainage line which includes canopy planting which will assist in the screening of future dwellings from residences to the west of the site. The draft

DCP for the site provides guidelines for minimising visual impact of the development such as setbacks, height, and design of dwellings and fences.

6.1.3 Children's Play Area

The proposal includes a children's play area which is located at the corner of proposed roads 2 and 3 (refer to Landscape Plan at Tag B). The location of this play area has responded to the L&E Court determination which stated that "open space suitable for children's recreation should be provided within the subject site".

Council raised concern with regard to the location of this play area, specifically due to the location of an existing Sewage Pump Station and the potential conflict between proximity to the play area during maintenance and repair work. The proponent has since advised that the Pump Station is proposed to be decommissioned and relocated at Seamist Place, south of the site.

Various submissions from the public also raised concern with regard to the location of this play area. Concerns varied and in some respects contradicted each other as many submissions stated that the proposed location was too steep and therefore unsuitable and other submissions indicated that the play area should be located towards the ridge of the site, which itself is steep to both access and potentially play in.

Having considered the site constraints and layout in terms of the location of the vegetation corridor, it is considered that the play area is suitably sited as it located in an area that can be suitably graded for the purpose, leads across to the vegetation corridor and subsequent pedestrian/bicycle path and is able to be easily accessed by future residents of this subdivision as well as residents of the existing locality who do not currently have a play area within easy walking distance.

A recommended condition of approval requires that the final design of the play equipment be approved by Council and that the final installation will be undertaken prior to the issue of a subdivision certificate.

6.2 Geotechnical Assessment

A slope stability assessment was prepared by Coffey (August 2006) and submitted with the EA. This report identifies the site as lying on the western side of a ridge in a valley trending north-south with a drainage corridor also running in a north-south direction through the site. The hill slopes to the east of the drainage corridor range from approximately 18° to 20° on the upper slopes to 12° to 15° on the lower slopes and slopes to the west of the creek range from approximately 15° to 18°.

Coffey considered the likelihood of slope instability based on the following factors: slope angle, subsurface conditions, groundwater levels and the existence of indicators of past instability. The site was divided into three zones to assess slope risk potential, these being:

- Zone 1: Very low to low risk of slope instability
Development = acceptable: manage by normal slope maintenance procedures.
- Zone 2: Low risk of slope instability
Development = usually accepted: treatment requirements and responsibility to be defined to maintain or reduce risk.
- Zone 3: Low to moderate risk of instability
Development = moderate risk: tolerable provided treatment plan is implemented to maintain or reduce risks. May be accepted, require investigation and planning of treatment options.

These zones can be related to the site on Figure 7.

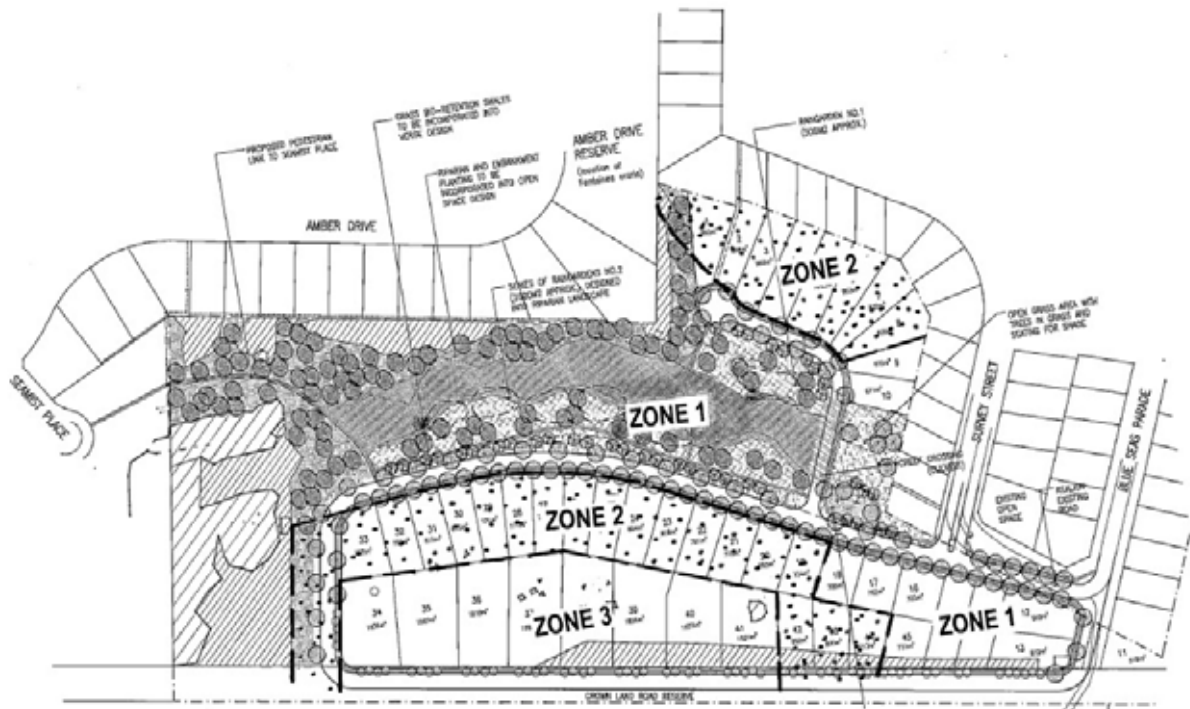


Figure 7: Hazard Risk Assessment (from Proponent's EA)

Due to the steepness of the site and concern with regard to potential stability issues, the Department engaged independent consultants, GHD-Longmac (GHD), to undertake a review of the Coffey report and provide advice with regard to the site's suitability for residential development.

GHD reviewed both the geotechnical report and also the stormwater/drainage design information as these issues need to be considered in conjunction to determine the suitability of the site for residential development.

From their initial review, GHD identified concerns relating to evidence of previous excavation scars, and the proposed drainage trenches (specifically the potential to re-direct surface runoff water into the subsurface soil horizons). GHD also requested additional information to enable consideration of the proposed seepage distribution trenches, proposed immediately to the east of the existing creek and along Lots 23, 24 and 25.

Essentially it is recognised that there are reasonably steep areas on the site, however subject to compliance with the recommendations of Coffey being suitable stormwater/ drainage measures and site specific testing of each lot prior to final siting and construction of any future dwellings, GHD has concluded that the site is capable of being developed as proposed.

Written responses, followed by a meeting with Coffey and Patterson Britton responded to the above concerns with additional information, amended design and a methodology for remediation of previous site earthworks. The amendments to the stormwater/ drainage design for the development are discussed in Section 6.3.

With regard to the geotechnical scars, it was discovered that these were access paths created from previous geotechnical investigations. GHD considered it important to remediate these areas of previous site earthworks prior to any works being undertaken on the site. Coffey prepared a *“Methodology for Remediation of Previous Site Earthworks”* (dated 20 February 2007) which was subsequently reviewed by GHD. Subject to these works occurring, GHD has concluded that the site can be developed as proposed.

The Statement of Commitments includes the requirements to undertake the remediation works and the draft DCP requires specific design and construction requirements that need to be adhered to. In most cases site specific geotechnical studies will need to be undertaken and submitted with any future development application for a residential dwelling.

In order to alert potential purchasers to the geotechnical constraints and therefore likely economic consequences of building on the steeper parts of this site, a recommended condition of approval is that Council be requested to place a note on the Section 149 certificate for the proposed lots indicating that the land is subject to geotechnical constraints and must be developed in accordance with Council's specific controls.

As such, the Department has adopted GHD's conclusions that the site can be developed as proposed subject to the finalisation of the remediation works and specific requirements in the DCP.

6.3 Water Cycle Management and Flooding

Due to the steep slopes across the site and the potential for the proposal to increase runoff from the site, the design and ongoing maintenance of the stormwater system was identified as a key issue (refer to Tag B for the conceptual stormwater management system figure). In addition, stormwater management and localised flooding were identified as concerns by the Land and Environment Court. It is important that the existing hydrological regime is maintained to ensure the viability of the Hairy Joint Grass population on site (refer to Section 6.4 below). As discussed in Section 6.2 above, GHD reviewed the proposed stormwater management for the site in conjunction with the geotechnical information to determine its adequacy.

A number of concerns were raised with regard to the stormwater management system:

- the potential impact of the infiltration trenches on slope stability;
- the necessity of routing the groundwater seepage from the trench drains into rain gardens (as groundwater does not need treatment and this would increase the amount of water that the rain gardens are processing);
- the need for ongoing maintenance of the seepage trench drains and the potential problems this may present as they will be located on private property;
- the potential for the rain gardens to intercept the groundwater table; and
- the safety of the rain gardens for residents and users of the proposed open space.

The proponent amended the infiltration trenches to concrete dish drains. Each dish drain would flow to an inlet pipe at the end of each lot which would connect to the interallotment drainage system. The construction of concrete dish drains would reduce the potential for waters to flow into the subsoil and create instability.

The system for managing groundwater seepage was amended so that the trench drains on the eastern slope connected straight to the seepage distribution trench gravel drain. This would remove the need for groundwater seepage to be directed through the rain gardens and keep groundwater seepage completely separate from the stormwater from the site. In addition, the proponent confirmed that the seepage trench drains would not require ongoing maintenance, that setbacks to these drains are not required and that it will be possible to build over them e.g. driveways, gardens, fences.

It was found that the rain gardens would not intercept the groundwater table. However, due to the shallow groundwater table on the site, conditions of approval are recommended that require the inclusion of an impervious geotextile layer if the rain gardens are below the level of groundwater.

In response to concerns about the safety of the rain gardens, the proponent stated that they will pond to a maximum depth of 500mm. Ponding within the rain gardens would last up to 5 hours, although generally speaking, the gardens would be dry. Ballina Council's Combined DCP allows stormwater management devices a storage depth of up to 600mm before a safety fence is required. In addition, the rain gardens have been designed with shallow side slopes to further increase their safety.

Considering the amendments made, GHD confirmed that the stormwater system for the site is an adequate response to the site constraints. The system will ensure the efficient movement of waters from the proposed lots while maintaining the wet and boggy conditions at the base of the slope that is required for the continuing viability of the Hairy Joint Grass.

It is considered that the stormwater management system will service the site appropriately. In addition, the current proposal has addressed concerns raised in previous applications for the site by both Council and the

Land and Environment Court by the removal of artificial wetlands from the stormwater system, siting of the lots to ensure that none of them are prone to flooding and ensuring that the proposal will not impact on localised flooding downstream of the site.

6.4 Flora and Fauna

6.4.1 Coastal Fontainea

One specimen of the endangered species Coastal Fontainea (*Fontainea oraria*) occurs on land adjacent to the site, in a Council reserve known as the Amber Drive Reserve. Coastal Fontainea is a species of tree which is listed as endangered under both the NSW *Threatened Species Conservation Act 1995* (TSC Act) and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The species is noted by DEC as one of the most threatened species in NSW and Australia with a total population comprising 10 adults and 45 seedlings and juveniles.

It is noted that the proponent has considered the provisions of the EPBC Act and the potential for this proposal to impact this species in the EA.

Initial concern was raised with regard to an inadequate setback distance to this species and the larger stand of SEPP 26 rainforest that it occurs within. The proponent amended the subdivision plan to remove the closest lot (proposed Lot 1 on the EA subdivision plan), creating a 50m buffer to the tree.

The Department considers this buffer adequate to enable the protection of this species based on DEC's advice which suggests a minimum buffer of 50m is adequate. It is noted that this proposed buffer exceeds that suggested by the L&E Court which was a 15m buffer.

Further, the proponent has indicated the protection of this species will be enhanced by the already planted buffer vegetation (approx. 15m) to the site boundary and the management of the buffer area which is proposed to be revegetated as predominantly open grass with some native trees to be planted. Management of this area will remain in the proponent's control for five years, after which time this land will be dedicated to Council. The final detailed landscape plan will be approved by Council.

6.4.2 Hairy Joint Grass

Hairy Joint Grass (*Arthraxon hispidus*), a vulnerable species under both the TSC Act and EPBC Act, occurs on the site.

The distribution of Hairy Joint Grass was initially identified as being limited to areas adjacent to the drainage line, however following investigation by Council, it was discovered that the site contained a much broader distribution of the species.

As a result of this finding, the proponent engaged an expert botanist, Eco Logical, to undertake further survey work and report on this species. Eco Logical undertook the additional survey work in March 2007 to identify the occurrence and distribution of the species on the site. The findings of their work show an increased area of distribution and its distribution has been categorised as either distribution area or high density distribution area.

As a result of this identified increased distribution, the lot layout was amended so that development would not occur in areas of high density distribution. This can be seen in Figure 8.

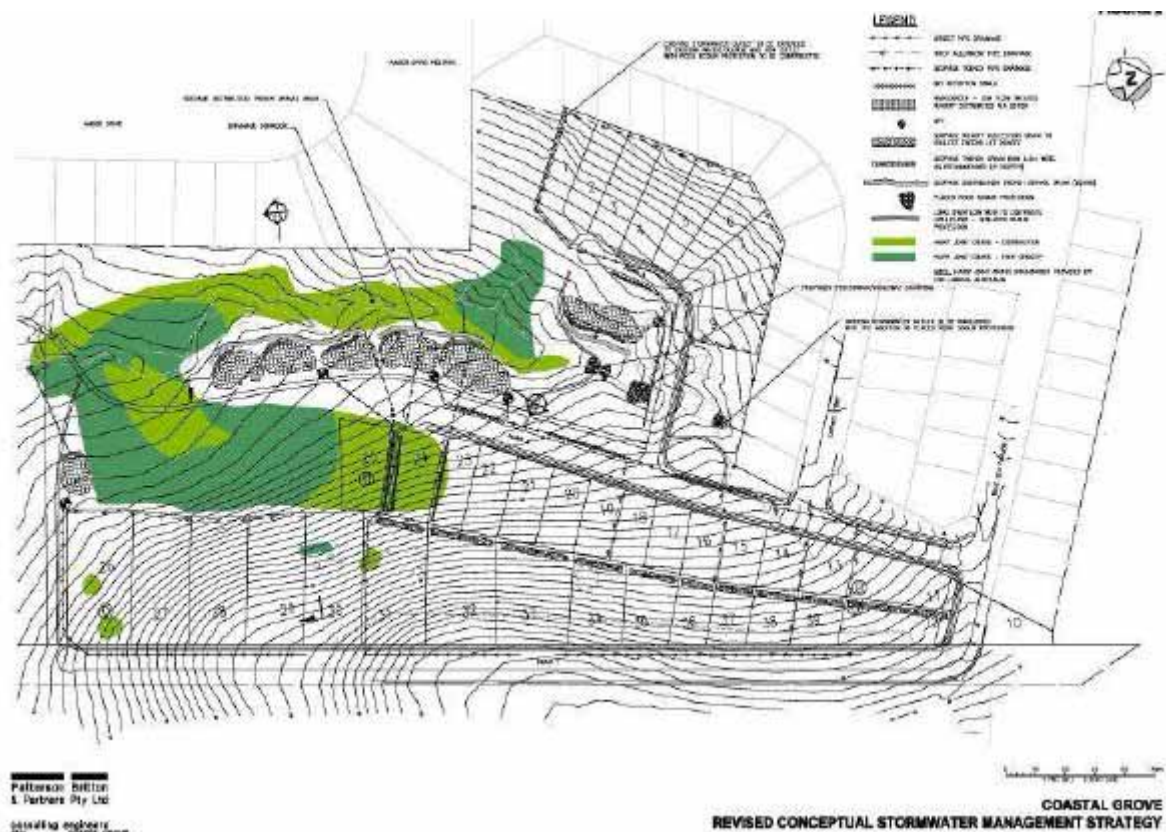


Figure 8: Hairy Joint Grass distribution.

In addition to the amended lot layout, the proponent has made the following amendments to protect the species:

- Relocation of the proposed drainage line from the existing drainage pipe draining to the western boundary of the site;
- Relocation of the proposed raingardens and seepage distribution trench gravel drain further to the east;
- Relocation of the northern most raingarden further north; and
- Addition of a raingarden and gross pollutant trap to treat and detain runoff from lots 26 to 30.

Further, to facilitate the effective management and long term conservation of the Hairy Joint Grass, the Statement of Commitments incorporates the recommendations of environmental consultants for the proposal, Eco Logical. This includes actions such as preparation of a management plan and implementation and maintenance of this plan for a period of five (5) years (after which, the area will be fully in the control of the Council).

In response to the amended lot layout, DEC advised that there should be a 3m ecological buffer between the Hairy Joint Grass and the residential lot boundaries. The final subdivision plans incorporate this 3m ecological buffer.

The development proposes two pedestrian footpaths (one north-south oriented and one east-west oriented). Both of these proposed pathways go through the area of Hairy Joint Grass on site. While the proponent proposes to raise the pathways through the area of Hairy Joint Grass, Council and DEC raised concern that this approach would still result in unacceptable impacts on the species. Ideally, all proposed pathways would be located outside the identified areas of Hairy Joint Grass. In order to minimise the impacts on the Hairy Joint Grass on site, a recommended condition of approval requires the north-south oriented pathway to be relocated to the western side of the drainage line and outside of the area of Hairy Joint Grass.

With regard to the east-west oriented pathway, it is not considered feasible to relocate this pedestrian link completely, as it will provide an access to the south for residents of lots 12-26. However, with minor amendments

to the route of the pathway, any impacts on the Hairy Joint Grass can be minimised. A recommended condition of approval requires that this pathway be redesigned to minimise impacts on Hairy Joint Grass.

As some minor areas of Hairy Joint Grass will be removed (refer to the light green areas on proposed lots 23, 24, 25, 26, 29, 30 and 31) DEC and Council also advise that the proponent should undertake compensatory works by extending the management of the Hairy Joint Grass to the adjacent site to the south (this lot is in the same ownership as the subject site). The identified area of Hairy Joint Grass management on this lot is part zoned 2(a) Living Area and part 7(d) Environmental Protection. It is considered that the proponent should undertake compensatory works to address the impacts of the development on the Hairy Joint Grass that will be lost as a result of the development. The proponent subsequently amended their Statement of Commitments to include the management of the Hairy Joint Grass population to the south of the site. The area where the Hairy Joint Grass will be managed can be seen in Figure 9.



Figure 9: The area to be managed for Hairy Joint Grass.

Council have raised a number of other issues in regard to impacts on the Hairy Joint Grass and suggested the inclusion of a number of conditions should approval be given. The conditions relate to additional modelling of the stormwater management system (and how it may impact on the hydrological regime of the Hairy Joint Grass), additional surveys for the species and translocation of the species from areas where the development will impact. On consideration these conditions have not been applied to the recommended conditions of approval for the following reasons:

- Eco Logical, ecological consultants for the proponent, undertook a targeted survey for Hairy Joint Grass in May 2007. While any survey has limitations, it is considered that the ecological polygon identified as a result of the survey provides a reasonable representation of the Hairy Joint Grass population on the site;
- The Department engaged an independent expert, GHD, to assess the proposed stormwater management system. GHD concluded that the proposed system would promote the maintenance of the existing wet conditions at the base of the slopes on the site, where the Hairy Joint Grass largely occurs; and
- As the proponent is undertaking offset works on the adjacent lot to the south, it is not considered necessary to require translocation of the areas to be impacted. In addition, DEC has stated that very little is known about the translocation of Hairy Joint Grass, therefore, the success of this method cannot be assured.

Overall, it is considered that the targeted survey work for the Hairy Joint Grass has provided a reasonable representation of the distribution of the species across the site. The proponent is protecting approximately 1.5ha of Hairy Joint Grass habitat on site which represents approximately 83% of the existing population on the site. The loss of approximately 17% of the population on the site will be compensated for by the management of a larger area of adjacent habitat to the south of the site. The amended design, in addition to the proponent's Statement of Commitments is an adequate response for the ongoing protection and management of this threatened species.

It is noted that the proponent has undertaken an assessment of significance under the EPBC Act for Hairy Joint Grass and determined that the proposal would not result in a significant impact on this species. The proponent has concluded that, as a result, the proposal does not require referral to the Commonwealth.

6.4.3 SEPP 26 Littoral Rainforest

SEPP 26 aims to provide a mechanism for the consideration of applications for development that is likely to damage or destroy littoral rainforest areas with a view to the preservation of those areas in their natural state.

There are two areas of SEPP 26 Littoral Rainforests in the vicinity of the site:

- No. 38A – located on the northern escarpment within the site boundary
This area of rainforest exists between the Coast Road and the existing dwellings along Blue Seas Parade. No development is proposed within the area mapped as SEPP 26. The closest development that will occur is the establishment of lot 10. Considering that the proposed Lot 10 is at the eastern end of an existing row of houses, and in fact further away from the mapped rainforest than the existing dwellings, it is considered unlikely that future development of this lot for a dwelling will impact on the integrity of the rainforest.

DEC and Council have recommended that rehabilitation of this area occur. However further discussions were held with DEC and they agreed that if weed removal was undertaken, that the rainforest would regenerate at its own rate. A recommended condition of approval requires that the Environmental Management Plan, in particular weed removal, be extended to cover this area of SEPP 26 rainforest.

- No. 36 – located to the west of the site in Amber Drive reserve
This area of rainforest lies on adjacent land in the Amber Drive reserve and contains the significant Coastal Fontainea tree. The proposal has been amended to provide a 50m buffer to this species within the reserve. This distance will provide a satisfactory buffer to protect this stand of rainforest and subsequently the Coastal Fontainea tree.

6.4.4 Other Vegetation

A mature stand of rainforest vegetation exists in the south east corner of the site. This stand of vegetation is not mapped under SEPP 26.

DNR has suggested that the proposed buffer to this vegetation be increased from the originally proposed 27m to 50m and DEC has suggested it be fenced. In the original proposal these measures were considered unnecessary as a buffer was provided to the vegetation by revegetation and a proposed road. In the final plans, the road has been removed and a footpath has been added immediately adjacent to this area, providing a 6m buffer. As a result, it is considered that this area of remnant vegetation and the adjacent area of revegetation (proposed Lot 45) should be fenced to ensure its continued integrity. This is included as a recommended condition of approval.

6.5 Traffic and Access

The proposed development will increase vehicle numbers on the surrounding streets. Most notably, impacts will be experienced on Blue Seas Parade, with impacts to the intersection of Blue Seas Parade with North Creek Road.

The proponent submitted a traffic study with the EA indicating that the increased traffic from the proposal would result in minimal impacts on surrounding roads and intersections. Specifically, there is sufficient capacity in the intersection of Blue Seas Parade and North Creek Road to accommodate the additional traffic from the development. This intersection will continue to operate at Level of Service A with the proposed development. While the capacity of this intersection is adequate, an analysis of the safety of the intersection needs to be undertaken. A recommended condition of approval requires a safety analysis of the intersection in accordance with *Austrroads Guide to Traffic Engineering Practice – Part 5: Intersections at Grade*.

The traffic assessment also addressed the potential impacts of increased traffic on the existing noise environment. It was determined that the noise levels post development will remain below the relevant criteria at residences within the subdivision and existing residences on the Survey Street and Blue Seas Parade.

Council requested that the proponent provide a 2m wide footpath along Blue Seas Parade from the site to North Creek Road, a distance of approximately 400m. While the 39 residential lots proposed will generate a certain amount of additional pedestrian traffic it is not considered that the proponent should provide 400m of footpath outside the site boundaries. It is noted that footpaths and cycleways are provided within the development site to cater for residents from within the site and from surrounding residential areas.

It should be noted that following the amendments to the proposal and the loss of six residential lots, any potential impacts to the existing traffic environment will be lessened from that assessed in the EA.

6.6 Bushfire

Council's Bushfire Prone Land Map identifies the southern portion of the site (where the remnant rainforest exists) as the only bushfire prone area on the site. A bushfire assessment report, prepared by Barry Eadie Consulting and dated 13 July 2006 was submitted with the EA. Due to the cleared nature of the site, the adjacent residential development, or the cleared ridgeline the site is not considered of particular bushfire threat.

With regard to the area of vegetation to the south of the site an Asset Protection Zone (APZ) of 20m is required from potential future dwellings to this stand of vegetation. This is achieved by way of a pedestrian footpath and open space with the remainder of the APZ on Lot 26 itself. A recommended condition of approval requires a restriction on title to allow for the ongoing maintenance of the APZ.

RFS comments on the proposal were restricted to the need for an overall Bushfire Management Plan for remaining vegetation and also identified the need for any future dwelling on proposed Lot 10 to be consistent with Planning for Bushfire Protection 2006 and to have a Bushfire Management Plan covering the adjacent vegetation to the north of this lot.

The proponent has included in their Statement of Commitments to provide the required APZ and also require the preparation of a Bushfire Management Plan prior to any subdivision certificate being issued for proposed Lot 10.

Following amendments to the proposal and the provision of 3 culs-de-sac throughout the site, RFS was consulted regarding their access requirements. RFS stated that the level of access was acceptable, subject to each cul-de-sac having a 12.5m diameter (Luke Catorall, pers. comm.). The amended proposal provides a 12.5m diameter at the termination of each cul-de-sac.

6.7 Aboriginal Cultural Heritage

An Aboriginal Cultural Heritage Assessment Report, prepared by Dominic Steele Consulting Archaeology September 2006 (Steele report) was submitted with the EA.

This report includes the outcomes of background research undertaken in May 2006 with a subsequent site survey occurring in August 2006. In attendance at the site survey was a representative of the Jali Local Aboriginal Land Council (JLALC). In addition, the report acknowledges the previous aboriginal and archaeological and cultural heritage assessment undertaken in 1997 by Piper, who also consulted with the JLALC.

The Steele report concluded that the results of their report were largely similar to that of the 1997 Piper report being that, "there are no apparent Aboriginal archaeological or other cultural heritage constraints to the development proposal proceeding as currently planned".

The above conclusion is based on:

- No items of Aboriginal cultural heritage have previously been registered on the DEC AHIMS Aboriginal Sites Register with (or immediately adjacent to) the subject land;
- The site contains no areas of known Aboriginal historical association or cultural significance based on background research and input from JLALC during the course of the current assessment.; and
- The site itself is topographically unlikely to have any significance due to the results of multiple surveys which have been undertaken in a variety of topographical/ environmental zones (wetlands, coast, hillslopes etc) and found that aboriginal sites have been found in all contexts except elevated non-sand based areas representing former rainforest such as the subject land.

It is therefore considered unlikely that this proposal will impact on any cultural significance to the Aboriginal Community. A recommended condition of approval requires works to cease should Aboriginal objects be located and the DEC to be contacted.

DEC raised concern that the proponent had not undertaken sufficient consultation with the Aboriginal community during preparation of the Aboriginal Cultural Heritage Assessment Report. It is noted that the Steele report only extended consultation to the Jali LALC. As such, a recommended condition of approval requires that Aboriginal consultation be undertaken in accordance with Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation prior to the issue of a certificate for subdivision work.

6.8 Mosquito Management

The Ballina Combined DCP (Chapter 11 – Mosquito Management) identifies the site as being at high risk for mosquitoes, but is not a known or suspected breeding area. In order to determine the potential risk for existing and future residents from the proposal, a Mosquito Impact Assessment was prepared by Mosquito Consulting Services Pty Ltd.

The assessment found that the site has a very low exposure to mosquitoes. The species of most concern that was recorded on the site was *Aedes vigilax* which is noted as a significant risk species for public health and amenity. This species was recorded in low numbers and it was determined that the proposed development would not enhance the potential harbourage of this species due to the site's distance from the nearest saltmarsh breeding habitat.

The assessment recommends the implementation of mosquito screening to windows and external doors and the fitting of mosquito proof screens to openings of rainwater tanks. The proponent has committed to including these

measures into the draft Development Control Plan for the site. It is considered that the inclusion of these recommendations into the draft Development Control Plan is an effective way of ensuring their implementation.

6.9 Contamination

In accordance with SEPP 55 a Phase 1 Preliminary Site Assessment was undertaken for the subject site which concluded there was a low risk of contamination. Sampling was undertaken around an existing shed on site which revealed elevated levels of zinc in the soil.

Due to these preliminary findings, more extensive sampling was undertaken in a Phase 2 Site Assessment and it was determined that the elevated zinc levels were restricted to a localised area. The level of contamination in the soil classifies it as inert waste in accordance with the relevant DEC guidelines (2004). The Phase 2 Site Assessment provides 2 options for remediation:

1. Excavation and removal of contaminated soil off site to landfill; or
2. Containment of the contaminated soils on site under pavements or residential slabs. This option also requires the preparation and implementation of a Site Management Plan.

A commitment in the proponent's draft Statement of Commitments requires that the soil be managed in accordance with the recommendations of the Phase 2 Site Assessment.

6.10 Developer Contributions

The proponent is required to pay developer contributions in accordance with s94 of the Act and s64 of the *Local Government Act 1993*. Contributions to be paid as a result of the development are set out in the table below.

Section 94 Contributions	
Area of Contribution	Amount payable
Community Facilities	\$40,964
Public Gardens and Recreational Enhancement	\$25,650
Roads	\$79,002
Total	\$145,616
Section 64 Contributions	
Area of Contribution	Amount payable
Augmentation of water supply mains and storage	\$113,278
Augmentation of sewerage headworks	\$245,404
Amplification and provision of water supply infrastructure	\$132,316
Total	\$490,998

7 CONCLUSION

The Department has assessed the EA and considered the submissions in response to the proposal. The key issues raised in submissions related to density of the development, geotechnical stability of the site, stormwater control, protection of significant flora, access, visual impact and management and mitigation of construction impacts. The Department has considered these issues and a number of conditions are recommended to ensure the satisfactory addressing of these issues and minimal impacts as a result of the proposal.

The proposed development will allow for a 42 lot subdivision including 39 residential lots, two residue lots for protection and enhancement of significant vegetation, three new roads, a landscaped open space corridor and a children's play area. Furthermore, the project application has largely demonstrated compliance with the existing Environmental Planning Instruments.

On these grounds, the Department considers the site to be suitable for the proposed development and that the project is in the public interest. Consequently, the Department recommends that the project be approved, subject to the recommended conditions of approval.

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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