



NSW GOVERNMENT
Department of Planning

***MAJOR PROJECT ASSESSMENT:
'MOONEE WATERS' RESIDENTIAL
SUBDIVISION, LOT 66 DP 551005,
PACIFIC HIGHWAY, MOONEE BEACH
Proposed by HILLVIEW HEIGHTS
ESTATES PTY LTD***

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

September 2010



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1 EXECUTIVE SUMMARY

This is a report on a concept plan application by Hillview Heights Estates Pty Ltd (the proponent) to carry out development for Moonee Waters residential subdivision at Moonee Beach in the Coffs Harbour local government area (Lot 66 DP 551005) ("the proposal").

The concept plan seeks approval for residential subdivision of the site into approximately 210 lots. The development would be a community title subdivision in two precincts (northern and southern).

The estimated project cost of the development is \$35 million.

During the exhibition period, the Department received a total of eight submissions from public authorities and 129 submissions from the public. Of the public submissions, 128 raised objections to the proposal and one supported the proposal. Key issues considered in the Department's assessment included:

- Strategic Context;
- Access;
- Flooding and Climate Change;
- Impacts on flora and fauna species, including Endangered Ecological Communities
- Aboriginal Cultural Heritage; and
- Bushfire.

The Department has assessed the merits of the proposal and is not satisfied that all the impacts of the proposed development can be adequately mitigated via the proponent's Statement of Commitments and/or modifications to the concept plan. In particular, the Department is not satisfied that development of the northern precinct is suitable on the site and does not support its future development. The Department considers that a level of development in the southern precinct can be achieved, subject to meeting stringent requirements.

The Department recommends that the Minister give partial approval to the concept plan for the project.

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2 BACKGROUND

2.1 THE SITE

2.1.1 Site context and location

The site, at Moonee Beach, (Lot 66 in DP 551005), is located within the local government area of Coffs Harbour and is owned by R. Mercer. The proponent is Hillview Heights Estate Pty Limited. The site is 102 hectares and is located approximately ten kilometres north of Coffs Harbour and 400m south of Moonee Beach village (refer to Figures 1 and 2).

The site has frontage to the Pacific Highway in the west. The site includes a Crown road reserve, referred to as Rutile Road, which runs along the southern boundary of the site.

2.1.2 Existing site features

Two minor creek lines flow from west to east across the site and join Moonee Creek just upstream of where Moonee Creek enters the ocean. Both creeks enter the site from culverts under the Pacific Highway. The southern creek is called Sugar Mill Creek. The northern creek line is unnamed.

The site is fully vegetated except for a cleared corridor approximately 30m wide in the west of the site which accommodates above ground transmission lines (refer to Figures 3, 4 and 5).

A number of informal tracks exist through the site. The site also accommodates a section of formal walking track in the north of the site that provides access from Moonee Beach township to Green Bluff (the headland between Sapphire Beach and Moonee Beach).

A wetland identified by *State Environmental Planning Policy No. 14 – Coastal Wetlands* (SEPP 14) is in the east of the site. Wetland number 319 runs roughly north south through the site and continues into the site to the south.

The site has a low relief of approximately 14m. The lowest part of the site is in the SEPP 14 wetland. Two areas of higher ground (maximum height 15m AHD) are located in the south west and the north west of the site. These two areas are separated by the lower lying land comprising the gullies that the creek lines flow through.



Figure 1: Site location (source: proponent's Environmental Assessment)



Figure 2: Aerial photo of site (Source: proponent's Preferred Project Report)



Figure 3: Vegetation within the proposed project boundary.



Figure 4: Vegetation within the proposed project boundary.



Figure 5: Vegetation within the proposed project boundary.

2.1.3 Surrounding development

The Pacific Highway runs along the western boundary of the site. The development on the western side of the highway is rural residential.

To the north west of the site is a parcel of land that is currently the subject of a Part 3A application (08_0003) for a 35 lot residential subdivision. The Environmental Assessment for this proposal has been exhibited, however, it is yet to be determined. A strip of land (approximately 100m wide) across the southern portion of this adjoining site is zoned for environmental protection. In the project application 08_0003 for this adjoining site, the proponent proposes to dedicate the 100m wide strip of land to public ownership for conservation.

Further north is a residential area forming Moonee Beach township. The residential area of Moonee Beach abuts the central part of the northern boundary of the site.

To the north east of the site is Moonee Creek estuary and two areas of Crown land. One area of Crown land, Moonee Creek reserve, is adjacent to the Moonee Beach township and contains the Moonee Beach caravan park. The other area of Crown land is Green Bluff which has been reserved for environmental protection.

Coffs Coast Regional Park lies directly to the east of the site. The Park, owned by the Department of Environment, Climate Change and Water (DECCW), was created in 2003 and covers 379ha between Korora to Arrawarra. The Park is managed by a trust that includes members of DECCW and Coffs Harbour City Council. Regional parks are constituted by the *National Parks and Wildlife Act 1974*, in a similar way to national parks and nature reserves. The NPW Act states that the purpose of reserving land in a regional park is to identify, protect and conserve areas in a natural or modified landscape that are suitable for public recreation and enjoyment.

The Regional Park borders Sapphire Beach in the east.

To the south of the site is privately owned land that has approval for a residential development (known as North Sapphire Beach estate). A master plan (pursuant to SEPP 71 – Coastal Protection) was approved on the site on 21 December 2004. Development consent was subsequently given by the former Minister for Planning on 31 March 2006 for a subdivision of 247 residential lots, 20 public reserves, 2 residual lots and public roads. This development is currently under construction (refer to Figure 11).

A section of beachfront land which forms part of this same site has development consent from Council for a community title residential development of 12 dwelling houses. This is also currently under construction and adjoins the south east of the site.

2.2 SITE HISTORY

2.2.1 Prior to the Current Application

In the 1960s and 70s, sand mining for rutile and zircon occurred from the dunes on the site. This mining activity was restricted to the eastern portion of the site.

The current landowner purchased the land in 1970. At this time, the site was zoned 1(c) Rural pursuant to Coffs Harbour Shire Council Interim Development Order (IDO) No. 80. A subsequent Local Environmental Plan (LEP) amended this zoning in 1983 and 1984 to Residential 2(a) Living Area. This residential zoning has been maintained in the more recent LEPs, Coffs Harbour LEP 1988 and the current Coffs Harbour City LEP 2000.

In September 2004 Council adopted the *Moonee Development Control Plan 2004* (Moonee DCP) and resolved to prepare an LEP amendment to amend zonings in the Moonee area. The Moonee DCP designates the site of the current application as "protected land" having high to very high value vegetation as identified in Council's Vegetation Strategy with a low level of disturbance (refer to Figure 6). The DCP identifies that protected land be incorporated into a network of public open space. In resolving to adopt the DCP Council also resolved to negotiate with the owner of this land regarding the potential dedication of land containing native vegetation in exchange for some clearing to allow housing development and, upon completion of these negotiations, a report

be brought back to Council. While some meetings were subsequently held between the Council and the landowner and developer, no agreement was ever made.

From 4 April to 2 May 2005 Council exhibited the draft LEP (Amendment 24) to rezone land in Moonee Beach (refer to Figure 7). The draft LEP proposes to rezone most of the site to 7A Environmental Protection (Habitat and Catchment) with a small area of 7B Environmental Protection (Scenic Buffer) adjacent to the Pacific Highway. The existing Open Space 6A (Public Recreation) zoning would remain unchanged. Only a limited range of development would be permissible in zones 7A and 7B. While this includes dwelling houses and eco-tourism facilities, future single lot residential subdivision of the site would be prohibited (as zone 7A has a minimum lot size of 40ha). Council has placed this rezoning on hold pending resolution of this major project application.

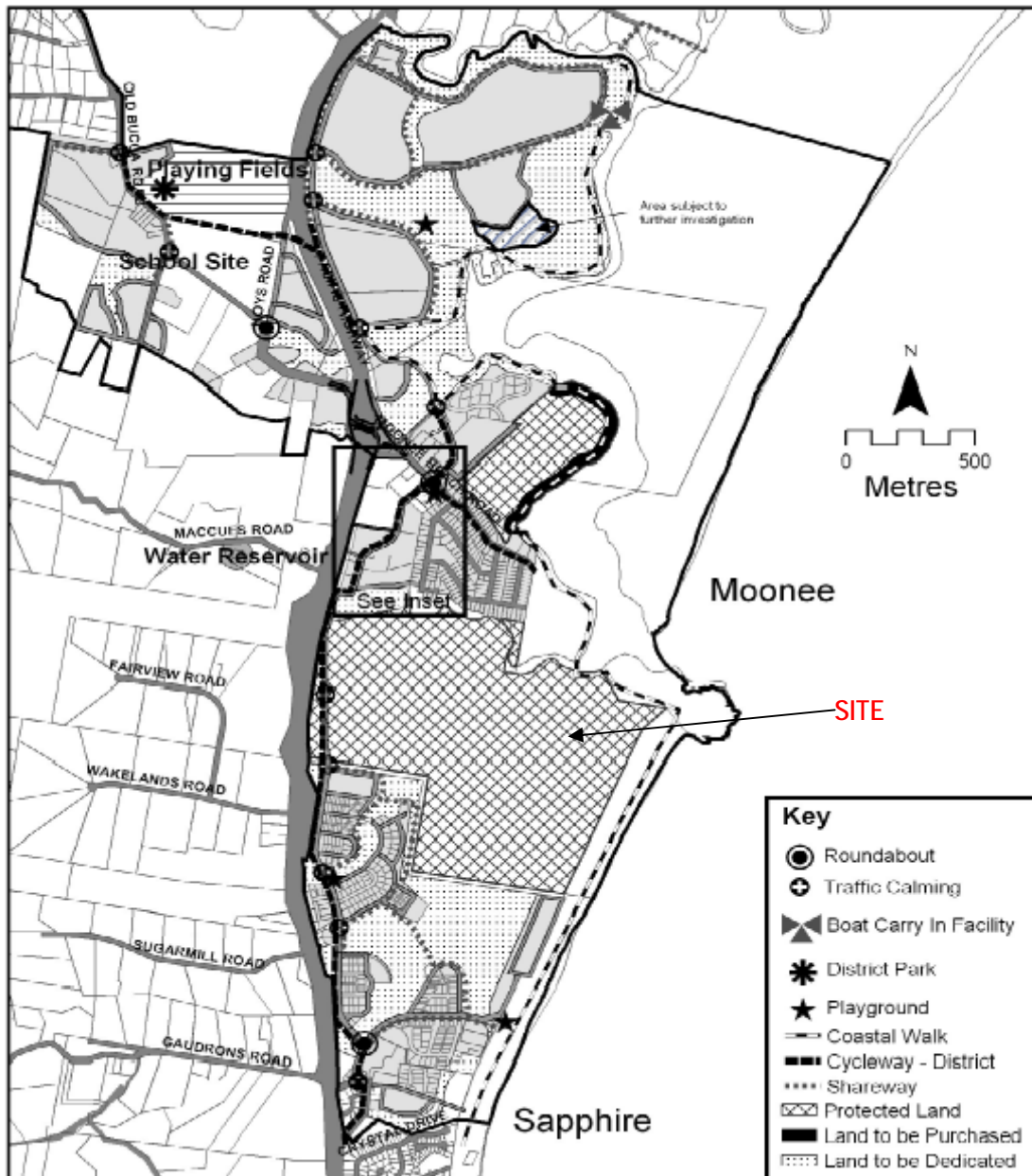


Figure 6: The Planning Strategy from Council's Moonee Development Control Plan

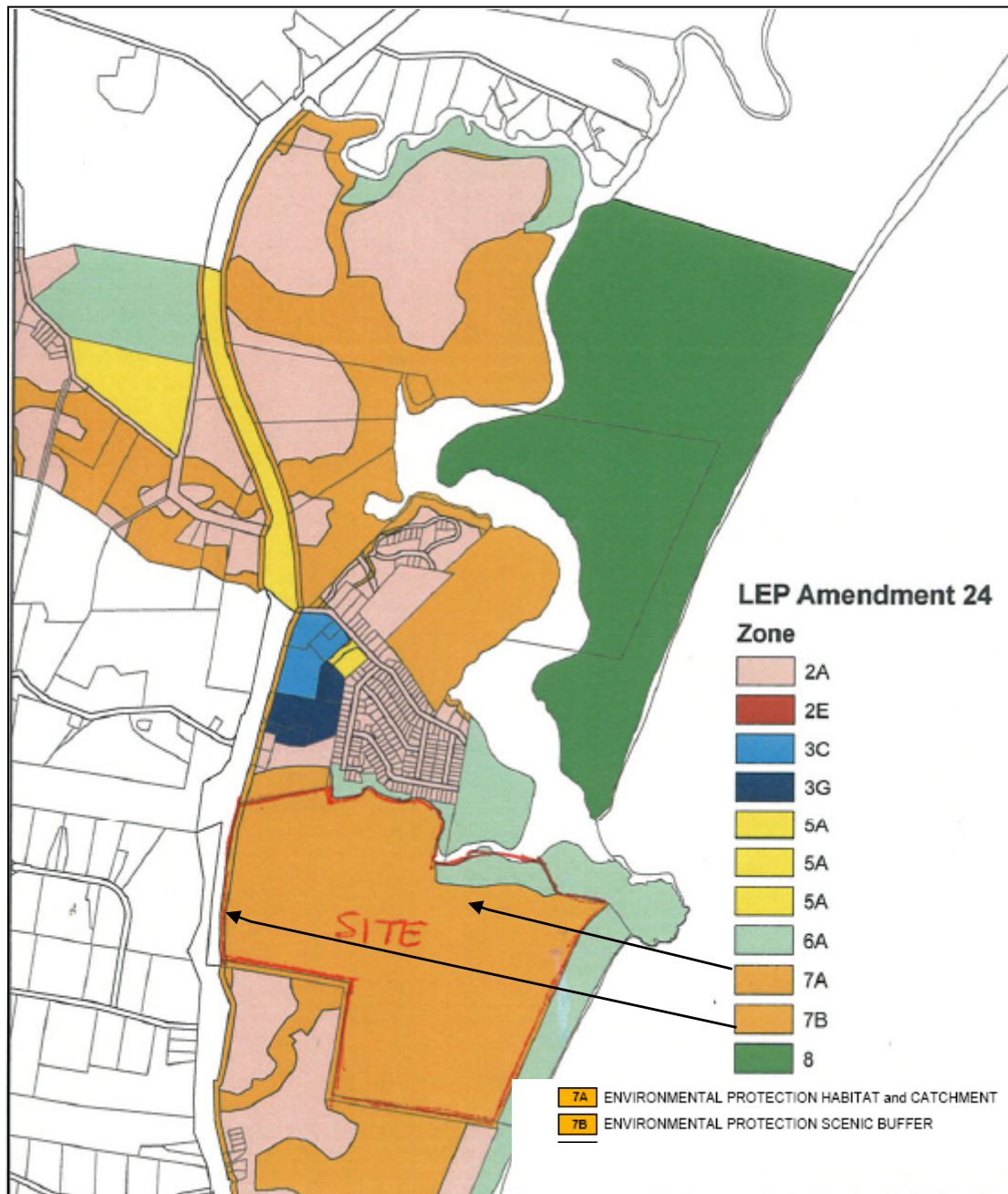
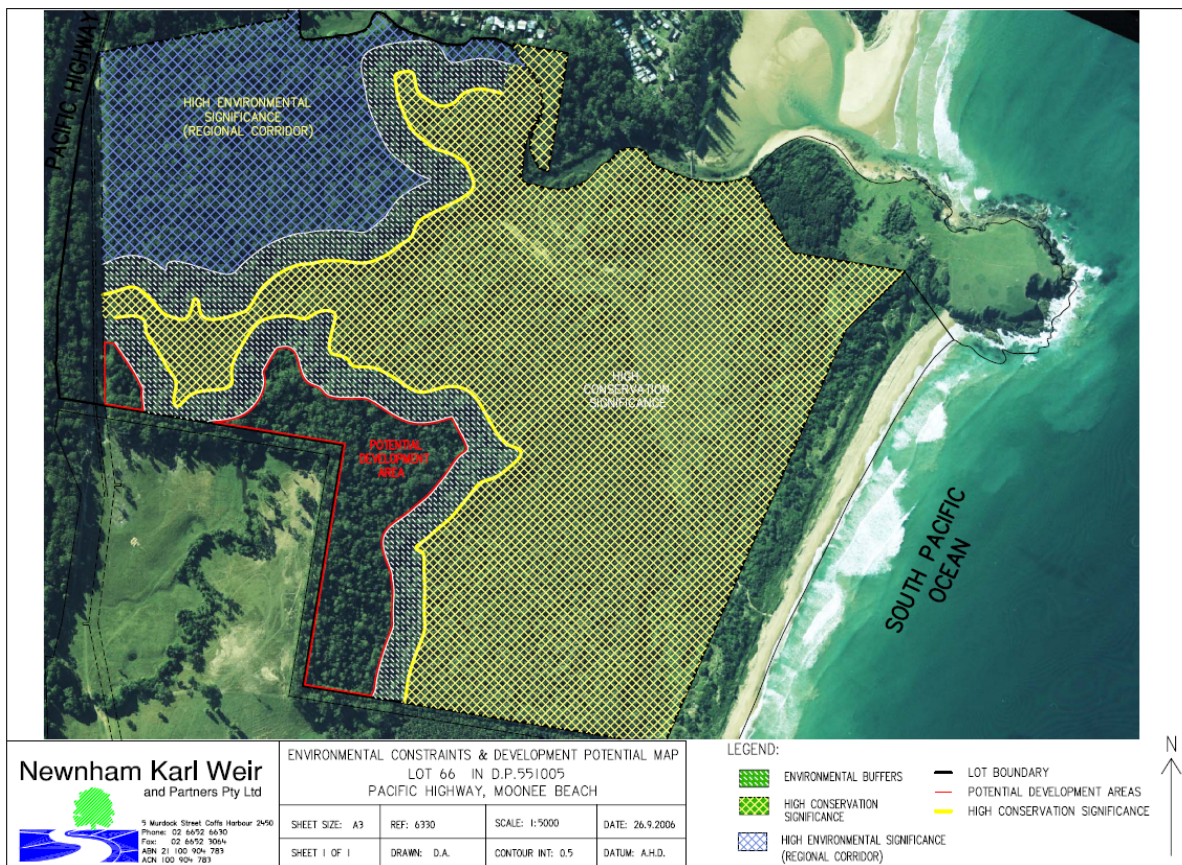


Figure 7: Coffs Harbour Draft LEP Amendment 24

2.2.2 The Current Application

The current concept plan application was lodged at the same time as a number of other applications in the LEP amendment area, and in this part of the Coffs Harbour coastal zone. Due to the environmental constraints on a number of these sites, an ecologist was contracted by the Department to identify the potential developable areas on three sites, including the subject site. The company that undertook the study was Sainty and Associates (Sainty) and the subsequent report has become known as 'The Sainty Report' (September 2006).

In the report, Sainty considered the location of the endangered ecological communities (EECs) on the site and the need for any development to provide a buffer to these areas. The site's role as a wildlife corridor was also considered. Sainty recommended that all EECs on the site be protected with a 50m buffer. He further recommended that the north west area of the site be retained to ensure the ongoing functioning of the wildlife corridor. This left a small area in the south of the site as an area with the potential for development and is shown in Figure 8.



The Director-General's Environmental Assessment Requirements (DGRs) that were subsequently issued for the proposal required the proposal to be consistent with the potential developable areas identified in the Sainty report. If the proponent was to propose development outside these boundaries, then suitable justification and sound technical arguments were required.

3 THE PROPOSED DEVELOPMENT

3.1 PROJECT DESCRIPTION

The proponent seeks concept plan approval for a residential subdivision of approximately 210 lots (although it is noted that accompanying plans indicate 216 lots).

The subdivision would occur in two precincts – Precinct A or the northern precinct and Precinct B or the southern precinct. The northern precinct would comprise approximately 115 lots and the southern precinct approximately 101 lots. The subdivisions are proposed to be community title subdivisions, with the residual lot (referred to as the 'conservation area') to be dedicated to either Coffs Harbour City Council or the Department of Environment, Climate Change and Water. The development precincts comprise an area of 21.5 ha. The conservation area would be 76.3 ha. The remaining 4.2 ha in the south east of the site has been identified by the proponent as being potentially subject to development in the future (refer to Figure 9). While the concept plan does not seek to develop this part of the site, the Department has reviewed this part of the site and does not support its future development due to potential impacts on the adjacent wetland and coastal vegetation, and extent of buffers that will be required.

Each precinct would be governed by separate community title schemes. The main access roads and the perimeter roads of each precinct would be public roads dedicated to Council, while all internal roads would be part of the community title schemes (although it is proposed that the roads remain publicly accessible).

The site is proposed to be accessed via a temporary intersection with the Pacific Highway until access is available via a collector road to Moonee Beach Road in the north or Split Solitary Road in the south. The northern precinct would be directly accessible from the collector road, while the southern precinct would require access from a road constructed along the Crown road reserve directly to the south of the site.

The concept plan proposes the construction of five walkways through the conservation area. The proponent advises that the location of these walkways is approximate and that detailed design of their route will be undertaken in consultation with relevant government agencies to minimise any impacts on the conservation area.

The concept plan proposes the construction of eight picnic areas within the conservation area. It is noted that three of these are located within areas to be subject to vegetation modification for bushfire purposes.

A possible corner shop is identified at the junction of the collector road and Crown road, however, no specific detail is provided in the Environmental Assessment, such as its dimension.

The concept plan appears at Figure 9 with detailed plans of the proposal appended to this report.

Through the Department's assessment of the application, a number of modifications to the project have been recommended. This is detailed in section 6 of this report.



Figure 9: Proposed development layout (source: proponent's Preferred Project Report). The green lines represent contour lines, which fall away from the northern and southern precincts.

3.2 PROJECT AMENDMENTS

A preferred project report was submitted on 23 December 2008 incorporating the following amendments:

- A reduction of 1.4ha in the land within the development precincts;
- Associated changes to the indicative lot layout, including increasing the size of lots proposed;
- Proposing to keep as many hollow bearing trees within the development precincts as possible;
- Proposing no fencing throughout the southern precinct and most of the northern precinct; and
- Dedication of the conservation area to Council or DECCW.

4 STATUTORY CONTEXT

4.1 MAJOR PROJECT DECLARATION

The project is one to which Part 3A of the *Environmental Planning and Assessment Act 1979* (the Act) applies being development for subdivision of land in a residential zone into more than 25 lots in the coastal zone pursuant to Schedule 2 clause 1(1)(i) of *State Environmental Planning Policy (Major Projects) 2005* (MP SEPP) as was in force at the time. The opinion was formed by the Director-General as delegate of the Minister for Planning on 25 November 2005.

On 11 October 2006 the Minister authorised the lodgement of a concept plan under s75M of the Act.

4.2 STATEMENT OF COMPLIANCE

In accordance with Section 75I of the Act, the Department is satisfied that the Director-General's environmental assessment requirements have been complied with.

4.3 PERMISSIBILITY

The subject site is zoned part Residential 2E Tourist, part Environmental Protection 7A Habitat and Catchment, part Environmental Protection 7B Scenic Buffer and part Open Space 6A Public Recreation pursuant to the Coffs Harbour City LEP 2000, (refer to Figure 10). The majority of work proposed is located within the 2E zone where subdivision of land is permissible with consent. Minor development such as walking tracks is proposed within the 7A zone which is permissible with consent (as environmental facilities). The only development proposed within the 7B zone would be roads which are permissible with consent. No development is proposed within the 6A zone. The proposal is generally consistent with the objectives of each of the zones.



Figure 10: Current zonings, Coffs Harbour City LEP 2000 (source: proponent's Environmental Assessment)

4.4 ENVIRONMENTAL PLANNING INSTRUMENTS (EPIs)

4.4.1 Application of EPIs to Part 3A of the Act

Under Sections 75I(2)(d) and 75I(2)(e) of the Act, the Director-General's report for a project is required to include a copy of, or reference to, the provisions of any State Environmental Planning Policy (SEPP) that substantially governs the carrying out of the project, and the provisions of any environmental planning instruments (EPI) that

would (except for the application of Part 3A) substantially govern the carrying out of the project and that have been taken into consideration in the assessment of the project.

The 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 EPIs 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:

4.4.2 State Environmental Planning Policy No. 71 – Coastal Protection

SEPP 71 applies to land within the coastal zone. It aims to protect and manage the many attributes of this area of the State. Key issues with respect to SEPP 71 are as follows:

- While the development proposes to provide additional public access to the coastal foreshore, any walkways would be provided through endangered ecological communities and SEPP 14 wetlands. This issue will require further detailed analysis with future applications for the site;
- With development of both the northern and southern precincts, the proposal would result in the removal of more than 21 ha of native vegetation that is identified as being of regional conservation significance and that provides habitat for threatened and protected fauna species; and
- the proposal would negatively impact on a sub-regional wildlife corridor, that is, the northern precinct.

4.4.3 State Environmental Planning Policy No. 14 – Coastal Wetlands

SEPP 14 aims to protect and preserve mapped coastal wetlands. The site contains much of SEPP 14 wetland no. 319. The proponent proposes a walkway through the conservation area that will cross the SEPP 14 wetland, although detail will be provided in future applications. The potential impacts of this walkway will need to be carefully considered as part of future applications.

4.4.4 North Coast Regional Environmental Plan

The North Coast Regional Environmental Plan (REP) provides a framework for policy preparation for the North Coast region. Should both the northern and southern precincts be approved, the proposal would not be consistent with a number of the objectives of the REP including those for the natural environment and wetlands.

4.4.5 Coffs Harbour City Local Environmental Plan 2000

The subject site is zoned part Residential 2E Tourist, part Environmental Protection 7A Habitat and Catchment, part Environmental Protection 7B Scenic Buffer and part Open Space 6A Public Recreation pursuant to the Coffs Harbour City LEP 2000. The majority of work proposed is located within the 2E zone where subdivision of land is permissible with consent. One objective of this zone is to enable tourist development and other development that is compatible with the surrounding environment. The proposal does not specifically provide for tourist development, but it is likely that some of the future dwellings may be used for tourist purposes.

Only minor development such as walking tracks is proposed within the 7A zone which is permissible with consent (as environmental facilities). One objective of this zone is to protect habitat values and water quality and enable development which does not adversely impact on these. The proposed tracks through the conservation area have the potential to impact on the habitat values of the conservation area. The only development proposed within the 7B zone would be roads which are permissible with consent. This would not be inconsistent with the objectives of this zone. No development is proposed within the 6A zone.

4.4.6 Draft Local Environmental Plans

Draft LEP Amendment No. 24 to the Coffs Harbour City LEP 2000 proposed changes to the zoning in the Moonee area. The draft LEP was placed on public exhibition in April and May 2005. The draft LEP proposed rezoning the site to 7A and 7B (and retaining the small amount of 6A in the north east of the site). Only a limited range of development would be permissible in zones 7A and 7B. While this includes dwelling houses and eco-tourism facilities, future single lot residential subdivision of the site would be prohibited (as zone 7A has a minimum lot size of 40 hectares). The Council agreed to not progress the rezoning until this and other Part 3A applications were determined.

Since that time, Council has proceeded with preparation of a comprehensive shire-wide LEP. As a result, it is understood that Amendment No. 24 is no longer being pursued and instead similar controls are being incorporated into Council's comprehensive LEP. The comprehensive LEP will be exhibited in the near future.

4.5 OTHER PLANS AND POLICIES

The Proposal has been considered against the following non-statutory documents:

4.5.1 The State Plan

The State Plan sets out the goals the community wants the government to work towards and it identifies priorities for government action that will help achieve each of these goals over the next 10 years. Two priorities apply to the subject proposal being E4, Better environmental outcomes for native vegetation, biodiversity, land, rivers and coastal waterways and E6, Housing Affordability. In respect of E4, whilst there will be some loss of vegetation if the southern precinct is developed, the balance of the site is proposed to be conserved. The development of both the northern and southern precincts would result in the provision of 216 additional dwellings in the Moonee Beach area. The Mid North Coast Regional Strategy anticipates a demand for a minimum 19,200 new dwellings in the Coffs coast subregion by 2031.

4.5.2 Mid North Coast Regional Strategy

The Mid North Coast Strategy identifies the areas of the site currently zoned 2E within the agreed growth boundaries. However, it is noted that the map includes a notation stating 'Not all land identified within the Growth Areas can be developed for urban uses. All sites will be subject to more detailed investigations to determine capability and future yield. Land that is subject to significant natural hazards and/or environmental constraints will be excluded from development'. This assessment concludes that part of the site is capable of development, but that the remainder of the site is subject to significant environmental constraints.

4.5.3 NSW Coastal Policy

The development of both the northern and southern precincts would result in a development that is not consistent with the Coastal Policy as it does not minimise impacts on environmentally sensitive areas. Further, it does not promote compact and contained urban development that avoids ribbon development, unrelated cluster development and continuous urban areas on the coast. The deletion of the northern precinct will remove these concerns.

4.5.4 NSW Coastal Design Guidelines

The development of both the northern and southern precincts would result in a development that is not consistent with the Coastal Design Guidelines as it does not 'protect the natural edges' and does not reinforce the provision of green belts between settlements. By deleting the northern precinct, it will enhance the green belts between settlements.

4.5.5 Moonee Development Control Plan

The Moonee DCP identifies the site as protected land to be incorporated into a network of public open space.

4.5.6 Coffs Harbour Koala Plan of Management

Much of the site (including the areas of the development precincts) is identified as secondary koala habitat. Ecological surveys have also identified a number of koala scats beneath trees across the site. As proposed, the project is not consistent with the controls for secondary koala habitat set out in the Plan of Management. Deletion of the northern precinct would improve consistency of the project with these controls.

4.5.7 Moonee Creek Estuary Management Plan

The Moonee Creek Estuary Plan seeks to protect the Moonee Creek Estuary and identifies strategies to achieve this. As proposed, the proposal is not consistent with a number of the strategies such as protecting existing habitats, vegetation stands and foreshore buffers and ensuring future urban developments are compassionate to the environment. With the recommended deletion of the northern precinct, many of these issues are addressed.

4.6 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 implementation. The Minister's consideration and determination of an application under Part 3A must be informed by the relevant provisions of the Act, consistent with the backdrop of the objects of the Act.

The proponent's commitment to dedicating a substantial component of the site to DECCW or Council is a positive measure and promotes the provision of land for public purposes, one of the Objects of the Act. The proposal also in part, fulfils the Object of protecting and conserving native animals and plants through the establishment of the Conservation area, however, as discussed in Chapter 6 of this assessment, the Department considers that the northern precinct should not be approved as it has significant ecological issues. It is considered this land should also form part of the Conservation area.

Whilst there is some relationship between the southern precinct and existing residential development to the south west, for it to be considered orderly use of the land, access to the southern precinct must be through the neighbouring subdivision (refer Section 6.2 for further discussion). The northern precinct is disjointed from other development and would contribute towards undesirable ribbon development along the coast.

4.7 ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD) PRINCIPLES

With respect to ESD, the Act adopts the definition in Section 6(2) of the Protection of the Environment Administration Act 1991. The five accepted principles for ecologically sustainable development are the: integration principle; precautionary principle; intergeneration equity principle; biodiversity principle; and valuation principle.

The precautionary principle has been applied in the decision making process via a thorough and rigorous assessment of the environmental impacts of the project. Whilst recommending that part of the project be approved, thus providing additional housing opportunities within the Moonee Beach area, the result is over 76 hectares of the site will be conserved for future generations.

The subdivision has been designed in accordance with the principles of Water Sensitive Urban Design. The proposal also proposes the dedication of the conservation area to the Council or DECCW which would result in the most efficient management of this area in conjunction with the Moonee Beach Nature Reserve or the Coffs Coast Regional Park. Therefore, it is considered that the proposal meets the valuation principle.

Further assessment of the consistency of the project with the principles of ESD is contained within section 5 of this report.

5 CONSULTATION AND ISSUES RAISED

5.1 PUBLIC EXHIBITION DETAILS

The concept plan application and Environmental Assessment were placed on public exhibition from 7 December 2007 to 25 January 2008 and submissions were invited in accordance with section 75H of the Act. Notification of the exhibition was given in advertisements in the Coffs Harbour Advocate and the Coffs Harbour Independent on 6 December 2007.

Exhibition locations were at:

- Department of Planning Head Office, Bridge Street Sydney;
- Department of Planning Regional Office, Victoria Street, Grafton;
- Coffs Harbour City Council, corner Coffs and Castle Streets, Coffs Harbour; and
- Nature Conservation Council, Level 2, 301 Kent Street, Sydney.

The EA was also provided for download on the Department's website. The Department has exhibited the Environmental Assessment (EA) in accordance with section 75H (3) of the Act.

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

A Preferred Project Report was lodged on 23 December 2008 and as the changes to the nature of the project were not significant, it was not re-exhibited but was placed on the Department's website from 13 March 2009.

A total of 137 submissions were received, comprising 129 submissions from the public and eight submissions from public authorities being Coffs Harbour City Council, Department of Environment and Climate Change, Department of Primary Industries, Department of Lands, NSW Rural Fire Service, NSW Roads and Traffic Authority, Northern Rivers Catchment Management Authority and Solitary Islands Marine Park Authority.

Of the 129 submissions from the public all but one objected to the proposal. Ten percent of submissions were from residents of Moonee Beach. Most of the remaining submissions were from other residents of the Coffs Harbour LGA.

Of the public authority submissions, seven from Coffs Harbour City Council, Department of Environment and Climate Change, Department of Primary Industries, Department of Lands, NSW Roads and Traffic Authority, Northern Rivers Catchment Management Authority and the Solitary Islands Marine Park Authority raised objections and one from NSW Rural Fire Service did not raise any objection.

5.2 SUBMISSIONS FROM THE PUBLIC

5.2.1 Summary of issues raised in public submissions

The following issues were raised in the public submissions:

- Ecology;
 - Impacts on threatened species;
 - Impacts on endangered ecological communities;
 - Extent of vegetation clearing;
 - Impacts on the wildlife corridor
 - The proposal would contribute to key threatening processes;
 - The ongoing protection of the site;
 - the impact of the proposal on Commonwealth listed species;
 - the ecological assessment undertaken was inadequate.
- Impacts on the Moonee Creek Estuary, SEPP 14 wetland and Solitary Islands Marine Park;
 - Stormwater runoff will impact the creeks and wetlands.
 - There should be buffers of 100m to the wetland and Sugar Mill Creek.
- Flooding, Climate Change and Sea Level Rise;

- Flooding on the site will be worsened by sea level rise. This has not been properly considered.
- Urban Design;
 - The proposal is urban sprawl, ribbon development and is too dense.
- Aboriginal Cultural Heritage;
 - The site is important for the Bagawa people of the Gumbayngirr nation.
- Planning;
 - The proposal is not consistent with draft LEP amendment 24, the Moonee DCP, the Coffs Harbour Settlement Strategy or the Coffs Harbour City Council draft vegetation strategy;
 - The development does not comply with SEPP 71.
- Traffic and Access;
 - The development will be reliant on the car;
 - Impacts on the Pacific Highway will be unacceptable.
- Overdevelopment;
 - The proposal is a gross overdevelopment of the site;
 - There is enough land being developed in Moonee Beach.
- Social Impacts;
 - The proposal will lead to increased theft and violence;
 - The proposal has not properly considered social impacts;
 - The proposal will worsen unemployment in Coffs Harbour;
 - The proposal will place additional pressure on existing facilities.
- Ecologically Sustainable Development;
 - The proposal does not comply with ESD.
- Infrastructure;
 - There isn't sufficient infrastructure to service the development.
- Bushfire;
 - The proposal does not provide adequate asset protection zones or emergency egress.
- Visual Amenity;
 - The proposal will destroy the scenic amenity of the area.

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

A summary of all public submissions received can be found appended to this report. The proponent responded to these submissions within their Preferred Project report lodged with the Department on 23 December 2008.

5.3 SUBMISSIONS FROM PUBLIC AUTHORITIES

The following submissions were received from public authorities:

5.3.1 Coffs Harbour City Council

Coffs Harbour City Council made a number of submissions on the proposal. They conclude that the proponent 'provides insufficient justification to permit development of the site for urban purposes'. Their main concerns relate specifically to:

- The proposal to retain hollow bearing trees within the development precincts. Council considers that this is unrealistic;
- The proposal would result in habitat fragmentation on the site;
- The proposal would adversely impact on the functioning of the sub-regional corridor;
- The proposal would result in impacts on threatened species and their habitat;
- Many of the flora and fauna reports relied upon by the proponent were undertaken prior to the current proposal being formulated and undertook surveys over a restricted period of time, resulting in ramifications for the detection of threatened species;
- The proponent has not properly considered habitat simplification associated with meeting bushfire requirements; and

- Access should not be gained via a temporary access to the Pacific Highway, but should be via the collector road identified in Council's planning documents.

These issues are discussed in Section 6.

5.3.2 Department of Environment and Climate Change

The Department of Environment and Climate Change, now Department of Environment, Climate Change and Water (DECCW) advised:

Biodiversity Conservation

- That the proposal should be redesigned to reflect the recommendations of the Sainty report;
- That any detrimental impact on threatened species, ecological communities and their habitats must be adequately compensated for; and
- A rehabilitation management plan is required for the open space areas.

Aboriginal Cultural Heritage

- That no work is to commence on the identified Aboriginal sites until the results of the investigations into the sites and potential archaeological deposits are known and appropriate management actions agreed; and
- A number of other minor recommendations were made and changes to proposed commitments made by the proponent.

These issues are further discussed in Section 6.

5.3.3 Department of Lands

The Department of Lands, now Land and Property Management Authority (LPMA) raises a number of concerns including:

- That the PPR does not properly reflect LPMA's position;
- The proposal does not include an adequate (50m) buffer to the SEPP 14 wetland;
- The proposal would adversely impact on the functioning of the sub-regional corridor;
- That it is not realistic for the proponent to maintain hollow bearing trees within the development precincts; and
- The potential impacts of infrastructure within the conservation area have not been adequately addressed.

The LPMA provided landowner's consent for the use of part of the Crown road reserve adjacent to the site. These issues are further discussed in Section 6.

5.3.4 Department of Primary Industries

The Department of Primary Industries, now Industry & Investment NSW (I&I) raised the following concerns with the proposal:

- The buffers provided to the SEPP 14 wetland and endangered ecological communities are inadequate and do not comply with I&I policy for buffers from 50 to 100m;
- The proponent proposes works (e.g. picnic areas and pocket parks) within the proposed buffers that will reduce their effectiveness; and
- There is a lack of detail regarding the proposed stormwater detention structures.

These issues are further discussed in Section 6.

5.3.5 NSW Rural Fire Service

The Rural Fire Service advised that:

- All lots shall be hazard reduced with vegetation managed as an outer protection area prior to sale. Management of vegetation as an OPA will continue until the hazard is removed. This will be formalised as a restriction to user on the title of all lots;
- That water, electricity and gas are to comply with Planning for Bushfire Protection; and

- That the provision of asset protection zones for the development may conflict with the ecological values of the land.

Bushfire is further discussed in Section 6.

5.3.6 NSW Roads and Traffic Authority

The Roads and Traffic Authority raised concerns regarding the potential traffic impacts of the development:

- Impact of the temporary access onto the Pacific Highway;
- Access to the development should be in accordance with the collector road outlined in the Moonee DCP;
- The traffic generated by the proposal is likely to have a significant impact on the intersections of Moonee Beach Road and Split Solitary Road with the Pacific Highway. In assessing the existing capacity of these intersections the proposed development was not included as it is not envisaged by the Moonee DCP. The proponent needs to update this modelling to properly assess any impacts and identify infrastructure requirements;
- The proposed lots will be impacted by noise from the upgraded Pacific Highway and will need to be designed and constructed accordingly; and
- The proponent has not considered alternative transport options e.g. bicycles, town and school bus services.

These issues are discussed further in Section 6.

5.3.7 Northern Rivers Catchment Management Authority

The Northern Rivers Catchment Management Authority objects to the proposal as follows:

- The proposal is not consistent with the State Plan;
- The proposal constitutes ribbon development and is not consistent with the Mid North Coast Regional Strategy;
- The NRCMA endorses the Moonee DCP and the Sainty report; and
- If any development on the site is to occur, it should be in a small area within the Sainty boundaries, with access to the North Sapphire development. The remainder of the site should become part of the reserve system.

The State Plan and the Mid North Coast Regional Strategy have been considered in Section 4 of this report. The other issues are considered in Section 6 of this report.

5.3.8 Solitary Islands Marine Park Authority

The Marine Park Authority raised the following objections regarding the proposal:

- The EA does not consider the most recent forecasts for climate change;
- The proposal should incorporate a 100m horizontal buffer and a vertical buffer that corresponds to sea level rise over the next 100 years; and
- The EA does not describe the process for the maintenance of the water sensitive urban design components; and if they are not properly managed this would impact on water quality and the Marine Park.

These issues are further discussed in Section 6 of this report.

6 ASSESSMENT OF ENVIRONMENTAL IMPACTS

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

- Strategic Context;
- Access;
- Flooding and Climate Change;
- Impacts on flora and fauna species, including endangered ecological communities;
- Aboriginal Cultural Heritage; and
- Bushfire.

6.1 STRATEGIC CONTEXT

6.1.1 Mid North Coast Strategy

As discussed in section 4.5.2, the Mid North Coast Strategy identifies the areas of the site currently zoned 2E within the agreed growth boundaries for the Coffs area. Notwithstanding, the strategy also notes that a detailed assessment of any proposal is still required in order to determine capacity and future yield. As shown in this report, the Department's assessment of this proposal concludes that part of the site is capable of development, but that the remainder of the site is subject to significant environmental constraints and is not suitable for residential development.

6.1.2 Coffs Coast Review (The Sainty 2006 Report)

The concept plan application for this proposal was lodged with the Department at the same time as a number of other applications in the area. Each of these were subject to the draft LEP Amendment No. 24 which largely sought to rezone residential land to environmental protection. To assist in identifying potential developable areas on these sites, the Department contracted an ecologist (Dr Geoff Sainty) to undertake a study looking at the environmental constraints of each of these sites (see section 2.2.2 for a further discussion). Director-General's requirements issued for these projects required the proponents to take into consideration the results of his investigations, and justify any departures.

In the case of this application, Dr Sainty identified an area in the south west of the site that was less constrained than other areas of the site and potentially able to be developed. The proposed southern precinct is located in this area. The northern precinct that is proposed by the proponent is in an area that Sainty's report recommended not be developed. As shown in this report, the Department is not satisfied that the proponent has suitably justified development outside of the boundaries recommended in Sainty's report.

6.1.3 Coffs Harbour Planning Controls

The proposal is permissible with development consent pursuant to the current zoning of the site, however, Coffs Harbour LEP Amendment 24 proposed to rezone the site to environmental protection (with a small area of open space in the north of the site). The aims and objectives of the zonings include protection and enhancement of sensitive natural habitat and waterway catchments; and enabling development which does not adversely impact upon these, and is within the environmental capacity of the land. Only a limited range of development would be permissible. While this includes dwelling houses and eco-tourism facilities, future single lot residential subdivision of the site would be prohibited as the environmental protection zoning has a minimum lot size of 40ha. Furthermore, the Moonee DCP (which was adopted in 2004) identifies the site as protected land to be incorporated into a network of public open space. The draft LEP has been exhibited, but has not progressed further as discussed in Section 4.4.6. The comprehensive LEP is under preparation and is expected to be exhibited in the near future. In this regard, while due consideration has been given to the draft zonings, the detailed assessment that follows in this report has been used to provide a recommendation on the future development potential of the site that will in turn, help inform the future zoning of the site.

6.1.4 Coastal Policy and Coastal Design Guidelines

The site is located south of the village of Moonee Beach and north of the village of Sapphire Beach. Currently the site forms a green belt between these settlements. It is considered that the project, in particular the northern precinct, would blur the existing boundaries of these two settlements and contribute to ribbon development on this section of the coast. Further, the northern development precinct bears little relationship in terms of urban form and connectivity to the existing and approved development surrounding the site (refer to Figure 11). The proposed northern precinct, in particular, contravenes a number of strategic documents, specifically:

- NSW Coastal Policy (1997), which seeks to:
 - promote compact and contained planned urban development in order to avoid ribbon development, unrelated cluster development and continuous urban areas on the coast (objective 6.2); and
 - avoid or minimise impacts on environmentally sensitive areas and cultural heritage in expanding urban and residential areas, including the provision of infrastructure (objective 6.1);
- Coastal Design Guidelines for NSW (2003) which identifies that the desired future character for coastal villages (p20):
 - Maintains separation between settlements by excluding urban development from surrounding natural lands;
 - Reinforces the ecological corridors that surround settlements;
 - Establishes clear boundaries around settlements;
 - Locates new buildings and other development within the boundaries of villages;
 - Protects land with high ecological integrity surrounding villages;
 - Protects Aboriginal places and relics (for further discussion refer to Section 6.8);
 - Sets development well back from areas affected by coastal processes, flooding, erosion and sea level rise (for further discussion refer to Section 6.3); and
 - Balances bushfire protection and vegetation clearance to maintain ecological integrity (for further discussion refer to Section 6.9).



Figure 11: The context of the proposal with the surrounding development (source: proponent's Preferred Project Report).

6.2 ACCESS

6.2.1 Access to and from the site

The proposed development seeks approval for a temporary access to the Pacific Highway, pending establishment of proposed access to both the north and south via a collector road which is identified in Council's Moonee Developer Contributions Plan (refer Figure 12). The collector road is proposed to provide access for local traffic between Moonee Beach and Sapphire Beach. The proponent proposes to construct the collector road within the boundaries of the site and states that access via the collector road will be available 'once adjacent sites have developed'.

The RTA and Council do not support temporary access to the Pacific Highway and state that access to the proposed development should be via the collector road. The RTA advises that the temporary access will impact on the safety and efficiency of the existing and future upgrade of the Highway.

Based on this advice, the Department does not consider that temporary access to the Pacific Highway is viable for the proposal.

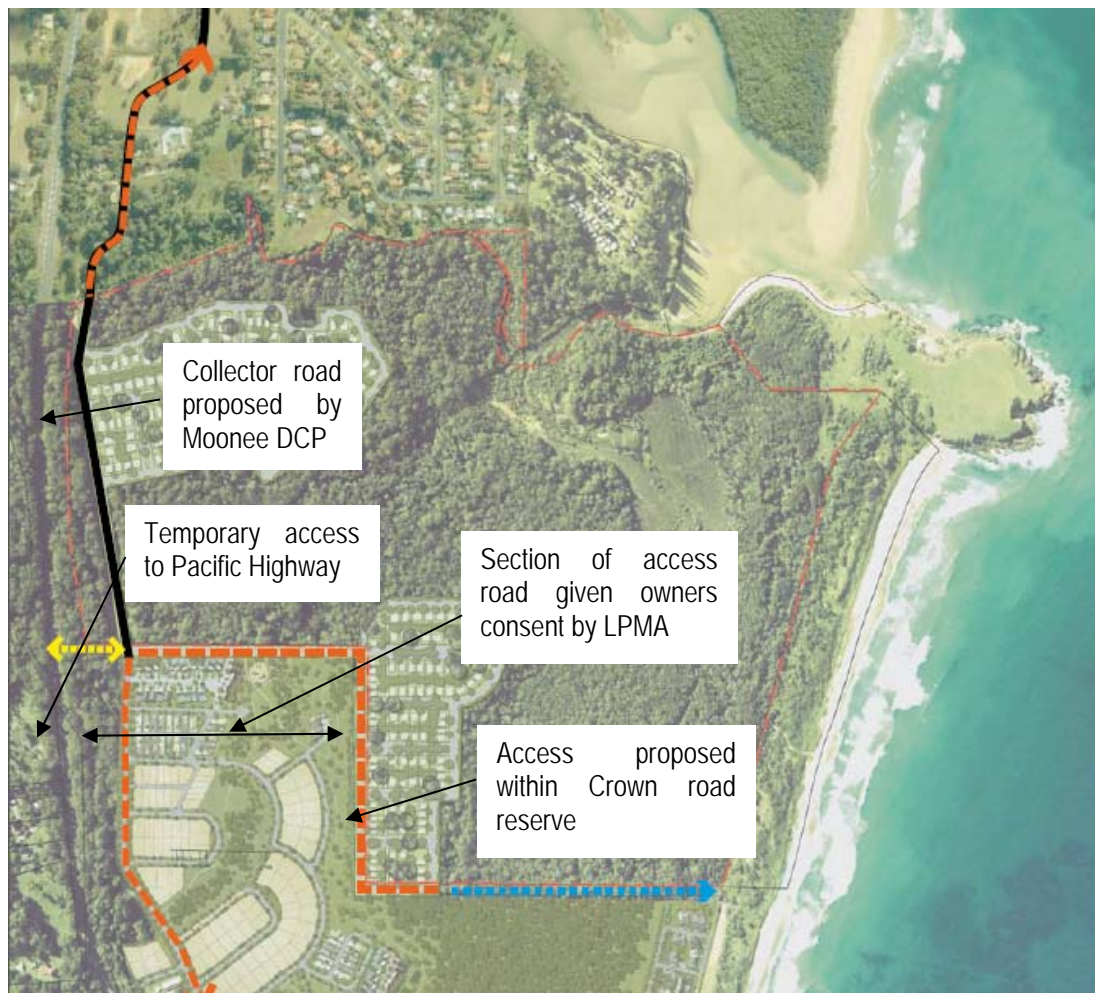


Figure 12: Access arrangements for the proposal (source: proponent's Preferred Project Report)

6.2.2 Access within the site

The road providing access to the southern precinct is located within a Crown road reserve (see Figure 12). The Land and Property Management Authority has advised that it will only provide landowner's consent for part of the road reservation (refer to Figure 12). While construction of the road within the above section of road reserve would facilitate access to the southern precinct, the LPMA has not consented to the use of the road reserve along

the western boundary. As such, that part of the project proposed within this reserve would need to be relocated. This would require redesign of the southern precinct and would likely result in the loss of a number of lots.

The Department considers (and Council has also stated) that, as the southern precinct is in close proximity to the approved North Sapphire development, a better urban design outcome would result if access was provided from this adjacent development. Furthermore, by gaining direct access to the North Sapphire development, issues pertaining to the construction of the collector road and opening of the Crown road, notably bushfire, flooding and in turn, ecological, are avoided.

If access to the southern precinct is to occur from the north (via Moonee Beach Road) and not from the south, it would effectively result in a circuitous route which serves to isolate this section of the development (see also the discussion on flooding in Section 6.3). As a result, the Department does not support access to the southern precinct via this route. This route would only become marginally more tenable if the northern precinct was approved, however, as discussed elsewhere in this report, the Department considers the northern precinct should be refused.

It is noted that at this stage, the proponent has not provided firm agreement from the properties to either the north or south that access through their sites will be available to the proposal.

The proposal is for a concept plan, and further development approvals under the Act would be required for construction to proceed, including finalising the construction of appropriate access to the site. Whilst it is preferable that site access is resolved prior to determination of the concept plan, the Department notes that it is a matter that can be addressed prior to lodgement of the first development application for the site. To this end, the Department has recommended a condition that any future application will need to determine a viable access to the southern precinct that takes into consideration ecology, bushfire, urban design etc.

6.3 FLOODING AND CLIMATE CHANGE

The proponent advises that flooding on the site would be driven by elevated ocean levels. The estimated 100 year annual recurrence interval (ARI) event is 2.6m AHD. Flooding to this level would result in minor flooding of the areas proposed for development.

Whilst, the EA and PPR were submitted prior to the release of the Department's *NSW Coastal Planning Guideline: Adapting to Sea Level Rise*, the project was assessed against the maximum sea level rise scenario of 0.91m, which is what the guideline requires. In this regard, the proponent advises that considering the maximum sea level rise scenario of 0.91m, the 100 year ARI event would have a level of 3.5m AHD (refer to Figure 13).

The proponent proposes to fill areas of the site below this level. Two areas would require filling in the northern precinct and one area in the southern precinct. The proponent estimates that the maximum level of fill required would be 8900m³ and states that this would have a negligible impact on flood behaviour and levels.

The proponent is proposing floor levels for future dwellings of 3.6m AHD, which would provide a 100mm freeboard in the case of the largest estimated sea level rise. In considering how flood levels may change as a result of climate change potential impacts from increased rainfall intensities are also included in DECCW's *Practical Consideration of Climate Change*. It is noted, however, that the EA, and appended consultant reports in the EA and PPR, indicate that flooding and the floodplain on the site are ocean dominated, thereby discounting the potential impacts of climate change impacts due to increases in rainfall intensities.

The proponent has not considered the probable maximum flood (PMF) on the site. The Floodplain Development Manual requires consideration of the PMF, particularly in relation to evacuation of the site. While the PMF level is not known it is considered that egress from the site in the event of catastrophic flooding could be problematic as the route of the collector road is shown to be inundated in a 100 year ARI event and the access road to the southern precinct (within the Crown road reserve) is partially inundated by the same event.



Figure 13: Estimated 100 year ARI flood events on the site, taking climate change into consideration (source: proponent's Preferred Project Report).

At this stage, access to the site has not been resolved. Prior to submitting any future applications, the proponent will need to demonstrate that emergency egress from the site would be possible in times of flood. This issue has been reflected in the Department's recommended instrument.

6.4 IMPACT ON THREATENED FAUNA SPECIES

The initial Flora and Fauna Assessment provided with the Environmental Assessment lacked consideration of all known threatened fauna species occurring on the site and the potential impacts on these by the proposal. A further 20 threatened fauna species were also considered as having the potential to occur on the site.

It is generally unclear from the proponent's EA and PPR exactly what impact the proposed development would have on these species. The proponent argues for many of these species that the area of vegetation to be removed (the dry forest communities) does not provide habitat for them. However these statements are not entirely accurate. For example, the proponent states that the Common Planigale 'typically utilises Swamp Forest Communities with a dense sedge understorey...and is not likely to occur within the areas of the site proposed for development activities'. However, DECCW's threatened species listing for the species identifies that it has been recorded from dry sclerophyll forests (i.e. those areas of habitat to be removed for the proposal) on the north coast. Therefore, despite the proponent's comments, the vegetation to be removed as a result of the proposal must be considered to represent habitat for this vulnerable species.

For other species the proponent suggests that, even though the area of vegetation to be cleared provides habitat, large areas of similar habitat will be maintained within the conservation area. While it is accepted that a large area of the site will be protected within the conservation area, much of this area provides different habitat from the dry

forest communities to be removed. It is acknowledged that 44% of the dry forest communities will be retained in the conservation area, however most of this habitat will occur in thin bands varying in width between 10m and approximately 50m around the edges of the development precincts. For many threatened species this area would be less viable as habitat as it would be subject to edge effects and separated from other areas of similar habitat.

While Koala habitat is to be retained in the conservation area, the Department considers that the value of the area of vegetation to be removed as a result of the full proposal has been underestimated and would result in unacceptable impacts on Koalas. The site has been mapped as Secondary Koala Habitat by the Coffs Harbour Koala Plan of Management (KPoM). The KPoM states that 'the consent authority shall not grant consent to the carrying out of development on areas identified as Secondary Koala Habitat which will remove the following tree species: Tallowwood *Eucalyptus microcorys*, Swamp Mahogany *E. robusta*, Flooded Gum *E. grandis* (except when part of a forest plantation), Forest Red Gum *E. tereticornis* or Small-fruited Grey Gum *E. propinqua* unless the development will not significantly destroy, damage or compromise the values of the land as koala habitat. The full proposal would result in the loss of more than 21 ha of Secondary Koala Habitat that contains all of the listed tree species but one (Small-fruited Grey Gum). This is not considered acceptable. By deleting the northern precinct, more secondary koala habitat is retained, with less impact from negative edge effects.

Overall, from the information provided, it appears highly likely that the construction of the proposal in full would result in significant impacts on threatened species and/or their habitat occurring (or with the potential to occur) on the site. Further, the existing combination of habitats across the site is important for the species recorded. As a result of the potential impacts on threatened fauna species, the project, as proposed, is not supported. Impacts on these species would be lessened with the removal of the northern precinct as it would: improve the edge to area ratio; result in the conservation of the full range of habitats on the site, including drier habitats as well as the swamp habitats; provide greater seasonal foraging area; help to preserve the sub-regional wildlife corridor (refer to section 6.6) that is identified on the site; and result in the protection of most sites where threatened species are known to occur.

6.4.1 Domestic Dogs and Cats

The proponent has not sought to prohibit the keeping of domestic dogs and cats for future residents on the site, despite these animals being known to present a significant threat to native wildlife. Instead, the proponent has proposed a range of alternative measures, such as bells on collars of cats, keeping cats inside at night and confining dogs to 'fauna-proof' enclosures other than when indoors or on a leash.

The proponent considers this a reasonable approach as there are no controls placed on the keeping of such animals in other nearby areas, such as the Moonee Beach township, and accordingly, there should not be restrictions placed on this site. Further the proponent claims that domestic dogs and cats from the nearby area are likely already utilising the Moonee Waters site.

The Department does not concur with these arguments. In particular, the proponent's argument regarding the presence of dogs and cats on the site is unsubstantiated and cannot lend weight to the Department's consideration of the subject application.

The development precincts are situated within a heavily vegetated area that supports many threatened species and endangered ecological communities. The proponent has committed to maximising the retention of habitat on-site, and in particular, maintaining as many hollow bearing trees *in situ* as possible. The proponent has also committed to limiting fencing. Whilst these measures attempt to enable native fauna movement through the site and encourage fauna to live within the development footprint, the Department considers that the potential for such a situation to be realised on this site is unlikely given the threat posed by domestic dogs and cats.

Whilst the proponent has committed to having dogs in 'fauna-proof' enclosures when outside or not on a leash, the Department is concerned about the ability to enforce such a requirement. Furthermore, no information is provided as to the size of such an enclosure and the practicalities of effectively keeping a dog in a confined space are uncertain.

Overall, the Department considers that the keeping of cats and dogs on the site would present an unacceptable risk to many of the vulnerable species which occur on the site and that the most appropriate approach is to prohibit domestic dogs and cats (other than assistance animals) from being kept on the site. This is reflected as a modification to the concept plan. It is also recommended that any future applications for the site are required to nominate a restrictive covenant for future lots prohibiting the keeping of these animals.

6.5 FLORA IMPACTS

The site is fully vegetated except for a cleared corridor approximately 30m wide in the west of the site which accommodates above ground transmission lines. The site comprises a number of listed endangered ecological communities as well as individual plant species. In determining the footprint of the proposal, the proponent states it has taken into consideration the ecological constraints of the site and determined that two precincts could be developed. These precincts are located within the dry forest communities on the site and specifically, would result in the removal of 62% of the Dry Blackbutt Open Forest and 100% of the Turpentine Open Forest on the site.

The proponent argues that these vegetation communities represent the 'lowest relative ecological value, and provide the best and most appropriate opportunities for development activities'. However, the proponent does reference a previous study (Fisher et al, 1996) that states that these vegetation communities are of regional conservation significance and have less than 10% and less than 5% reserved, respectively. Indeed, the Department notes that the Coffs Harbour Vegetation Strategy maps the ecological significance of these communities as "Very High" (refer Figure 14).

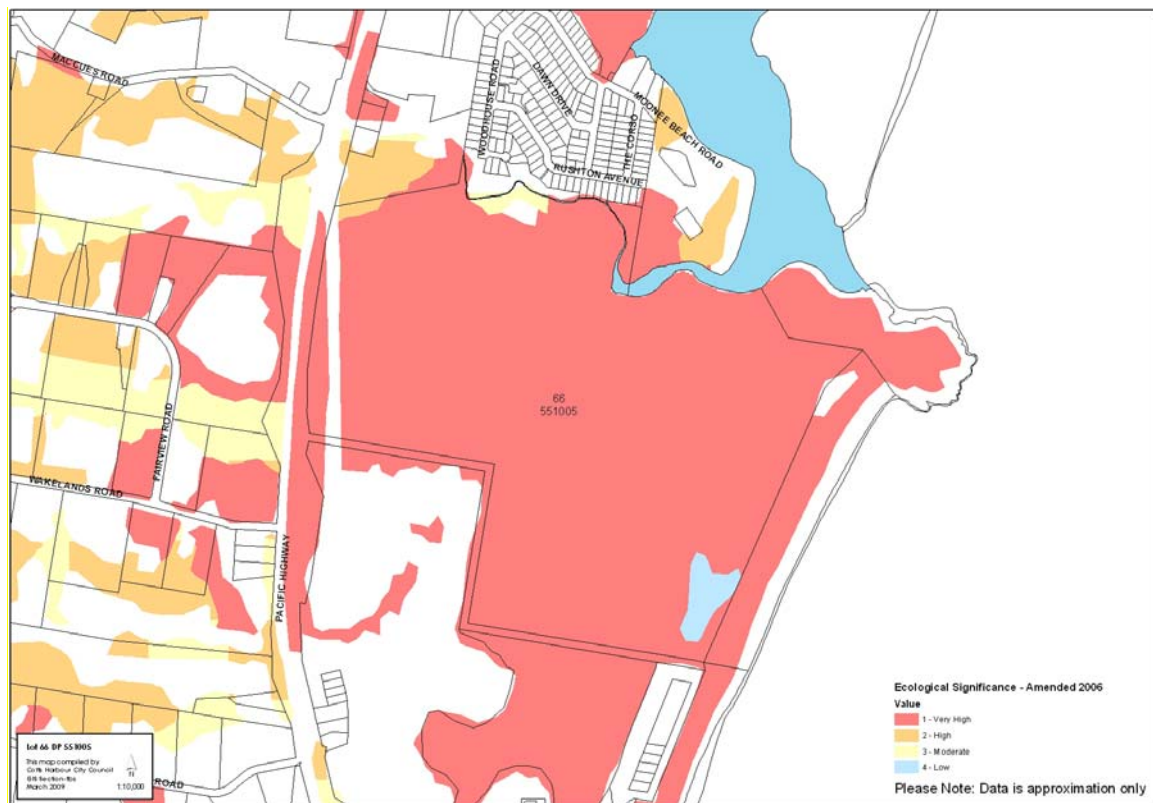


Figure 14: Ecological significance mapping from the Coffs Harbour Vegetation Strategy. Pink represents 'Very High' ecological significance (source: Coffs Harbour City Council GIS)

Should the project, as submitted, be approved, it would result in the unacceptable loss of these communities. While it is acknowledged that 38% of the Dry Blackbutt Open Forest would be retained, these areas would be largely retained in a thin band around the proposed development precincts that would reduce their habitat value and connectivity.

Whilst the majority of the development is proposed in these areas, it is also proposed to remove 0.12 hectares of Swamp Sclerophyll Forest on Coastal Floodplains of the NSW North Coast, Sydney Basin and South East Corner Bioregion endangered ecological community (EEC). DECCW has noted that this particular EEC is generally unrecoverable at the regional level and its loss cannot be adequately offset.

It is also noted that additional areas of vegetation clearing or modification are proposed (such as for local parks, walkways and retaining walls) within the conservation areas either within the EECs themselves or within the buffer areas.

The proposed northern precinct lies within a sub-regional corridor which runs in an east-west direction across much of the northern section of the site and that links Orara East State Forest in the west to the coast. The Department's assessment of the proposal on this corridor (provided in section 6.6) concludes that the northern precinct will have unacceptable impacts.

The impact of this proposal on the ecological attributes of the site is a complex issue. The proposed development footprint in the context of the entire site is relatively small, however, its location is of critical importance. As discussed, the land proposed to be developed is largely within the Dry Blackbutt Open Forest. This community is not listed as an EEC although it is poorly represented in reserves. The Department is particularly concerned with the loss of all the Turpentine Forest within the northern precinct. This habitat also provides substantial value for threatened fauna species (see further discussion in section 6.4).

The impact of habitat fragmentation must also be considered in relation to this. Whilst the southern precinct is bordered to the west by other residential development and could be considered as contiguous development, the northern precinct is isolated from other development and results in habitat fragmentation. Small remnants of vegetation tend to be more influenced by external factors than larger remnants. Negative edge effects, such as weed encroachment, are thus more significant on smaller patches. The Department sought specialist advice from Dr Steve Phillips of Biolink. Dr Phillips reported that in respect of the northern precinct, as there was only a relatively narrow finger of habitat to the north of the precinct, its long term ecological integrity was likely to be compromised due to the large edge: area ratio of the site. This is particularly significant as this area supports a known population of the threatened plant Moonee Quassia (see section 6.5.1 below).

For the southern precinct, the Department recognises that a level of development can be provided in this precinct (on ecological grounds), particularly given a larger proportion of Dry Blackbutt Open Forest is recommended to be conserved (see below). There remains, however, some issue relating to the provision of buffers as well as the identification of vegetation in the north-west corner of the precinct.

Phillips' review of the proponent's mapping of vegetation communities considered that an area near the north-west of the southern precinct site had been incorrectly mapped as Dry Blackbutt Forest but otherwise adjoins that area mapped as Coastal Riparian Open Forest. In addition to its importance as potential koala habitat, he also considered that it provides good potential habitat for the Moonee Quassia. Accordingly, the Department recommends the concept plan be modified to remove this land from the southern precinct and incorporated into the conservation area. This will result in the loss of three lots and is reflected in the modifying instrument.

In relation to the need for buffers to EECs and other important habitat on the site, including SEPP 14 wetlands, the proponent has argued that with judicious design (as is considered to be the case with this proposal), the need to provide buffers is diminished. Nevertheless, the proponent has provided buffers to the EECs and SEPP 14 wetland, varying from almost no buffer to part of the northern precinct, to greater than 50 metres, but averaging around 30 metres (see Figure 15). This is less than that recommended in Sainty's 2006 report of 50 metres.

Sainty recommended that a buffer of at least 50 metres to these habitats is required as it would provide:

- a physical barrier from human encroachment
- protection from storm damage
- an increase in natural habitat and a reduction in edge effects
- an enhancement to the environmental services provided by the nature reserve.

This distance is also supported by various government authorities, including DECCW.

Whilst it would be open to the Minister to modify the concept plan to require a 50 metre buffer to all these EECs and the SEPP 14 wetland, on balance, the Department considers this not required. By refusing the northern precinct (see below), the EECs in the northern area will be afforded greater protection which is a substantial positive outcome. It also increases the area of land available for conservation. Furthermore, the Department acknowledges that the development as a whole is being designed in a 'sensitive' manner, such as ensuring stormwater is appropriately treated before leaving the site and APZs provided within the development footprint (see section 6.9). As such, the Department considers that the buffers to the SEPP 14 wetland and the EECs surrounding the southern precinct are acceptable.

Nevertheless, to further enhance the function of the reduced ecological buffer, the Department considers that any future picnic areas or recreation areas be incorporated into the southern precinct development footprint. This is reflected in the recommended instrument.



Figure 15: Buffers provided to the EECs on site (source: proponent's Preferred Project Report)

In considering this application, the Department has looked at it holistically and recognises that a substantial proportion of the site is to be conserved. This includes the vast majority of EECs on the site. Whilst this is a positive outcome, the Department is not satisfied that this outweighs the negative outcomes resulting from the development of the northern precinct. In summary, the Department does not support the northern precinct on

ecological grounds as it will: result in the further fragmentation of vegetation in this area; will result in the loss of all turpentine forest on the site; encroaches on EECs; has the potential to impact upon the Moonee Quassia; and further compromises the functioning of the regional corridor.

6.5.1 Threatened Flora

The proponent identifies two threatened flora species on the site: Moonee Quassia (*Quassia Sp. 'Moonee Beach'*) which is listed as endangered pursuant to the TSC Act and Rusty Plum (*Amorphaespermum whitei*) which is listed as vulnerable pursuant to the TSC Act.

In its PPR the proponent states that targeted searches for the Rusty Plum were unsuccessful.

In regard to the Moonee Quassia, the results of targeted searches indicate that this species only occurs outside the proposed development precincts. The proponent provided a large scale map with the PPR which provided a minimal amount of detail regarding the locations of the specimens found on the site. This map indicated that 15 specimens are located on the site, north of the northern precinct. The map identifies one point approximately 18m north of the northern precinct where three Moonee Quassias occur within 10m. Presumably this means that at least one Moonee Quassia could potentially occur within 8m of the boundary of the northern precinct.

Further survey work was subsequently undertaken on behalf of the proponent by Environmental InSites in 2010. While the Department accepts that the greater majority of the Moonee Quassia has been detected, there still remains some uncertainty about its presence on the site and viability with the project as proposed.

The Recovery Plan (DEC, 2005) for this species identifies a number of threats to it. The threat of most relevance for this proposal is weed infestation (in particular lantana). The construction of residential development within such close proximity may result in the escape of weeds into the habitat for this endangered species. The proponent proposes to fence the area containing this species and rehabilitate it. While this may restrict human movement, it is unlikely to stop the colonisation of weeds, one of the major threats to this species. It is also noted that this fencing would be required within an area identified as a sub-regional wildlife corridor and that this has the potential to impact on the operation of this corridor (refer to Section 6.6 for more discussion on this issue).

It is noted that the Recovery Plan for the species states that Forests NSW has been issued a Threatened Species Licence that requires at least 90% of the Moonee Quassia individuals in any population to be protected by an exclusion zone of at least 20m width. As logging in close proximity of this species (which would produce a short term impact) requires a 20m buffer, it is considered that the proposed development should employ a larger buffer as the potential impacts would be ongoing for at least 50-100 years. The Department considers that the potential impacts of the proposed northern precinct on this endangered species are not acceptable.

The proponent identified a further 13 threatened flora species with the potential to occur on site. The Department requested additional information regarding the survey effort expended for the five species whose preferred habitat is the dry forest communities that would be directly impacted by the proposal. In response the proponent stated that 'all (or virtually all) of the relevant habitats for such species will be retained within the Conservation Area'. This statement has not been substantiated with details of survey efforts. The Department notes that the northern precinct is located within the dry forest. In refusing this component of the development, these species are less likely to be impacted by the project.

6.6 IMPACT ON SUB-REGIONAL WILDLIFE CORRIDOR

Scotts (Occasional Paper 32: *Key Habitats and Corridors for Forest Fauna – A Landscape Framework for Conservation in North East NSW*, David Scotts, NPWS, 2003) identifies a sub-regional corridor running in an east-west direction across much of the northern section of the site that links Orara East State Forest in the west and the coast. The proposed northern precinct lies within the identified corridor.

The proponent argues in its PPR that the proposed development '*will impose no relevant adverse impacts on wildlife movements because:*

- *Those movements will be seriously, significantly and substantially constrained by the upgraded Pacific Highway;*
- *The 'wildlife exclusion fencing' and the single watercourse 'underpass' to be provided at this location are true determinants of wildlife movements;*
- *Any such movements will be further constrained by the proposed 'collector roads' on both sides of the Highway;*
- *The existing fragmentation of land to the west of the Highway is a far greater constraint to wildlife movements than anything proposed on the 'Moonee Waters' site;*
- *The 'corridors' on the subject site considerably exceed any potential 'corridors' on other lands west of the Highway along the purported 'corridors'; and*
- *The 'corridors' on the 'Moonee Waters' site will be appropriately managed for biodiversity purposes. That surety is NOT available west of the Highway.'*

The Minister for Planning approved the Sapphire to Woolgoolga Pacific Highway Upgrade on 13 January 2009. This will involve the construction of a second carriageway adjacent to the site as well as a service road on the western side of the highway. In addition, Council's local traffic planning envisages the construction of a collector road running parallel to the highway on the eastern side (through the subject site; refer to Section 6.2 for further discussion on these issues). The current proposal proposes the construction of the collector road within the boundaries of the site. As discussed in Section 6.2, the Department does not recommend the collector road's approval as part of this application. The Department acknowledges that the construction of these additional linear features across the corridor have the potential to negatively impact on the connectivity that the corridor is trying to maintain for some species.

In his report to the Department, Sainty (2006) states that 'the Pacific Highway provides a formidable north-south barrier to some species'. In this regard, the Pacific Highway Upgrade recognises the sub-regional corridor and includes (at the northern boundary of the site) for an additional 2400 mm x 2400 mm box culvert for dedicated fauna passage adjacent to and higher than, the existing major culvert to the west of the subject site. The upgrade also proposes the construction of fauna exclusion fencing for the length of the site where the fauna crossing is not proposed. Sainty (2006) also acknowledges however, that 'The overall continuity of the vegetation corridor is excellent (if not ideal) in terms of the needs of more nimble species including birds, bats and insects for feeding, breeding, resting and refuge habitats, and for the interchange of seed and pollen materials.'

In considering only the threatened fauna species found or with the potential of occurring on the site, 74% are birds and bats that would be little affected by the existing Pacific Highway or its upgrade. For the remaining species, it is likely that the Pacific Highway would impact on their ability to connect to the vegetation to the west. If this is the case, the site should be considered as the entire habitat for these species, as it is unconnected to other suitable habitat. If so, the site becomes increasingly important as a refuge for these species.

The proponent refers to the fragmentation of land to the west of the Pacific Highway. This land is used largely for rural purposes and clearing has been undertaken in the past. However, it can be seen from Figure 17 that good vegetation connectivity exists in this area. Fragmentation of this vegetation in the future will be managed through the implementation of the *Native Vegetation Act 2003*.

The proponent also refers to the provision of corridors within the subject site. These corridors are the areas of vegetation to be retained to the north and south of the northern precinct. The southern corridor cannot be considered to have any connectivity outside of the site as the Pacific Highway upgrade proposes fauna exclusion fencing in this location. The proposed corridor in the northern part of the site is less than 100m wide. This is not consistent with Scotts (2003) recommends for 300m width for sub-regional corridors. This width is reflected in *DECC Natural Resource Management Advisory Series: Note 15 Wildlife Corridors*. While it is acknowledged that there is a 100m wide strip of vegetation north of the site zoned for environmental protection, this would still require a 200m band of vegetation to be retained on the subject site.

The PPR states that the proposal 'will impose no relevant adverse impacts on wildlife movements', however, goes on to discuss a number of strategies 'in response to potential impacts on sub-regional wildlife corridor' such as not allowing fences to lots in the southern precinct and half of the northern precinct and retaining canopy to allow unconstrained canopy movement in all directions. It is unclear how these measures will be sustainable in

the future. Further, as these measures are proposed the proponent obviously considers that the proposal will have impacts on the sub-regional corridor. The Department considers that the impacts of the northern precinct on this corridor are unacceptable.



Figure 16: Vegetation connectivity to the west of the site (source: proponent's Preferred Project Report).

6.7 EXACERBATION OF KEY THREATENING PROCESSES

The proposal would exacerbate the following three key threatening processes identified by the *Threatened Species Conservation Act 1995*.

6.7.1 Clearing of Native Vegetation

The EA states that vegetation on the site 'is generally in good to excellent condition' and notes that 'weed infestations are generally low'.

The PPR states that 'The proposed development will result in the clearing of a total of approximately 21.5 hectares of native vegetation from the subject site'. However, the PPR acknowledges that additional areas of vegetation would be modified as follows:

- Four 'pedestrian paths and bicycle tracks through the Conservation Area will involve only the removal of narrow bands of groundcover at locations where the paths are 'at grade', but will not require the removal of canopy trees or tall shrub vegetation at all';
- Four small 'local parks' which are proposed within the EEC buffer zone areas, which are shown in Figure 14, will be managed by the selective removal of some groundcover vegetation and possibly a few trees'; and
- Strategic Fire Advantage Zones (involving a total of 2.56 ha) will involve 'hand removal of excess fuel material and/or occasional managed fuel reduction burns' and 'any removal of shrubs or understorey plants which may be required will be done in a selective and careful manner'.

The Department does not agree that the construction of pedestrian paths and bicycle tracks will not require the removal of any canopy trees or tall shrub vegetation at all. Further, it is not accepted that the local parks will only require the removal of 'possibly a few trees' when the PPR envisages the provision of picnic shelters, amenities, lookouts, barbecue areas, children's playgrounds and car parking areas. It is also noted that while the text of the PPR states that four local parks will be provided, Figure 16 of the PPR identifies the provision of eight picnic areas (which are assumed to be the same as local parks) within the conservation area. The Department also notes that the proposed development requires the construction of approximately five retaining walls within the conservation area, adjacent to the development precincts (although it is noted that the number of retaining walls varies from 3 to 5 between plans).

While it may be possible to delete pedestrian paths and bicycle tracks from any approval of the concept plan, it is not considered that this would result in a feasible development. There would still be a need to provide access to the beach through the site including the conservation area. Furthermore, the provision of fire protection zones, if required by the RFS, is usually not negotiable, so it would also not be feasible to delete the Strategic Fire Advantage Zones. As discussed in section 6.5, to compensate for the reduced buffers to the EECs, any open space provided on the site should be wholly contained within the development footprint.

The Department therefore considers that the vegetation to be removed from the site would be greater than the 21.5 ha stated in the PPR, although the total amount cannot be calculated from the information provided by the proponent. The removal of this vegetation will have impacts on habitat for threatened and protected species on the site.

The Department recommends that any pocket parks be relocated wholly within the footprint for subdivision and that public access within the conservation area be limited to 1 track. Furthermore, the construction of pedestrian paths, bicycle tracks, and local parks be subject to further detailed assessment in any future application, including justification of need, further detail on extent of clearing and its impact and details of construction methods to be employed.

6.7.2 Loss of Hollow-bearing trees

The proponent located all hollow bearing trees (HBTs) within the proposed development precincts and states that there are 136. The proponent proposes to retain as many HBTs as possible within the precincts and has estimated that a maximum of 16 HBTs will require removal. In particular, the proponent has committed to the following:

- retention of HBTs within the development precincts where appropriate and reasonable;
- retention of the tree canopy surrounding each of the HBTs to protect the HBTs and provide a source of replacement trees as older specimens die (refer to Figure 17).
- where the HBTs are to be removed, salvage and re-use of any tree-hollows throughout the life of the development and redeployment to Conservation Area;
- provision of nest boxes within Conservation area where these HBTs cannot be salvaged; and
- management of the Conservation area in perpetuity.



Figure 17: The vegetation to be retained within the proposal. The yellow markers represent hollow bearing trees to be retained, the red markers hollow bearing trees to be removed (source: proponent's Preferred Project Report).

The proponent's arguments as to why the development is acceptable, and will have little effect on the biodiversity of the site, are based in part upon the retention of HBTs and/ or the relocation of the hollows to within the Conservation area. While the proponent suggests that apart from a number of trees, all HBTs can be kept *in situ*, the Department as well as Council and other Government agencies consider that the ability for this to occur is likely to be compromised by a number of other competing issues including:

- Many HBTs are to be retained within the proposed lots. However, HBTs, by their very nature are more mature. In fact, many of the trees identified on the site are stags (dead trees). These trees would create a safety concern for future residents such as dropping branches or falling over entirely. Council has advised that if residents apply to remove a tree because of safety concerns, it is difficult to refuse such an application on ecological grounds;
- It is unclear whether the retention of these trees and a surrounding canopy is consistent with the requirements of the RFS for the lots to be maintained as an 'outer protection area' (refer to Section 6.9 for further discussion);
- A number of the HBTs identified for retention are within bio-swales which are to be part of the proposed stormwater management system. Bio-swales are engineering features that require the installation of geotextile fabric, piping and infiltration media below the ground surface (as shown in Section 9.2.2 of the Water Management Report of the EA). It is unrealistic to believe that HBTs will be retained during the construction of these engineering features; and
- At least one HBT in the northern precinct is located within areas that are to be filled to provide flood immunity for the proposal. The proponent proposes up to 1m of fill in these areas. HBTs could not be retained where filling is occurring.

The Department acknowledges the proponent's commitment to retain HBTs as far as practicable and to relocate hollows to within the Conservation area where their loss is unavoidable, however, as discussed the Department cannot be sure that the retention of all the proposed HBTs within the development precincts is realistic. This therefore leads the Department to assume, for the purposes of this assessment, that the majority, if not all, the vegetation within the development precincts will be removed (a position also shared by Dr Phillips). If it is

considered that all or a substantial number of HBTs within the development precincts will be removed, the following issues arise:

- the proponent has not surveyed HBTs outside of the development precincts. As a result it is not possible to say what proportion of HBTs on the site will be retained *in situ*. The proponent estimates that approximately 226 HBTs would be present in the dry forest communities on the site, but this figure cannot be substantiated;
- the HBT data provided by the proponent indicates that many of the HBTs contain more than one hollow. Indeed, 21 hollow bearing trees in the northern precinct and 8 hollow-bearing trees in the southern precinct have between 4 and 12 hollows each. Therefore, many of the HBTs have the potential to provide habitat for more than one species;
- the proponent has not identified what size hollows are present in each HBT. As different species have different requirements for hollow size, it cannot be determined which species these HBTs would provide habitat for; and
- it is unrealistic to assume that if all or a substantial number of HBTs are removed, the proponent's commitment to relocate HBTs to within the conservation area is an appropriate offset/ mitigation measure.

Certainly, the development of both precincts is likely to impact on HBTs within these areas and in turn have a detrimental impact on the threatened fauna species identified (or with the potential to occur) on the site that are likely to use these hollows.

In respect of the southern precinct, as discussed in section 6.2, the LPMA has only given landowner's consent to the use of part of the Crown road reservation resulting in a need to redesign the southern precinct. As a result the Department notes there is an opportunity to further refine the layout of the southern precinct to provide greater certainty that most, if not all HBTs can be preserved *in situ*.

The Department has recommended a condition that future applications for subdivision be designed to maximise the retention of HBTs *in situ*. The conditions also recommend development of a Hollow Bearing Tree Protocol that explains how a decision is made to retain or remove/ relocate HBTs as well as how tree hollows are to be relocated into the conservation area.

6.7.3 Removal of dead wood and dead trees

The description of this key threatening process includes the removal of standing dead trees, burning on site and the removal of fallen branches and litter. It is considered that the proposal would result in each of these processes:

- as shown by the proponent's HBT data, 74 of the trees are stags (dead trees). As discussed above, it is considered that these trees will likely be removed as a result of the proposal; and
- burning on site and removal of fallen branches and litter is required for the identified Strategic Fire Advantage Zones.

The description of this key threatening process by DECCW indicates that it can result in loss of habitat, disruption of ecosystem process and soil erosion. Nine of the species DECCW considers most at risk from the removal of dead trees have been identified or have a moderate to high potential of occurrence on the site. Therefore the proposal has the potential to impact on the habitat for all of these species. By conserving the vegetation in the northern precinct, the impact of this loss is diminished.

6.8 ABORIGINAL CULTURAL HERITAGE

The EA identifies a number of areas of Aboriginal cultural heritage on the site. In particular the EA identified an artefact scatter with an associated potential archaeological deposit (PAD) within the boundaries of the southern precinct. The EA provides a methodology for surface collection for the site and sub-surface investigation for the PAD. The Coffs Harbour District Local Aboriginal Land Council (CHDLALC) has stated that the methodology provided is 'satisfactory' but note that 'subsurface investigation will need to take place before any future ground disturbance activities'. Further, DECCW note in its submission that the CHDLALC has stressed that no works must commence until the results of the investigations are known and appropriate management actions agreed. A further assessment requirement is recommended in this regard.

During the exhibition period, an Aboriginal community group made a submission objecting to the proposal. In responding to the issues raised in submissions, the proponent undertook a site visit with some representatives of this group. As a result of this site visit the PPR states that there are two potentially scarred trees within the western portion of the southern precinct and that further investigations are required to determine if the trees are 'in conflict with development proposals and what actions should be taken'. The Statement of Commitments commits to 'further investigation' and 'design modification' if necessary.

As discussed in section 6.2, the proponent will need to redesign the southern precinct as landowner's consent has not been forthcoming for the road on the western boundary of the southern precinct. As the potential scarred trees are in this vicinity, there is an opportunity to keep the potential scarred trees outside the development footprint. A further assessment requirement recommends this be taken into consideration as part of future applications for subdivision.

DECCW has also noted that the unbroken assemblage of ecological communities on the site is likely to be culturally significant to the Aboriginal community as this landscape would have been traversed in travelling to and from the ceremonial area of Green Bluff to the northeast. DECCW state that loss of these values without replacement is not acceptable. Correspondence within the PPR from the proponent's archaeologist suggests this issue was not raised during Aboriginal stakeholder communication. By retaining the majority of the vegetation communities on the site, including the dry forest community where the northern precinct is proposed, the Department considers that the value of this site will be largely preserved.

6.9 BUSHFIRE

The modified proposal in the PPR contains all required asset protection zones within the development precincts, which the Department supports. However, Strategic Fire Advantage Zones (SFAZs) are required in a number of locations (refer Figure 18) in order to facilitate emergency bushfire egress. The proponent states in the PPR that the area of these SFAZs is 2.56ha.

The *Bushfire Environmental Assessment Code for New South Wales 2006* (prepared by the NSW RFS for bushfire hazard reduction works under the *Rural Fires Act 1997*) sets out a number of activities that are permissible within SFAZs including mechanical vegetation removal and prescribed burning. It is considered that these activities would impact on the ecological values of these areas. Of particular concern is one area of SFAZ identified within the sub-regional corridor (refer to Section 6.6 for more discussion on the sub-regional corridor). Management measures within the SFAZ would impact on the quality of habitat within this corridor.

The Department recommends that the proponent negotiate alternative arrangements for bushfire emergency egress to minimise the ecological impacts arising from SFAZs. This is reflected in the recommended instrument.

In its response to the PPR, the Rural Fire Service requires that the development precincts are managed as outer protection areas as outlined in *Planning for Bushfire Protection 2006* and the RFS document *Standards for Asset Protection Zones*. *Standards for Asset Protection Zones* states that in APZs tree crowns should be separated by 2 to 5m and that native trees and shrubs should maintain a covering of no more than 20% of the area. This requirement appears to contradict with the proponent's proposal to retain the HBTs and their associated canopy within the development precincts and the retained canopy shown in Figure 17. This issue can be addressed in future applications, once the final layout is known.

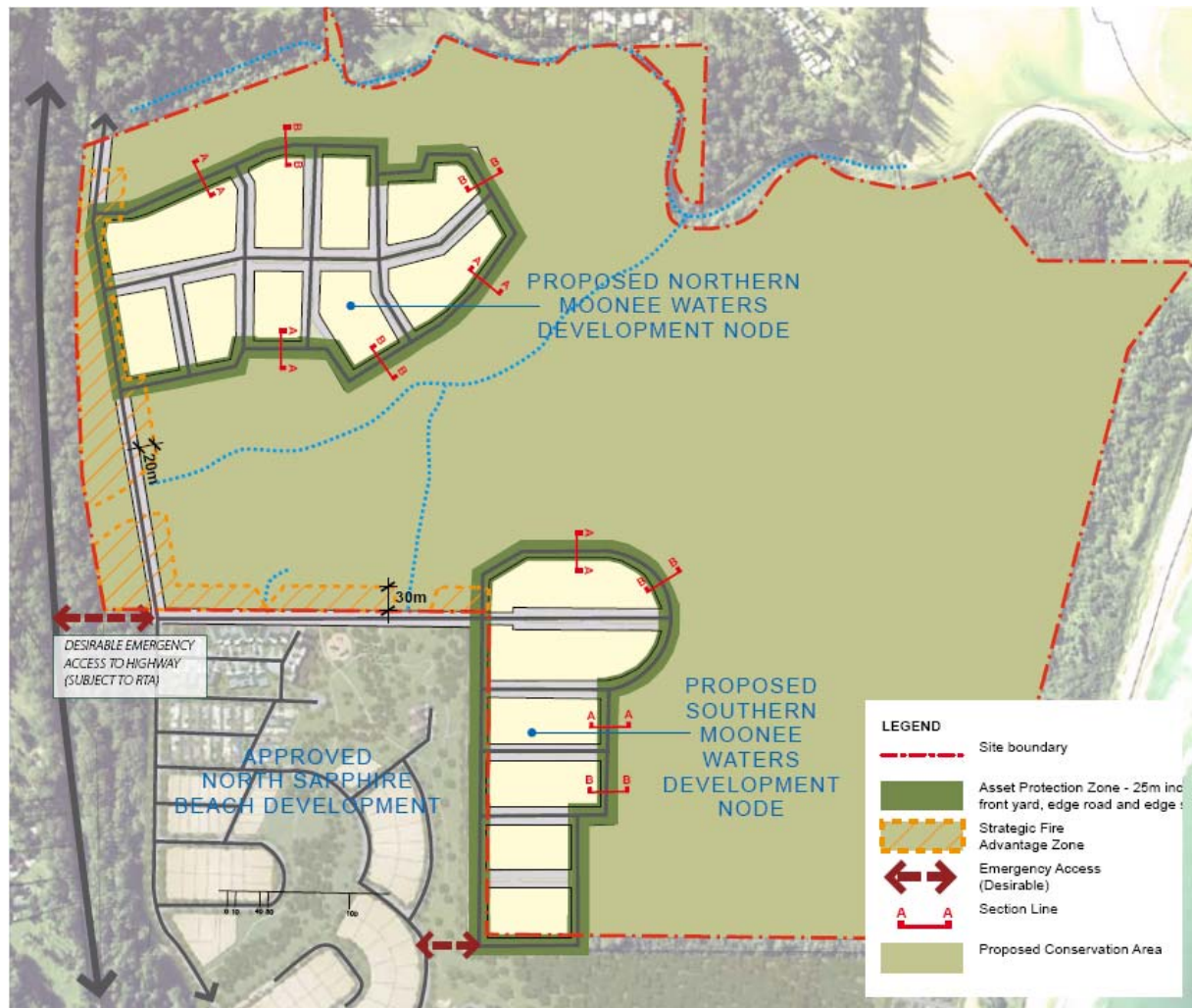


Figure 18: Measures proposed to manage bushfire risk.

7 CONCLUSION

The proposed development of the Moonee Waters site has generated considerable opposition within the local community as well as from many government agencies. In considering this application, the Department has had to balance a number of competing issues, from ecological, bushfire, access, urban design as well as the existing zoning of the site which gives the expectation that some level of development is likely to be appropriate.

In its current form, the Department considers that the proposal will result in a number of undesirable outcomes, including:

- contribution to 'ribbon' development along the coast with the development of the northern precinct which is an isolated pocket of residential development;
- the northern precinct contributing to negative impacts on the functioning of the sub-regional wildlife corridor;
- exacerbation of three key threatening processes pursuant to the *Threatened Species Conservation Act 1995* – clearing of native vegetation, loss of hollow bearing trees and removal of dead wood and trees;
- unacceptable impacts on threatened flora and fauna species through loss of habitat; and
- unacceptable impacts on endangered ecological communities as well as Dry Blackbutt Forest and Turpentine Forest which are of regional conservation significance through direct loss and fragmentation.

As a result of this, the Department has recommended a number of modifications to the concept plan which are considered to reduce the environmental impact of the proposal to an acceptable level and permit a reasonable amount of residential development. These modifications include:

- deletion of the northern precinct and inclusion into the conservation area;
- deletion of the construction of the collector road and roads within the Crown road reserve;
- deletion of the pocket parks within the conservation area and relocation within the southern precinct, as needed;
- reduction in public access within the conservation area to one formal track;
- exclusion of dogs and cats from being kept on the site; and
- refinement of the southern precinct layout to delete three lots located in the north-west section of the precinct, resulting in a precinct footprint of approximately 98 lots.

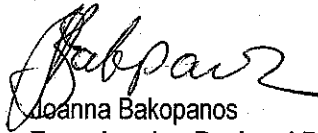
As the proposal is for a concept plan, further approvals under either Part 3A of Part 4 of the Act would be required before construction can commence. The Department notes that a number of matters will need to be finalised at this stage and these are reflected in the further assessment requirements recommended in the instrument of determination. These include a requirement to:

- identify an appropriate access to the southern precinct that is also suitable for emergency bushfire and flooding egress;
- update the subdivision layout of the southern precinct to account for lack of landowner's consent for the proposed road within the Crown road reserve located along the western boundary, hollow bearing trees, and potential scarred trees;
- detail public access within the conservation area;
- detail how the conservation area will be managed into the future; and
- provide an updated assessment of bushfire, traffic, flooding.

8 RECOMMENDATION

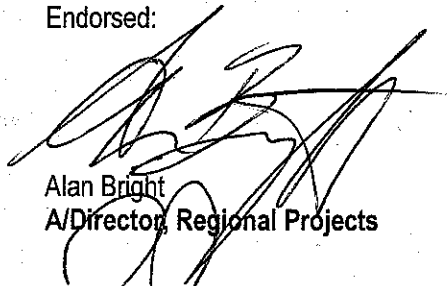
The Department has assessed the merits of the proposal and is not satisfied that all the impacts of the project, as proposed, can be adequately mitigated via the proponent's Statement of Commitments and/or modifications to the concept plan. In particular, the Department is not satisfied that development of the northern precinct is suitable on the site and does not support its future development. The Department considers that a level of development in the southern precinct can be achieved, subject to meeting stringent requirements.

The Department recommends that the Minister give partial approval to the concept plan for the project.

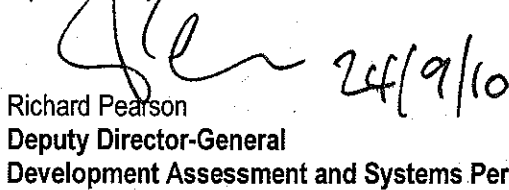


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ATTACHMENT 1 – PUBLIC SUBMISSIONS

Summary of Public Submissions

Comments
<p>Ecology</p> <p><u>Threatened Species</u></p> <ul style="list-style-type: none">• The proposal will have unacceptable impacts on many threatened species that use the site. In particular, these species include Rusty Plum, Moonee Quassia, Swift Parrot, Regent Honeyeater, Green-thighed Frog, Giant Barred Frog, Yellow-bellied Glider, Squirrel Glider, Grey-Headed Flying Fox, Spotted Tailed Quoll, Koala, Common Planigale, Black Flying Fox, Osprey, Square-tailed Kite, Black Necked Stork, Eastern Blossom Bat, Little Bent-wing Bat, East Coast Freetail Bat, Yellow Bellied Sheathtail Bat, Large Footed Myotis, Rose Crowned Fruit Dove, Wompoo Fruit Dove, Grass Owl, Yellow Tailed and Glossy Black Cockatoo. Assessments of significance should be undertaken for all of these species.• There is a Grey-Headed Flying Fox camp in the area of the subject site. The development will conflict with this camp.• The proposal has the potential to impact the recovery planning for the threatened Moonee Quassia, Beadle's Grevillea and Scented Acronychia.• Assessments of significance have only been undertaken for threatened species recorded on site. Assessments should also be undertaken for species with a high or moderate potential to occur on site.• The EA does not address the impacts of the proposal on threatened species habitat. <p><u>Endangered Ecological Communities (EECs)</u></p> <ul style="list-style-type: none">• The area is the single most biodiverse and ecologically significant private property along the Coffs Coast with large areas comprising eight EECs listed under the NSW Threatened Species Conservation Act and the development will have an unacceptable impact upon these EECs.• The proposal does not adopt the 50m buffers to EECs proposed by Sainty. <p><u>Vegetation Clearing</u></p> <ul style="list-style-type: none">• The proposal will result in the clearing of over 240,000 m² and fragmentation of vegetation on the site• The proposal does not properly address the amount of vegetation clearing that would be required for bushfire protection measures, bioretention swales, parklands, walking tracks.• The EA states that trees will be preserved within the development precincts but once the blocks are sold, most of the trees will be removed <p><u>Wildlife Corridor</u></p> <ul style="list-style-type: none">• South Moonee Forest is a critical landscape from the viewpoint of landscape connectivity. The Forest is a crucial component of the last regional habitat corridor on Coffs Harbour's Northern Beaches area. This corridor links forests from the Great Escarpment and foothill forests to the coast and is known to be occupied by many species of threatened fauna, including koala. This habitat corridor is recognised by government departments. It requires protection and restoration.• The Roads & Traffic Authority have identified this site as a major wildlife corridor. As such they have planned for measures to facilitate the migration of

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wildlife across the Highway west of the site.

- Over 30 threatened species have been documented using the east-west corridor.

Key Threatening Processes (KTPs)

- The proposal will result in a number of KTPs such as clearing of native vegetation, introduction of weeds, introduction of pest fauna species and loss of hollow bearing trees.
- The proposal will increase the feral animal populations leading to predation on the threatened species on site.
- The EA does not give full consideration to the number, location and size of tree hollows present within the study area and the likely impacts to hollow dependent threatened fauna from the loss of hollows due to the proposal.

Protection of the Site

- The site should be protected by adding it to Moonee Nature Reserve or the Coffs Coast Regional Park
- The site could be purchased using funding from the Coastal Lands Protection Scheme, Natural Heritage Trust, local council environmental levies and section 94 contributions.

Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)

- The EA does not include tests of significance for threatened species and communities listed under the EPBC Act. Tests of significance should be undertaken in accordance with the EPBC Act Policy and Administrative Guidelines.

Other Ecological Impacts

- The proposal will result in edge effects
- The proposed walkways through the conservation area will result in additional ecological impacts such as increases in pollution, increased erosion, introduction of weeds, disturbance of native fauna, trampling of flora, dumping of garden refuse, creation of additional informal tracks, increase in pest animals and domestic animals leading to an increase in predation by foxes and dogs and cats.

Adequacy of Flora and Fauna Assessment

- The ecological survey carried out was inadequate and of a poor standard. The surveys were not undertaken in accordance with DECC's Threatened Species Survey Guidelines.
- The assessment fails to recognise the significance of fauna species listed as vulnerable under the Threatened Species Conservation Act 1995 (TSC Act) stating that they are "therefore of somewhat less concern".
- The ecological surveys carried out were not conducted at the appropriate time of year. Further, they were carried out in drought conditions and as such the surveys must be carried out again in the appropriate season and conditions.
- Appropriate trapping techniques were not employed for the Spotted-tailed Quoll.
- Proper survey and assessment for amphibians was not undertaken. No frog call backs were carried out.
- Appendix 3 of the Flora and Fauna Assessment states that the bat survey is not adequate. Further survey efforts should be made.
- Owl play back calls should have been carried out in more than two places on the site.
- The EA does not identify Koala distribution and movement patterns across the site.
- Appendix 1 of the Flora and Fauna Assessment does not address all identified vegetation communities.

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- The survey for hollow bearing trees only covered 5ha of the site. A larger area of the site should have been surveyed.
- The flora and fauna assessment does not specify the time of the diurnal surveys.
- The spotlighting undertaken for the Flora and Fauna Assessment was only undertaken along existing access tracks. This is poor practice.
- The ecological survey was undertaken by a consultant based on the south coast of NSW. The survey should have been undertaken by a local consultant.

Impacts on Moonee Creek Estuary, SEPP 14 wetland and Solitary Island Marine Park

- The entire property forms part of the Moonee Creek catchment of the Solitary Islands Marine Park and any development would lead to impacts on the system including increased sediment and nutrient loads, domestic pests, garden weeds and increased traffic. This catchment is already recognised as being 'highly stressed'.
- A buffer of 100m is required around the SEPP 14 wetland, Endangered Ecological Communities and Sugar Mill Creek.
- Stormwater runoff from the development has the potential to impact on seagrasses and mangroves.
- No studies have been carried out to assess Stingray and Sugar Mill Creeks which are naturally very low nutrient water bodies.
- The EA does not describe the capacity of the proposed detention ponds. If they are not sized adequately, runoff from the development will flow directly to Moonee Creek Estuary.
- The development should include measures other than the detention ponds to control water quality, such as gross pollutant traps.
- The riparian zones of all waterways should be retained for a width of at least 50m.

Flooding, Climate Change and Sea Level Rise

- The proposed development is subject to flooding and climate change will worsen this. The development does not adequately consider future sea level rises when considering the impacts of flooding.
- The trees on the site are important for carbon storage. They should not be removed.

Urban Design

- The proposal will result in urban sprawl.
- The proposal will result in continuous ribbon development along this section of the coast.
- The proposal will destroy the green space separating Sapphire Beach and Moonee Beach.
- The density of dwellings proposed is too high, only single dwellings should be constructed.
- The provision of rear lane access is not supported as it facilitates crime.

Aboriginal Cultural Heritage

- The site is an important site for Aboriginal cultural heritage. Specifically for the Bagawa people of the Gumbayngirr nation.

Planning

Strategic Planning

- The development of the site is contrary to draft LEP amendment no. 24, the Moonee Development Control Plan, the Coffs Harbour Settlement Strategy and the Coffs Harbour City Council draft vegetation strategy

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- The development exceeds the density control in the Moonee DCP.

Statutory Planning

- The development does not comply with the objectives of SEPP 71.

Traffic and Access

- The development will be heavily reliant on the car.
- The two temporary accesses onto the Pacific Highway will be dangerous and are unacceptable.
- The Pacific Highway cannot cope with the additional traffic from this development.

Overdevelopment

- The development is a gross overdevelopment of the site
- There is enough land in the Moonee Beach area being developed.

Social Impacts

- The proposal will increase the population of Moonee Beach leading to increased theft and violence
- This proposal will impact further on unemployment in the Coffs Harbour area.
- The development will place additional pressure on existing local facilities such as hospitals and police. The development does not propose to provide additional community facilities.
- The proposal should address potential social impacts such as reduced swimming opportunities due to increased water pollution and impacts on recreational fishing.

Ecologically Sustainable Development

- The development is not environmentally sustainable.
- The development does not comply with the precautionary principle.

Infrastructure

- There is not enough infrastructure to service the proposal.
- The proponent should pay section 94 contributions so that Council can provide local services.

Consultation

- The EA does not document correspondence undertaken with relevant government agencies.

Bushfire

- The whole site is classified as "Category 1 Bushfire Prone Vegetation" as indicated by the Coffs Harbour Certified Bushfire Land Map. This issue has not been adequately addressed as the proposed Asset Protection Zones are not large enough and the roads may not allow adequate access for emergency services.

Visual Amenity

- The proposal will destroy the scenic amenity of the area.

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Air Quality

- The proposal will have an adverse impact on air quality.
- Pollution from vehicles on the Pacific Highway will impact on future residents.

Cumulative Impacts

- The proposed development does not address the cumulative impact of development in the area.

Public Access

- The proposed walkways to the beach will contribute to dune erosion and overall degradation of the regional park. Beach access should be limited to existing access points.
- Public access to the rear of subdivisions at Moonee Beach is not supported as it may result in crime and misbehaviour.