

**MAJOR PROJECT ASSESSMENT:  
SANDY BEACH MILL – STAGE 2  
RESIDENTIAL SUBDIVISION AT LOT 260  
DP 1110779, GRAHAM DRIVE, SANDY  
BEACH**

***Proposed by SANDY BEACH MILL PTY LTD***



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

September 2010

## ABBREVIATIONS

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Council	Coffs Harbour City Council
DECCW	Department of Environment, Climate Change and Water
Department	Department of Planning
LPMA	Land and Property Management Authority
NOW	NSW Office of Water
NRCMA	Northern Rivers Catchment Management Authority
RFS	NSW Rural Fire Service
RTA	NSW Roads and Traffic Authority
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AEC	Areas of Environmental Concern
APZ	Asset Protection Zone
ARI	Average Recurrence Interval
ASS	Acid Sulfate Soils
CIV	Capital Investment Value
DCP	Development Control Plan
DGRs	Director-General's Requirements
Director-General	Director-General of the Department of Planning
EA	Environmental Assessment
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPI	Environmental Planning Instrument
ESA	Environmental Site Assessment
ESD	Ecologically Sustainable Development
MD SEPP	State Environmental Planning Policy (Major Development) 2005
Minister	Minister for Planning
North Coast REP	North Coast Regional Environmental Plan
Part 3A	Part 3A of the <i>Environmental Planning and Assessment Act 1979</i>
PPR	Preferred Project Report
Proponent	Sandy Beach Mill Pty Ltd
SEPP 71 – Coastal Protection	<i>State Environmental Planning Policy No. 71 – Coastal Protection</i>
VMP	Vegetation Management Plan

Cover Photograph: *Site Layout – Graham Drive, Sandy Beach (Source: Preferred Project Report)*

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## EXECUTIVE SUMMARY

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SJ CONNELLY CPP Pty Ltd and the Petersen Consulting Group on behalf of Sandy Beach Mill Pty Ltd are seeking project approval pursuant to Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) for a 40 lot residential subdivision on land comprising lot 260 DP 1110719 at Graham Drive, Sandy Beach, in the Coffs Harbour local government area. The proposal is Stage 2 of the Sandy Beach Mill residential estate and incorporates:

- 40 Torrens title residential lots;
- revegetation and rehabilitation works along Double Crossing Creek;
- a public reserve;
- a stormwater detention basin;
- recreation facilities;
- internal road network; and
- associated infrastructure works, including connection to reticulated services (water, sewerage and telecommunications).

The capital investment value of the project is estimated at approximately \$2.5 million. The proposal is expected to create 15 full time jobs throughout construction of the project. The proposal will see an additional 40 low density residential lots created within the Coffs Harbour local government area. The additional lots will assist with the current demand for residential housing in locations that are in close proximity to essential services, including educational establishments, medical services, public transport, shopping and recreational facilities, etc.

The Environmental Assessment for the proposal was publicly exhibited at four locations and also on the Department's website for a period of 33 days. During the public exhibition period of the Environmental Assessment, the Department received a total of four submissions from the general public, and nine submissions from public authorities. Key issues considered in the Department's assessment of the proposal include;

- subdivision design and layout;
- impacts on biodiversity;
- rehabilitation of Double Crossing Creek riparian corridor; and,
- other issues involving flooding and climate change, bushfire hazard, site contamination and acid sulfate soils, road traffic noise; and cultural heritage.

The site is identified in the Mid North Coast Regional Strategy as being within a future growth area. The proposal is considered to be consistent with the intent of the strategy as it provides for ecologically sustainable development within an identified growth area.

The Department has assessed the merits of the project and is satisfied that the impacts of the proposed project have been addressed via the Proponent's Statement of Commitments and the Department's recommended conditions of approval. The Department is satisfied that the site is suitable for the proposed project and will provide the Coffs Harbour local government area with further land to be developed for residential housing and additional jobs. The Department therefore recommends that the project be approved, subject to conditions.



## 1. BACKGROUND

### 1.1 SITE DESCRIPTION

The subject site is located on the New South Wales mid-north coast, approximately 20km to the north of Coffs Harbour, and 3km to the south of Woolgoolga in the Coffs Harbour local government area. The site encompasses a total area of 7.89ha and is formally described as part Lot 260 DP1110719, Graham Drive, Sandy Beach. Sandy Beach Mill Pty Ltd (the Proponent) is the registered owner of the site. SJ CONNELLY CPP Pty Ltd and the Petersen Consulting Group act on the Proponent's behalf.

#### 1.1.1 Locality and Surrounding Development

The subject site will be accessed via Graham Drive which runs alongside the western boundary of the site. Double Crossing Creek is a tributary to nearby Hearnes Lake and forms the site's northern boundary. Immediately east of the site is an area of vacant land earmarked for future residential development, with the Pacific Highway situated approximately 300m further east. The site adjoins approved Stage 1 of the Sandy Beach Mill residential estate to the south. On 19 February 2008, Coffs Harbour City Council (Council) issued development consent for Stage 1 consisting of 24 residential lots plus a residue lot, and construction of the internal road network including connection to Graham Drive. The construction of Stage 1 works have not yet commenced. The site context and site location are displayed in **Figures 1 and 2** below. An aerial photograph of the site is displayed at **Figure 3**.



Figure 1: Site Location (source: Explore Australia Publishing)

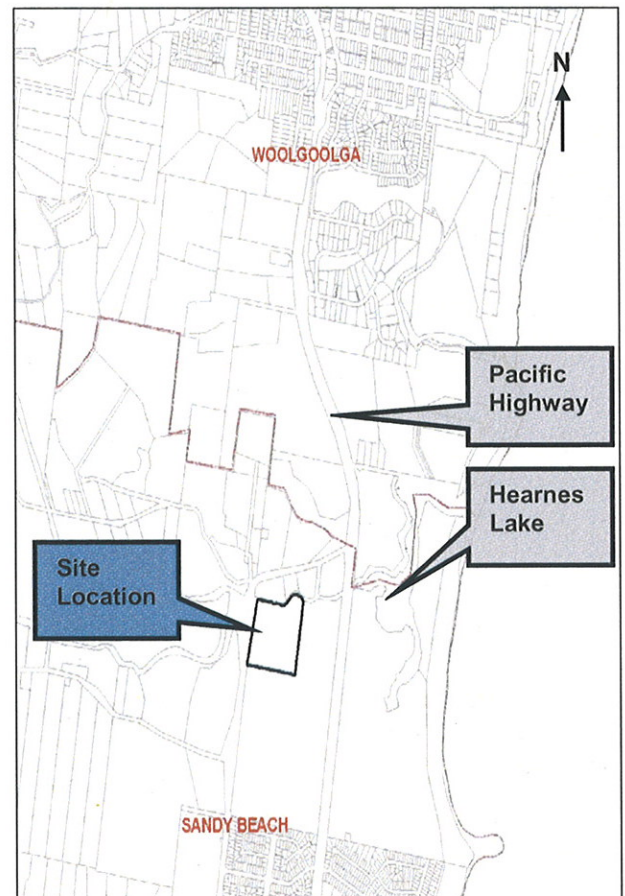


Figure 2: Site Context (source: Environmental Assessment)





Figure 3: Ariel View of the Site (source: Environmental Assessment)

### 1.1.2 Existing Site Features

The majority of the site is cleared of any significant vegetation, with the exception of riparian vegetation along the edge of Double Crossing Creek to the north. This vegetation provides a riparian corridor between fragmented forest habitats to the east and west of the site. The site topography is relatively flat with a gentle to moderate slope on the north-eastern portion of the site sloping towards the south-west. The site formally contained a sawmill which has since been demolished. **Figures 4 and 5** below are photographs taken of the site. It is evident from these photographs the site does not contain any significant vegetation cover, other than the vegetation contained alongside Double Crossing Creek. The structures located in **Figures 4 and 5** have since been demolished. **Figure 6** below is a photograph of Double Crossing Creek which is situated alongside the northern site boundary with associated riparian vegetation on either side of the creek.





Figure 4: Subject site looking towards the west (source: Flood Assessment, GHD Pty Ltd)



Figure 5: Subject site looking towards the south-east (source: Flood Assessment, GHD Pty Ltd)



Figure 6: Double Crossing Creek (source: Flood Assessment, GHD Pty Ltd)



## 2. PROPOSED PROJECT

### 2.1 PROJECT DESCRIPTION

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

- 40 Torrens title residential lots;
- revegetation and rehabilitation works along Double Crossing Creek;
- a public reserve;
- a stormwater detention basin;
- recreation facilities;
- internal road network; and
- associated infrastructure works, including connection to reticulated services (water, sewerage and telecommunications).

#### 2.1.1 Subdivision of Land and Road Network Layout

The site is proposed to be subdivided into 40 Torrens title residential lots ranging in size from between 500m<sup>2</sup> and 800m<sup>2</sup> and forms Stage 2 of the Sandy Beach Mill residential estate. The lots will be arranged in a grid-type configuration, consistent with the layout of the adjoining Stage 1 to the south. The proposed road network will connect to the approved Stage 1 road network at four locations. An 18m wide perimeter road will provide access to the majority of proposed lots. A 20m wide road running in a north-south direction through the centre of the site will provide access to proposed lots 38-41 and 46-49. The proposal will be serviced by reticulated sewer and water connected from the approved Stage 1 development. **Figure 7** below illustrates the proposed subdivision and road network layout.

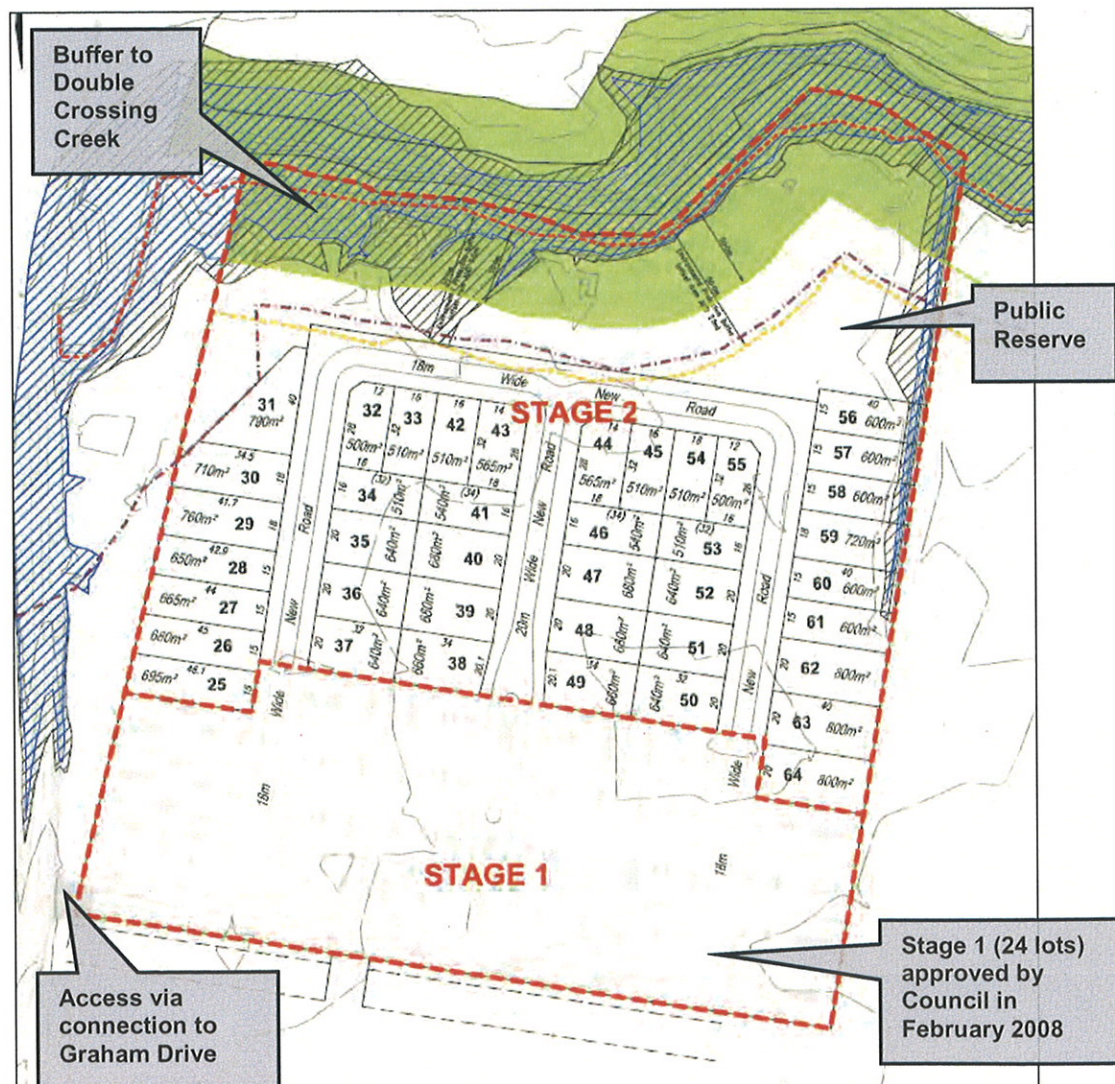


Figure 7: Proposed Subdivision and Road Network Layout (source: Preferred Project Report)



### 2.1.2 Public Reserve and Revegetation Works along Double Crossing Creek

A public reserve is to be established within the northern portion of the site alongside Double Crossing Creek. A park containing playground equipment, picnic shelters, seating and barbeque is proposed within the reserve at the north-eastern corner of the site. A pedestrian cycleway will be constructed through the public reserve and alongside the creek. A detention basin to deal with on-site stormwater flows will also be constructed within the reserve alongside the site's western boundary. **Figure 8** below illustrates the public reserve as proposed.



Figure 8: Public reserve within the northern portion of the subject site (source: Preferred Project Report)

A 30m wide vegetated buffer is to be established between the public reserve and Double Crossing Creek. Within this buffer area, the Proponent is to provide replanting and maintenance of native flora species. Rehabilitation measures will involve the removal of weeds, bank stabilisation, and the introduction of native riparian vegetation. Upon completion of rehabilitation and revegetation works, the public reserve and park will be dedicated to Council.

## 2.2 PROJECT NEED AND JUSTIFICATION

The proposal is justified as it provides Sandy Beach and the wider Coffs Harbour LGA with economic, social and environmental benefits. The proposal will promote growth within the region by providing an additional 40 residential lots for the Sandy Beach district in close proximity to essential services including health facilities, educational and recreational establishments, which are located at both Woolgoolga to the north and Coffs Harbour to the south. The proposal also provides an environmental benefit through revegetation and rehabilitation works to be carried out at along the banks of Double Crossing Creek; and social benefits through the creation of a public reserve with associated recreational facilities including cycleways, playground equipment, picnic shelters and barbeque.

## 2.3 PROJECT AMENDMENTS

The project application has been amended on one occasion:

- On 15 July 2010, the Proponent submitted a Preferred Project Report (PPR). The PPR outlined a number of amendments to the proposal originally submitted to the Department. The amendments include:
  - the exclusion of any subdivision of land within the Environmental Protection 7A Habitat and Catchment Zone;
  - a reduction in the total number of lots from 42 to 40 in total;
  - minor reconfiguration of the subdivision layout including an increase in size of those lots fronting the public reserve;
  - minor reconfiguration of the road network layout, including removal of the east-west access laneway;
  - removal of the central road swale;
  - an increase in the overall size of the bioretention basin; and,
  - removal of a proposed footbridge over Double Crossing Creek.



### 3. STATUTORY CONTEXT

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#### 3.1 MAJOR PROJECT

The proposal was declared a project to which Part 3A applies under the *State Environmental Planning Policy (Major Projects) 2005* (Major Projects SEPP) (as in force at the time) as it is for subdivision for residential purposes into more than 25 lots within the coastal zone (Schedule 2, clause 1(1)(j)(i)). Therefore the Minister for Planning is the approval authority.

#### 3.2 STATEMENT OF COMPLIANCE

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

#### 3.3 ZONING AND PERMISSIBILITY

Under the *Coffs Harbour City Local Environmental Plan 2000* (Coffs Harbour LEP), the site is predominately zoned Residential 2E Tourist Zone (2E Zone) and part Environmental Protection 7A Habitat and Catchment (7A Zone).

The objectives of the 2E Zone are to enable tourist development and other development that is compatible with the surrounding environment; and to provide for development that is within the environmental capacity of a high density residential environment and can be adequately serviced. The subdivision of land within the 2E Zone is permissible with development consent.

The objectives of the 7A Zone are to protect habitat values and water quality and enable development which does not adversely impact on these; and to enable development that is within the environmental capacity of the land and can be adequately serviced. The subdivision of land for residential purposes within the 7A Zone is permissible with development consent.

The Department is satisfied that the proposed subdivision of land is appropriate in the 2E Zone and is sympathetic to the environmental characteristics of the 7A Zone.

It is noted that draft Local Environmental Plan amendment No. 29 proposes to rezone the site to Residential 2A Low Density (2A Zone). The 2A Zone will replace the current 2E zoning, while the 7A zoning will remain unchanged. The objectives of the 2A Zone are to enable housing development that is compatible with a low density residential environment; that is within the environmental capacity of the site; and can be adequately serviced. At the time of writing, the proposed rezoning was yet to be gazetted.

#### 3.4 ENVIRONMENTAL PLANNING INSTRUMENTS

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

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

#### 3.5 OBJECTS OF THE ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

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

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

The proposal is considered to be consistent with the objects of the Act as listed above. The Proponent is committed to conserving the natural environment both within and surrounding the site by committing to revegetation and rehabilitation works alongside Double Crossing Creek. The proposal is also expected to provide a positive impact to the social and economic welfare of the Sandy Beach locality by means of providing additional land for residential housing development and providing opportunities for employment during construction. The development as proposed is considered to be both economically and ecologically sustainable, and is in accordance with the relevant objects set out in Section 5 of the EP&A Act.

### **3.6 ECOLOGICALLY SUSTAINABLE DEVELOPMENT PRINCIPLES**

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

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

Of particular relevance to this environmental assessment, the precautionary principle has been applied in the decision making process via a thorough and rigorous assessment of the environmental impacts of the project, particularly impacts on Double Crossing Creek and nearby Hearn's Lake. The evaluation of environmental impacts is confirmed by studies, surveys and reports undertaken and prepared by qualified professionals. These reports have in turn been distributed to relevant agencies and other persons qualified to assess and comment on the adequacy of the conclusions and recommendations contained within.

The Department has considered the principles of ESD and considers that the project is consistent with these principles. Further assessment of the consistency of the project with the principles of ESD is contained within **Section 5** of the report.

### **3.7 NSW STATE PLAN**

The NSW State Plan is a vision for the future of New South Wales with specific priorities and targets to be delivered by the NSW Government. The proposal contributes to priorities of the NSW State Plan by providing jobs during construction of the development; and by contributing to housing affordability in the Coffs Harbour local government area.

### **3.8 MID NORTH COAST REGIONAL STRATEGY 2006**

The Mid North Coast Regional Strategy (the strategy) provides the framework in order to balance competing considerations of the region in a sustainable manner over a 25 year timeframe (2006 - 2031). The strategy outlines a planned approach to appropriately deliver land for residential housing and jobs growth; while at the same time protecting areas of high environmental and conservation value. Sandy Beach is identified in the strategy as a future growth area within the Coffs Harbour region. The proposal is consistent with the objectives of the strategy as it provides for ecologically sustainable development within an identified growth area.



## 4. CONSULTATION AND SUBMISSIONS

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### 4.1 EXHIBITION

The Environmental Assessment (EA) for the project was publicly exhibited in accordance with section 75(H) of the EP&A Act for a period of 33 days from 24 September 2009 until 26 October 2009. The EA was made available for the public at four exhibition locations and on the Department's website. Notification of the exhibition, including instructions on how to make a submission was circulated in the Public Notices section of The Coffs Harbour Independent and The Coffs Coast Advocate. The exhibition locations were:

- The Department of Planning – Information Centre, Bridge Street, Sydney;
- The Department of Planning – Grafton Regional Office, 76 Victoria Street, Grafton;
- Coffs Harbour City Council – Administration Building, Corner of Coff and Castle Streets, Coffs Harbour; and,
- The Nature Conservation Council of NSW – Level 2, 301 Kent Street, Sydney

Letters were sent to all adjoining and nearby landowners notifying of the exhibition and inviting a submission. A total of four public submissions were received during exhibition.

A Preferred Project Report (PPR) was lodged on 15 July 2010. As the changes to the nature of the project were not considered to be significant, the proposal was not be re-exhibited. It was however made available to the public on the Department's website.

### 4.2 PUBLIC SUBMISSIONS

The Department received a total of four submissions from the public. Of these, three objected to the proposal and one was in support. The issues raised by the public included:

- Impacts on the Hearn Lake ecosystem.
- Impacts on existing Koala Habitat.
- Consideration of flooding and inundation as a result of climate change, including sea level rise and increased rainfall.
- Location of the site in a bushfire prone area.
- Lack of infrastructure and community services at Sandy Beach.

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

### 4.3 PUBLIC AUTHORITY SUBMISSIONS

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

- Coffs Harbour City Council;
- Department of Environment and Climate Change and Water;
- Land and Property Management Authority;
- NSW Office of Water;
- Northern Rivers Catchment Management Authority;
- Department of Industry and Investment;
- NSW Rural Fire Service; and,
- Roads and Traffic Authority.

The details of issues raised by public authorities have been summarised below in **Sections 4.3.1 to 4.3.8**.

Issues raised in the public and agency submissions have been address in the Proponent's PPR. The issues are also discussed in further detail in **Section 5.0**, or are addressed through the recommended conditions of approval.

#### **4.3.1 Coffs Harbour City Council**

Coffs Harbour City Council (Council) provided a detailed submission in relation to the proposal. The key issues included:

- A recommendation to provide long-term protection, maintenance and enhancement of wildlife corridor functions, riparian buffers, and terrestrial and aquatic habitats.
- The proposal does not provide adequate long-term protection of habitat values within the 7A zone.
- The riparian zone along Double Crossing Creek has been mapped by Council as a local wildlife corridor. Without further revegetation and protection of the 7A zone, the proposal could have negative cumulative impacts on the remaining wildlife corridor function of the locality.
- The proposal should comply with the requirements and strategies of the Hearnese Lake / Sandy Beach Development Control Plan (DCP), including requirements related to bushfire hazard management and the location of development in proximity to any Osprey nest.
- Bushfire asset protection zones (APZ) should be excluded from areas designated for environmental protection.
- Revegetation of the entire 50m wide riparian buffer along Double Crossing Creek is recommended.
- The subdivision layout should have regard to development of adjoining land, including development of the 2A zoned strip of land situated east of and adjoining the site.
- Consideration should be given to the impacts of increased rainfall intensities as a climate change impact.
- Connection to existing services is reliant upon services being extended from the adjoining lot to the south.
- The central swale is not supported due to maintenance, property access, drainage difficulties and pavement failure considerations. Revised stormwater modelling is required to take into account the deletion of the central swale.
- Reconfiguration of Lot 31 is recommended to exclude the 7A zoned area.
- Access to Lots 42 and 43 make no provision for service vehicle access.
- Access to Lots 32 – 41 from the north should be denied to allow for on-street car parking.
- Access to Lots 25 – 29 from Graham Drive should be denied.
- The proposed playground is supported, but not within the creek buffer zone.
- The vegetation management plan needs to include a 5 year maintenance schedule and cover the Graham Drive road reserve area.

#### **4.3.2 Department of Environment, Climate Change and Water**

Key issues raised by the Department of Environment, Climate Change and Water (DECCW) include:

- The flora and fauna reports do not contain sufficient information to adequately assess the potential impacts on terrestrial flora and fauna.
- The fauna report is derived from recorded and predicted data. Species actually recorded on the site were not distinguished.
- The Wallum Froglet species was not considered in the assessment of significance.
- The flora survey indicated that transects were undertaken, but does not provide details of their locations.
- The management of long term biodiversity values of the public land be addressed.
- Evidence of Aboriginal community consultation should be provided prior to determination.
- It is recommended the precautionary principle is applied in terms of climate change and potential impacts such as increased sea level rise, intense storms events, and flooding.
- Stormwater management should utilise best possible practices to ensure nutrient stress within Hearnese Lake is minimised and there is no further reduction of water quality within this sensitive coastal lake catchment. It is recommended the Statement of Commitments utilise best possible practice technologies for the design construction and maintenance of stormwater and groundwater.



#### **4.3.3 Land and Property Management Authority**

Key issues raised by the Land and Property Management Authority (LMPA) include;

- The establishment of a minimum 50m wide buffer to Double Crossing Creek is supported.
- The placement of a bioretention within the 50m buffer is inconsistent with provisions of the Hearn's Lake Estuary Management Plan and the Hearn's Lake / Sandy Beach DCP. Relocation of the bioretention basin outside of the 50m buffer zone is supported.
- The construction of a stormwater swale within the road reserve is not supported.
- A licence from LMPA will be required if any part of the proposed pedestrian footbridge is situated on Crown land.
- It is recommended those trees adjacent to future lots 43-51 be retained and their management be incorporated into the Vegetation Management Plan.
- It is recommended a targeted survey be undertaken for the Wallum Froglet species by an experienced and qualified ecologist prior to the commencement of any earthworks.
- It is recommended the Proponent consider measures to limit the encroachment of feral and domestic cats within sensitive habitats adjacent to the site.

#### **4.3.4 NSW Office of Water**

Key issues raised by the NSW Office of Water include;

- The Proponent currently has a Controlled Activity Approval (CAA) under the *Water Management Act 2000* which expires in October 2011. The CAA does not cover the construction of a new footbridge over Double Crossing Creek. Works involving the construction of a new footbridge within 40m of a watercourse should be consistent with State policies and guidelines.
- The buffer between the proposed development and Double Crossing Creek is supported. However, it is recommended that APZs are located outside of the buffer.
- Monitoring of groundwater conditions should be undertaken on a more regular basis to determine whether site remediation is working.
- The bioretention basin should be constructed above the watertable and lined with impermeable material. All works that intersect the watertable require a licence under the *Water Act (1912)*.
- Given the site location within the sensitive catchment of Hearn's Lake, containment and appropriate treatment of stormwater runoff is important in reducing nutrient and sediment levels in the lake. The Hearn's Lake / Sandy Beach DCP outlines appropriate stormwater management and water quality targets for the area.
- The site is to be appropriately remediated prior to construction works to ensure any runoff from the site meet the relevant policies and guidelines.
- Stormwater structures require a monitoring and maintenance program to ensure effective operation.
- Concern is raised about potential effects of disturbed acid sulfate soils on groundwater quality.

#### **4.3.5 Northern Rivers Catchment Management Authority**

The Northern Rivers Catchment Management Authority recommended a more passive approach to rehabilitation of Double Crossing Creek to ensure the retention of native species and the removal of weeds to be carried out by qualified bush regenerators. It was also recommended that where the riparian zone is less than 10m wide that it be increased to a minimum 10m on each side of the creek to ensure this minimum length is retained the entire length of Double Crossing Creek.

#### **4.3.6 Department of Industry and Investment**

The Department of Industry and Investment were generally supportive of the proposal. The proposed buffer area between the development and Double Crossing Creek was endorsed; and the concept vegetation management plan for rehabilitation of this buffer area supported. It was requested these aspects of the development are reflected in the final conditions of approval.

#### **4.3.7 NSW Rural Fire Service**

The NSW Rural Fire Service advised that the proposal is to comply with the requirements of *Planning for Bushfire Protection 2006*. It was also recommended that APZs for Lots 42 and 43 be investigated to ensure appropriate protection from remnant vegetation adjoining the lots to the north; and that landscaping and revegetation surrounding the site does not constitute a bushfire threat.

#### **4.3.8 Roads and Traffic Authority**

The Roads and Traffic Authority (RTA) advised that there whilst there were no objections to the proposed development, the Proponent is responsible for providing noise attenuation measures in accordance with the Environmental Protection Authority's Environmental Criteria for Road Traffic Noise.



## 5. ASSESSMENT

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

- Subdivision Design and Layout
- Impacts on Biodiversity
- Rehabilitation of Double Crossing Creek Riparian Corridor
- Other Issues
  - Flooding and Climate Change
  - Bushfire Hazard
  - Site Contamination and Acid Sulfate Soils
  - Road Traffic Noise
  - Cultural Heritage
- Section 94 Contributions

### 5.1 SUBDIVISION DESIGN AND LAYOUT

The subdivision layout as presented in the Proponent's Environmental Assessment (EA) consisted of 42 residential lots, which included the subdivision of land within the Environmental Protection 7A Habitat and Catchment (7A Zone). In accordance with the *Coffs Harbour Local Environmental Plan 2000*, a 40ha minimum lot size is required for the subdivision of land within the 7A Zone.

Proposed lots 29 and 31 (815m<sup>2</sup> and 1360m<sup>2</sup> respectively) were partly contained within the 7A Zone and were well below the required minimum lot size. The Department therefore recommended that the subdivision layout be redesigned to avoid the subdivision of land and subsequent development within the 7A Zone. Coffs Harbour City Council (Council) also raised concern that proposed lot 31 comprised land zoned 7A and that this therefore limited the ability to establish an acceptable riparian buffer distance between any development and Double Crossing Creek to the north. Council's recommendation was also to exclude any subdivision of land within the 7A Zone.

The Department considered that the ten lots fronting the public reserve (proposed lots 32-41) should be redesigned as the northern sector of the site appeared to be over-developed. The over-development could potentially create an environmental hazard to the adjoining public reserve and Double Crossing Creek in the form of increased stormwater runoff and pollutants being directed towards the creek and an increased risk of weed infestation.

Council also noted that the central road swale is not supported due to issues associated with maintenance, property access, drainage difficulties and pavement failure considerations. **Figure 9** below illustrates the subdivision layout as proposed at the time of public exhibition.

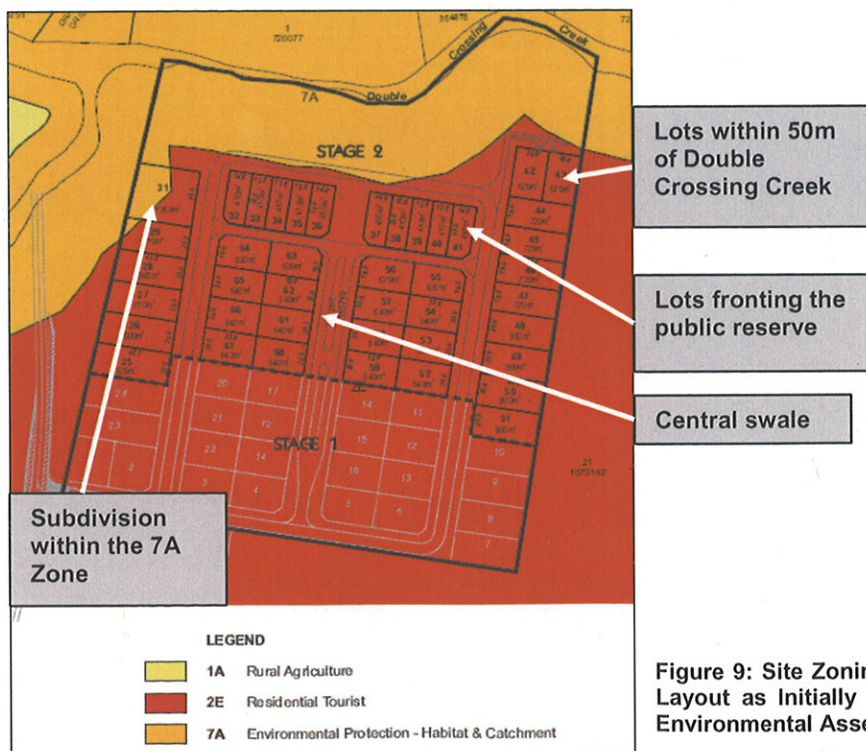
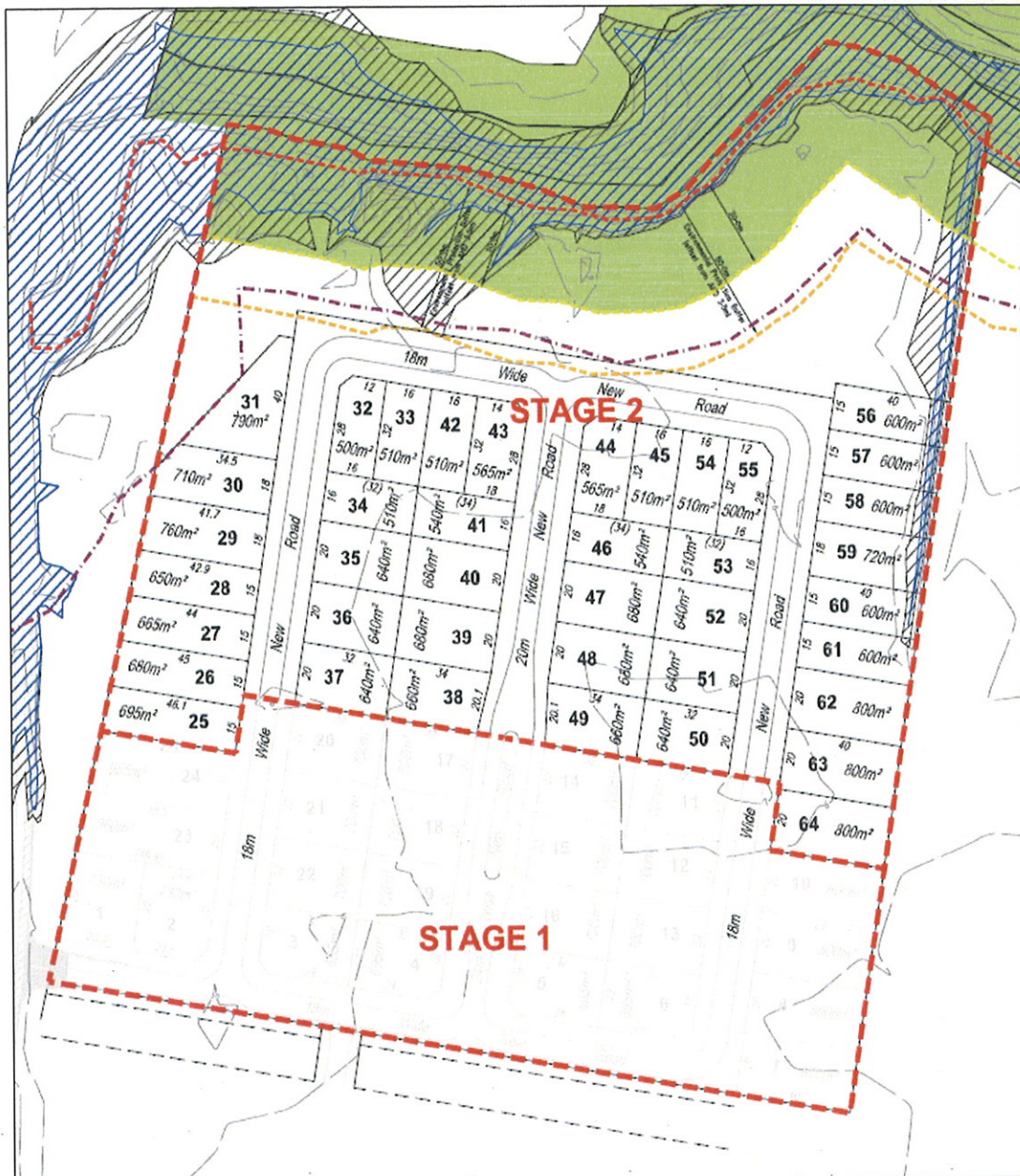


Figure 9: Site Zoning and Subdivision Layout as Initially Proposed (source: Environmental Assessment)



In response to the issues raised by the Department and Council, the Proponent presented a modified subdivision layout in the Preferred Project Report (PPR). The revised layout reduced the total number of lots from 42 to 40 in total, and excluded any subdivision of land within the 7A Zone. The ten lots fronting the public reserve have been reduced to eight lots in total; and proposed lots 42 and 43 have been removed in order to maintain a 50m buffer between any development on the site and Double Crossing Creek. The central road swale has also been removed and a stormwater detention basin is to be constructed within the public reserve to deal with predicted stormwater flows. The revised subdivision layout is displayed in **Figure 10** below.



**Figure 10: Site Zoning and Subdivision Layout as Proposed (source: Preferred Project Report)**

The revised lot layout now excludes any subdivision of land within the 7A Zone, and a 50m buffer between any physical development and Double Crossing Creek is maintained. Council confirmed in their submission that the PPR satisfactorily addresses the concerns raised. The Department considers the revised subdivision design and layout as a beneficial outcome for the site and one which will help preserve sensitive environmental features along the northern site boundary.



## 5.2 IMPACTS ON BIODIVERSITY

The subject site is located in close proximity to Hearn's Lake - an area of significant biodiversity value. The Proponent engaged Peter Parker Environmental Consultants Pty Ltd to undertake a Flora and Fauna Assessment of the site – this is included at Appendix G of the EA. The flora and fauna assessment found that no threatened plant species were located or considered likely to occur within the development footprint as a result of previous land clearing activities and disturbances. In regards to threatened fauna species, it was noted that a number of threatened species are known to occur within the vicinity of the site; however no threatened species or threatened species habitat will be directly impacted upon by the proposal.

DECCW considered the flora and fauna assessment provided in the EA contained insufficient information to adequately assess the potential impacts of the development on terrestrial flora and fauna species. The Wallum Froglet (a listed vulnerable species under the NSW *Threatened Species Conservation Act 1995*) was not considered in the Proponent's assessment of significance. DECCW also noted that the conservation of biodiversity values within the public reserve area and riparian corridor in the longer term will require effective management measures as narrow corridor conservation areas are particularly vulnerable to edge effects and degradation; weed invasion; trampling; and habitat degradation and fragmentation.

Council also raised concern in relation to the site's biodiversity values, particularly in regards to the long-term protection and enhancement of habitat values contained within the 7A Zone; and maintenance of the riparian corridor alongside Double Crossing Creek.

In response to DECCW's concern about potential impacts on the Wallum Froglet species, the Proponent advised in the PPR that no Wallum Froglet species were recorded within the project area and that no suitable habitat for the species occurs within the site. Whilst it is acknowledged that the species had been recorded to the east of the site within an area of Wallum health habitat, the species was excluded from the 7 part test of significance as no suitable habitat is found within the development site itself.

The Department considers the area of the site earmarked for subdivision to have relatively low biodiversity value and that the subdivision of this land will not directly impact on any listed threatened flora or fauna species. However, Double Crossing Creek running alongside the northern site boundary and the associated riparian corridor are considered to be of biodiversity value, and protection of this area is essential. The Proponent has outlined in the Statement of Commitments a commitment to maintaining the health of Double Crossing Creek and the associated riparian corridor. The Proponent is to rehabilitate and revegetate this area in accordance with a Vegetation Management Plan (VMP). As part of the conditions of approval, the VMP is to be submitted to Council for approval prior to the issue of a construction certificate. The VMP and rehabilitation of the riparian corridor is discussed further in **Section 5.3** below.

## 5.3 REHABILITATION OF DOUBLE CROSSING CREEK RIPARIAN CORRIDOR

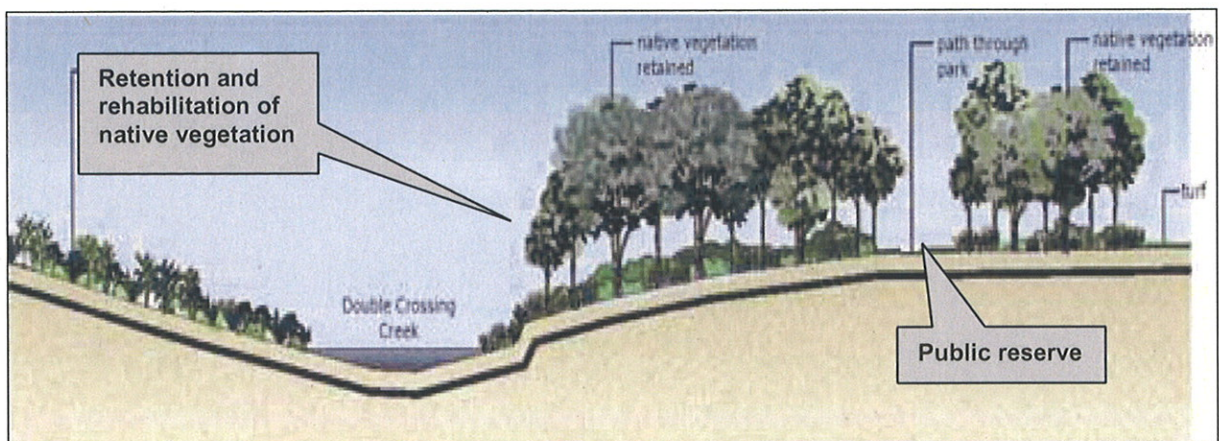
Double Crossing Creek borders the northern boundary of the site and is a tributary to Hearn's Lake which is located approximately 600m to the east. Council advised in their submission that the riparian vegetation located along the banks of the creek has been mapped by Council as a local wildlife corridor which currently provides a link between forest habitats west of the site with similarly isolated forests to the east. Council also noted that this riparian corridor is likely to provide for koala movements between fragments of secondary and tertiary koala habitat. Council raised concern that the functioning of this wildlife corridor would be affected by increased urban development in the area.

**Figure 11** shows the riparian vegetation situated alongside Double Crossing Creek.



**Figure 11: Double Crossing Creek and Associated Riparian Vegetation** (source: Flood Assessment, GHD Pty Ltd)

In order to maintain the functioning of this riparian vegetation as a wildlife corridor, the Proponent is to undertake measures to maintain and improve the existing vegetation communities along the banks of the creek. A Concept VMP prepared by the Proponent involves six strategies of rehabilitation to be undertaken and a list of revegetation species to be planted alongside the creek. Strategies include replanting and maintenance of native flora species, bank stabilisation works, and removal of weed growth. A 3 to 5 metre area of weed growth at the base of the creek is to be maintained in order to provide bank stability and act as a stormwater filter. A VMP is recommended for approval as part of the conditions of approval. Upon completion of the rehabilitation and revegetation works, this area of land is to be dedicated at no cost to Council. The Department considers that the VMP recommended for approval will assist in maintaining the existing riparian values along Double Crossing Creek. Council have reviewed the Proponent's PPR and advised the Department that the information contained within the PPR satisfactorily addresses Council's concerns. **Figure 12** below illustrates a cross-section of Double Crossing Creek and the public reserve as envisaged.



**Figure 12: Cross-Section of Double Crossing Creek and Public Reserve** (source: Environmental Assessment)

## 5.4 OTHER ISSUES

A number of other minor issues associated with the proposal were raised by various agencies and the public. These are discussed in further detail below.

### Flooding and Climate Change

Council raised the issue of potential climate change related impacts including an increase in rainfall intensity affecting existing flood levels at the site. The Proponent engaged GHD Pty Ltd to undertake a Flood Assessment. Historical records of Double Crossing Creek found no inundation or significant flood events of Graham Drive and the site area exist. A sensitivity analysis of different climate change scenarios including increased rainfall intensities and sea level rise was carried out in accordance with DECCW's *Practical Consideration of Climate Change 2007*.

The analysis found that for 20% and 30% increases in rainfall intensity, the 100-year ARI events surcharge the channel of Double Crossing Creek and inundate the site, though the anticipated depth and velocity of flows in these scenarios will combine to create a low hydraulic hazard.

Sea level rise is expected to affect water levels downstream of Hearn's Lake, including Double Crossing Creek. Upper bound sea level rise scenarios (0.91m) for Hearn's Lake were modelled with existing rainfall intensity. The resulting flood levels indicate that changes in lake levels will have only minor effects on existing flood levels at the subject site.

The Flood Assessment recommended six potential strategies to deal with future climate change related impacts (refer page 25 of the Flood Assessment which outlines the six strategies – Appendix H of the EA). The most appropriate strategy for the site, as outlined in GHD's assessment, is for the location of floor levels to be based on a high climate change scenario, with a freeboard of 0.5m.

The Department has recommended as part of the conditions of approval that all future habitable structures be constructed 0.5m above the 1 in 100 year level of a high climate change scenario.

### Bushfire Hazard

The site is identified as being within a bushfire prone area, in accordance with Council's Bushfire Prone Land Map. The Proponent engaged Holiday Coast Bushfire Solutions to carry out a bushfire hazard assessment in accordance with the requirements of *Planning for Bush Fire Protection 2006* (PFBP 2006) – refer Appendix J of the EA. Four recommendations were outlined in the report to ensure appropriate bushfire protection measures are maintained at the site. These include:

- Reticulated water supply to be easily accessible and located at regular intervals (in accordance with Table 2 of PFBP 2006).
- Public roads are designed to allow for safe access for firefighters while residents are evacuating an area; are sufficient to carry fully loaded firefighting vehicles; and, are clearly sign-posted (in accordance with Table 3 of PFBP 2006).
- Vegetation management over vacant allotments is to be carried out by the property owner, in accordance with Appendix A of the Bushfire Hazard Assessment Report, dated 11 June 2009.
- Construction requirements of future dwellings are to comply with Figure 1 of the amended Bushfire Hazard Assessment report, dated 17 June 2010 (provided with the PPR). Refer **Figure 13** below.



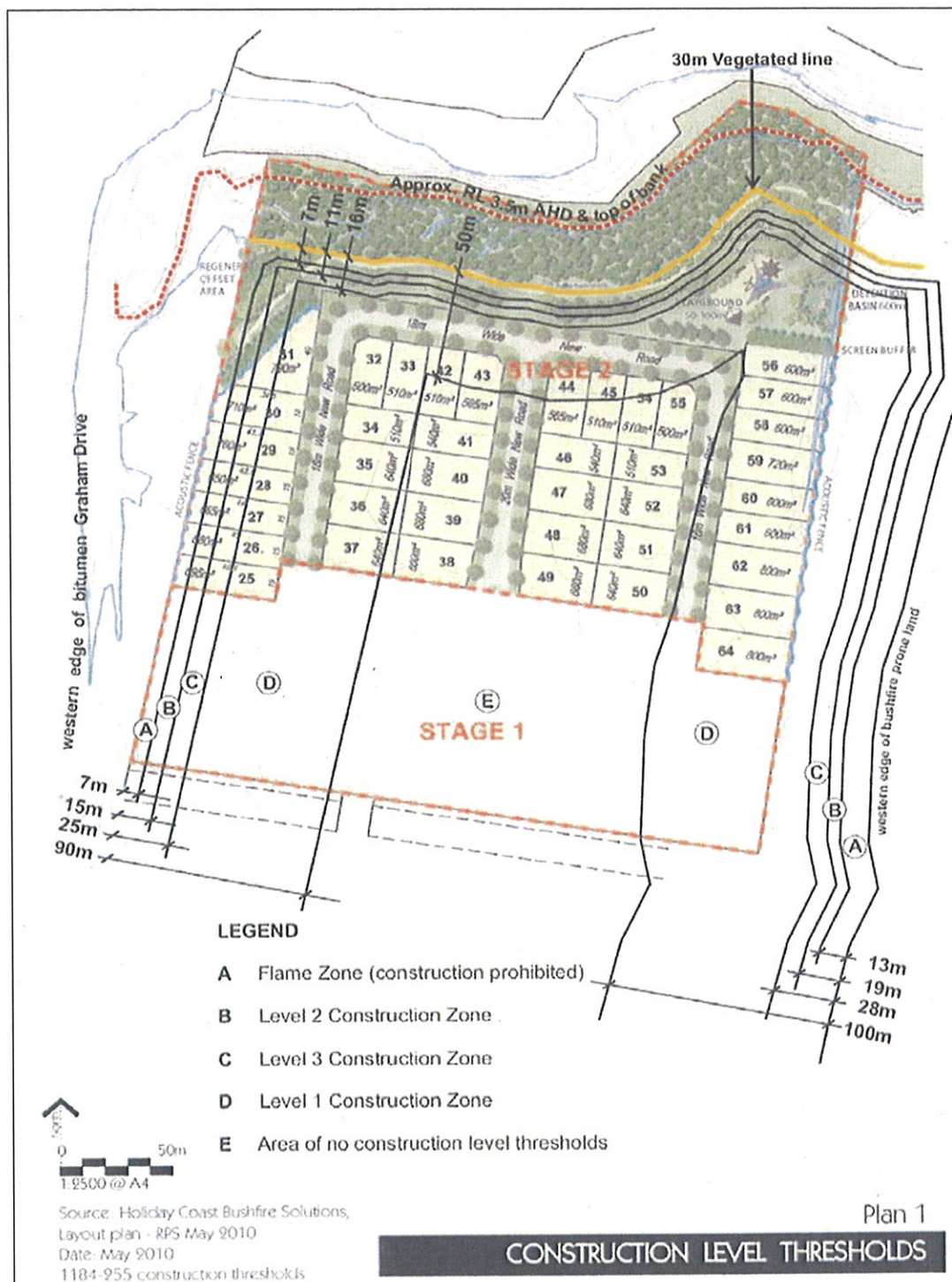


Figure 13: Construction Level Thresholds (source: Holiday Coast Bushfire Solutions)

In accordance with **Figure 13**, construction within 7m of the rear boundary for proposed lots 25 to 30 is prohibited as this area is within a designated flame zone. Construction on these lots will require level 3 construction thresholds as a minimum. Proposed lots 32 to 37 and 56 to 64 will require level 1 construction thresholds. Proposed lots 38 to 41 and 46 to 53 are not bound by any construction level thresholds as they are located at least 100m from bushfire prone land.

The NSW Rural Fire Service (RFS) were referred a copy of the PPR. No concerns were raised by the RFS, however a number of requirements for bushfire management and protection were provided. These included asset protection zones, roads, water supply, landscaping, and the construction of future dwellings be in accordance with PFBP 2006. These recommendations and the construction level thresholds as outlined in **Figure 13** above are reflected in the recommended conditions of approval.

### Site Contamination and Acid Sulfate Soils

A sawmill was formerly located towards the north eastern boundary of the site, and a concrete batching plant was also formally located on adjoining Lot 1 DP726077 to the north. Given the potential risk of site contamination, the Proponent engaged Coffey Geotechnics Pty Ltd to undertake an Environmental Site Assessment (ESA). The objectives of the ESA were to assess the site with respect to soil contamination; acid sulfate soils (ASS); and, impacts on groundwater. A Phase 1 ESA has previously been carried out by Coffey Geotechnics for proposed Stages 1 and 2. The Phase 2 ESA and Remediation Action Plan were provided as part of the EA.

A number of Areas of Environmental Concern (AEC) were identified following field investigations and laboratory testing of on-site soils. A total of six AEC's were identified across the site at locations which formally contained sheds, existing residences, or areas of filled material. Following testing of soils from the identified AEC's, the ESA noted that the Stage 2 development area is currently unsuitable for residential use with regards to soil contamination. However, it was also noted that should the recommendations contained within the report be carried out, the site would likely be suitable for residential use. The recommended conditions of approval require the Proponent to prepare a Remedial Action Plan and Hazardous Materials Survey in accordance with the recommendations contained in the ESA.

In regards to ASS, the majority of the site was found to contain a low probability of ASS present. However, a small portion of the site towards the south-eastern boundary was found to contain an area of high probability of ASS within or at 1m of the ground surface. The ESA states that the alluvial soils within the area defined as "high probability of ASS within 1m of ground surface" are unlikely to be actual or potential ASS, however, treatment of this area as a precautionary measure should be carried out. The recommended conditions of approval require a detailed ASS Management Plan for the entire site to be prepared in accordance with the relevant guidelines and the ESA.

The Department considers the issues associated with soil contamination and ASS to be appropriately addressed through the recommended conditions of approval.

### Road Traffic Noise

An acoustic assessment was conducted for Stage 1 of the Sandy Beach Mill residential estate by Atkins Acoustics – refer Appendix L of the EA. The site is exposed to potential road traffic noise from the Pacific Highway to the east of the site, and Graham Drive to the west. The findings of the noise modelling and assessment for Stage 1 have shown that noise mitigation measures would be required for dwellings constructed adjacent to the eastern and western site boundaries of Stage 1. The extent of noise mitigation measures to be implemented would be dependent on the location of lots, finished floor levels, and building design, etc.

For Stage 2, proposed lots 25 to 31 on the eastern boundary; and proposed lots 56 to 64 on the western boundary will be subject to acoustic controls for future housing due to their proximity to the Pacific Highway and Graham Drive; and must be in accordance with appropriate noise levels as outlined under clause 102(3) of *State Environmental Planning Policy (Infrastructure) 2007*. This has been included as part of the recommended conditions of approval. Also as part of the recommended conditions of approval, a revised acoustic assessment is required to be prepared by an appropriately qualified acoustic consultant prior to the issue of a construction certificate for any lot. The acoustic assessment will be required to consider road traffic noise generated from the Road and Traffic Authority's Sapphire to Woolgoolga Pacific Highway upgrade project.

### Cultural Heritage

The Proponent engaged Davies Heritage Consultants Pty Ltd to undertake a Preliminary Cultural Heritage Assessment of the northern portion of Lot 260 DP1110719. An assessment of both indigenous and non-indigenous cultural heritage values was undertaken.

The assessment found that the terrain within the project area is considered to be of low archaeological potential, and that previous land-use activities would have severely impacted upon any significant archaeological sites. Both the Coffs Harbour & District Local Aboriginal Land Council and the Yarrowarra Aboriginal Corporation were consulted as part of the cultural heritage assessment. Both groups provided correspondence in relation to the proposal and advised that the site did not contain areas of cultural significance and is unlikely to contain any Aboriginal cultural objects.

The DECCW provided conditions of approval to protect Aboriginal cultural objects and human remains should they be located during construction activities at the site. The Department has included these as recommended conditions of approval.

## **5.6 SECTION 94 CONTRIBUTIONS**

The Proponent is required to contribute \$13,311.65 per lot – amounting to \$532,466.00 in total towards Section 94 contributions, as outlined in the recommended conditions of approval. The contributions are payable to Council and are imposed under the following contribution plans:

- Regional, District & Neighbourhood Facilities & Services Plan 2008;
- Coffs Harbour Road Network Developer Contributions Plan 2008;
- Surf Rescue Equipment Developer Contributions Plan 2008; and,
- Hearn's Lake Release Area Contributions Plan 2008.



## 6. RECOMMENDATION

The Department has assessed the proposal on its merits and considered the submissions received during the public exhibition period. The key issues raised in the submissions were in relation to subdivision design and layout; impacts on biodiversity; rehabilitation of Double Crossing Creek riparian corridor; and other issues associated with flooding and climate change, potential bushfire hazard, site contamination and acid sulfate soils, road traffic noise, and cultural heritage. The Department has considered the issues associated with the project and a number of conditions are recommended in conjunction with the Proponent's Statement of Commitments to ensure any detrimental impacts of the proposal are avoided or appropriately mitigated.

The project will provide for:

- the creation of an additional 40 residential lots within the Coffs Harbour local government area;
- rehabilitation and revegetation works along the banks of Double Crossing Creek; and,
- the creation of a public reserve to be dedicated to Council incorporating public facilities such as a children's playground, seating and barbeque/picnic area.

Furthermore, the project has largely demonstrated consistency with applicable environmental planning instruments, including the *Mid North Coast Regional Strategy 2006* and the *NSW State Plan*. On these grounds, the Department considers the site suitable for the proposed development, and is in the public interest. Consequently, the Department recommends that the project be approved, subject to conditions of approval and the Proponent's Statement of Commitments.

Prepared by:



Brent Devine  
Environmental Planner  
Regional Projects

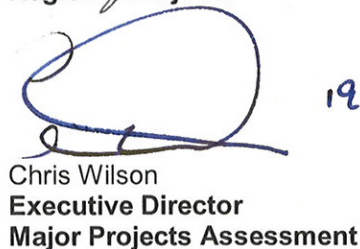
Endorsed by:



Joanna Bakopanos  
Team Leader  
Regional Projects



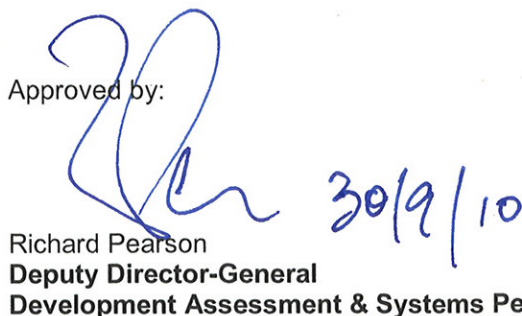
Alan Bright  
A/Director  
Regional Projects



Chris Wilson  
Executive Director  
Major Projects Assessment

19.9.10

Approved by:



Richard Pearson  
Deputy Director-General  
Development Assessment & Systems Performance

## **APPENDIX A      ENVIRONMENTAL ASSESSMENT**

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

## **APPENDIX B      RESPONSE TO SUBMISSIONS / PREFERRED PROJECT REPORT**

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



## **APPENDIX C ENVIRONMENTAL PLANNING INSTRUMENTS**

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### **STATE ENVIRONMENTAL PLANNING POLICIES**

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

- **State Environmental Planning Policy No. 71 – Coastal Protection**

*State Environmental Planning Policy 71 – Coastal Protection* (SEPP 71 – Coastal Protection) applies to land within the coastal zone. It aims to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast. The provisions of SEPP 71 – Coastal Protection have been considered in the assessment of the proposal, including measures to protect existing wildlife corridors and the impacts of development on these corridors; and, measures to reduce the likely impacts of development on the water quality of coastal waterbodies. The Department considers the proposal adequately addresses the provisions of the SEPP.

- **State Environmental Planning Policy (Infrastructure) 2007**

*State Environmental Planning Policy (Infrastructure) 2007* (Infrastructure SEPP) aims to facilitate the effective delivery of infrastructure across New South Wales through a consistent planning regime for infrastructure and the provision of services. Of particular relevance to this proposal is the impact of road traffic noise on future residential areas. Appropriate road traffic noise levels experienced in future residential areas are outlined in the Infrastructure SEPP.

### **OTHER ENVIRONMENTAL PLANNING INSTRUMENTS & POLICIES**

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

- **North Coast Regional Environmental Plan**

The North Coast Regional Environmental Plan (North Coast REP) provides a framework for policy preparation for the North Coast region and specifies objectives for the future planning and development of land throughout the NSW north coast. The proposal is generally consistent with the provisions of the North Coast REP, in particular the objectives of Part 4 – Urban development, which aims to:

- (a) provide for the orderly and economic release of urban land and identify growth centres; and,
- (b) promote the efficient commercial functioning of sub-regional and district centres.

- **Mid North Coast Regional Strategy 2006**

The Mid North Coast Regional Strategy (the strategy) provides the framework in order to balance competing considerations of the region in a sustainable manner over a 25 year timeframe. The strategy outlines a planned approach to appropriately deliver land for residential housing and jobs growth; while at the same time protecting areas of high environmental and conservation value. Sandy Beach is identified in the strategy as a future growth area within the Coffs Harbour region. The proposal is consistent with the objectives of the strategy as it provides for ecologically sustainable development within an identified growth area.

- **NSW Coastal Policy 1997**

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

## APPENDIX D     DIRECTOR-GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

### Director-General's Environmental Assessment Requirements

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

<b>Application number</b>
08_0148
<b>Project</b>
43 lot residential subdivision and associated infrastructure
<b>Location</b>
Graham Drive, Sandy Beach (Lot 260 DP 1110719), Coffs Harbour LGA
<b>Proponent</b>
Sandy Beach Mill Pty Ltd
<b>Date issued</b>
23 January 2009
<b>General requirements</b>
<p>The Environmental Assessment (EA) for the <b>Project Application</b> must include:</p> <ol style="list-style-type: none"> <li>1. An executive summary;</li> <li>2. An outline of the scope of the project including: <ul style="list-style-type: none"> <li>• any development options;</li> <li>• justification for the project taking into consideration any environmental impacts of the project, the suitability of the site and whether the project is in the public interest;</li> <li>• outline of the staged implementation of the project if applicable;</li> </ul> </li> <li>3. A thorough site analysis including constraints mapping and description of the existing environment;</li> <li>4. Consideration of any relevant statutory and non-statutory provisions and identification of any non-compliances with such provisions, in particular relevant provisions arising from environmental planning instruments, Regional Strategies (including draft Regional Strategies) and Development Control Plans;</li> <li>5. Consideration of the consistency of the project with the objects of the <i>Environmental Planning and Assessment Act 1979</i>;</li> <li>6. Consideration of impacts, if any, on matters of National Environmental Significance under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>;</li> <li>7. An assessment of the potential impacts of the project and a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures to be implemented to minimise any potential impacts of the project;</li> <li>8. The plans and documents outlined in <b>Attachment 2</b>;</li> <li>9. A signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading; and</li> <li>10. An assessment of the key issues specified below and a table outlining where these key issues have been addressed.</li> </ol>

<b>Key Issues</b>	
The EA must address the following key issues:	
<b>1. Strategic Planning</b>	
1.1	Justify the proposal with reference to relevant local, regional and State planning strategies. Provide justification for any inconsistencies with these planning strategies.
1.2	Demonstrate suitability of the proposal having consideration for the <i>Draft Coffs Harbour City Council Local Environmental Plan Amendment No.29</i> and the <i>Hearnes Lake / Sandy Beach Development Control Plan</i> .
<b>2. Subdivision Design, Layout and Desired Future Character</b>	
2.1	Demonstrate the consistency of the proposal with the character of existing and proposed adjoining development in terms of the locality, street frontage, scale, building envelopes and future built form controls, aesthetics, energy and water efficiency and safety.
2.2	Demonstrate the consistency of the proposed subdivision design and layout with the <i>Coastal Design Guidelines for NSW</i> , <i>NSW Coastal Policy 1997</i> and <i>SEPP 71 – Coastal Protection</i> .
2.3	Demonstrate consistency with Development Consents DA 931/06, 1144/07 and DA 508/07 issued by Coffs Harbour City Council.
2.4	Identify the type of subdivision proposed across the site ie. community, Torrens, strata.
2.5	Provide details of potential building envelope, built form and design quality controls and the means for implementing them.
2.6	Provide details of any staging that demonstrates the lots will be released in an orderly and coordinated manner.
2.7	Outline the long-term management and maintenance of any areas of open space or conservation including ownership and control, dedication arrangements, management and maintenance funding, public access, revegetation and rehabilitation works and bushfire management.
<b>3. Visual Impact</b>	
3.1	Address the visual impact of the proposal in the context of surrounding development and relevant mitigation measures. In particular address impacts on the amenity of the foreshore, overshadowing of public reserves, loss of views from public places and cumulative impacts.
<b>4. Infrastructure Provision</b>	
4.1	Address existing capacity and requirements of the development for sewerage, water, electricity, waste disposal, telecommunications and gas in consultation with relevant agencies. Identify and describe staging, if any, of infrastructure works.
4.2	Address and provide the likely scope of any planning agreement and/or developer contributions with Council/ Government agencies.
<b>5. Traffic and Access</b>	
5.1	Prepare a traffic impact study in accordance with Table 2.1 of the RTA's Guide to Traffic Generating Developments having particular consideration for impacts on the Pacific Highway / Graham Drive intersections.
5.2	Protect existing public access to and along the coastal foreshore and provide, where appropriate, new opportunities for controlled public access. Consider access for the disabled, where appropriate.
5.3	Provide consideration for the RTA's Pacific Highway Planning Strategy.
<b>6. Hazard Management and Mitigation</b>	
<i>Coastal Processes</i>	
6.1	Address coastal hazards and the provisions of the <i>Coastline Management Manual</i> . In particular, consider impacts associated with wave and wind action, coastal erosion, sea level rise and more frequent and intense storms.
<i>Contamination</i>	



6.2	Provide a Preliminary Contamination Assessment, identifying any contamination on site and appropriate mitigation measures in accordance with the provisions of <i>SEPP 55 – Remediation of Land</i> .
<i>Acid Sulfate Soils</i>	
6.3	Identify the presence and extent of acid sulfate soils on the site and, where relevant, appropriate mitigation measures. Identify the need for an Acid Sulfate Management Plan (prepared in accordance with ASSMAC Guidelines).
<i>Bushfire</i>	
6.4	Address the requirements of Planning for Bush Fire Protection 2006 (RFS).
<i>Geotechnical</i>	
6.5	Provide an assessment of any geotechnical limitations that may occur on the site and if necessary, appropriate design considerations that address these limitations.
<i>Flooding</i>	
6.6	Provide an assessment of any flood risk on site (for the full range of floods including events greater than the design flood, up to probable maximum flood; and from coastal inundation, catchment based flooding or a combination of the two) and having consideration of any relevant provisions of the <i>NSW Floodplain Development Manual 2005</i> . The assessment should determine: the flood hazard in the area; address the impact of flooding on the proposed development, address the impact of the development (including filling) on flood behaviour of the site and adjacent lands; and address adequate egress and safety in a flood event.
6.7	Assess the potential impacts of sea level rise and an increase in rainfall intensity on the flood regime of the site and adjacent lands with consideration of <i>Practical Consideration of Climate Change – Floodplain Risk Management Guideline (DECC, October 2007)</i> .
<b>7. Water Cycle Management</b>	
7.1	Address and outline measures for Integrated Water Cycle Management (including stormwater) based on Water Sensitive Urban Design principles which addresses impacts on the surrounding environment, drainage and water quality controls for the catchment, and erosion and sedimentation controls at construction and operational stages.
7.2	Prepare a conceptual design layout plan for the preferred stormwater treatment train showing location, size and key functional elements of each part of the system.
7.3	Assess the impacts of the proposal on surface water hydrology and quality during both construction and occupation of the site.
7.4	Consider the nature and profile of the groundwater regime under the site, including any hydrologic impacts which would affect its depth or water quality, result in increased groundwater discharge, impact on the stability of potential acid sulfate soils in the vicinity, or affect groundwater dependent native vegetation.
<b>8. Heritage and Archaeology</b>	
8.1	Identify whether the site has significance to Aboriginal cultural heritage and identify appropriate measures to preserve any significance. The assessment must address the information and consultation requirements of the draft <i>Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation</i> (DEC 2005) and <i>Interim Community Consultation Requirements for Applicants</i> (DEC 2004)
8.2	Identify any items of non-indigenous heritage significance and, where relevant, provide measures for the conservation of such items.
<b>9. Flora and Fauna</b>	
9.1	Assess the potential impacts of the development on flora and fauna taking into consideration impacts on any threatened species, populations, endangered ecological communities and/or critical habitat and any relevant recovery plan in accordance with DECC's <i>Guidelines for Threatened Species Assessment</i> (2005), having particular consideration for impacts on the Osprey. Describe the actions that will be taken to avoid or mitigate impacts or compensate unavoidable impacts, where relevant.
9.2	Outline measures for the conservation of existing wildlife corridor values and/or connective importance of any vegetation on the subject land.
9.3	Address measures to protect and manage adjacent aquatic habitats including Double

Crossing Creek, including impacts due to increased recreational usage/visitation.	
<b>10. Noise</b>	
10.1	Address potential noise impacts, in particular road traffic noise, for future residents and appropriate mitigation measures.
<b>11. Riparian Corridor</b>	
11.1	Address potential impacts on the water quality and ecological integrity of Double Crossing Creek Hearn's Lake and its tidal tributaries.
11.2	Address measures to protect and manage the Double Crossing Creek riparian corridor, including the provision of appropriate buffers, having consideration for the Hearn's Lake Estuary Management Plan and the Hearn's Lake / Sandy Beach Development Control Plan.
11.3	Provide appropriate access to and along Double Crossing Creek.
11.4	Provision of design details of the Double Crossing Creek pedestrian footbridge having consideration for fish passage requirements.
<b>Consultation</b>	
<p>You should undertake an appropriate and justified level of consultation with the following agencies during the preparation of the environmental assessment:</p> <p>(a) <i>Agencies or other authorities:</i></p> <ul style="list-style-type: none"> <li>• Commonwealth Department of the Environment, Water, Heritage and the Arts;</li> <li>• Coffs Harbour City Council;</li> <li>• Department of Environment and Climate Change;</li> <li>• Department of Primary Industries;</li> <li>• NSW Rural Fire Service;</li> <li>• Department of Water and Energy;</li> <li>• Roads and Traffic Authority;</li> <li>• Department of Lands;</li> <li>• NSW Police Service;</li> <li>• State Emergency Service;</li> <li>• Northern Rivers Catchment Management Authority;</li> <li>• Solitary Marine Park Marine Park Authority;</li> <li>• Local Aboriginal Land Council/s and other Aboriginal community groups; and</li> <li>• Relevant infrastructure providers.</li> </ul> <p>(b) <i>Public:</i></p> <p>Document all community consultation undertaken to date or discuss the proposed strategy for undertaking community consultation. This should include any contingencies for addressing any issues arising from the community consultation and an effective communications strategy.</p> <p>The consultation process and the issues raised should be described in the Environmental Assessment.</p>	
<b>Deemed Refusal Period</b>	
60 days	

## APPENDIX E SUMMARY OF PUBLIC SUBMISSIONS

Public Submission No.	Support / Oppose	Comments
1	Support	<ul style="list-style-type: none"> <li>The proposed development will provide further renewal and gentrification which is needed in the Sandy Beach area.</li> </ul>
2	Oppose	<ul style="list-style-type: none"> <li>The additional residences are proposed in conjunction with other proposed subdivision developments at Sandy Beach. There is no provision for further infrastructure upgrades to cater for the increase in population.</li> <li>The site is located in a low-lying area and prone to water ponding. This problem will be compounded by rising sea levels and increased rainfall.</li> <li>The site is within a bushfire prone area.</li> <li>The road junction of Graham Drive and the Pacific Highway is dangerous at either end.</li> <li>Koala habitat is identified on land opposite the site. Increased traffic and the presence of domestic dogs will compromise the koala population of the area.</li> <li>The Coffs Harbour region's wastewater disposal methods are not environmentally sustainable in the long term.</li> <li>Services such as shopping centres, recreational and sporting facilities, public meeting places, hospitals, and police etc. are not located at Sandy Beach.</li> <li>Public transport in the area is minimal.</li> </ul>
3	Oppose	<ul style="list-style-type: none"> <li>Proposal is not supported if the subdivision is to be used for public housing. Such accommodation encourages anti-social and criminal behaviour.</li> </ul>
4	Oppose	<ul style="list-style-type: none"> <li>The Hearn's Lake ecosystem will be adversely affected by run-off from the residential subdivision both during construction and once the subdivision is complete.</li> <li>The site is flood-prone and located on a coastal floodplain.</li> <li>The Director-General's Environmental Assessment Requirements do not cover the need to consider ecologically sustainable development principles.</li> <li>No consideration has been given to the likelihood of coastal flooding as a result of climate change.</li> </ul>



**APPENDIX F    INSTRUMENT OF APPROVAL – PROJECT  
APPLICATION**

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