

MAJOR PROJECT ASSESSEMENT
Gwandalan Residential Subdivision
Proposed by Lakeside Living Pty Ltd
Major Project Application MP 10-0205

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

March 2011



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1 EXECUTIVE SUMMARY

This is a report for a project application for subdivision of the site into a total of 190 lots comprising:

- 187 residential lots;
- 2 lots for public open space;
- 1 residual lot for the existing main dwelling on the site and stormwater management works to service the subdivision;
- Associated bulk earthworks;
- Infrastructure including roads, drainage works and utility services provision;
- Public domain landscaping.

The proposal was declared to be a Part 3A project at it meets the criteria of Schedule 2, Clause 1(1)(b) 'Coastal Area' of the Major Development SEPP. The clause identifies development for the subdivision of more than 100 lots where part of the site is located in a sensitive coastal location (within 100m of land reserved or dedicated under the National Parks and Wildlife Act 1974 ie. the Lake Macquarie State Conservation Area).

The estimated Capital Investment Value (CIV) of the proposed development is \$16 million.

The proposal is estimated to create 40 full time equivalent construction jobs and 10 full time equivalent operational jobs.

The proposal was placed on public exhibition from 15 December 2010 until 7 February 2011 for a period of 55 days. The Department received a total of 10 letters from public authorities, and 16 letters from the public (15 objecting, 1 supporting).

A Community Reference Group meeting was held on 4 February 2011.

Preferred Project Report

On 21 February 2011, the proponent amended the application via the Preferred Project Report to address issues raised by the Department and the submissions.

Minor changes were made to the development plans including:

- Clarification that the fence along Kanangra Drive will be demolished
- Access points from within the residential subdivision to provide driveways to the existing main dwelling near the lake foreshore.

Key Issues

An Independent Hearing and Assessment Panel (IHAP) was constituted to consider the previous proposal for the site. The current proposal is generally consistent with the IHAP principles and recommendations for the previous proposal including road layout, open space location, number of lots and restricting access to lots directly from Kanangra Drive.

The proposal is consistent with the Lower Hunter and Central Coast Regional Strategies which have identified the site as a proposed urban area.

The key points raised by the Department and other agencies have resulted in the following recommendations:

- Increased bushfire APZs for north-west lots (lots 129 to 138) and Road 6 widened from 7.6m to 8m;
- An easement for the stormwater system on the residual lot for management by Council;
- Management plans required to manage and mitigate construction impacts, impacts on flora and fauna, and erosion and sediment control;
- Detailed plans submitted for road works, stormwater and public domain landscaping as the submitted plans do not provide the detailed design;
- Provision of utility services for the servicing of residential lots prior to subdivision certificate;
- Provisions for regional and local contributions.

- Recommended amendments to the DCP prepared for the site include:
 - o Inclusion of Mine Subsidence Board design requirements
 - o Lots adjoining Kanangra Drive to be designed to be orientated to address this street
 - o Inclusion of the northern lane into the public road network

Assessment

The Department has assessed the merits of the proposal and is satisfied that the impacts of the proposed development have been addressed via the proponent's Preferred Project Report, the Statement of Commitments and the Department's recommended conditions of approval. On these grounds, the Department is satisfied that the site is suitable for the proposed development, subject to recommended conditions, and that the project will provide environmental, social and economic benefits to the region. All statutory requirements have been met.

2 BACKGROUND

2.1 SITE CONTEXT

The site is located at Gwandalan, which adjoins Lake Macquarie. The site is located within the Wyong Local Government Area and is approximately 25km south of Newcastle and 90km north of Sydney. The site is identified in the Lower Hunter Regional Strategy and Central Coast Regional Strategy as a proposed urban area. This site is also located within the Coastal Zone under the NSW Coastal Protection Act 1979.

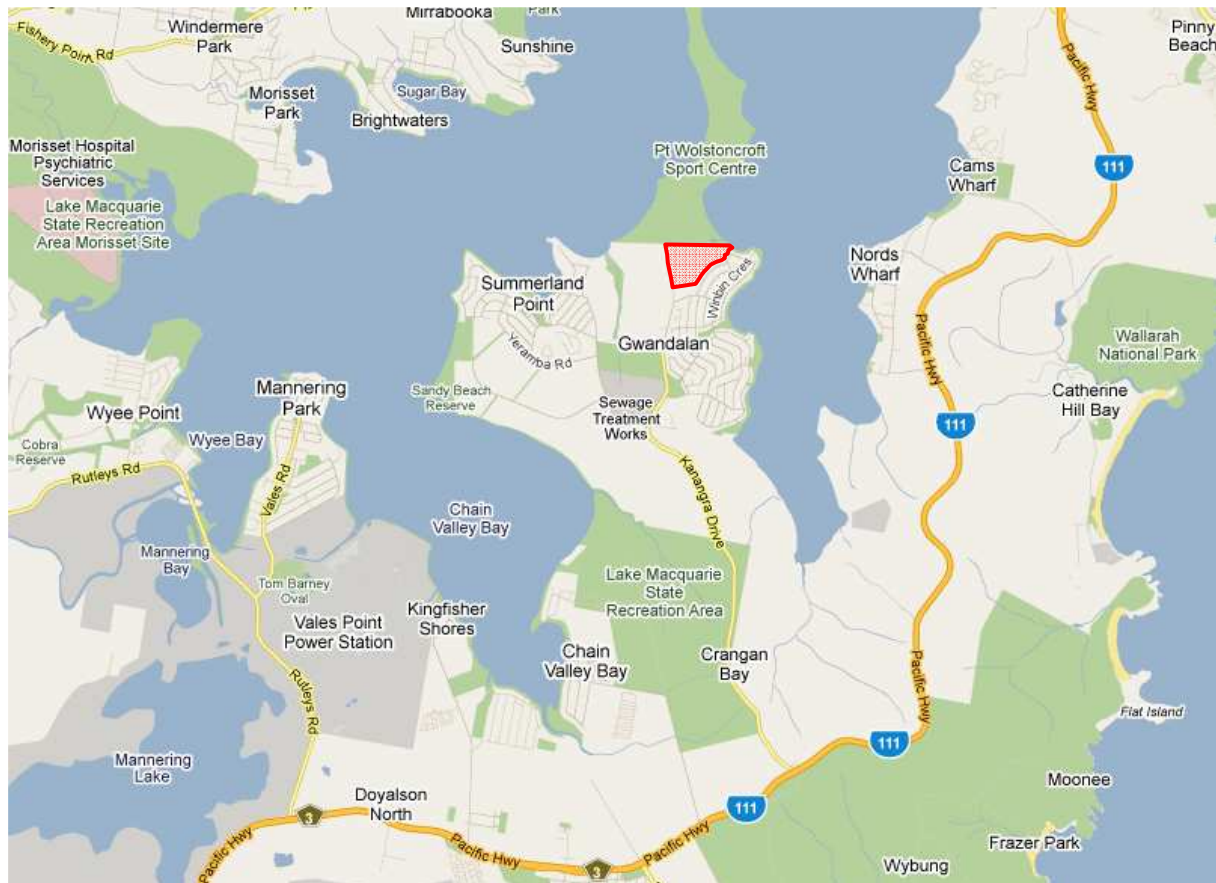


Figure 1. Locality map, with the subject site in red.

2.2 DETAILED LOCATION

The site is known as Lot 3 DP 588026 and has an area of approximately 26 hectares. The site adjoins the eastern side of Kanangra Drive, with the Point Wolstoncroft section of the Lake Macquarie State Conservation Area adjoining the northern boundary. The southern boundary adjoins Gwandalan Public School and the rear of residential properties in the existing township of Gwandalan. The eastern-most boundary adjoins Lake Macquarie.



Figure 2. Aerial Map showing subject site in red.

2.3 CURRENT LAND USES AND SITE FEATURES

The site currently features a large residential dwelling close to the Lake Macquarie foreshore. Ancillary buildings located on the site including a caretaker's dwelling near the driveway entrance from Kanangra Drive, and a chapel. Six dams have been constructed across the site. A two metre high solid timber fence is located along the Kanangra Drive frontage.

Part of the site in the vicinity of the main dwelling has been cleared, with remnant bushland covering a large part of the site. An untended orchard is located in the southeast part of the site. There is also evidence of a small quarry in the north-western part of the site, which includes an excavated area and denuded vegetation.

The highest part of the site is in the north-west, with the land sloping gently down to Lake Macquarie.

Chain Valley Colliery has two coal mining lease which extent over a large part of the Gwandalan and Summerland Point areas, including the site of the proposed residential subdivision. The leases have been extended to at least 2022.

2.4 SURROUNDING DEVELOPMENT

The established residential area of Gwandalan adjoins the south eastern part of the site, with the predominant built form consisting of one and two storey detached dwellings on lots around 500m²-700m² in size. Gwandalan Public School adjoins the southern boundary, and is accessed via Kanangra Drive.

A small group of neighbourhood shops are located in Orana Road, further east of the school and close to the lake frontage. Another small group of shops is located further south on Gamban Road adjoining the Gwandalan Bowling Club.

The Point Wolstoncroft section of the Lake Macquarie State Conservation Area contains a sport and recreation centre, which is run by NSW Communities (Sport and Recreation).

Land to the west of the site, on the opposite side of Kanangra Drive, is zoned 7(b) Scenic Protection and is generally heavily vegetated. Open space is provided along much of the eastern lake foreshore in Gwandalan.



Figure 3. Surrounding area, including public open space areas in green

2.5 REGIONAL STRATEGIES

Lower Hunter Regional Strategy

The Lower Hunter Regional Strategy was released in 2006 and included the subject site as a proposed urban area as it is part of the South Wallarah Peninsula site.

Central Coast Regional Strategy 2006-31

The Central Coast Regional Strategy (CCRS) was released in 2008. It covers the Wyong and Gosford local government areas, and therefore includes the Gwandalan site as a site for proposed urban areas, consistent with the original identification of the site for urban development in the Lower Hunter Regional Strategy.

The CCRS establishes the planning framework to ensure adequate land is available and appropriately located to accommodate the projected housing needs and local employment opportunities in the region to the year 2031.

The CCRS identifies some key factors that will influence the demand for housing on the Central Coast:

- Young families moving to the region and contributing to high birth rates;
- Influx of retirees who have an increasing life expectancy;
- Increasing life expectancy and birth rates in the existing population; and
- Increasing number of single person households in traditional retirement areas.

To cater for growth between 2006 and 2031, the CCRS identifies that 56,000 dwellings will be required to be accommodated in the region, including 39,500 in the Wyong LGA, with 16,000 to be located in Greenfield sites.

Opportunities have been identified for new centres to be developed at Warnervale (Warnervale Town Centre is already planned), and Lake Munmorah and Gwandalan.

The CCRS states that development proposals at Catherine Hill Bay and Gwandalan will be considered where there may be opportunities for expansion that would assist in attracting a higher level of facilities and services for that locality. No time frame has been provided for the release of these sites for urban development.

The CCRS acknowledges a range of public and private infrastructure will be required to service new residential areas and areas subject to ongoing growth and redevelopment.

Draft North Wyong Structure Plan

The Structure Plan is a high level strategic planning framework to implement the CCRS and guide future local planning. It is designed to provide more detailed planning than the Central Coast Regional Strategy, and identifies suitable land in the northern part of the Wyong Shire (including Gwandalan) for future housing, employment and conservation.

The plan identifies potential capacity for up to 17,800 new homes and potential new centres to be developed at Wadalba East, Lake Munmorah (including 10,000sqm of retail floor space) and Gwandalan. The site is classified in the Structure Plan as an urban area as it was zoned for urban development prior to the release strategy in November 2010.

Wyong Residential Development Strategy

The site is identified as part of the Urban Development Program area in Wyong Council's Residential Development Strategy to provide lots in the short to medium term.

2.6 PREVIOUS APPLICATIONS

In 2006 a Memorandum of Understanding was signed providing for the transfer of 305 ha of land owned by Rose Property Group to the State Government for inclusion into the Wallarah National Park. Following this a Concept Plan application was submitted which provided for the development of land at Catherine Hill Bay and Gwandalan for residential development. The land transfer provided conservation offsets for the residential developments.

At the end of 2006 the Minister appointed an Independent Hearing and Assessment Panel (IHAP) to advise him on the proposed residential development. The panel members were Ms. Gabriel Kibble OA (Chair), Mr. Andrew Andersons OA and Mr. Michael Collins. On 13 April 2007, the Panel provided an interim report on the proposed Concept Plan to the Minister. The Panel had some concerns regarding the proposed subdivision pattern on the Gwandalan site and recommended it be redesigned in accordance with current best practice urban design principles to take account of the site's environmental and ecological attributes. In response to this report, the Proponent undertook to prepare a revised development scheme for Gwandalan (and Catherine Hill Bay).

On 24 August 2007, the Proponent lodged new environmental assessments for the following:

- Concept Plan for the Catherine Hill Bay and Gwandalan sites (reference MP07_0330);
- two Project Applications for the subdivision and construction of the Village Centre Precinct (Hamlet 1) and subdivision and construction of Hamlet 2 for the Catherine Hill Bay development (reference MP07_0109 and MP07_0110 respectively) (note: MP07_0109 was subsequently withdrawn);
- a Project Application for site preparation works across the Catherine Hill Bay development, along with subdivision into "super lots" (reference MP07_0108); and
- a Project Application for site preparation works and subdivision of the Gwandalan development (reference MP07_0107).

On 18 December 2007, the IHAP provided its final report on the Concept Plan and Project Applications to the Minister. The recommendations of the IHAP's final report are detailed in section 4.7 of this report.

On 20 December 2007, the Proponent lodged a Preferred Project Report (PPR) for the Gwandalan project application (MP07_0107) to the Department and on 27 February 2008, the Proponent withdrew the Project Application for Hamlet 1 at Catherine Hill Bay (MP07_0109) and lodged a final PPR for the Concept Plan for Catherine Hill Bay and Gwandalan. The PPR incorporated changes to the designs of the Catherine Hill Bay Hamlets and the redesign of the Gwandalan subdivision.

Following receipt of advice from the IHAP the Concept Plan and a Project Application for subdivision at Gwandalan was approved in September 2008. The land was simultaneously rezoned under the Major Development SEPP.

On 2 December 2009 the Minister and the Department were served with an application for judicial review of the former Minister's determination of the Concept Plan and project application. The action was brought by the Gwandalan Summerland Point Action Group on the basis that both the approval for the Concept Plan for Catherine Hill Bay and Gwandalan and the project application for Gwandalan were void and of no effect. The applicant sought orders quashing the approvals claiming that they were invalid as there was a reasonable apprehension that the Minister was biased in his decision and that in making his decision the Minister took into account matters that were irrelevant to the decision. This related to the Memorandum of Understanding and Deed of Agreement for the transfer of the conservation lands.

On 31 August 2009 the Land and Environment Court handed down a judgement which quashed the approvals for both the Catherine Hill Bay and Gwandalan Concept Plan and Project Application for Gwandalan. The MOU and Deed were subsequently terminated.

The Land and Environment Court decision did not affect the zoning of the land accordingly it is now open to the Government to consider fresh applications relating to the subject land.

3 PROPOSED DEVELOPMENT

3.1 THE PROPOSED DEVELOPMENT

The proponent seeks project approval for subdivision of the site into a total of 190 lots comprising:

- 187 residential lots;
- 2 lots for open space;
- 1 residual lot for the existing main dwelling on the site and stormwater management works to service the subdivision;
- Associated bulk earthworks;
- Infrastructure including internal roads, drainage works and utility services provision;
- Landscaping works.

3.2 PREFERRED PROJECT REPORT

On 21 February 2011, the proponent submitted a Preferred Project Report (PPR). The PPR included details of design changes summarised as follows:

- The existing fence along Kanangra Road is to be demolished. Fences along this frontage will be the responsibility of individual landowners. The DCP specifies a maximum height of 1m;
- Potential driveway access to the existing main dwelling from roads within the residential subdivision;
- More detailed design of the Northern and South East parks.



Figure 4. Subject site (in red), with subdivision plan, stormwater detention basin and public domain landscaping.

Internal Road network

The internal road network will provide vehicular access to all the lots within the site. No direct vehicular access will be provided to lots from Kanangra Road. It is proposed to dedicate all the internal roads, including the road reserves, to Wyong Council.

Landscaping and open space

The public domain landscaping scheme proposes two areas of public open space (Northern Park and South East Park) and landscaping in the road reserves. It is proposed to dedicate these areas to Wyong Council.

Civil Infrastructure

In addition to internal roads, upgrades to Kanangra Drive are proposed. Stormwater drainage including a stormwater detention basin on the residual lot (lot 350) and utility provision are also proposed.

Social infrastructure and community facilities.

A Voluntary Planning Agreement (VPA) has been publicly notified for State infrastructure contributions required, and conditions for local facilities are recommended to be based on Council's S94 plan.

Bulk Earthworks

The bulk earthworks component will comprise vegetation clearing, earthworks and site regrading. It is intended that these works be undertaken over the whole site followed by construction staging for the subdivision works.

3.3 STAGING

The revised DCP states that the residential subdivision is likely to be released in stages:

- Stage 1 – 38 lots (lots 101 to 138 adjoining Kanangra Drive and northern perimeter road)
- Stage 2a – 79 lots (north of the central access road)
- Stage 2b – 70 lots (south of the central access road).

The Preferred Project Report states that stages may be constructed currently, and therefore should be considered as indicative only.

3.4 FUTURE APPLICATIONS

It is recommended that future applications on the site be subject to Part 4 of the Act.

4 PLANNING FRAMEWORK

4.1 NSW ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979 AND STATE ENVIRONMENTAL PLANNING POLICY (MAJOR DEVELOPMENT) 2005

On 5 November 2010, part of the site was added to Schedule 3 – South Wallarah Peninsula under *State Environmental Planning Policy (Major Development) 2005* as a State Significant Site, and rezoned from 7(b) Scenic Protection to R2 Low Density Residential and E2 Environmental Conservation. The R2 zoned land is proposed to contain the 187 residential lots and the Northern Park, which are permissible in the zone. The E2 zoned land is proposed to be contained within a single lot as the South East Park, and proposed to function as an environmental facility, which is permissible in this zone.

The remaining 7(b) zoned land will be contained within a residual lot (lot 350) and subject to the Wyong LEP 2005. The proposed drainage works on this part of the site are permissible in the 7(b) zone.

The South Wallarah SEPP zoned approximately 300 ha of land as E1 – National Parks and Nature Reserves, which have since been dedicated to the government, and can be considered as offset lands for the proposed Gwandalan residential subdivision, as well as a residential subdivision at Catherine Hill Bay.

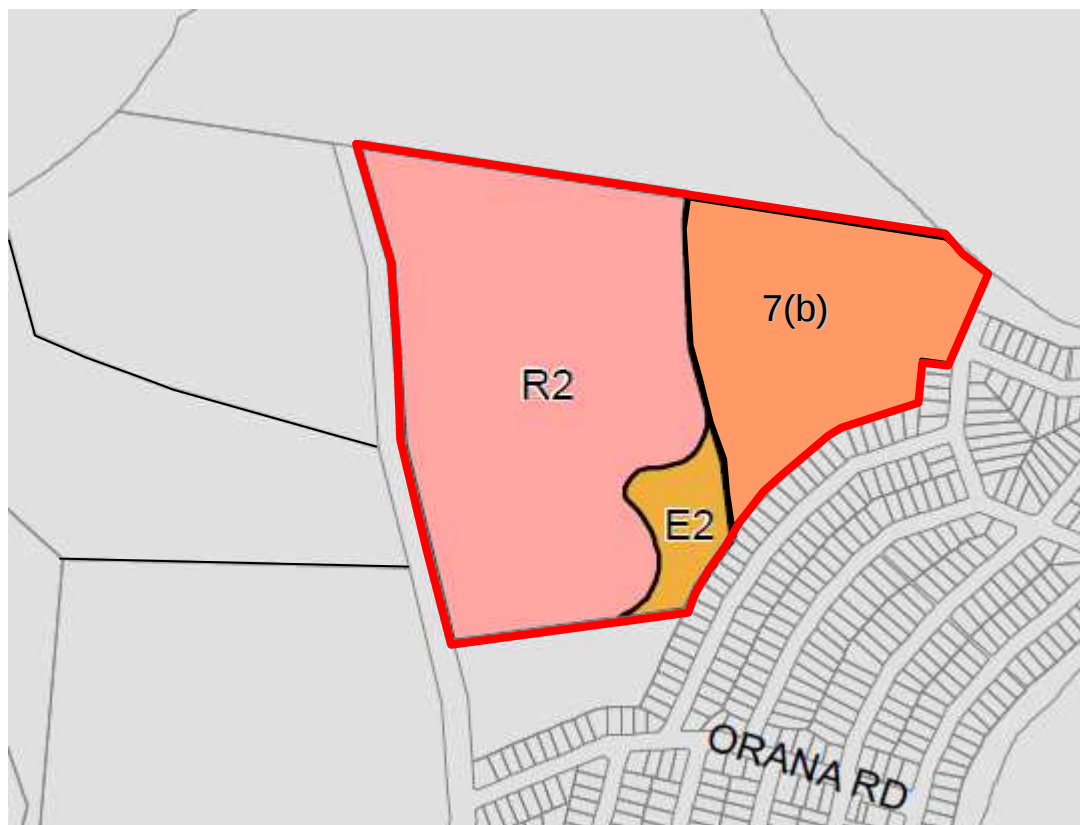


Figure 5. Land use zoning on the site

On 18 November 2010, the Director General, as delegate for the Minister for Planning, formed the opinion that the proposal is a Major Project under Part 3A of the Act as the proposal meets the criteria of Schedule 2, Clause 1(1)(b) 'Coastal Area' as it is for the subdivision of more than 100 lots and part of the site is located in a sensitive coastal location (within 100m of land reserved or dedicated under the National Parks and Wildlife Act 1974 ie. the Lake Macquarie State Conservation Area).

The Capital Investment Value of the proposal is approximately \$16 million.

4.2 STATE ENVIRONMENTAL PLANNING POLICY NO 55 – REMEDIATION OF LAND

SEPP 55 promotes the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. The proponent has provided a contamination report with the proposal, which states that the previous uses on the site including a fruit orchard where pesticide use may have taken place; on-site sewerage treatment for the dwelling near the main site entrance; and a possible quarry in the north-western part of the site, are unlikely to have resulted in any significant contamination on the site. A remediation action plan is recommended for the fuel tanks to be removed and the subject area remediated.

4.4 NSW THREATENED SPECIES CONSERVATION ACT (1995) (TSCA) AND ENVIRONMENTAL PROTECTION AND BIODIVERSITY CONSERVATION ACT 1999 (EPBC)

The site contains an Endangered Ecological Community (EEC) which are listed under the TSC Act – Coastal Sand Mahogany – Paperbark Swamp Forest. The proponent's ecological consultant identified one threatened flora species and 15 threatened fauna species. An assessment of the impacts of the proposal were considered, which were considered to be acceptable subject to mitigation and management measures, as well as the dedication of the offset lands.

Under the EPBC Act, it is necessary to obtain approval from the Commonwealth Minister for the Environment and Heritage to carry out a "controlled action" where it is likely to have a significant impact on a matter of "national environmental significance". Under the EPBC Act, matters of National environmental significance include listed threatened species, ecological communities and migratory species.

An approval was issued by the (previously known as) federal Department of the Environment, Water, Heritage and the Arts on 27 February 2009 for development on the Gwandalan and Catherine Hill Bay proposals for Rose Property Group. DEWHA have confirmed that this approval is still relevant for the current proposal.

4.5 NATIVE VEGETATION ACT 2003

The Native Vegetation Act 2003 requires approvals for works to clear native vegetation. Section 5 of the Act provides that the Act does not apply to land described in Part 3 of Schedule 1 which includes land within a zone designated "residential" under an Environmental Planning Instrument. As the majority of the site is zoned R2 Low Density Residential, it is likely that no further approvals will be required for this zone. Removal of vegetation on this site is considered in this report.

4.6 WATER MANAGEMENT ACT 2000

Approvals are required under the Water Management Act 2000 for certain activities that will be undertaken on the site. The NSW Office of Water advised that interception of groundwater on the site as a result of proposed underground service provision, and take water is a licensable activity. A condition has been recommended to be included in any approval should this activity need to occur.

4.7 INDEPENDENT HEARING AND ASSESSMENT PANEL (IHAP) REPORT (2007)

The DGRs for the current application require that the IHAP reports and recommendations for the previous proposal on the site are addressed by the proponent and any departures justified.

The interim report by the IHAP recommended that the subdivision be designed in accordance with current best practice urban design principles to take account of the site's environmental and ecological attributes including:

- existing watercourses and drainage;
- integration with surrounding areas;
- location and retention of significant trees;
- occurrence of any endangered species;
- proper road design and layout;
- provision of public access to the waterfront.

The final design submitted to, and generally endorsed by the IHAP included the following:

- A revised design taking into account site conditions and constraints including retention of significant tree clumps as open space in two proposed open space areas, and a road layout that follows the topography of the site;
- A hierarchy of streets including a 22m wide primary through-route to accommodate a bus route and designed as a 'green link' connecting the two open space areas. The roadway will provide for substantial planting and retention of existing trees in the road reserve;
- Reduction in the number of allotments from 214 to 187;
- Reduction in the number of allotments with direct access from Kanangra Drive;
- Provision of native landscape buffers to Kanangra Drive, the Public School and the Lake Macquarie SCA;
- Provision of open space in the south eastern corner retaining fauna habitat corridors connecting Gwandalan Public School Nature Area with Point Wolstoncroft to the north east. The open space area will also provide for the retention of a natural drainage line that traverses the site in this location.



Figure 6. Subdivision design of the site from 2007 supported by the IHAP (subject to conditions).

The design of the current project application is generally the same design in the previous application endorsed by the Panel, including the design of the road layout, areas of open space, number of allotments and access to lots fronting Kanangra Drive. The staging plan has been altered however, with the first stage to now comprising the lots adjoining Kanangra Drive, rather than the south-west portion of the site. This is not considered to be a significant issue. The technical matters to be addressed include the detailed road design, stormwater drainage, landscaping and bushfire.

5 ASSESSMENT OF ENVIRONMENTAL IMPACTS

5.1 LEGISLATIVE REQUIREMENTS OF THE DIRECTOR GENERAL'S REPORT

Section 75I(2) of the Act and Clause 8B of the Environmental Planning and Assessment Regulation 2000 provides that the Director-General's report is to consider a number of requirements. These matters and the Department's response are set out as follows:

Section 75I(2) criteria	Response
Copy of the proponent's environmental assessment and any preferred project report.	The Proponent's EA and Preferred Project Report are included as appendices to this report.
Any advice provided by public authorities on the project.	All advice provided by public authorities on the project for the Minister's consideration is set out at Appendix C of this report.
Copy of any report of the Planning Assessment Commission in respect of the project.	The application is yet to be referred to the PAC.
Copy of or reference to the provisions of any State Environmental Planning Policy that substantially govern the carrying out of the project.	Each relevant SEPP that substantially governs the carrying out of the project is identified and assessed.
Except in the case of a critical infrastructure project – a copy of or reference to the provisions of any environmental planning instrument that would (but for this Part) substantially govern the carrying out of the project and that have been taken into consideration in the environmental assessment of the project under this Division.	An assessment of the development relative to all environmental planning instruments is provided in section 4 of this report.
Any environmental assessment undertaken by the Director General or other matter the Director General considers appropriate.	The environmental assessment of the project application is this report in its entirety.
A statement relating to compliance with the environmental assessment requirements under this Division with respect to the project.	The proponent's EA addressed the Director General's assessment requirements adequately as addressed in this report. Refer to the Conclusion in section 7 of this report for a statement relating to this requirement.
Clause 8B criteria	Response
An assessment of the environmental impact of the project.	An assessment of the environmental impact of the proposal is discussed in section 5 of this report.
Any aspect of the public interest that the Director-General considers relevant to the project.	The public interest is discussed in section 7 of this report.
The suitability of the site for the project.	The report assesses the suitability of the site for the project in discussion of the key issues in section 5 of this report.
Copies of submissions received by the Director-General in connection with public consultation under section 75H or a summary of the issues raised in those submissions.	A summary of the issues raised in the submissions is provided in section 6 and Appendix C of this report.

5.2 ECOLOGY AND BIODIVERSITY

An Ecological Assessment Report was prepared by RPS. The report considers both the Gwandalan and Catherine Hill Bay residential subdivision applications, as well as the offset lands that are subject to the South Wallarah Peninsula SEPP and have been dedicated to the government.



Figure 7. Land subject to the South Wallarah SEPP, including subject site and offset lands.

The report notes the following vegetation communities on the Gwandalan site:

- Coastal Sand Mahogany-Paperbark Swamp Forest (an Endangered Ecological Community)
- Disturbed Open Woodland
- Narrabeen Coastal Sheltered Peppermint-Apple Forest
- Narrabeen Snappy Gum Forest

The report also identified 1 threatened flora species on the site (*Tetratheca juncea*), and 15 threatened fauna species recorded or considered likely to occur within the site, being the following:

- | | |
|--------------------------|-----------------------------------|
| • Wallum Froglet | • Eastern Bentwing Bat |
| • Regent Honeyeater | • Little Bentwing Bat |
| • Swift Parrot | • Eastern Freetail Bat |
| • Glossy Black Cockatoo | • Yellow-bellied Sheathtailed Bat |
| • Powerful Owl | • Eastern False Pipistrelle |
| • Masked Owl | • Large Footed Myotis |
| • Grey Headed Flying Fox | • Greater Broad-winged Bat |
| • Eastern Pygmy Possum | |

Potential breeding habitat was identified for two of these species in particular (Masked Owl and Glossy Black Cockatoo). Gwandalan was searched for any koala presence, however no evidence of koalas was found on the site, and it was considered that they are more likely to be found in the offset lands.

The report notes that a total of 607 mature and/or hollow bearing trees were recorded and mapped on the site, with 124 to be retained, generally within the South East Park. The PPR provided a plan by ADW Johnson indicating areas to be surveyed for tree retention, including the South East Park, part of the Northern Park, and several lots in the southwest and western part of the subdivision. The report states that further design work may be required including changes to bulk earthworks and engineering design as a result.

The RPS report concludes that provided the recommended mitigation measures detailed in the report are adopted, the development of the site is adequately offset for ecological outcomes by the dedication of the offset lands (refer to figure 7 below), and this will provide a robust long-term outcome for local species and communities, maintaining biodiversity values within the region, and improved land term conservation of these values.

The recommendations in the Ecological Assessment Report are as follows:

- A minimum amount of clearing to take place, especially areas containing EECs;
- Mature and/or hollow-bearing trees should be retained wherever feasible;
- Pre-clearance surveys to be conducted to identify any breeding or nesting activities, especially for the Powerful Owl and Masked Owl;
- Any tree removal in forested areas should be supervised by an ecologist to recover any native fauna that may be displaced;
- Species selection for future landscaping should be limited to locally occurring native species;
- Vegetation, habitat and bushfire management plans should be included under an overarching Environmental Management Plan;
- Nutrient and sediment control devices should be provided;
- Landscape sediment retention ponds with fringing wetland vegetation eg. Typha species to provide habitat for species such as the Green and Golden Bell Frog;
- Strict management of stormwater runoff to minimise potential impact on the Coastal Sand Mahogany-Paperbark Swamp Forest EEC and known Wallum Froglet habitat;
- Preparation of management plans to ensure consistency of management strategies with adjacent offset lands;
- Riparian vegetation, and sediment and water management strategies to mitigate the impact on the Wallum Froglet, Regent Honeyeater and Swift Parrot, which are threatened species;
- Responsible pet ownership to protect the Glossy Black Cockatoo;
- Sensitive construction fencing and responsible gardening practices to protect the Grey Headed Flying Fox.

Conditions were also recommended to minimise potential threats from exotics species including *Phytophthora cinnamoni*, Bitou, Boreseed, Lantana, and exotic vines and scramblers; and measures to reduce potential sediment and erosion impacts will mitigate impacts from invasion by perennial exotic grasses.

The Department of Environment, Climate Change and Water (DECCW) provided a response to the proposal, and were of the opinion that the potential impacts to threatened species and biodiversity have been adequately addressed. Based on the information presented in the EA, as well as the offset areas already dedicated, DECCW are of the opinion that the proposal is likely to result in maintaining biodiversity values within the region and improved long term conservation of these values. DECCW considered the proposed mitigation, avoidance, and offset measures proposed are unlikely to result in a significant impact on threatened or regionally significant flora and fauna, ecological communities or populations.

DECCW's submission also stated that the management of the interface issues between the site and the Lake Macquarie SCA are generally satisfactory. However, DECCW recommended that the northern site boundary be clearly defined to prevent boundary encroachment, and that DECCW's Parks and Wildlife Group be consulted about the type of fencing that will be used for this boundary.

Wyong Council provided a number of conditions to provide for adequate protection of flora and fauna during construction, including suitable protection measures for trees to be retained, and native animal welfare issues.

The (then) Commonwealth Department of the Environment, Water Resources declared that the previous proposal for the site was a controlled action as it was considered to impact the Black Eyed Susan (*Tetratheca juncea*). This species is listed as a vulnerable species under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), and a matter of national environmental significance.

The proponent advised that an approval was granted on 27 February 2009 under the EPBC Act. The approval requires the action to be undertaken generally in accordance with the previous application, which has since been withdrawn following the Land and Environment Court's judgement that the approval by the (then) Minister for Planning was invalid. The Commonwealth Department of Sustainability, Environment, Water, Population and Communities have advised the Department that the approval issued applies to the current proposal and a further approval is not required to be granted.

Department's Position

The recommendations in the Ecological Assessment Report have generally been incorporated into a Flora and Fauna Environmental Management Plan recommended to be included in the approval. The requirements for the Plan also generally incorporate the conditions recommended by Wyong Council. This is to ensure that flora and fauna management issues are addressed at the construction stage of the development (including vegetation removal and site regrading) as well as part of the ongoing management of the site.

The tree retention plan provided in the PPR only identifies areas where tree surveys are to be undertaken, and does not incorporate the tree surveys previously undertaken and referred to in the Ecological Assessment Report, which identified 124 trees to be retained. It is therefore recommended that an amended tree retention plan be prepared which identifies the significant mature and/or hollow bearing trees in the Northern Park and South East Park, as referred to in the Ecological Assessment Report. Other significant trees identified on the site outside these two parks should be identified and retained where possible.

It is considered that subject to the recommended conditions, the impacts of the proposal on flora and fauna will be adequately mitigated and managed.

5.3 TRAFFIC AND ACCESSIBILITY

A Traffic Report was prepared by Halcrow to detail the implications of the proposed subdivision on the road network including intersection operation, and public transport accessibility.

Kanangra Drive provides the sole access to Gwandalan and other residential developments on the peninsula, from a signalised intersection with the Pacific Highway. The three main intersections along Kanangra Drive are with Summerland Road (which features a roundabout), and Parraweena and Orana Roads (which feature priority controlled intersections).

Traffic surveys undertaken were from 2006 during the morning peak of 8:00am and 9:00am, and evening peak of 3:30pm and 4:30pm. Approximately 600 vehicles were counted using the Kanangra Drive/Pacific Highway intersection between these times. The intersection of Kanangra Drive/Orana Road ranged between 56 to 262 vehicles, although the report notes that the Gwandalan Primary School, north of this intersection was conducting an orientation event that day and therefore the figures are likely to be inflated. The report found that the main intersections along Kanangra Drive were operating at either good levels of service, with spare capacity and short delays.

The traffic report states that the figures from 2006 were considered to be still relevant as there has been no major developments within Gwandalan and Summerland Point in that time. However a background growth rate of 2% per annum along the Pacific Highway has been applied.

In order to estimate the likely traffic generation resulting from the proposed development, RTA guidelines were used, which suggest that dwelling houses generate an average 0.85 vehicle trips per dwelling during peak hours based on surveys of similar types of residential subdivisions. As the proposal is expected to produce 187 new dwellings, this would equate to 159 vehicle trips per hour morning and evening, with most of these trips along Kanangra Drive.

Based on these figures, the study predicts that future operation of intersections would continue to operate at a satisfactory level, with only short delays to traffic and spare capacity with the additional traffic generated. Although there would be an increase in traffic on the Pacific Highway during the peak holiday season, the operation of the intersection of Kanangra Drive and Highway would still function at a satisfactory level.

The report also considers the cumulative impacts of the Coal and Allied proposal at Gwandalan which is proposing up to 623 dwellings. The report found that the Coal and Allied proposal would result in more significant increases in traffic volumes than the subject proposal, and will require upgrade works to the intersection of Pacific Highway and Kanangra Drive, which should therefore be the responsibility of Coal and Allied.

The RTA considered the impact of the proposal in the Pacific Highway, which is a Classified (State) Road. The RTA raised no objections to the proposed development subject to a number of conditions. The same conditions were provided in the RTA's response to the Coal and Allied proposal for Gwandalan, who will be responsible for these works.

Wyong Council advised the site is included in Wyong Shire Council's Northern Districts Section 94 Contributions Plan. Council's S94 plan is collecting for the following in the Northern Districts:

Item	Proposed Roadworks and Traffic Management
1	Improvement of the curves along Kanangra Drive between the Pacific Highway and Summerland Road
2	The realignment and widening of Summerland Road
3	The widening of Kanangra Drive between Parraweena and Orana Road
4	The widening of Kanangra Drive between Summerland and Parraweena Road
5	Minor intersection improvements to Summerland Point

Council's Section 94 Plan classifies the site as in Northern Districts (E), which will only provide contributions for items 1, 3 and 4 on the list.

Council's submission identified the following external road works to be undertaken for the development:

- Upgrade Kanangra Drive to have a minimum 9m sealed pavement, with kerb and guttering and associated stormwater systems along the full frontage of the site;
- Provide a 2.5m wide off road shared path along the Kanangra Road frontage to the primary school entrance;
- Convert the Kanangra Drive/Orana intersection to a standard "T" intersection;
- Upgrade and widen curves in Kanangra Drive between the Pacific Highway and Summerland Road (Item (1) in the above table in Council's S94 plan);
- Upgrade the Pacific Highway and Kanangra Drive intersection as determined by the RTA.

Transport NSW recommends a shared pedestrian and bicycle path be provided to link the site to the adjoining community.

Bus Services

Gwandalan is currently served by Busways Route 99 (from Lake Haven Shopping Centre to Charleston Shopping Centre, via Gwandalan, which runs daily. A school bus route links Summerland Point and Gwandalan with Gwandalan Public School) and 95/95X (Lake Haven Shopping Centre to Morisset Station, via Gwandalan, which runs on weekdays only).

The traffic report states that the road layout within the subdivision allows for the extension of the existing Busways services through the site, however the timing of the extension of the bus service would be determined by the bus operator.

Busways provided a submission on the proposal, stating that it is unlikely a bus route would operate along the length of the spine road through the site. However, nearly half of the residents will be within 400m of an existing bus stop, and the remainder within 850m of the stop.

Department's position

The Department is supportive of Council's requirements for the upgrade works to Kanangra Drive adjacent to the site frontage. The shared path along Kanangra Drive is supported as it will provide safe access for pedestrians and cyclists to the bus stop in Kanangra Drive and to other areas in Gwandalan. The shared path along Kanangra Road also reflects Transport NSW's recommendation for improved pedestrian and cycle links to the existing community of Gwandalan. The works required to the Kanangra Drive/Orana road intersection are also supported.

The Department considers that the upgrading and widening of curves in Kanangra Drive south of Summerland Road should not be solely the responsibility of the proponent. These works are identified in Council's S94 plan and the need is not directly attributable to the proposal. The contributions required under the S94 are considered to be adequate in this regard.

The upgrade of the Pacific Highway and Kanangra Drive is to be undertaken by Coal and Allied as their proposal in Gwandalan, currently under assessment by the Department, will generate the need. If the Lakeside Living development proceeds without the Coal and Allied proposal, the intersection does not require upgrading, as detailed in the Halcrow report.

The comments from Busways are noted. A condition is recommended for further consultation with bus operators about this issue.

5.4 INTERNAL ROAD DESIGN

The EA states that the road standards proposed are consistent with the Wyong DCP standards, and will also allow for the extension of the existing bus system through the site. As the plans provided are not the detailed design, additional measures may need to be considered.

The application proposes three entry points to the site, all from Kanangra Drive, as priority controlled "T" intersections. The principle road through the site (Road 1) is proposed to be a 21m wide road reserve with a 12m wide road carriageway. It will run from the north to the south of the site and link the two parks. It is also designed to accommodate the extension of the local bus service. The third connection from Kanangra Drive, being Road 2, connects with Road 1. The other roads within the site generally feature a 16.6m wide road reserve with 7.6m wide road carriageway and footpaths on one side of the road.

Lots adjoining Kanangra Drive (generally lots 101 to 129) are not proposed to have direct vehicular access to this road, and therefore these sites have secondary road frontages, generally consisting of a 6m wide laneway, to provide vehicular access to these lots. The proponent states that it is still the intention that these dwellings be designed to address Kanangra Drive. The laneways are to be for northbound traffic only, with no footpaths proposed. A 6m wide laneway is proposed to adjoin part of the northern boundary to provide a perimeter road for bushfire protection purposes, although future ownership of this road has not been made clear.

The proponent confirmed in the PPR that the northern side of Road 6, to the north of lots 341 to 349 is intended to function as a landscape buffer and dedicated to Council as part of the road reserve.



Figure 8. Subdivision layout, with roads and public domain landscaping.

Wyong Council raised no objections to the proposed road layout. The Council did provide a number of conditions for the detailed road design and to provide for improved pedestrian and cycle access in accordance guidelines produced by the Premier's Council for Active Living. In particular, Council requested that the road reserves for Roads 1 and 6 be widened from 21m and 16.6m respectively, to 23 metres. The increased width would provide a traffic lane and parking lane in each direction, as well as a 2.5m shared pedestrian cycleway path on one side to promote safe and clear paths of travel for pedestrians and cycling. Transport NSW also recommends shared pedestrian and bicycle links within the site

Vehicular access to the existing main dwelling is currently provided from Kanangra Drive. The PPR states that access could be provided from Road 6 at two points. The details will be provided at the Construction Certificate stage.

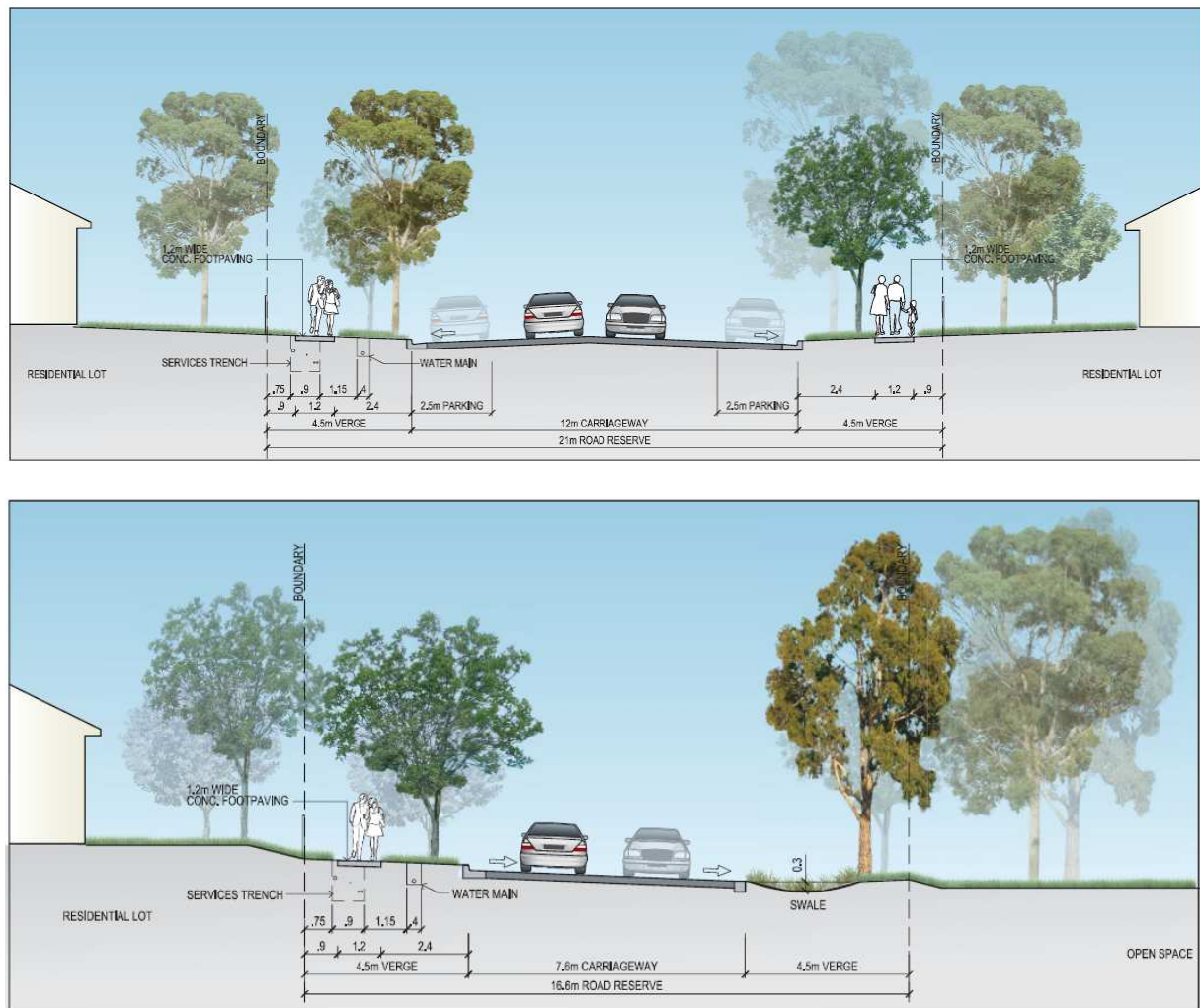


Figure 9. Cross sections proposed for Road 1 (top) and Road 6 (bottom)

Department's position

The Department considers that the proposed width of Road 1, which has four lanes (including two for parking) and 1.2m footpaths on both sides of the road to be of suitable width for the proposal and does not support additional road widening. The need for bicycle paths separate from both the road carriageway and pedestrian footpaths is not considered necessary given the likely traffic generation within the development, and the likely maximum traffic speed of 50km per hour. A 2.5m path would also result in a large quantity of concrete in this road reserve and detract from the 'green link' role of this road which was considered appropriate by the IHAP. A cycle path will be provided along the Kanangra Drive frontage of the site, connecting the site to the public school and local shops.

The widening of Road 6 is also not supported. This road provides a secondary function to Road 1, providing direct access to a limited number of lots, and also functioning as a perimeter road. It is therefore expected to result in a low traffic environment, and result in sufficient levels of safety for cyclists who wish to use this road.

A condition is recommended that the northern lane adjoining lots 129-138, which also serves as an APZ, be constructed to the same standards and be under the same ownership as Roads 4 and 11 (the other laneways in the site), and is to have a minimum carriageway of 6m. This will create a fourth access point into the site from Kanangra Drive, however it is likely to have very low traffic usage.

5.5 LANDSCAPING AND PUBLIC OPEN SPACE

A landscape plan was prepared by Context and provides an overview of the landscaping proposed for the road reserve, stormwater detention basin, as well as the two parks, and includes an indicative plant schedule (refer to Figure 8). Fence types along the site boundary are also described on the plan.

The landscaping plan originally submitted with the EA stated that the existing 2m timber fence along the Kanangra Road frontage is to be retained. The PPR stated that this fence will now be demolished, and fencing to Kanangra Road for each lot to be subject to the DCP for the site, which provides for a maximum height of 1m.

The application proposes two areas of public open space:

- South East Park on proposed lot 352 (the E2 zoned land on the site). It has an area of **1.48 hectares**.
- Northern Park on proposed lot 351 which has an area of 4031m² (**0.4ha**).
- The total area of the parks is **1.88 hectares**.

It is proposed that these areas of open space be dedicated to Council.

The location of the areas of open space reflects the IHAP recommendation to retain significant tree clumps in open space areas.

Council recommended that Landscape Masterplans be prepared to provide additional landscaping details including embellishment of the parks such as picnic tables, play equipment etc to encourage community engagement; provision of seating along pathways; and showing the location of proposed Water Sensitive Urban Design devices and their integration with other public domain treatments.

Council provided conditions for detailed design plans for the parks. It is noted that S94 contributions have been identified by Council to be paid for contributions for local parks, and that works in kind agreements could be made.

Department's position

Wyong Council's request for further design details for the landscaping to incorporate WSUD measures is supported, and this information can be provided prior to issue of the Construction Certificate for subdivision works.

The Department raises no concerns with the removal of the existing fence along Kanangra Drive, as the fence is in poor conditions in part. A lower fence typology, as proposed in the DCP, will provide for greater observation and street activation from the dwellings adjoining this street, and reduce the appearance of the site being a 'separate' community from the rest of Gwandalan.

Council's Section 94 Plan requires that local open space for residential areas be provided at the standard of 3.0ha per 1,000 persons. At an average occupancy rate of 2.4 per dwelling, this equates to approximately 450 residents, which equates to 1.35ha. The minimum areas for types of open space are:

- Semi natural open space – **2 hectares**
- Small park – **0.5 hectares**
- Total – **2.5 hectares**

It is noted that neither of the proposed parks meets the minimum requirements under Council's plan, and that there is a shortfall of 0.62 hectares for the site. The South East Park will also have limited opportunities for recreational uses due to the environmental significance of the vegetation in this part of the site. It is therefore considered appropriate that the S94 contributions for open space are still paid as required, even if these two parks are dedicated to Council.

5.6 DEVELOPMENT CONTROL PLAN

A Development Control Plan (DCP) was provided with the EA, and a revised version submitted with the PPR. The DCP includes provisions for subdivision of the site, access, open space, landscaping and built form controls, as set out in the South Wallarah SEPP. These controls will be used for the assessment of all future development on the site.

The revised DCP provides detailed built form controls including minimum lot size, architectural design, setbacks, height, private open space, site cover, landscaped area and fence design. Controls have also been provided for managing bushfire APZs on the site.

Department's position

The DCP is generally considered to be satisfactory, and result in a built form which will be sympathetic with the built form of existing nearby residential areas. However, amendments have been made to the DCP to ensure consistency with the proposal and recommended conditions, including incorporating the northern laneway into the public road network, a positive covenant so that no cats or dogs be kept due to the environmental sensitivities of the site, and that dwellings adjoining Kanangra Drive address this street.

Conditions provided by the Mine Subsidence Board have also been included in the DCP.

Lot sizes, which are generally between 470m² to 600m², are generally similar to lot sizes in the existing residential areas in the vicinity of the site. The DCP states that the minimum lot size for single detached housing is 450m². The subdivision plan includes five lots smaller than 450m² (the minimum lots size is 391.2m²), which are supported as they are less than 3% of the proposed lots on the site, and provide greater choice for future residents. The built form controls in the DCP will still apply to these lots.

5.7 ACCESS TO SURROUNDING AREAS AND LAKE FORESHORE

A number of public submissions, as well as Wyong Council, requested that public access be provided to the lake foreshore, which will link the existing foreshore public open space in Gwandalan with the Lake Macquarie SCA. Submissions also sought a direct link from the development site to the existing residential area of Gwandalan, preferably through the residual lot or the purchase of a lot in Billabourie Street, to provide better connection between the two areas, and prevent the development site from becoming a separate, isolated community.

The application does not propose any public access to the foreshore on the proposed residual lot. The proponent states this is because the foreshore adjoins the part of the site not subject to the residential subdivision development component of the site. The proponent also considered that the access to the existing community of Gwandalan is sufficient.

Department's position

A relatively narrow part of the site adjoins the Lake Macquarie foreshore. The existing main dwelling is located very close to the foreshore, with the area between the house and lake essentially functioning as private open space. Lack of access to the foreshore is therefore an existing constraint, and as the dwelling is not being redeveloped it would be onerous to require public access on this land. There is already considerable access available to the Lake Macquarie Foreshore by the public, as shown on Figure 3 of this report.

The residual lot is not part of the residential subdivision, other than providing improved stormwater management, and therefore the creation of an access way through this site to Billabourie Road or Garema Road is not supported. The creation of an access route to Billabourie Road would require the purchase of an existing property along this road, which is considered to be an onerous requirement for this application. It is considered that the road connection via Kanangra Drive and Orana Road is not an excessive distance, and recommended improvements to Kanangra Road, including a shared path, are considered to provide a satisfactory level of connection between the residential areas.

5.8 STORMWATER DRAINAGE

A Stormwater Management and Concept Engineering Report was prepared by ADW Johnson Pty Ltd. The report states that there are six existing dams on the site providing stormwater management functions. The site also has runoff from part of the public school, the Lake Macquarie SCA and Kanangra Drive. Stormwater from the school is controlled by a pipe to the uppermost dam on the site, although has no easement. There is also stormwater runoff from existing residential development in Billabourie Road, although the runoff enters the site downslope of the development area. Some parts of the site also drain to the Lake Macquarie SCA.

The application is proposing a water sensitive urban design (WSUD) solution for stormwater management on the site, to meet Wyong Council's and DECCW's requirements for stormwater management. Measures include rainwater tanks for each lot, vegetated swale drainage and a Gross Pollutant Trap (to capture litter and heavy sediment). Water will then drain to Dam 2 (refer to Figure 10), which will be converted to a constructed wetland to control runoff to Lake Macquarie. It is proposed that an easement be created for the management of the stormwater detention basin on the residual lot, and that the owner of the lot be burdened with maintenance of the stormwater detention basin. The proponent does not envisage that this area will be accessible to the public.

Piped drainage will run along the north west lots, reducing runoff to the Lake Macquarie SCA. The proposal also seeks to include the drainage and treatment of runoff from the school.

The detailed design of the stormwater system is intended to be provided at a later stage and include drainage flow paths, pipes, reshaping of the harbour entrance to pass peak flow from Dam 1 (overflow from Dam 2).



Figure 10. Location of stormwater detention basin (known as Dam 2) on the residual lot to function as a wetland. The proposed easement for drainage is in blue.

It is noted that the EPBC approval also requires the preparation of stormwater management plans.

Drainage works are to occur in part of the site identified as potentially containing acid sulphate soil. The Geotechnical Investigation report recommends that a more detailed acid sulphate soil investigation be undertaken

and an acid sulphate soil management plan prepared where works in this area involve excavation, drainage or disturbance to soils and ground water conditions over this area.

Wyang Council provided a condition that the stormwater system, including water quality control facilities, be in accordance with the ADW report, and Council's Development Control Plan 2005, and that detailed plans be submitted and approved prior to issue of a construction certificate.

The NSW Office of Water (NOW) reviewed the proposal and noted that there is a watercourse running through the southeast park, and below the swale drainage. As a result, NOW recommended a Riparian Zone Management Plan be prepared. NOW also raised concerns about water quality impacts to Lake Macquarie during construction and occupation. A monitoring strategy was recommended to demonstrate that the Gross Pollutant Traps and detention basin operate effectively.

Department's Position

The Department supports the use of WSUD to control runoff from the site into environmentally sensitive lands and Lake Macquarie. The stormwater detention basin/wetland provides an important stormwater function for the residential subdivision, and therefore the Department does not support the proposal that the owner of the residual lot be responsible for the maintenance of this detention basin. Based on discussions with the Council and their preferred outcomes for stormwater management, the Department has recommended the stormwater system on the residual lot, including the stormwater detention basin and drainage to the discharge point to Lake Macquarie, be constructed by the proponent, and an easement created for the Council to manage the stormwater system on this lot.

Conditions recommended by Wyong Council regarding detailed design of the stormwater system are supported. The conditions provided by NOW are also supported to ensure the drainage systems on environmentally sensitive lands, and the impact on the lake, is minimised.

The recommended condition regarding further investigations and management plan for acid sulphate soil has also been included to manage this issue.

5.9 FLOODING

The stormwater management report by ADW Johnson provides the peak flood levels for Lake Macquarie obtained from Wyong Council. The 1:100 year flood level is 1.38m AHD, and the Probable Maximum Flood level is 2.63m AHD. After taking into account climate change, the flood level for the 1:100 year flood level is revised to 2.85m AHD.

The report states that the lowest part of the site subject to the residential subdivision is approximately 4m AHD, downslope of proposed lots 271 and 293. Minor filling is required for the road at this location.

Department's position

The Department is satisfied that based on the information provided by the proponent's engineering consultant, development on the proposed residential lots (ie excluding the residual lot) will not be affected by floodwater inundation.

5.10 GEOTECHNICAL AND MINE SUBSIDENCE

A Geotechnical Investigation was prepared by RCA Australia.

With regard to the site regrading proposed for the site as part of the bulk excavation works, the proponent states that the civil design, which is a concept, indicates that there will be a net balance of cut and fill on the site, with no import or export of material.

The Mine Subsidence Board did not raise any objections to the proposed residential subdivision, subject to recommended conditions for the erection of all improvements/buildings on the site.

Industry and Investment NSW (Mineral Resources) responded to the proposal stating that the site overlies economic coal resources planned to be extracted by Chain Valley Colliery. I&I NSW raised no objections to the proposal provided that full extraction of coal remain permissible beneath the site and development is designed and constructed to withstand future predicted mining induced ground subsidence and the Mine Subsidence Board gives approval.

Department's position

The proponent stated in the PPR that the details of the proposed cut and fill plan may change due to the other management plans that will need to be prepared for the site, including for flora and fauna and drainage. A condition is therefore recommended that the final cut and fill plan be submitted for approval prior to the issue of a Construction Certificate for the commencement of any works on the site.

Conditions provided by the Mine Subsidence Board are primarily related to housing construction standards for the future dwellings on the site. The requirements are therefore recommended to be included in the DCP for the site.

The Chain Valley Colliery mining leases extend over existing residential areas of Gwandalan and Summerland Point. As discussed above, the Mine Subsidence Board has approved the development of the site subject to conditions, including that applications to develop the site be referred to the Mine Subsidence Board for approval. The proposal is therefore considered to be satisfactory in this regard.

5.11 CONTAMINATION

A Preliminary Environmental Site Assessment was prepared by HLA – Envirosciences Pty Ltd, which assessed potential sources of contamination from current or past land uses on the site.

The report notes that potential areas contamination on the site are a fruit orchard where pesticide use may have taken place; on-site sewerage treatment for the dwelling near the main site entrance; and a possible quarry in the north-western part of the site. These uses are unlikely to have resulted in any significant contamination on the site, and therefore no further investigations are needed.

The report does note however that fuel tanks are located on the site, which the proponent has advised are located near the intersection of Billabourie Street and Garema Road, on the residual lot. The report states that activity that will result in soil disturbance from affected land will require the submission of a preliminary site investigation report and/or detailed site investigation report by a qualified consultant.

Departments' position

A remediation action plan is recommended for the fuel tanks to be removed and the subject area remediated. It is considered that this issue otherwise has been adequately addressed and no additional conditions are needed in this regard.

5.12 ABORIGINAL CULTURAL HERITAGE

A letter was prepared by RPS stating that a previous Aboriginal survey and assessment was undertaken for the site in 2007 by ERM. The RPS letter states that the study identified no previous unrecorded Aboriginal sites in the site area. Consultation was also undertaken in accordance with the Interim Community Consultation Requirements, and the process and findings of this study are still relevant to the current application.

The letter by RPS states that in order to exercise due diligence a letter report or brief report be prepared before works are commenced which includes an updated search of the AHIMS register maintained by DECCW and if required, updated mapping and advice.

DECCW reviewed the EA and provided recommendations to minimise impacts on aboriginal cultural heritage including local Aboriginal community consultation, long term care of any recovered Aboriginal objects and human remains, and cultural education program for all personnel and contractors involved in construction activities on the site.

Department's position

The recommendations in the RPS report, and those provided by DECCW are recommended to be included in the approval, to minimise any impacts on Aboriginal Cultural Heritage.

5.13 BUSHFIRE

A Bushfire Hazard Assessment was prepared by Barry Eadie Consulting Pty Ltd. Asset Protection Zones (APZs) were proposed based on vegetation and slope. In summary, the proposed minimum APZs are:

- North - 20m
- North-east - 10m
- North-west - 15m
- West - 25m

In response to the EA, the NSW Rural Fire Service stated that they do not agree with the classification of vegetation and slope provided, and that the APZs for the northern lots (Lots 129 to 138) be increased to 35m. The RFS also required the carriageway of Road 6 to the north of lots 341 to 349 to be increased from 7.6m to 8m.

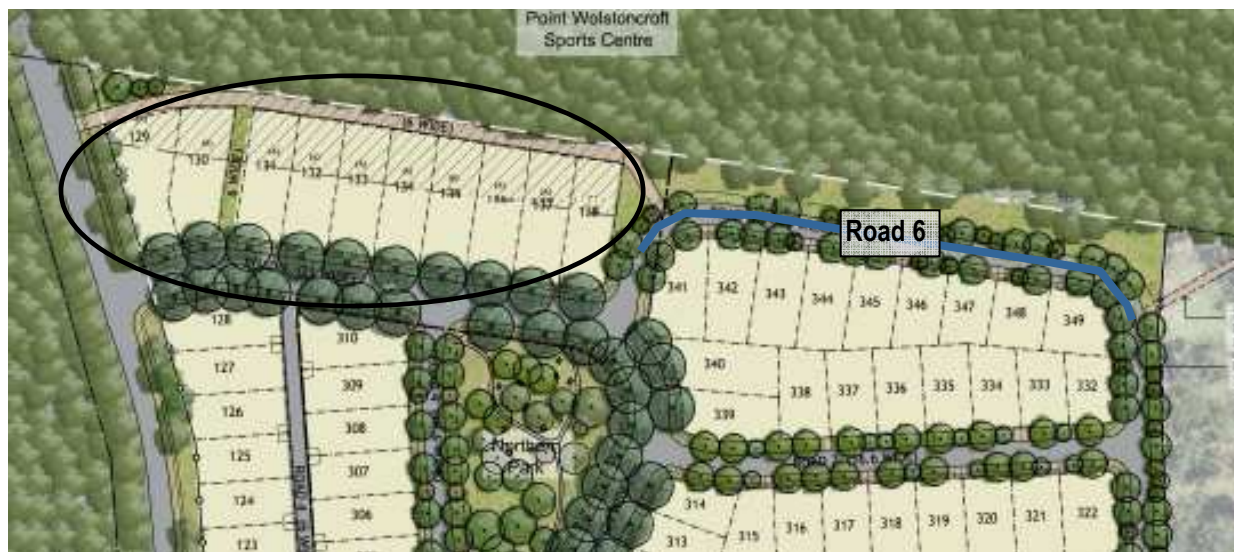


Figure 11. Lots required by the RFS to have increased APZs (circled), and Road 6 to be widened.

The PPR includes an updated bushfire report which states that following a review of the slope and vegetation classification, the north-western lots would only need an APZ of 25m. The PPR also refers to the width of the northern laneway being of sufficient size, although the width of this road was not raised by the RFS.

The revised bushfire report was referred to the RFS, who did not agree that the slope adjoining the north-western lots was less than 5 degrees, and therefore an APZ of 35m for these lots is still required.

Department's position

Conditions have been included for amended plans to be prepared to demonstrate that the north-western lots provide an APZ of 35m, and to demonstrate that the amended lots are of sufficient size to provide for a suitable dwelling. The increase width of the carriageway for Road 6 is also supported and a condition recommended accordingly.

5.14 UTILITIES AND SERVICES

The site will need to be serviced with services including water, sewer, electricity and telecommunications.

The Water Supply Authority for the site under the Water Management Act is Wyong Council. The Council advised in their submission that approvals will be required for all water and sewer works. The Council has recommended a condition that design plans must be submitted to and approved by Council prior to the issue of a Construction Certificate for the site.

Other utilities including electricity and telecommunications are proposed to be provided as additions to existing networks.

Department's position

Agreements for utility service provision will need to be made between the proponent and each service provider. A condition is recommended to ensure that each lot is fully serviced prior to the issue of a subdivision certificate.

5.15 PLANNING AGREEMENTS AND DEVELOPER CONTRIBUTIONS

State Contributions

The current State levy framework allows the State government to collect contributions from greenfield land release development to go towards the cost of road infrastructure, and land for education uses and health/emergency services. In the case of this application, contributions are required for education and emergency services.

The Voluntary Planning Agreement for the site identifies a contribution of \$902.26 per urban lot if paid prior to 30 June 2011 or \$1353.40 per urban lot if paid after 30 June 2011. The contributions are to be paid on or prior to the issue of the first subdivision certificate to create the first urban lot on the site.

Local Contributions

Wyong Shire Councils' Northern District S94 Contributions Plan requires the following contributions:

Category	Code	Rate (per DU/Lot)	Total Payable
Shire Wide	Regional Open Space	\$161.30	\$30,164.95
	Cycleway Network	\$330.90	\$61,882.05
	Performing Arts Centre and Public Art	\$373.40	\$69,827.65
	Administration	\$71.65	\$13,402.30
Roads	Northern Districts E	\$5360.45	\$1,002,407.90
Open Space	Northern Districts Open Space Local Parks	\$4209.20	\$787,120.40
Community Facilities	Northern Districts Community Facilities	\$3560.45	\$665,806.00
Administration	Northern Districts Administration	\$495.90	\$92,737.05
	TOTAL	\$14,563.36	\$2,723,348.40

Council advised that indexation occurs quarterly for S94 contributions, with the next indexation to occur on 1 May 2011. The contributions will be paid prior to issue of a subdivision certificate for each lot.

Council proposed that in addition to the above S94 payments, further negotiations should be required with regards to social infrastructure provision and partnership opportunities via a Voluntary Planning Agreement.

Department's position

The Department supports the payment for local contributions as identified in the Wyong Council's S94 plan, including the contributions to open space as the proposed parks are smaller than Council's standards, and have limited opportunity for recreational uses.

5.16 ECOLOGICALLY SUSTAINABLE DEVELOPMENT PRINCIPLES

The EP&A Act adopts the definition for ESD given in the Protection of the Environment Administration Act 1991 including the precautionary principle, the principle of intergenerational equity, the principle of conservation of biological diversity and ecological integrity and the principle of improved valuation, pricing, and incentive mechanisms. The Department has considered the proposed development in relation to the ESD principles and has made the following conclusions:

- **Integration Principle** - The economic and environmental impacts of the proposal have been considered in the assessment. It is considered that the environmental impacts of the development will be adequately mitigated and managed by the inclusion of the recommendations by the proponent's ecologist, and government authorities. The development of the site is considered to be balanced through appropriate management measures for the environment.
- **Precautionary Principle** – The Environmental Assessment is supported by technical and environmental reports that conclude that the proposal's impacts can be successfully mitigated. No irreversible or serious environmental impacts have been identified. Conditions are recommended that potential impacts are adequately managed and mitigated.
- **Climate Change** – The potential flood impact exacerbated by climate change was assessed. The affect of climate change on flood levels was considered in the assessment and it is concluded that the proposed development will not significantly increase potential flood affectation on other development or property, will not resulting an increased risk to human life, and is and is unlikely to result in additional economic and social cost.
- **Inter-Generational Principle** – Through implementation of the recommended environmental management practices will ensure the environment is protected for future generations. The benefits of the proposal include additional housing choice, with mitigation measures to minimise the impact of the development on the long term management of the environment.
- **Biodiversity Principle** – The environmental offset lands have been dedicated to the government and DECCW are of the opinion that along with the mitigation measures proposed for the development site, including management of flora and fauna, WSUD measures, and construction management plans, the impacts to threatened species is considered to be acceptable.
- **Valuation Principle** – The residential subdivision will provide an increased number of dwelling sites to assist in achieving dwelling targets. The provision of infrastructure will be subject to Voluntary Planning Agreements, S94 plans, or with regard to utilities, arrangements between the provider and developer. These issues will need to be resolved prior to subdivision certificates for the lots to ensure the sites are adequately serviced.

5.17 OBJECTS OF THE ACT

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

- (a) to encourage:
 - (i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,
 - (ii) the promotion and co-ordination of the orderly and economic use and development of land,
 - (iii) the protection, provision and co-ordination of communication and utility services,
 - (iv) the provision of land for public purposes,

- (v) the provision and co-ordination of community services and facilities, and
- (vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and
- (vii) ecologically sustainable development, and
- (viii) the provision and maintenance of affordable housing, and
- (b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State; and
- (c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.

It is considered that the proposed development will meet the objects of the Act in section 5 of the EP&A Act 1979, subject to the recommended conditions of approval.

6 CONSULTATION AND ISSUES RAISED

6.1 DIRECTOR GENERAL'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS

The Director General's environmental assessment requirements (DGRs) were issued on 30 November 2010.

In the course of preparing the DGRs, the Department consulted with agencies including Wyong Shire Council, DECCW, NSW Office of Water, NSW Industry and Investment, RTA, Transport NSW, Mine Subsidence Board, NSW Rural Fire Service and Department of Education and Training.

The DGRs also stated that consultation be undertaken with the local Council, relevant State and Commonwealth agencies, utility providers, emergency services, adjoining landowners and the local community.

6.2 PUBLIC EXHIBITION AND NOTIFICATION

The Environmental Assessment was exhibited from 15 December 2010 until 7 February 2011 for a period of 55 days. Advertisements were placed in the Sydney Morning Herald, Daily Telegraph, Central Coast Express Advocate and Newcastle Herald. Neighbouring residents/landowners were also notified of the exhibition by the Department.

The EA was made available to the public at a number of sites including the Department of Planning's Bridge Street Office, Central Coast Office and Newcastle Office; Wyong Shire Council and Gwandalan Bowling Club.

6.3 COMMUNITY REFERENCE GROUP MEETING

A Community Reference Group meeting was held at Catherine Hill Bay on 4 February 2011. The key points raised at the meeting were:

- Ownership of the drainage easement
- Access to the lake
- Connection to the existing residential area of Gwandalan
- Adequacy of block sizes eg. for caravans and boats
- Homes facing Kanangra Drive as this is not the case elsewhere

6.4 SUBMISSIONS

The Department received a total of 9 submissions from government authorities, and 16 submissions from the public (15 objecting/1 supporting). The key issues raised were:

- Ecological impacts, especially flora and fauna
- Adequacy of the offset lands to offset the impacts of the proposal
- Traffic impacts on the existing road network
- Internal road design and subdivision design
- Connectivity with the existing residential area of Gwandalan and lake foreshore
- Provision of supporting infrastructure and community infrastructure
- Controls for future development on the created allotments

An assessment of the key issues has been undertaken in Section 5 of this report. A detailed list of issues raised in the submissions received can be found in Appendix C. The key issues raised were:

The Department is satisfied that adequate public consultation for the proposal has been undertaken in accordance with the legislation.

The Preferred Project Report was lodged on 21 February 2011 and it was placed on the Department's website. No submissions were received in response to the PPR.

7 CONCLUSION

The Department has assessed the Environmental Assessment, Preferred Project Report and considered the submissions in response to the proposal. The key issues relating to the proposal are impacts on threatened flora and fauna, external and internal road network, provision of civil infrastructure and services, and urban design controls for future dwellings on the site. Releasing the site for urban development is supported as it is generally consistent with the objectives of the Lower Hunter and Central Coast Regional Strategies which identify the site as a proposed urban area to contribute to the growth and dwelling targets for the subregion.

The Department has considered the issues relating to the proposal and supports the proposed residential subdivision, subject to recommended conditions to ensure that all environmental and social impacts are minimised or managed to an acceptable level.

Recommended conditions include:

- Increased bushfire APZs for north-west lots (lots 129 to 138) and Road 6 widened from 7.6m to 8m;
- An easement to be created for the stormwater system on the residual lot for management by Council;
- Management plans required to manage and mitigate construction impacts, impacts on flora and fauna, and erosion and sediment control;
- Detailed plans submitted for road works, stormwater and public domain landscaping as the submitted plans do not provide the detailed design;
- Amendments to the DCP for the site to address mine subsidence and bushfire management;
- Provision of utility services for the servicing of residential lots prior to subdivision certificate;
- Provisions for regional and local contributions.

The proposal is considered to be in the public interest as it provides an area for additional urban development to meet the demands of a growing population in the Central Coast region, in conjunction with and other release areas in the region to ensure that housing construction targets are met. This may also have a positive impact on housing affordability in the region. The proposed development is considered to provide environmental, social and economic benefits to the region, subject to conditions of approval.

8 RECOMMENDATION

It is recommended that the Planning Assessment Commission:

- (A) **consider** all relevant matters prescribed under Section 75J(2) of the Environmental Planning and Assessment Act, 1979, as contained in the findings and recommendations of the attached report;
- (B) **approve** the application, subject to conditions, under section 75J(1) of the Environmental Planning and Assessment Act, 1979, having considered all relevant matters in accordance with (A) above;
- (C) **sign** the attached instrument of approval at Appendix A.

APPENDIX A. RECOMMENDED INSTRUMENT OF APPROVAL

APPENDIX B. STATEMENT OF COMMITMENTS

APPENDIX C. SUBMISSIONS SUMMARY

APPENDIX D. ENVIRONMENTAL ASSESSMENT AND PPR
