

## 1. Application Details

<b>JRPP Ref No.</b>	2009HCC004
<b>Application No.</b>	DA/1297/2009
<b>Proposal:</b>	Residential Subdivision of Stage 14, Point Morisset Precinct, North Wallarah Peninsula
<b>Location:</b>	Lot 27, Pt Lot 123 & Pt Lot 176 DP 270485, 2 Lake Forest Drive, Murrays Beach
<b>Zoning:</b>	10(a) Sustainable Mixed Use Zone
<b>Owner:</b>	Stockland Wallarah Peninsular Pty Ltd
<b>Applicant:</b>	Stockland Wallarah Peninsular Pty Ltd
<b>Exhibition:</b>	9 September 2009 to 25 September 2009 and 22 May 2010 to 21 June 2010
<b>Report By:</b>	Lake Macquarie City Council

## 2. Introduction

Stockland Wallarah Peninsular Pty Ltd (the Applicant) lodged Development Application No. 1297/2009 on 27<sup>th</sup> August 2009 for a 60 lot residential subdivision. The DA is for subdivision, development of access roads, stormwater drainage, the provision of services and landscaping works.

The applicant lodged a revised layout and additional supporting information on 17 May 2010 and 25 June 2010. The revised layout was generally to increase the buffer widths to the Masked Owl nest and roost trees and to provide a greater building set back from the lake foreshore reserve for a number of lots. These changes necessitated a revised road and lot layout.

The DA is required to be assessed pursuant to section 79C of the Environmental Planning and Assessment Act 1979, LMCC Local Environmental Plan 2000 – North Wallarah Peninsula and the associated North Wallarah Conservation and Land Use Management Plan (CLUMP) and the North Wallarah Peninsular Masterplan.

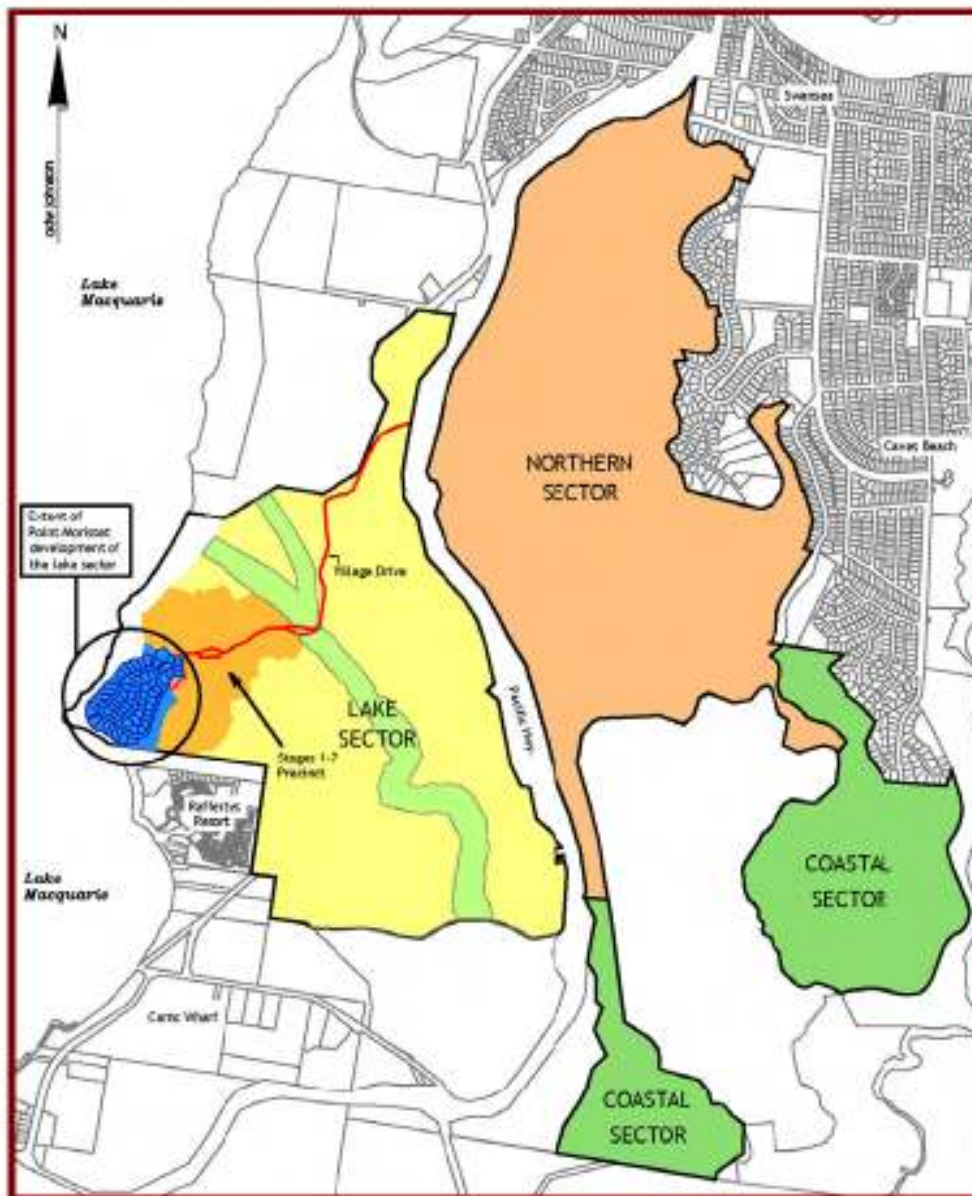
The application is for a subdivision of between 25 and 100 residential lots in a Sensitive Coastal Location. Therefore, the Hunter and Central Coast Joint Regional Planning Panel is the Consent Authority.

## 3. Recommendation

The proposed Development Application DA 1297/2009, for a 60 lot residential subdivision in three stages, is recommended for approval subject to the conditions contained in Appendix A.

## 4. Location

The proposed development is located on Lot 27 DP 270485, Part Lot 123 DP 270485 and Part Lot 176 DP 270485, 2 Lake Forest Drive, Murrays Beach.



**Figure 1 - Precinct Location Plan.**

The site is located to the west and south of existing and planned residential lots at Murrays Beach. A public reserve and Lake Macquarie are located to the west and south of the development site. This DA is for Stage 14 of the subdivision of the Lake Sector of North Wallarah and is referred to as the Point Morisset Precinct.

The site is zoned 10(a) – Sustainable Mixed Use Development under the Lake Macquarie Local Environment Plan 2000 – North Wallarah Peninsular, and the entire site is classified as Type 4 development in the Development Land Use Plan contained in the North Wallarah Peninsular Masterplan. Type 4 development areas allow for the most intense development form at North Wallarah.

The site is flat to gently sloping and has a good cover of mature trees, which provide a canopy cover of around 20 to 30 metres in height. The understorey is generally managed grassland with limited mid or under storey vegetation.



Oblique Aerial looking generally south-east into Stage 14.

## 5. Description of the Proposed Development

The application is for a residential subdivision to create 60 residential lots and one Community Title Lot, which will have a dual use for stormwater drainage facilities and open space. The development will take place in three stages. The subdivision layout plan is shown in Appendix C.

Stage 14A will create 23 lots plus part of the Community Lot. Stage 14B will create 19 lots plus part of the Community Lot. Stage 14C will create 18 lots plus the remainder of the Community Lot.

In addition each stage will include the construction and dedication of public roads, stormwater infrastructure, tree and vegetation removal, landscaping and revegetation works, the creation of Asset Protection Zones and the provision of services. The services will include underground electricity, water, sewer, gas and telecommunications. It is also proposed to undertake

landscaping, tree planting and the construction of pathways in the Council owned foreshore reserve.

## **Supporting Documents**

Documents submitted with the DA include:

- Statement of Environmental Effects;
- Precinct Plan, Site Plan, Tree Survey and Plan of Subdivision ;
- Urban Design Statement and Design Analysis Plan;
- Landscape Report and Design;
- Ecological Report;
- Visual Assessment Report;
- Physical Infrastructure Report;
- Bushfire Report;
- Geotechnical Report;
- Aboriginal Heritage Report, and
- Masterplan Checklist.

## **Community Scheme**

The subdivision will be created as a Community Title subdivision. All lots will be created as freehold lots within the Community Scheme, while the roads will be created as public roads and be dedicated to Council. The Community Scheme will be managed by a single Community Association through the provisions of the Community Management Statement.

Access by the general public into the Community Scheme will be provided by the following outcomes:

- Roads are proposed to be dedicated to Council as 'Public Roads' to provide guaranteed access for all members of the wider community;
- The proposed pedestrian paths (in addition to those located within the Public Roads) that will be provided through the Community Association Lot are proposed to be dedicated as 'Public Pathways'. This will ensure general public access along the network of connecting trails.

## **Community Management Statement**

A Community Management Statement for the Lake Sector Community Scheme has been registered. The Community Management Statement establishes the objectives, requirements, rules and responsibilities of the scheme. This Community Management Statement will apply to all subdivision stages within the Lake Sector.

The Community Management Statement provides a mechanism for the long term effective management of issues such as environmentally sensitive areas, bushfire fuel loadings, vegetation retention, stormwater controls on lots, built form character and design and ownership of cats and dogs.

## 6. Assessment

The Development Application has been assessed against all relevant Commonwealth, State and local planning legislation and policies.

### Assessment against requirements of Section 79C of EP&A Act

#### Section 79C(1)(a)(i) - The provision of any environmental planning instrument

##### Commonwealth Legislation

###### *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*

In April 2004 the Applicant referred the development in the entire Lake Sector of North Wallarah to the Commonwealth Department of Environment and Heritage. The Department issued a determination on 26 May 2004 that the proposed residential development together with associated infrastructure is not a controlled action under the EPBC Act 1999.

##### State Planning Controls

###### *Water Management Act (2000)*

The Development Application required referral to the Department of Environment, Climate Change and Water (NSW Office of Water) under the Water Management Act as works are proposed within 40 metres of the lake. The Office of Water issued General Terms of Approval under the Controlled Activity provisions of the Water Management Act (2000) on 4 June 2010.

###### *National Parks and Wildlife Act 1974*

An Aboriginal Cultural Heritage Assessment Report prepared by Navin Officer Heritage Consultants was submitted with the DA. The report identified that there were two sites of indigenous heritage significance located in the vicinity of the development. One is a midden in the foreshore reserve, which will not be disturbed by the development. The other was an Aboriginal scar tree (AHIMS #47-7-0224). While the development proposed to retain the scar tree, it was proposed to prune the tree and erect a support structure, so the approval of DECCW was sought. An officer from DECCW inspected the site and confirmed that the scar tree was not in fact of Aboriginal origin. The tree was subsequently deregistered from the AHIMS database. The tree will still be retained within a Community Association reserve area within the development.

As there will be no impact on any indigenous heritage sites, no approval under the National Parks and Wildlife Act 1974 is required.

###### *Native Vegetation Conservation (NVC) Act 1997*

The NVC Act does not apply to the areas of the subject site which are zoned "10(a) Sustainable Mixed use Development". DIPNR confirmed in writing on 22 July 2003 that it considers that land Zoned 10(a) Sustainable Mixed Use Development in the Lake Macquarie LEP 2000 – North Wallarah Peninsula is land excluded from the *NVC Act* by reason of Section 9(a) of the *NVC Act*.

###### *Threatened Species Conservation (TSC) Act 1995*

Section 5A of the *Environmental Planning and Assessment Act 1979* states that in the administration of s78A, there are seven factors that must be taken into account in deciding whether there is likely to be a significant effect on threatened species, populations or ecological communities or their habitats. Those factors are listed in part 2 of s5A and are known as a seven part test.

The application was accompanied by a seven part test that addressed the impacts on Masked Owls. The seven part test was prepared by John Young, a recognised large forest owl expert, and Ngh Environmental. The report indicated that there would not be a significant impact on the Masked Owl and that a Species Impact Statement (SIS) was not required.

Council's Planner – Flora and Fauna after reviewing the seven part test and the supporting information did not support the findings in the seven part test. She believed that a Species Impact Statement should be prepared for the Masked Owl.

Due to the specialist knowledge required to assess the impacts on the Masked Owls, Council decided to engage an independent expert to review the application and the contents of the seven part test. Council engaged Dr Rod Kavanagh, who is the Senior Principal Research Scientist, Forest and Rangeland Ecosystems, NSW Department of Industry and Investment. Dr Kavanagh is a noted expert on large forest owls.

Dr Kavanagh met with the applicant's expert, John Young, and reviewed the subdivision layout and information submitted. After this initial meeting, Dr Kavanagh advised Council that in his opinion some minor refinements to the subdivision layout were required and that based on the current layout a SIS was required. He provided advice on what amendments to the subdivision he considered were appropriate and what additional information should be provided to be confident that there would not be a significant impact on the owls.

The applicant subsequently undertook extensive surveys and investigation of the Masked Owl and its habitat area in accordance with Dr Kavanagh's advice. The subdivision layout was amended to meet the requirements of both owl experts and increased buffer widths were provided to the nest and roost trees. A further ecological report, which contained the additional survey information and a revised seven part test were provided to Council.

The conclusion to the seven part test includes the following statement.

“Based on the information presented in this document (and past Discussion Paper) and the assessment against the Section 5A heads of consideration, it is considered unlikely that the proposed development in Stage 14 will have a significant effect on the pair of breeding Masked Owls. Further, this report concludes that it is highly unlikely that the proposed development is likely to have an adverse effect on the life cycle of the species such that the local population of the Masked Owl is placed at risk of extinction. “

Dr Kavanagh reviewed the amended subdivision layout and revised seven part test. Dr Kavanagh advised Council that he was satisfied with the amended layout and additional information provided and that he did not believe that a SIS was required. Dr Kavanagh's advice contained the following statement.

“In summary, I do not believe that an SIS is required to consider the Stage 14 development because the report contains much of the information and assessment that would be provided by an SIS, or at least provides an undertaking that the required information will be provided.”

A proposed condition of consent requires the preparation of a Masked Owl Management Plan that will present the “required information”, referred to in Dr Kavanagh’s comment.

Council’s Planner – Flora and Fauna has not accepted the advice of Council’s independent expert and still believes that a SIS should be provided before the application is determined. For completeness, I have included her full comments in Appendix D.

Council’s Planner – Flora and Fauna has also referred the relevant information to the City Solicitor to seek his advice. The Solicitor has advised her that “having considered this material, I am of the opinion that the development is more likely than not to have a significant effect on the threatened species, *Tyto novaehollandiae* (Masked Owl”).

The applicant has also provided a legal opinion to Council from Norton Rose Australia. That advice contains the following conclusion.

“In our opinion the Ngh Report provides an appropriate and persuasive basis upon which the consent authority could conclude that the proposed development is not likely to significantly affect the Masked Owl and therefore that an SIS is not required.”

The application has been prepared under the guidance of the applicant’s John Young and has been reviewed by Council’s independent expert Dr Rod Kavanagh. John Young and Dr Kavanagh are both highly respected experts on large forest owls and have extensive experience in surveying and monitoring Masked Owls and their habitat. Both experts have endorsed the subdivision layout and the associated buffers to the Masked Owl trees and both have indicated that a SIS is not required. I believe that John Young and Dr Kavanagh have the best qualifications and experience to determine whether there will be a significant impact on the owls and therefore, whether a SIS is required. I have accepted the advice of these experts and in my opinion, a Species Impact Statement is not required for this application.

### ***Mine Subsidence Act 1995***

Under the provisions of Section 91 of the *EP&A Act* the DA is required to gain an integrated approval from the Mine Subsidence Board. The DA was referred to the Board as a component of this assessment and was granted approval subject to conditions on 24 May 2010.

### ***Rural Fire Act 1993***

Under the provisions of Section 91 of the *EP&A Act* this DA is required to gain an integrated approval from the NSW Rural Fire Service. The DA was referred to the NSW Rural Fire Service as a component of this assessment of the application. The NSW RFS issued a Bush Fire Safety



Authority under section 100B of the Rural Fires Act 1997, subject to a number of conditions on 21 June 2010.

***State Environmental Planning Policy (SEPP) (Major Development)***

The development site is located in a “sensitive coastal location” and will create between 25 and 100 residential lots. Therefore, under Section 13C(d) of the SEPP, the development is deemed to be “Regional Development” and the consent authority is the Hunter and Central Coast Joint Regional Planning Panel.

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

The proposal does not meet the requirements for referral to the RTA under *SEPP Infrastructure 2007* or the *Roads Act 1993*.

***State Environmental Planning Policy (SEPP) No. 19 Bushland in Urban Areas***

The development site adjoins the Foreshore Reserve, which is zoned Open Space 6(a), therefore the matters listed in Clause 9(2) of the SEPP are relevant.

Approximately 50% of the existing trees on the development site will be retained. In addition a further 129 new trees as well as other landscaping will take place on the development site. No trees or vegetation within the Reserve will be destroyed and approximately 350 additional trees will be planted in the Reserve to augment the existing bushland. There is a 6 to 10 metre variable building setback to the reserve for all new dwellings.

Full erosion and sediment controls and stormwater management controls will be maintained during and after development and a weed management plan exists for the site.

It is considered that the development will satisfy the aims and objectives of the SEPP.

***State Environmental Planning Policy (SEPP) No. 44 – Koala Habitat Protection***

A SEPP 44 habitat assessment was included in the Integrated Ecological report submitted with the DA. The report identified that the site contained Koala food trees that exceeded the SEPP 44 threshold classification and the site was therefore identified as “Potential Koala Habitat”.

Further investigation and survey of the site found no evidence of previous or current habitation by koalas of the site or within the Lake Sector. Therefore, the site is not considered “Core Koala Habitat” as defined by SEPP 44.

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

SEPP 71 applies to the land covered by the LEP North Wallarah Peninsular 2000, which includes the site of this DA. Although the SEPP did not apply to the site at the time the North Wallarah Peninsula Masterplan was prepared in 2003, all planning for the development and the considerations contained in the Masterplan were consistent with the provisions of the draft SEPP, which was in place at that time.

Part 5 of SEPP 71 requires the preparation of a Masterplan for subdivision of land in a ‘sensitive coastal location’. As the site is partly within 100m of Lake Macquarie (which is in the Coastal Zone), Part 5 applies. The Department of Planning granted a Masterplan Waiver (No. MP 7-7-2006), dated 28 December 2006, in consideration of the existing planning controls in the North Wallarah Peninsula Masterplan, LEP NWP 2000 and the CLUMP. The waiver covers the entire North Wallarah Peninsular development site. Accordingly, the requirements of Part 5 of SEPP 71 have been satisfied.

The development has been assessed in accordance with the requirements of Clause 8 of the SEPP. All the requirements of Clause 8 are included in the planning considerations contained in the Masterplan. The Stage 14 subdivision has been designed to minimise impacts on the foreshore of Lake Macquarie. The layout maintains public access to the foreshore, while providing

some protection to the Forest Red Gum Reserve by limiting direct access to the foreshore through the reserve. Visual impacts have been limited by maintaining mature tree cover and providing a suitable building envelope for each lot. The DA generally satisfies the aims of the SEPP and the Clause 8 Matters for Consideration.

### ***Lower Hunter Regional Strategy***

The Lower Hunter Regional Strategy has been prepared to guide the future population growth in the Lower Hunter region. The Lower Hunter Regional Strategy identifies the North Wallarah Peninsula area as an 'existing urban area'. The proposed development complies with the objectives of the Strategy.

### ***Lake Macquarie Local Environmental Plan – North Wallarah Peninsula 2000***

The aims of the North Wallarah Peninsular LEP 2000 are set out below.

- (a) provide for the development of certain land at North Wallarah Peninsula that is consistent with the integration of natural and developed landscape and conservation values attributed to the land, and
- (b) ensure that the Council and approval bodies acknowledge and consider the conservation principles that have been identified for the land at North Wallarah Peninsula, and in the *Conservation and Land Use Management Plan*,
- (c) direct the future use of North Wallarah Peninsula in a manner that ensures sensitivity to the physical, social and natural environmental values, and environmental heritage, of the land, and
- (d) achieve ecological sustainability through an harmonious integration between the natural and developed landscape, and
- (e) to properly integrate humans within their environment.

An extensive planning process has proceeded the development at North Wallarah. All the environmentally significant land has been identified and this has been preserved within the dedicated National Park, within the fauna corridor and a number of reserves. The Conservation and Land Use Management Plan and the Masterplan ensure that development meets the aims of the LEP.

The development site is zoned 10(a) Sustainable Mixed Use Development under the North Wallarah Peninsula 2000 LEP. The objectives of the 10(a) zone are set out below.

- (a) to achieve a planned urban outcome, based on principles of ecological sustainability, at a village settlement scale, enhancing quality of lifestyle, social equity, and ecological awareness,
- (b) to promote development that is compatible with the amenity of adjoining and surrounding residential development, does not adversely affect the capacity and safety of road networks and can connect to a water supply, and a sewerage and drainage system,
- (c) to ensure that development contributes to a sustainable, vibrant community, and reflects holistic consideration and integration of social, economic and environmental design issues,
- (d) to promote the ecological compatibility of development with conservation outcomes identified for the land in the *North Wallarah Peninsula Local Environmental Study*, copies of which are available from the office of the Council,
- (e) to provide for a range of development types identified in the *Conservation and Land Use Management Plan*, and described in Schedule 1,
- (f) to achieve favourable land use outcomes by focussing on environmental, social, economic, community and amenity factors rather than individual land use types,

- (g) to provide a wide range of housing and accommodation choices through a variety of urban settlement forms.

The proposed subdivision meets the objectives of the zone.

Subdivision and the related roads, stormwater drainage and servicing are permissible development in the 10(a) zone subject to the consent of Council. There is a small section of footpath and some landscaping works that are proposed within the Foreshore Reserve, which is zoned 6(a) Open Space. Landscaping works are permissible uses in the 6(a) zone.

Clause 24 (2)(a) and (b) of the LEP requires the consent authority to take into consideration the matters referred to in the CLUMP and Masterplan before granting consent to a development application. The application has been assessed against these documents.

Clause 24 (2)(c) of the LEP requires the consent authority to take account of any submission from the Department of Urban Affairs and Planning, before determining a development application. The application was referred to the Department of Planning. The Department indicated that it had no comments on the application.

The proposed development complies with the aims of the LEP, the objectives of the 10(a) Sustainable Mixed Use Development zone and constitutes permissible development under the North Wallarah Peninsular LEP 2000.

### ***Conservation and Land Use Management Plan (CLUMP)***

The Conservation and Land Use Management Plan (CLUMP) was prepared to support the NWP 2000 LEP and is legally bound to the LEP. It provides an overall conservation and development land use framework for the Wallarah Peninsula development. The CLUMP contains planning principles, implementation procedures, criteria for preparation of the Masterplan and environmental and other criteria that development at the Wallarah Peninsula must satisfy.

The CLUMP identifies the Point Morisset area as a separate planning precinct. The objective for the Point Morisset Precinct as identified in the CLUMP is “to allow site sensitive development that takes account of the archaeological and scenic resource values of this visually prominent lake foreshore site”.

The CLUMP identifies that the foreshore area is to be preserved as a natural open space area. This is achieved by the creation of the public reserve along the lake foreshore. The CLUMP also states that “building form should be understated and building height should not exceed the top of the predominate tree canopy”. While buildings do not form a part of this application, the approval will create the Site Analysis and Development Plan for each lot. These site plans identify the building envelope including height and vegetation retention requirements for each lot. All future buildings must be designed in accordance with the controls contained within the North Wallarah Design Essentials, which is the building control guidelines for North Wallarah.

The development satisfies the requirements of the CLUMP.

### ***North Wallarah Peninsula Masterplan***

The North Wallarah Peninsula Masterplan consists of a Development Land Use Plan and eight specialist Management Plans. The Masterplan makes a range of recommendations in the form of strategies. Considerations formed from the strategies provide the criteria against which development applications are to be assessed. The eight specialist Management Plans are listed below:

- Ecological Site Management Plan
- Bushfire Management Plan
- Physical Infrastructure Management Plan
- Open Space and Public Access Management Plan
- Built Form Management Plan
- Visual Integration Management Plan
- Social Equity Management Plan
- Construction Management Strategy

The Development Land Use Plan contained in the Masterplan identifies the Point Morisset area as a development Type 4 area. Type 4 areas allow for the highest density of development at North Wallarah and are identified for “urban village settlements”. There is no minimum lot size in the Type 4 areas. The Masterplan identifies that Type 4 areas may contain diverse urban forms including “terraces, small cottages, large homes, traditional suburban residential development, attached housing, apartments, a neighbourhood centre” and small scale retail/tourist/commercial uses. The proposed subdivision satisfies these requirements.

The Development Land Use Plan also shows that access to development within the Point Morisset Precinct is by an internal loop road. The Masterplan identifies that the Forest Red Gum Reserve that is located between the development and the lake needs to be protected. In Strategy 4.5 of the Ecological Site Management Plan it states:

The design of accesses into the Forest Red Gum Reserve should be guided by the following strategies:

- The number of roads, emergency accesses and pedestrian pathways entering the Forest Red Gum Reserve should be minimised; ...

It is considered that access to the development within Point Morisset by an internal loop road, rather than a perimeter road around the lake edge is an acceptable outcome as it will better control public access to the reserve and reduce impacts on the Red Gum Forest.

The proposed development has been assessed against all the relevant considerations within the Masterplan and the full results are presented in Appendix B. A brief summary of the Masterplan assessment is provided below, based on each management plan.

### **Ecological Site Management Plan**

The CLUMP identified the large scale Conservation Strategy for the North Wallarah site. This Strategy identified the most significant areas for conservation and these areas have been protected by dedication of the Wallarah National Park, the progressive dedication of the Fauna Corridor and the dedication of other identified reserves and the protection of riparian corridors.

The Point Morisset area has been further surveyed and has been confirmed as containing an Endangered Ecological Community, the River-Flat Eucalypt Forest on Coastal Floodplains. (Note: The Masterplan refers to this community as Forest Red Gum Forest and for clarity, I have used that name in the report). This Community is located on the Foreshore Reserve and also extends onto the development site. Approximately 9.5 hectares of the EEC have been identified within the full North Wallarah Peninsular area, of which 7.7 hectares will be preserved in the Foreshore Reserve. The Foreshore Reserve (also called Forest Red Gum Reserve) has been zoned for open space purposes and those parts of the reserve that are not in public ownership are being progressively dedicated to Council.

While the development will result in the loss of some trees within the EEC, approximately 50% of the trees within the development area are to be retained. There will also be additional new trees planted within the development site and the applicant has proposed to plant some 350 trees in the foreshore reserve in accordance with Council's Plan of Management for the reserve. It is considered that the creation of the Forest Red Gum Reserve as well as the above measures will limit the impacts on the EEC.

Four threatened fauna species being, the Masked Owl, Little Bent Wing Bat, Powerful Owl and Little Lorikeet were identified as using the area either for foraging, roosting or nesting.

A Masked Owl nest tree and an associated roost tree have been identified within the development site. The applicant engaged John Young, a large forest owl expert, to undertake a detailed study of this site as well as the broader North Wallarah area. The original application proposed a 30 metre buffer around the nest and roost tree.

Council arranged for an independent owl expert, Dr Rod Kavanagh, to review the application. Dr Kavanagh met with John Young on site and following further investigation, both experts agreed that a 50 metre buffer should be provided to the nest tree and a 30 metre buffer to the roost tree. The experts also made further recommendations to limit the impact on the owls, including the preparation and implementation of an owl management plan. All of these recommendations have been included in the recommended conditions of consent. Both experts agreed that if the above recommendations and buffers were provided there would not be a significant impact on the owls and a Species Impact Statement would not be required. The applicant subsequently revised the subdivision layout to satisfy the experts' requirements and submitted a revised application. As indicated earlier in this report, Council's Planner – Flora and Fauna does not agree with the advice of John Young and Dr Kavanagh and believes that an SIS should be provided with the application.

A Site Analysis and Development Envelope Plan has been prepared for each lot, which identifies where building works can take place on the lot, the maximum height of the building and what vegetation must be retained. The Site Analysis and Development Envelope has been designed by a multi-disciplinary team in accordance with the Lot Validation Process identified in the Masterplan. The Development Envelope will be registered on the title of each lot. This process ensures that the majority of significant trees on the site are retained and that the development can proceed in a sustainable way.

### **Bushfire Management Plan**

Bushfire management across the Wallarah Peninsular involves an interactive approach to achieve the desired bushfire and environmental protection outcomes. The whole site is managed for bushfire rather than just relying on perimeter controls. The proposed bushfire management controls meet the Masterplan requirements. The application was referred to the Rural Fire Service and General Terms of Approval were granted.

### **Physical Infrastructure Management Plan**

The Masterplan identifies the requirements for stormwater management, traffic management, road design, services, geotechnical controls and construction management.

The Masterplan identifies that at source stormwater controls should be provided in the Lake Sector. In past subdivision stages this has been provided by a bio-retention basin on each lot, vegetated swales in the road reserve and, if required to meet water quality outcomes, end of line basins. For Stage 14 the applicant has proposed to use the same treatment process, excluding the vegetated swales within the road reserve. End of line basins will be provided and will be increased in size to ensure that the required water quality outcomes are achieved. The proposed roads will have roll kerb and gutter on one side and a concrete edge strip on the other. Native vegetation landscaping will be provided in the road reserve. The proposed departure from the Masterplan control is supported as the vegetated swales in earlier stages have not been successful, due to a number of factors, including erosion of the swales, vehicles driving in the swales and the swales requiring excessive maintenance. It is considered that similar water quality outcomes and streetscape outcomes can be achieved without swales.

All other infrastructure for the subdivision complies with the Masterplan requirements.

### **Open Space and Public Access Management Plan**

The location of open space areas has been identified in the Development Land Use Plan contained in the Masterplan. The open space areas in the Lake sector have either been dedicated to Council already or are being progressively dedicated to Council in accordance with the North Wallarah S94 Plan.

For this application, an existing public reserve exists along the lake foreshore. Controlled access to this reserve will be provided as a part of the subdivision layout. It is proposed to undertake landscaping works within this reserve including extending the existing pedestrian footpath.

A number of passive open space areas will be created within the development site. These areas are the two Masked Owl buffer areas and a riparian corridor along the east of the subdivision. These areas will be a part of the Community Association land and will be managed by the Community Association.

The proposed subdivision complies with this section of the Masterplan.

### **Built Form Management Plan**

There are no building works proposed in this DA, however the Site Analysis and Development Envelope Plans will be created for each lot. These envelopes will help control future building on the site. All future building works will have to be designed in accordance with the North Wallarah

Design Essentials, which is a design manual that is linked to the title of each lot by the Community Management Statement.

The Design Essentials provide a detailed guide for the design of all buildings.

### **Visual Integration Management Plan**

A detailed Visual Integration Report has been submitted with the application. Visual impacts have been limited by retaining over 50% of the trees on the site and requiring additional planting within the development site and on the foreshore reserve. This will allow views to be buffered by native vegetation.

The Site Analysis and Development Envelope Plans have ensured that all lots maintain a minimum building set back of 6 to 10 metres to the foreshore reserve. In critical areas the set back is 10 metres or greater in distance. Two storey components of buildings have been set back further in critical areas. All building heights have been set by the Site Analysis and Development Envelope Plans and are located well below the tree canopy height. All dwellings which face the foreshore reserve will be required to provide a raised deck/verandah using pier and beam construction along the foreshore face of the dwelling. Native vegetation must be maintained between the dwellings and the foreshore reserve.

All future dwellings must be designed in accordance with the North Wallarah Design Essentials, which controls built form, materials and colours.

It is considered that the application meets the requirements of the Masterplan.

### **Social Equity Management Plan**

The social equity plan identifies specific strategies to achieve social equity by:

- Creating employment opportunities;
- Creating a sense of place;
- Facilitating equal access to resources;
- Developing and enhancing public spaces; and
- Facilitating social networks and sense of community.

The application satisfies the strategies identified in this section of the Masterplan.

### **Construction Management Strategy**

A comprehensive list of strategies are identified to limit the impacts from construction works. These requirements will be enforced by the recommended conditions of consent. A number of subdivision stages have already been constructed in the Lake Sector using similar controls and no construction issues have arisen.

The application satisfies the requirements of this section of the Masterplan.

A full Masterplan assessment is provided in Appendix B.



### **79C(1)(a)(ii) the provision of any draft environmental planning Instrument**

There are no draft plans that apply to this site.

### **79C(1)(a)(iii) the provision of any development control plan**

There are no development control plans that apply to this site.

### **79C(1)(a)(iiia) any planning agreement or draft planning agreement**

There are no planning agreements.

### **79C(1)(a)(iv) any matters prescribed by the regulations**

There are no matters relevant to this Development Application.

### **79C(1)(b) the likely impacts of the development**

The impacts of the development have been assessed as a part of the Masterplan assessment.

### **79C(1)(c) the suitability of the site for the development**

The suitability of the site for residential development has been considered during the site suitability process of the LES and the CLUMP. The LMCC LEP 2000 – North Wallarah Peninsula zoned the site 10(a) allowing mixed-use (including residential) development. The Development Land Use Plan identifies Type 4 development as being suitable for the area. The subdivision generally complies with the Masterplan requirements, therefore, it is considered that the site is suitable for this development.

### **79C(1)(d) any submissions made in accordance with this Act or the regulations**

#### **Public Submissions**

The application was placed on public exhibition on two occasions. Three letters of objection were received on both occasions. The main points of objection are identified and discussed below.

- The Masked Owl buffer area should be fenced to protect the area. - A condition of consent has been included that requires that the need for fencing be addressed in the Masked Owl Management Plan.
- The proposed foreshore footpath is located too close to Lot 1 DP 10585. - The footpath has been relocated further away from Lot 1.
- The proposal does not fully comply with the CLUMP, Masterplan and Design Essentials. - The Design Essentials are not relevant to this application as they only apply to building works. It is considered that the DA complies with the CLUMP and Masterplan.
- The proposed density of lots and the size of the development envelopes on each lot will not allow for adequate tree retention. - The Development Land Use Plan contained in the Masterplan identifies the development site as a Type 4 development area. Type 4 development areas allow for the highest density of development at North Wallarah. Approximately 50% of trees will be retained and

there will be additional planting to compensate for some of the lost trees. This is considered to be an acceptable outcome.

- Planting of trees on the foreshore reserve should not be permitted to offset clearing within the development site. - The planting in the reserve has not been considered as an offset. The proposed tree planting in the reserve is in accordance with Council's Plan of Management for the reserve and will augment the Forest Red Gum Community.
- The proposed road within the subdivision should follow the existing track rather than creating a new road location. - The location of the existing track is not conducive to a suitable subdivision layout.
- The tree of Aboriginal Significance, located within the subdivision, should be protected and supported by a structure. - Further investigation has identified that the tree is not of Aboriginal significance. The tree is a Masked Owl roost tree and will be protected by a 30 metre buffer and in accordance with the Masked Owl Management Plan. A condition of consent requires that the stability of the tree and options to support the tree be considered in the Masked Owl Management Plan.

#### **Submissions From Public Authorities**

The Rural Fire Service, Mines Subsidence Board and Department of Environment, Climate Change and Water (Office of Water) have granted General Terms of Approval for the subdivision.

The Department of Planning has raised no objections to the development.

#### **79C(1)(e) the public interest**

The proposed development is considered to be in the public interest as it would make available residential lots that are consistent with current zonings and planning controls. It would result in the retention of much of the existing environmental values of the area and provide a sustainable residential outcome.

### **6. Conclusion**

Council's Planner – Flora and Fauna has indicated that she believes that a Species Impact Statement for Masked Owls should be provided prior to the application being determined. Council engaged an independent ecological expert, Dr Rod Kavanagh, to review the application and the seven part test. Dr Kavanagh has indicated that in his opinion there will not be a significant impact on the owls and a SIS is not required. I have accepted the advice of Dr Kavanagh and the applicant's expert, John Young, in determining that a SIS is not required.

The proposed development has been assessed against the relevant Commonwealth, State, and Local environmental planning instruments, legislation and policies. The development generally meets all these requirements.

Environmental impacts of the proposal have been minimised and those impacts that do occur are considered to be acceptable subject to the proposed conditions of consent.

The assessment of the development application has not identified any impediments to granting of development consent and as such DA/1297/2009 is recommended for approval.

Greg Field  
**Chief Subdivision Engineer**  
**Lake Macquarie City Council**

I have reviewed the above planning assessment report and concur with the recommendation.

David Pavitt  
**Principal Development Engineer**  
**Lake Macquarie City Council**

## **Appendix A**

### **Conditions of Consent**

#### **Compliance with Conditions**

1. The reason for the imposition of the following conditions is to ensure, to Council's satisfaction, the objects of the Environmental Planning and Assessment Act 1979 (as amended) are achieved:
  - (a) To encourage:
    - (i) The proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forest, 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 of 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,
  - (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.
2. The approval comprises the application, the plans, the documents set out in the paragraph below and the conditions of consent. The proposed development may only proceed in accordance with these documents.

(a) Plans Reference:

Drawing No	Issue	Name of Plan	Date
180062-23-DA-003-F-C3D	D	Subdivision Layout Plan (AdW Johnson Pty Ltd)	4-6-2010
180062-23-DA-003-F-		Subdivision Layout Plan with Tree	

C3D	D	Layer ( <i>AdW Johnson Pty Ltd</i> )	4-6-2010
180062-23-ENV001-E to 180062-23-ENV060-E	E	Site Analysis and Development Envelope Plans (for each lot) ( <i>AdW Johnson Pty Ltd</i> )	22-6-2010
180062(23)CENG-001-004 180062(23)CENG-101-112 180062(23)CENG-201-202 180062(23)CENG-210-211	A A A A	Concept Engineering Plans ( <i>AdW Johnson Pty Ltd</i> )	14-5-2010
MP-SD-04	C	Concept Layout & Landscape Principles Plan ( <i>Arterra Design Pty Ltd</i> )	12-5-2010
MP-SD-06	B	Foreshore Reserve Plan ( <i>Arterra Design Pty Ltd</i> )	21-8-2009
LS-SD-01 (A-D) LS-SD-02 - 05	B	Public Domain Landscaping ( <i>Arterra Design Pty Ltd</i> ), as modified by plans above and excluding Plan LS-SD-06 (habitat area)	21-8-2009

(b) Document Reference:

Document	Reference	Author	Date
Statement of Environmental Effects	-	AdW Johnson Pty Ltd	Aug 2009
Appendix J – Statement of Landscape Intent	-	Arterra Design Pty Ltd	12-9-2009
Appendix K – Integrated Ecological Report	9048F	Travers Bushfire & Ecology	25-8-2009
Appendix L – Visual	Rev B	Civic Matters	24-8-2009

Integration Report			
Appendix M – Physical Infrastructure Report	-	AdW Johnson Pty Ltd	21-8-2009
Appendix N – Integrated Bushfire Protection Assessment	9048B	Travers Bushfire & Ecology	25-8-2009
Appendix Q – Geotechnical Soils Investigation	N07634/07-AB	Coffey	17-11-2003
<b>As modified by:</b>			
Correspondence	-	AdW Johnson Pty Ltd	17-5-2010
Ecological Review Letter and Revised 7 Part Test	-	John Young Wildlife & nghenvironmental	10-5-2010
Bushfire Review Letter	A10054:JT/NvD	Travers Bushfire & Ecology	13-5-2010
<b>As modified by:</b>			
Correspondence	-	AdW Johnson Pty Ltd	25-6-2010

(c) Supporting Document Reference

<b>Document</b>	<b>Reference</b>	<b>Author</b>	<b>Date</b>
Murrays Beach Design Essentials	-	Stockland	-
Fuel Management Plan	9048FMP	Travers Bushfire & Ecology	25-8-2009
Public Domain Technical Manual – Lake Sector	-	EDAW + Civic Matters	17-1-2005
Bushland Management Manual	04046	Manidis Roberts	14-1-2005
Vertebrate Control Program Report	-	-	Nov 2004
Aboriginal Cultural Heritage Assessment	-	Navin Officer	July 1999

The Development consent is for the proposed development as it is presented in all of the above listed documents, and as amended by the following conditions of consent.

## **Concurrence and Referral Authority General Terms of Approval**

### **3. Office of Water under the Water Management Act 2000**

The Applicant shall comply with the approval granted by the Department of Environment, Climate Change and Water (Office of Water) as detailed below:

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

The following are General Terms of Approval, as advised by NSW Office of Water, for works requiring a Controlled Activity Approval under the Water Management Act 2000:

##### **Plans, standards and guidelines**

- These General Terms of Approval (GTA) only apply to the controlled activities described in the plans and associated documentation relating to DA/1297/2009 and provided by Council (letter dated 17 May 2010) to the NSW Office of Water:

Plan 'General Arrangement' sheets 1-2 (project 80062(23) numbers 101-102) prepared by ADW Johnson dated 14 May 2010.

Any amendments or modification to the proposed controlled activities may render these GTA invalid. If the proposed controlled activities are amended or modified the NSW Office of Water must be notified to determine if any variations to these GTA will be required.

- Prior to the commencement of any controlled activity (works) on waterfront land, the consent holder must obtain a Controlled Activity Approval (CAA) under the Water Management Act from the NSW Office of Water. Waterfront land for the purposes of this DA is land and material in or within 40 metres of the top of the bank or shore of the lake identified.
- The consent holder must prepare or commission the preparation of:
  - (i) Vegetation Management Plan
  - (ii) Works Schedule
  - (iii) Erosion and Sediment Control Plan
  - (iv) Stormwater Management Plan
- All plans must be prepared by a suitably qualified person and submitted to the NSW Office of Water for approval prior to any controlled activity commencing. The following plans must be prepared in accordance with the NSW Office of Water guidelines located at [www.water.nsw.gov.au/water\\_trade/rights\\_controlled.shtml](http://www.water.nsw.gov.au/water_trade/rights_controlled.shtml)
  - (i) Vegetation Management Plans
  - (ii) Laying pipes and cables in watercourses
  - (iii) Riparian Corridors
  - (iv) In-stream works
  - (v) Outlet structures
  - (vi) Watercourse crossings

- The consent holder must (i) carry out any controlled activity in accordance with approved plans and (ii) construct and/or implement any controlled activity by or under the direct supervision of a suitably qualified professional and (iii) when required, provide a certificate of completion to the NSW Office of Water.

#### **Rehabilitation and maintenance**

- The consent holder must carry out a maintenance period of two (2) years after practical completion of all controlled activities, rehabilitation and vegetation management in accordance with a plan approved by the NSW Office of Water.
- The consent holder must reinstate waterfront land affected by the carrying out of any controlled activity in accordance with a plan or design approved by the NSW Office of Water.

#### **Reporting requirements**

- The consent holder must use a suitably qualified person to monitor the progress, completion, performance of works, rehabilitation and maintenance and report to the NSW Office of Water as required.

#### **Security Deposits**

- The consent holder may be required to provide a security deposit (bank guarantee or cash bond) – equal to the sum of the cost of complying with the obligations under any approval – to the NSW Office of Water as and when required.

#### **Access-ways**

- The consent holder must design and construct all ramps, stairs access ways, cycle paths, pedestrian paths or other non-vehicular form of access way so that they do not result in erosion, obstruction of flow, destabilisation, or damage to the bed or banks of the lake or waterfront land, other than in accordance with a plan approved by the NSW Office of Water.
- The consent holder must not locate ramps, stairs, access ways, cycle paths, pedestrian paths or any other non-vehicular form of access way in a riparian corridor other than in accordance with a plan approved by the NSW Office of Water.

#### **Bridge, causeway, culverts and crossing**

- The consent holder must ensure that the construction of any bridge, causeway, culvert or crossing does not result in erosion, obstruction of flow, destabilisation or damage to the bed or banks of the lake or waterfront land, other than in accordance with a plan approved by the NSW Office of Water.
- The consent holder must ensure that any bridge, causeway, culvert or crossing does not obstruct water flow and direction, is the same width as the river or sufficiently wide to maintain water circulation, with no significant water level difference between either side of the structure other than in accordance with a plan approved by the NSW Office of Water.

#### **Culvert**

- The consent holder must ensure that no materials or cleared vegetation that may obstruct flow, wash in the water body or cause damage to river banks are left on waterfront land other than in accordance with a plan approved by the NSW Office of Water.

#### **Drainage and Stormwater**

- The consent holder is to ensure that all drainage works (i) capture and convey runoffs, discharges and flood flows to low flow water level in accordance with a plan approved by the NSW Office of Water, and (ii) do not obstruct the flow of water other than in accordance with a plan approved by the NSW Office of Water,



- The consent holder stabilise drain discharge points to prevent erosion in accordance with a plan approved by the NSW Office of Water.

**Erosion Control**

- The consent holder must establish all erosion and sediment control works and water diversion structures in accordance with a plan approved by the NSW Office of Water. These works and structures must be inspected and maintained throughout the working period and must not be removed until the site has been fully stabilised.

**Excavation**

- The consent holder must ensure that no excavation is undertaken on waterfront land other than in accordance with a plan approved by the NSW Office of Water.
- The consent holder must ensure that any excavation does not result in (i) diversion of any lake (ii) bed or bank instability or (iii) damage to native vegetation within the area where a controlled activity has been authorised, other than in accordance with a plan approved by the NSW Office of Water.

**Maintaining river**

- The consent holder must ensure that (i) river diversion, realignment or alteration does not result from any controlled activity work and (ii) bank control or protection works maintain the existing river hydraulic and geomorphic functions, and (iii) bed control structures do not result in river degradation other than in accordance with a plan approved by the NSW Office of Water.

**4. Mine Subsidence Board under the Mine Subsidence Act 1995**

The Mine Subsidence Board has granted its approval for this subdivision subject to:

- a) the number, size and boundaries of the lots being substantially as shown on the approved plan; and
- a) notification being made to the Board of any changes to lot numbering and of the registered DP number.

The Mine Subsidence Board's approval is required for the erection of all improvements.

The Mine subsidence Board has not placed any restriction on the erection of improvements on this land, but plans need to be approved prior to commencement of construction.

*Architectural plans submitted to the Mine Subsidence Board for approval must show the location and detailing of articulation/control joins in brickwork to comply with the requirements of the Building Code of Australia and best building practices.*

This approval is valid for two (2) years from 27 May 2010.

**5. NSW Rural Fire Service**

The Applicant shall comply with the following conditions as issued by the Rural Fire Service under S91 of the Environmental Planning and Assessment Act 1979.

This response is deemed a bush fire safety authority as required under section 100B of the *Rural Fires Act 1997* and is issued subject to the following conditions.

This assessment is based upon an assessment of the plans and documentation including amendments, received for the proposal. All recommendations contained within the Bushfire Protection Assessment Report prepared by Travers Bushfire & Ecology, ref. 9048B, August 2009, and revised lot layout dated 13 May 2010, shall be complied with except where modified below.

**Water and Utilities**

The intent of measures is to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building.

- Water, electricity and gas are to comply with section 4.1.3 of *Planning for Bush Fire Protection 2006*.

## Access

The intent of measures for public roads is to provide safe operational access to structures and water supply for emergency services, while residents are seeking to evacuate from an area.

- All provisions for public access roads, other than where modified by below shall comply with section 4.1.3 of *Planning for Bush Fire Protection 2006*.
- Roads shall consist of a minimum carriageway width of 5 metres kerb to kerb together with 0.5 metre wide shoulders on both sides capable of supporting fire fighting vehicles (approximately 15 tonnes).
- Parking is to be provided within parking bays located outside the kerb to kerb space and services are to be located outside of the parking bays to ensure accessibility to reticulated water for fire suppression.
- Parking bays shall be a minimum of 2.6 metres wide.

## Landscaping

- Landscaping within the individual lots shall comply with the principles of Appendix 5 of *Planning for Bush Fire Protection 2006*.
- No brushwood fencing shall be used.

## Construction Management

6. Construction works in accordance with this development consent shall not commence until:
  - a) Detailed engineering plans and specifications (including a Design Certification Report and Checklists in accordance with the Lake Macquarie City Council Engineering Guidelines) relating to the work have been endorsed with a Construction Certificate prepared by:
    - (i) Council, or
    - (ii) an accredited certifier registered by the NSW Building Professionals Board for the relevant class of work.
  - b) The person having the benefit of the development consent:
    - (i) has appointed a Principal Certifying Authority, and
    - (ii) has notified the consent authority and the Council (if the Council is not the consent authority) of the appointment.
  - c) The person having the benefit of the development consent has given at least two (2) days notice to Council of the intention to commence works.
7. A comprehensive Construction Management Plan (CMP) shall be prepared and submitted to Council for approval prior to the issuing of construction certificates. The CMP is to

specifically address the requirements of the North Wallarah Peninsular Master Plan – Physical Infrastructure and the following:

- Safety training and awareness plan.
  - Site Emergency Response Plan.
  - Erosion and sediment control plan.
  - Water quality.
  - Construction traffic.
  - Ecological conservation (vegetation and fauna protection; monitoring; relocation; retention).
  - Hazardous materials.
  - Aboriginal heritage (protection of existing values and any future discoveries).
  - Noise (dBA limit; monitoring; mitigation procedures; construction hours).
  - Air quality.
  - Soil contamination.
  - Waste.
  - An environmental risk analysis that:
    - Identifies hazards and risks;
    - Assists in the selection of control measures that reduce the risk associated with these hazards to levels as low as can be reasonably achieved; and
    - Documents a regime for audits, inspections, monitoring and reporting of the construction activities.
8. All staff, contractors and subcontractors on site are to be made aware of the approved CMP and be trained in the specific responsibilities and work instructions relating to their day to day tasks. The CMP shall include:
- (a) site induction procedures; and
  - (b) training program with provision for refresher courses.

## **Soil and Erosion Management**

9. Erosion and sediment control measures that are consistent with the approved North Wallarah Masterplan and “Managing Urban Stormwater” – 3<sup>rd</sup> Edition (1998) prepared by the NSW Department of Housing are to be submitted to Council for approval prior to the issue of the construction certificates. Plans and calculations for such erosion controls shall be submitted

prior to the issue of a construction certificate and the works shall be completed as part of the initial construction work. The Principal Certifying Authority may approve minor additional works during construction works.

Sediment and erosion control works shall be carried out in accordance with the approved Plan and no work shall commence until the erosion and sediment control works specified in the Plan are in place and the Principal Certifying Authority has approved them.

10. The Applicant shall revegetate or provide other approved erosion control measures on areas of the site disturbed by works so as to prevent erosion. All disturbed areas shall be revegetated or otherwise protected as soon as practicable, and no later than the times indicated in "Managing Urban Stormwater" – 3<sup>rd</sup> Edition (1998) prepared by the NSW Department of Housing. Plant species to be used are generally to be endemic to the North Wallarah Peninsula. However, non endemic non-invasive annual species may be included in the grass mix to provide an initial cover crop. Kikuyu grass shall not be used anywhere within the development area.
11. The Applicant shall arrange for a detailed record of the erosion and sediment controls on the site to be maintained during construction works. The record shall be updated on a daily basis and shall contain details on the conditions of the controls and all maintenance and cleaning undertaken. The record must be available for inspection by the Principal Certifying Authority during normal working hours.
12. The Applicant shall supply and erect Council's standard Erosion Control Sign as detailed in Standard Drawing No. 3403/1. The sign shall be erected in a prominent location near the entrance to the development area prior to the commencement of earthworks.

## **Stormwater Management**

13. A comprehensive water quality monitoring program shall be developed for the site in accordance with the requirements of the North Wallarah Masterplan – Physical Infrastructure and as generally set out in Appendix M of the Statement of Environmental Effects.

The monitoring program shall be submitted to Council for approval prior to the approval of any Construction Certificate.

14. The Applicant shall design and construct permanent Stormwater Quality Facilities generally in accordance with the design and plans prepared by ADW Johnson Pty Ltd.

Plans and calculations for such Stormwater Quality Control Facilities shall be submitted for approval prior to the issue of a Construction Certificate. The plan shall also include details of the extent and location of fencing (Council may be contacted for a copy of the standard detail for fencing), provide details of maintenance access and details of landscaping and species for the facility and their surrounds.

The applicant shall include a "Maintenance Plan" with the Construction Certificate documentation, in accordance with Council's "Stormwater Treatment Framework & Stormwater Quality Improvement Device Guidelines".

15. The Applicant shall show by calculations and plans that all lots are clear of the 1:100 year flood level. This condition shall also apply to lots, which would be affected by substantial overland flow, which may necessitate the carrying out of works to ensure properly drained and flood free conditions.

The Applicant shall supply the above calculations and plans showing the limit of the 1:100 year flood prior to the issue of a **Construction Certificate**.

**Note:** Lots that are not 500mm clear of the 1:100 year flood level will be subject to floor height control.

16. The Applicant, when preparing Engineering plans for the development, shall identify any lots that do not drain directly to Council's stormwater drainage systems. For these lots the Registered Proprietor of the land shall arrange for the provision of interallotment drainage pipelines and associated easements to drain water 2 metres wide favouring the allotments served. All stormwater shall be disposed of to either an existing formed Council drainage system, a natural watercourse or to Council's satisfaction. Council is to be the party empowered to release, vary or modify the easement.

17. The Applicant shall arrange for the design and construction of stormwater drainage works in accordance with the requirements of the publications and standards identified in this consent.

No works shall commence on site prior to the issue of a **Construction Certificate** and all works shall be completed prior to the issue of a **Subdivision Certificate**.

18. The applicant shall prepare a community education program aimed at raising awareness of the environmental and ecological values of the site with a particular focus for property owners adjoining riparian zones and the Lake. The program shall be submitted to Council for approval, prior to the issue of the Subdivision Certificate. The education program will subsequently be provided to purchasers of the lots.

## Utilities and Services

19. The Applicant shall service all lots in the subdivision with water, sewer, underground electricity and underground telephone facilities to the requirements of and by arrangements with the relevant supply authorities and company. The applicant shall liaise with AGL in relation to the future reticulation of gas in the subdivision.

A letter of compliance from each service authority and service company shall be submitted to Council prior to the issue of a **Subdivision Certificate**.

20. The Applicant shall ensure that all public utility service pipes, mains and conduits are laid and/or installed in all new roads and existing roads, where work is required in existing roads, as part of the construction and drainage works associated with the Subdivision.

The Applicant shall also install conduits to cater for the installation of natural gas services to each proposed lot in conjunction with road and drainage works.

A letter of compliance from each service authority and service company shall be submitted to Council prior to the issue of a **Subdivision Certificate**.

21. The Applicant shall submit to the Principal Certifying Authority a utilities layout plan showing the location of mains, associated installations and service conduits prior to the issue of a **Subdivision Certificate**.
22. During construction of underground service trenches an Arborist shall supervise any tree root removal that may be required. All recommendations of the arborist shall be implemented.

## Roads and Traffic

23. The Applicant shall arrange for all relevant works to be designed and constructed in accordance with the following publications (as amended or updated), as applicable:-
  - a) Australian Rainfall and Runoff, 1987.
  - b) AUSTRROADS Guide To Traffic Engineering Practice.
  - c) DCP 1 (Volumes 1 and 2) and supporting guidelines.
  - d) Roads and Traffic Authority Road Design Guide.
  - e) Roads and Traffic Authority Interim Guide To Signs and Markings.
  - f) Managing Urban Stormwater documents (2004).by Landcom.
  - g) The Constructed Wetlands Manual - Department of Land and Water Conservation, 1998.Where any inconsistency exists between these documents the Applicant shall verify in writing with Council, the relevant standard to be adopted.
24. The Applicant shall arrange, at the time of registration of the Final Plan of Subdivision, for the dedication of the proposed new roads to the public at no cost to Council.

All public roads that are to be dedicated shall be fully constructed in accordance with the standards identified in this consent.
25. The Applicant shall upgrade the intersection of Lake Point Road, Grey Gum Trail and the proposed new road to define the priority traffic path and provide the correct intersection alignment.

No works shall commence on site prior to the issue of a **Construction Certificate**.
26. Residential road pavements shall be designed in accordance with "A Guide To The Design Of New Pavements For Light Traffic" - AUSTRROADS 1998. Designs for road pavements shall be submitted to and approved by the Council or a Private Certifier prior to road pavements being constructed.
27. Written notification shall be given by the Applicant to landowners and residents who live adjacent to the proposed development or who may be affected by the proposed works. The notification should include the expected date of commencement of works and a brief description of the works.
28. The Applicant shall submit to Council, in writing, details of the proposed haulage routes to be used during construction works. These details must be submitted a minimum of seven days before the commencement of haulage operations. No haulage operations shall take place prior to the approval of the routes by Council. The haulage routes shall not be varied without the approval of Council.

The Applicant shall maintain and restore the haulage route roads, as near as possible, to their original condition.
29. The Applicant shall make good any damage or injury caused to a public road or associated structures including drains and kerb and gutter, caused as a consequence of the works.

30. Construction works shall not commence until a meeting between the contractor and a representative of the Principal Certifying Authority (PCA) has taken place on site.
- The PCA may require up to seven days notice in writing prior to such meeting taking place. The notice shall also include the names of the contractor undertaking construction and the developer's supervising officer.
31. A copy of the Works as Executed Plans, certified by the Consulting Civil Engineer supervising the works or the Registered Surveyor in charge shall be supplied to the Council. Where applicable a Registered Surveyor's Certificate certifying that all pipes have been laid within the easements shown on the Final Plan of Subdivision shall also be submitted. The Works as Executed Plan shall, in addition to construction details, show limits and depths of filling, locations of service conduits and street names.
32. The Applicant shall provide street lighting for the development to the satisfaction of Energy Australia and in accordance with the road classification. The road classification shall be determined by Council and Energy Australia.
- The street lighting provided shall include any necessary upgrading of the lighting of the intersection of any new roads with existing roads.
33. The Applicant shall supply and erect new street name signs in accordance with the requirements of Council's standard design requirements.
34. Proposed new road names shall be submitted to Council and approved prior to the issue of a **Construction Certificate**.
- Note that Council cannot release the **Subdivision Certificate** unless the proposed public roads have been named in accordance with clause 162 of the Roads Act 1993. The Roads Act requires that the Geographical Names Board be given at least one month's notice of the proposed name(s).
35. The Applicant shall submit a statement from a Registered Surveyor verifying that the works did not interfere with any survey control marks OR the Applicant shall submit verification that the Survey Control Branch of the Department of Lands has been advised of any marks which will be destroyed and an undertaking that the requirements of the Survey Control Branch will be complied with.
36. Where cycle/pedestrian paths are to be constructed on land owned by Council or that will be dedicated to Council, the path shall be constructed in concrete in accordance with the standards identified in this consent. In the vicinity of Lots 1425 to 1437 where the pathway cannot be constructed to meet the requirements for disabled access, signs shall be erected to advise the public.

## Noise

37. All possible steps shall be taken to silence construction equipment and the operating noise level of plant and equipment shall not give rise to "offensive noise" as defined by the Protection of the Environment Operations Act 1997.
- The operating noise level of machinery, plant and equipment during construction site operations shall comply with Chapter 171 of the NSW EPA's Noise Control Manual. Construction operations shall be confined between the hours of 7.00am to 6.00pm Monday to Friday and 8.00am to 1.00pm Saturday. If construction operations are inaudible within occupied residential properties then the work period may be extended on Saturdays to 7.00am to 1.00pm. No construction work shall take place on Sundays or Public Holidays.



Should it be necessary to use mechanical rock breakers or conduct blasting then these operations shall be confined between the hours of 9.00am and 3.30pm Monday to Friday (excluding any Public Holiday).

Noise Level Restrictions

- (i) Construction period of 4 weeks and under:-  
The L10 level measured over a period of not less than 15 minutes when the construction site is in operation must not exceed the background level by more than 20dB(A).
- (ii) Construction period greater than 4 weeks:-  
The L10 level measured over a period of not less than 15 minutes when the construction site is in operation must not exceed the background level by more than 10dB(A).

## Geotechnical

38. The Applicant shall comply with the recommendations of the Geotechnical Report No. N07634/07-AB prepared by Coffey Geosciences Pty Ltd and dated 17 November 2003. Any works proposed to be undertaken in relation to the application shall embody all the relevant recommendations of the Geotechnical Consultants.

All engineering plans shall be endorsed by and carry the original signatures of the Geotechnical Consultants (ie not photocopies). The endorsement shall state that the proposed works are in accordance with the recommendations of the Geotechnical Report, prior to the issue of a **Construction Certificate**.

39. The Applicant shall arrange for all fill to be placed in accordance with the standards specified in Table 5.1 of AS3798 1990 "Guidelines on Earthworks for Commercial and Residential Developments".

Prior to the issue of the Subdivision Certificate, the Applicant shall submit a report from a suitably experienced Geotechnical Testing Authority confirming that all filling complies with the above minimum standard. The inspection and testing shall be at the responsibility level set out below, as defined in Appendix B of AS 3798-1990.

Fill Area	Responsibility Level
Water retaining embankments	1
Road embankments (greater than 2m high)	1
Road embankments (less than 2m high)	2*
Residential allotments	1
Industrial/Commercial allotments	1

\* Level 1 may be used if desired by the applicant.

40. The Application shall arrange for a suitably experienced Geotechnical Consultant to determine the site classification of each proposed lot in accordance with AS 2870-1996. The site classifications shall be provided to Council prior to the issue of the Subdivision Certificate.

## Ecological and Bushland Management

41. Trees and other vegetation may only be removed from the site of road, drainage, bushfire mitigation, regrading works and as shown on the Site Analysis and Development Envelope Plans and as approved in the Construction Certificate. An application shall be made to Council for the removal of any other trees. Trees are to be removed outside of the Masked Owl Breeding period of between March and September or as otherwise agreed by Council.
42. All reasonable measures shall be undertaken to protect all other vegetation on the site and on adjoining lands from damage during construction. Such measures shall include but not be limited to:-
  - clearly marking trees to remain;
  - avoiding compaction of ground around trees to remain;
  - clearly delineating the area of disturbance, and keeping all vehicles, construction materials and refuse within that area;
  - limiting the number of access points;
  - lay-down areas are to be located within road corridors or other cleared areas identified in the CMP;
  - activities that result in high soil compaction shall not be carried out within the vicinity of vegetation to be retained;
  - vegetation to be retained is to be clearly marked and signposted to ensure that it is not removed or damaged.
  - A perimeter fence shall be provided around the Masked Owl buffer areas during construction.
43. The applicant shall engage a qualified ecologist to supervise installation of nest boxes and removal of any hollow bearing trees to ensure mitigation against any native animal welfare issues.

Removal of trees with habitat hollows shall be undertaken outside of the Masked Owl breeding period of between March and September, to minimise impact to threatened species that could breed and or hibernate within hollows on site. Any hollow-bearing trees shall be felled in one (1) to two (2) metre sections, beginning at the top of the crown. Lengths cut from the tree(s) shall be in a manner that will preserve the hollow(s) with each section inspected and appropriately treated to minimise impact to fauna.
44. Trees and shrubs which are felled shall be salvaged for re-use, either in log form, or as a woodchip mulch for erosion control and/or site rehabilitation. Non-salvageable material such as roots and stumps shall be disposed of in an approved manner.
45. No mowing of native ground cover is to occur on the site, except as required by the RFS for the purpose of fuel management.

46. All weeds are to be removed from the development site and disturbed areas revegetated with locally indigenous plants.
47. Only mulch generated on site that consists of indigenous plant matter, free of weeds, may be used in landscaping and revegetation activities associated with the proposed works.
48. Machinery used in the removal and management of weeds is to be cleaned and have any weed "off cuts" removed before entering and leaving the site in accordance with provisions to be contained in the CMP.
49. The applicant shall arrange for a qualified arborist to inspect and determine the health and stability of all the trees that are located in the public road reserves and adjacent to proposed public pathways. Any trees found to present a risk of failure should be pruned or removed (as appropriate), prior to the dedication of the land to Council. The risk assessment should be undertaken in accordance with Council's Policy – Management of Trees on Roads and Reserves. A report should be submitted with the results of the risk assessments on individual trees and details of proposed works for Council's approval, prior to commencing tree works.
50. The applicant shall provide to each prospective purchaser in the subdivision, a brochure identifying that it is the property owner's responsibility to maintain their footpath frontage and that this work will not be undertaken by Council. The brochure will contain details of the appropriate maintenance practices to be undertaken on the footpath.
51. The applicant shall engage an owl expert, as agreed by Council, to prepare and implement a Masked Owl Management Plan. The Plan is to be generally in accordance with the recommendations set out in the letter from John Young Wildlife Enterprises Pty Ltd dated 10 May 2010 as well as advice from Dr Rod Kavanagh dated 11 January 2010. The Plan shall include, amongst other requirements:
  - management measures to protect the nest and roost tree within Stage 14 as identified by John Young and nghenvironmental (10 May 2010), and the associated buffer areas, such as consideration for the need for bollards or fencing to prevent car parking in the buffer zones;
  - a monitoring program that is to be completed by the agreed owl expert. Monitoring is to commence upon issue of the Construction Certificate and is to be completed annually throughout construction and continue through for at least five years following occupation of at least 80% of the dwellings identified within Stage 14 or as otherwise agreed by Council. Monitoring is to involve stag watching of the nest and roost tree within Stage 14, (as well as alternate trees within the Wallarah Peninsula should the pair relocate), on dusk and dawn between the breeding period that is from late February to mid May. Monitoring is to confirm use of the roost tree by the masked owl each year, as such annual monitoring may cease for that year as soon as it has been confirmed that the masked owl is using the tree. If the masked owl is not observed in any one year then as a minimum monitoring must have involved stag watching of the trees for 4 evenings at dusk and 4 mornings at dawn and have been for a duration consistent with Section 5.3.1.3 of Councils Flora and Fauna Assessment Guideline. A follow up survey later in the breeding season shall also

be required in this circumstance (ie; in September). Annual reports are to be provided to Councils Flora and Fauna Development Planner confirming outcomes of this condition. Note: Owl call play back is not to be used during monitoring and spotlighting kept to a minimum to avoid disruption to the masked owl breeding cycle;

- following completion of the monitoring program the owl expert is to seek to publish outcomes of the monitoring program in an Australian ecological journal, as agreed by Council;
- A completed survey of threatened owls within the Wallarah Peninsula including confirmation of all threatened owl nest sites in this area. The survey should be completed within two years of this consent and locations of all confirmed threatened owl nest sites provided to Council. The intent of this condition is to ensure that there is a sound understanding of how adjoining habitat is being used by large forest owls so that, should the masked owl pair relocate, there is sufficient information available to minimise further cumulative impact.

The Management Plan shall be submitted to Council for approval prior to the issue of any Construction Certificates and all works shall be undertaken in accordance with the Management Plan. The Management Plan shall identify who is responsible for undertaking all actions identified in the Plan. If the Plan identifies any actions to be undertaken by the Community Association, the Community Management Statement shall be amended to include this responsibility. The approved owl expert shall implement the Masked Owl Monitoring Program.

52. The applicant shall not undertake any civil construction works or land clearing within 60 metres of the Masked Owl nest tree (tree No. 6171) during the owl breeding season of March to the end of September.
53. As a part of the Masked Owl Management Plan the applicant shall arrange for the monitoring and management of the Masked Owl roost tree (tree No. 5550) by a suitably qualified arborist. The management practices adopted should aim to prolong the useful life of the tree while ensuring public safety. Any remedial works on the tree, including remedial pruning, shall not be undertaken unless approved by the owl expert, who specialises in large forest owls.
54. The applicant shall prepare a Termite Management Plan for the site. The Plan should aim to manage termites so that the life of habitat trees within the development is prolonged. The Plan should be approved by Council prior to the issue of any Construction Certificates. The Management Plan shall identify who is responsible for undertaking all actions identified in the Plan.

## **Bushfire Management**

55. The Applicant shall comply with the requirements of the Bushfire Safety Authority from the Rural Fire Service.

## Landscape and Visual

56. The Applicant shall undertake landscaping works, within the development site and the public reserve between the development and the Lake, in accordance with the Landscape Report and Plans prepared by Arterra Design Pty Ltd. The design shall be amended to incorporate any requirements identified in the Masked Owl Management Plan.

No planting shall take place prior to the approval of the final landscaping plan by a **Construction Certificate**.

All street trees to be planted shall be at least of a 75 – 100 litre pot size.

Correspondence shall be provided from a recognised landscaping professional, that indicates that the landscaping works have been completed in accordance with the approved plan, prior to the issue of a **Subdivision Certificate**. All landscaping works shall be maintained for a period of twelve months.

The Applicant shall lodge a cash bond or Bank Guarantee with the Council for the sum of **\$10,000.00** per stage. The monies will be released 12 months after planting when Council is satisfied that the landscaping has established.

## Heritage and Archaeology

57. If Aboriginal relics are identified during construction, all works in the vicinity of the find are to immediately cease. The Department of Environment, Climate Change and Water shall be notified of the find and all relevant approvals shall be obtained from DECCW prior to the resumption of works.

## Submission for Subdivision Certificate

There are requirements which must be satisfied before the Principal Certifying Authority may issue the Subdivision Certificate pursuant to Section 109J of the Environmental Planning & Assessment Act 1979 in respect of a subdivision.

58. The Applicant shall submit the Final Community Scheme to Council.

This Final Scheme is to include Location Diagram, Detail Plan, Community Property Plan, Management Statement and ten (10) copies of the Final Community Plan of Subdivision. When all conditions of the Development Consent relating to this subdivision have been satisfactorily complied with the **Subdivision Certificate** will be issued.

59. The Registered Proprietor of the land shall provide an instrument under Section 88B of the Conveyancing Act setting out terms of easements and/or restrictions as to user as may be required by conditions of this consent. Council is to be the party empowered to release, vary or modify those (and only those) easements and/or restrictions required by conditions of this development consent.
60. The Applicant shall obtain and submit a **Compliance Certificate/s** to certify that all construction works and associated development have been constructed in accordance with this Development Consent, the **Construction Certificate** and all other standards specified in this consent.
61. Prior to the issue of a Subdivision Certificate, a certificate of compliance under **Section 50** of the **Hunter Water Act 1991** for this development shall be submitted to the Principal Certifying Authority.

Advice: Council does not forward notification of the subdivision approval to the Hunter Water Corporation. It is the Applicants responsibility to make all pertinent arrangements with the Hunter Water Corporation.

62. The Applicant shall ensure that the requirements of Energy Australia for easements and sites for electricity purposes are indicated on the Final Plan of Subdivision and associated Section 88B Conveyancing Act 1919 Instrument which is submitted to the Principal Certifying Authority for approval.
63. The Applicant shall ascertain and comply with the requirements of Energy Australia.
64. The Applicant shall obtain any certificates as required to satisfy the conditions of this Consent.

For Council to process applications for these certificates the following fees would be payable:

#### **Stage 14A**

<b>Construction Certificate</b>	<b>\$ 3,700.00</b>	Plus <b>\$50</b> Archival Fee	(inc GST)
<b>Compliance Certificate</b>	<b>\$ 5,550.00</b>	Plus <b>\$50</b> Archival Fee	(inc GST)
<b>Subdivision Certificate</b>	<b>\$ 2,300.00</b>	Plus <b>\$50</b> Archival Fee	(inc GST)

#### **Stage 14B**

<b>Construction Certificate</b>	<b>\$ 3,900.00</b>	Plus <b>\$50</b> Archival Fee	(inc GST)
<b>Compliance Certificate</b>	<b>\$ 5,800.00</b>	Plus <b>\$50</b> Archival Fee	(inc GST)
<b>Subdivision Certificate</b>	<b>\$ 1,900.00</b>	Plus <b>\$50</b> Archival Fee	(inc GST)

#### **Stage 14C**

<b>Construction Certificate</b>	<b>\$ 3,900.00</b>	Plus <b>\$50</b> Archival Fee	(inc GST)
<b>Compliance Certificate</b>	<b>\$5,800.00</b>	Plus <b>\$50</b> Archival Fee	(inc GST)
<b>Subdivision Certificate</b>	<b>\$ 1,800.00</b>	Plus <b>\$50</b> Archival Fee	(inc GST)

Applications for these certificates should be lodged on the approved application form and accompanied by the appropriate fee.

Where the development includes construction works valued at \$25,000.00 or more, the applicant must pay the Long Service Levy, as detailed in the Building and Construction Industry Long Service Payments Scheme. The Levy must be paid prior to the issue of the Construction Certificate. The Levy may be paid directly to the Long Service Payments Corporation or to Council as agent for the Corporation. The Levy rate is 0.35% of the cost of building and construction works.

**The above application fees are subject to change each financial year and confirmation of the applicable fee should be obtained from Council prior to the lodgement of any application.**

## **Section 94 Contribution**

### **65. Contribution To Provision Of Services (Sec. 94)**

- (a) In accordance with the provisions of Section 94 of the Environmental Planning and Assessment Act 1979 and the Lake Macquarie Section 94 Contributions Plan No. 5 – North Wallarah (2004) the monetary contributions in the attached Contributions Schedule shall be paid to Council for the purposes identified in that Schedule.
- (b) From the date this determination is made until payment, the amounts of the contributions payable under the preceding clause will be indexed and adjusted at the close of business on:
  - 14 August,
  - 14 November,
  - 14 February, and
  - 14 May

in each year in accordance with the Consumer Price Index published by the Australian Bureau of Statistics and the provisions of the Lake Macquarie Section 94 Contributions Plan No. 5 – North Wallarah (2004).

The first date for indexation and adjustment shall be the date above which is closest to but follows the date on which the Notice of Determination becomes effective.

- (c) The contributions payable will be the amounts last indexed and adjusted in accordance with Clause (b) above. However, if no amount has been indexed and adjusted because the first date for indexation and adjustment has not arrived, the contributions payable shall be those in clause (a) above.
- (d) The contributions shall be paid to Council as follows:
  - Development applications involving subdivision – prior to the release of the Subdivision Certificate.
  - Development applications involving building work – prior to the release of the first Construction Certificate.
  - Development applications involving both subdivision and building work – prior to the release of the Subdivision Certificate or first Construction Certificate, whichever occurs first.
  - Development applications where no Construction Certificate or Subdivision Certificate is required – prior to the release of the development consent or prior to issue of the first Certificate of Occupancy, whichever occurs first.

Please note that should payment be made by cheque or electronic transfer the release of any documentation will be subject to the clearing of those funds.

Consumer Price Index details are available from Council's Community Planning Department and the Australian Bureau of Statistics.

A copy of the Lake Macquarie Section 94 Contributions Plan No. 5 – North Wallarah (2004) is available for inspection at the Council's Administrative Building during Council's ordinary office hours.

## CONTRIBUTION FEE SCHEDULE

### Stage 14A

DESCRIPTION	FEE AMOUNT
NORTH WALLARAH - OSA - LAND (DEDICATION)	1,248.50 M <sup>2</sup>
NORTH WALLARAH - LOCAL RF - CAPITAL FEE	\$116,012.00
NORTH WALLARAH -CITYWIDE RF - CAPITAL FEE	\$2,995.00
NORTH WALLARAH - CF - CAPITAL FEE	\$46,818.00
NORTH WALLARAH - CF - LAND FEE	\$2,869.00
NORTH WALLARAH - R & TM - CAPITAL FEE	\$15,530.00
NORTH WALLARAH - CONSERVATION - LAND (DEDICATION)	2,555.30 M <sup>2</sup>
NORTH WALLARAH - MANAGEMENT FEE	\$3,851.00

### Stage 14B

NORTH WALLARAH - OSA - LAND (DEDICATION)	1,078.25 M <sup>2</sup>
NORTH WALLARAH - LOCAL RF - CAPITAL FEE	\$100,192.00
NORTH WALLARAH -CITYWIDE RF - CAPITAL FEE	\$2,587.00
NORTH WALLARAH - CF - CAPITAL FEE	\$40,433.00
NORTH WALLARAH - CF - LAND FEE	\$2,478.00
NORTH WALLARAH - CONSERVATION - LAND (DEDICATION)	2,206.85 M <sup>2</sup>
NORTH WALLARAH - R & TM - CAPITAL FEE	\$13,413.00
NORTH WALLARAH - MANAGEMENT FEE	\$3,326.00

### Stage 14C

NORTH WALLARAH - OSA - LAND (DEDICATION)	1,021.50 M <sup>2</sup>
NORTH WALLARAH - LOCAL RF - CAPITAL FEE	\$94,919.00
NORTH WALLARAH -CITYWIDE RF - CAPITAL FEE	\$2,451.00



NORTH WALLARAH - CF - CAPITAL FEE	\$38,305.00
NORTH WALLARAH - CF - LAND FEE	\$2,348.00
NORTH WALLARAH - CONSERVATION - LAND (DEDICATION)	2,090.70 M <sup>2</sup>
NORTH WALLARAH - R & TM - CAPITAL FEE	\$12,707.00
NORTH WALLARAH - MANAGEMENT FEE	\$3,151.00
<b>TOTAL</b>	<b>\$504,385.00</b>

## **Appendix B**

### **Assessment Against the North Wallarah Peninsular Masterplan Requirements**

<b>Provision</b>	<b>Compliance</b>	<b>Comments</b>
<b>Walarah Peninsula Master Plan – Ecological Site Management Plan</b>		
<b>Consideration 1:</b> Provision & Maintenance of Refugia (pp 63-66).	✓	<p>Provision and maintenance of refugia is provided for by four aspects of the proposed development.</p> <ol style="list-style-type: none"> <li>1. In relation to the whole North Wallarah Peninsula site, the provision of the Wallarah National Park maintains a large area of habitat and refugia.</li> <li>2. The Habitat Corridor and Foreshore Reserve provide habitat and refugia within the Lake Sector.</li> <li>3. The community title bushland parks adjacent to the development and narrow strips containing stormwater retention measures provide further habitat and refugia.</li> <li>4. The building areas designated on each lot will retain some canopy cover and selected understorey outside of designated building envelopes.</li> </ol> <p>Where it is necessary to remove trees, particularly habitat trees, it will be done under the supervision of an ecologist with trees soft felled and resources such as hollows placed in nearby trees and as retained ground habitat.</p>
<b>Consideration 2:</b> Provision of Habitat linkages (pp 67 – 69).	✓	The subdivision layout does not impact on habitat linkages.
<b>Consideration 3:</b> Protection of Aboriginal Heritage Sites (pp 69-71)	✓	<p>A heritage and archaeological survey of the subject site has revealed that there are no items of Aboriginal Heritage on the site which are proposed to be impacted by the development. One potential Aboriginal scar tree did exist on the site, but following investigation by DECCW the tree was removed from the AHIMS Register, as the scar was not of Aboriginal origin. A condition of consent has been recommended to ensure that any item that may be discovered during the construction phase will be properly managed.</p>
<b>Consideration 4</b> Effective Functioning of the Habitat Corridor (pp 72 – 76)	<b>N/A</b>	This DA does not impact on the Habitat Corridor.

<b>Consideration 5</b> Protection of the Forest Red Gum Reserve (pp 76 – 79)	✓	<p>The Development Land Use Plan identified the area and location of the Forest Red Gum Reserve. This area has been zoned for open space and is being progressively dedicated to Council. This stage of the development adjoins part of the Forest Red Gum Reserve. The dominant tree species in the Forest Red Gum community are Forest Red Gum (<i>Eucalyptus tereticornis</i>), Swamp Mahogany (<i>Eucalyptus robusta</i>) and Grey Ironbark (<i>Eucalyptus siderophloia</i>). There are no <i>Eucalyptus robusta</i> adjoining the development site. The site has been used for grazing in the past and as a result, there is no shrub layer present.</p> <p>All trees within the Reserve will be retained and approximately 350 additional trees will be planted. This will provide a juvenile population to supplement the existing mature population. Landscaping within the subdivision area will be required to be predominantly plants from this vegetation community.</p> <p>Only one public access point is provided from Stage 14 across the Reserve.</p> <p>All construction work will be excluded from the Reserve area by delineation of the area during construction.</p>
<b>Consideration 6</b> Ecological Functioning of Smooth-Barked Apple Forest (pp 79 – 85)	N/A	This vegetation community does not exist within this stage.
<b>Consideration 7</b> Development within Spotted Gum/Ironbark Forest (pp 85 – 88)	✓	<p>The development site is predominantly within this vegetation community. The Spotted Gum/Ironbark Forest is particularly well preserved in the lands identified for conservation, including the National Park. The southern area of this community, within the Lake Sector, has been identified as Type 2 and 3 development areas and will therefore be better conserved. Existing tree preservation and new plantings within the development area will limit the impact on the community.</p>
<b>Consideration 8 to 12</b>	N/A	These considerations do not apply to the Lake Sector.
<b>Relevant Wallarah Peninsula Master Plan – Ecological Site Management Plan Strategies – (Tables 5.1 – 5.3)</b>		
<b>Planning</b>		

<b>P1</b> Creation of Wallarah National Park as per the conservation strategy contained in the CLUMP.	✓	Walarah National Park was transferred to the NPWS in December 2003.
<b>P2</b> Creation of a Habitat Corridor connecting Wallarah National Park with the Forest Red Gum Reserve and land to the north of the site, as per the conservation strategy contained in the CLUMP.	✓	This is being achieved by the zoning of the habitat corridor and the progressive dedication of this land. This stage of the development will dedicate land within the Habitat Corridor under S94.
<b>P3</b> Creation of the Forest Red Gum Reserve as per the conservation strategy contained in the CLUMP.	✓	This is being achieved by the zoning of the reserve and the progressive dedication of this land. This stage of the development will dedicate land for the Reserve under S94.
<b>P4</b> Creation of the coastal lands and coastal walk as per the conservation strategy contained in the CLUMP.	N/A	This strategy does not apply to the Lake Sector.
<b>P5</b> Survey of the site to identify and mark all trees of greater than 75mm trunk diameter.	✓	The survey has been completed and the results incorporated in the Site Analysis and Development Envelope Plans for the DA.
<b>P6</b> Complete a targeted fauna and flora survey of the site.	✓	A targeted flora and fauna survey has been completed by Travers Bushfire and Ecology (2009) along with other previous surveys of the area.
<b>Design</b>		
<b>D1</b> Boundary fences are generally discouraged across all development types. Where boundary fences are warranted, they are of an open fence type (eg post and wire, open timber rail).	✓	The fencing criteria are contained within the Design Essentials that have been adopted for the site.
<b>D2</b> Development applications are to demonstrate that the location of the building envelope in Development Type 2, 3 and 4 has sought to minimise the removal of trees (to be demonstrated by reference to the completed tree surveys of the site).	✓	The Site Analysis and Development Envelope Plans prepared by ADW Johnson and submitted with the DA show the proposed building envelope on each lot together with existing trees located by survey.  The lot layout shows all surveyed trees and designated building areas. Within each lot designated building envelopes which minimise the removal of trees have been put in place.
<b>D3</b> Lots in Development type 2, 3 and 4 are to include a portion of natural vegetation, including tree canopy,	✓	The Site Analysis and Development Envelope Plans prepared by ADW Johnson and submitted with the DA show the proposed building envelop

understorey and ground cover outside of the identified building envelope. In identifying potential areas of natural vegetation for retention, preference is to be given to vegetation clumps of high quality that adjoin natural vegetation on adjoining lots and which contain flora species identified as food sources and potential nesting or roosting sites for native fauna.		<p>on each lot together with existing trees to be retained and those to be removed. The Community Management Statement (Clause 20.5) requires that no native trees or native understorey vegetation can be removed without prior approval of the Community Association and Council.</p> <p>In Development Type 4 the native vegetation is to be retained where possible in road reserves and public areas subject to bushfire control. Additional areas within allotments are to be retained as per the subdivision layout plan.</p>
<b>D4</b> Landscaping of lots in Development Types 2, 3 and 4 is to consider using fallen (dead) and removed native trees, particularly those containing hollows, as part of the landscape design.	✓	<p>The Landscape Report and Public Domain Elements document submitted with the DA proposes the reuse of materials, including vegetation, in the landscape works.</p> <p>Felled trees containing hollows will have the hollows relocated to nearby retained trees with similar ecological value.</p>
<p><b>D5</b> A landscape management plan should be prepared for the area on lots outside of the building envelope. The landscape management plan should:</p> <p>(a) require gardens that have a bushland character and which include a range of local flora that attract wildlife;</p> <p>(b) limit the use of non-invasive exotic species to contained areas;</p> <p>(c) includes a plant selection list that identifies suitable plant species; and</p> <p>(d) be explained to homeowners and residents in an education program.</p>	✓	The Community Management Statement requires individual owners to submit building and landscape works for approval prior to any such works being carried out. The Landscape Report and Public Domain Elements document provides guidelines for landscape treatment of areas outside of the building envelope, which meet the requirements of the landscape management plan.
<b>D6</b> Rehabilitation of those parts of the Graminoid Clay Heathland that fall within proposed open spaces to use seeds collected from native species found in the Closed Heathland vegetation within Wallarah National Park.	N/A	Does not apply to the Lake Sector.
<b>D7</b> No excavation or filling on slopes greater than 10% or 6 degrees for the purpose of erecting a dwelling, other than as required for access and	N/A	No steep lots are present in this stage.

footings.		
<b>D8</b> Design local streets to maximise the number of retained native trees and to maximise the connection of the tree canopy across roads (ie minimise earthworks, minimise road pavement widths).	✓	The survey of existing trees has been taken into account in designing the alignment of roads. The number of trees to be removed for road construction appears to have been minimised.
<b>D9</b> Limit the number of road crossings of the Habitat Corridor.	NA	There are no proposed road crossings of the Habitat Corridor in this application.
<b>D10</b> Riparian zones classified by the DECCW are to be retained & protected. Minimal clearing and development is to occur 0-20m from the waterway (eg road crossing and some services). Limited development is to occur 20-40m from the waterway (eg asset protection zones, fire trails, pathways, and some limited dwellings).	NA	There are no DECCW riparian zones within the development site.
<b>D11</b> Stormwater structures kept out of DECCW classified riparian zones, i.e. "at source" treatment and water sensitive urban design.	✓	No structures are proposed within the DECCW classified riparian zones. Some small scale water quality basins were approved in an earlier stage adjacent to a small unclassified watercourse and these will be upgraded.
<b>D12</b> Open spaces to include areas of natural tree canopy and understorey and groundcover. Natural vegetation retained to be selected by giving priority to large clumps of high quality which connect with natural vegetation on adjoining lots and to flora species identified as food sources and potential nesting or roosting sites for native fauna.	✓	The buffer areas for the Masked Owl nest and roost trees will be retained as Community open space. These areas will be retained in a natural condition.
<b>D13</b> Integrate the design and development of the pedestrian pathways, emergency accesses and road system with the open space system to maximize the amount of natural vegetation that may be retained on lots in the open space system.	✓	Principles to achieve this are detailed in the Landscape Report and Physical Infrastructure report.
<b>D14</b> Provision of a 20m ecological/bushfire buffer zone between development areas and Wallarah National Park.	N/A	

<b>D15</b> Construction of a single loop walking track into the Palm Gully Forest vegetation communities in Wallarah National Park only.	<b>N/A</b>	
<b>D16</b> The proposed network of management trails in Wallarah National Park are to use existing trails wherever practicable. Entrances to management trails to be gated and access restricted to approved authorities only.	<b>N/A</b>	
<b>D17</b> Assess the safety and stability of the scarred tree at Point Morisset. If deemed appropriate, remove the section of trunk bearing the scar and relocate it to the Murrays Beach scarred tree as part of an Aboriginal interpretive display.	✓	The scar tree has been investigated by DECCW and has been found to be not of Aboriginal origin. The tree will be retained in situ as it is a Masked Owl roosting tree.
<b>Management</b>		
<b>M1</b> Place a cat prohibition covenant on all lots.	✓	This is a requirement under By-Law 44 of the Community Management Statement.
<b>M2</b> Prohibit dogs in Development Types 1 and 2.	✓	This is a requirement under By-Law 44 of the Community Management Statement.
<b>M3</b> Permit dog ownership in Development Types 3 and 4 in accordance with the responsible dog ownership guidelines contained in the Companion Animal Acts 1998.	✓	This is a requirement under By-Law 44 of the Community Management Statement.
<b>M4</b> Prohibit domestic pets in Wallarah National Park.	<b>N/A</b>	This is under the jurisdiction of National Parks division of DECCW.
<b>M5</b> Prohibit camping in Wallarah National Park.	<b>N/A</b>	This is under the jurisdiction of National Parks division of DECCW.
<b>M6</b> Complete a vertebrate pest survey of the site.	✓	A vertebrate pest survey has been carried out in conjunction with DECCW and a Vertebrate Pest Management Plan (NPWS & SWP) has been prepared.
<b>M7</b> Prepare and implement Threat Abatement Plans for vertebrate pests identified in surveys of the site.	✓	The Vertebrate Pest Management Plan has been prepared and implemented.
<b>M8</b> Complete a weed survey of the site.	✓	Mapping of weed distribution is presented in the Bushland Management Manual.
<b>M9</b> Prepare and implement a weed management plan for the site.	✓	A Bushland Management Manual has been prepared and implemented.

<b>M10</b> Collect native species seeds and propagate local plant species for use in landscaping and revegetation activities.	✓	Native plants indigenous to the area will be used for all landscaping.
<b>M11</b> Mulch removed locally indigenous plant matter, free of weeds, for use in landscaping and revegetation activities in the site.	✓	A Condition of Consent will ensure this outcome.
<b>M12</b> Regenerate the northern end of the Forest Red Gum Reserve by: (a) prohibiting camping (b) locating recreational and community facilities in the southern end of the reserve only. (c) cease all mowing of native ground cover (d) remove all weeds and revegetate disturbed areas with plants germinated from locally-collected seeds.	N/A	The northern end of the Forest Red Gum reserve is not a part of the application. Additional tree planting will take place in the southern section of the Reserve.
<b>M13</b> All identified habitat trees located within the building envelope or asset protection zone or otherwise marked for removal to be searched for nesting or roosting fauna prior to the tree being felled. Fauna living in hollows to be relocated to vacant hollows in nearby trees.	✓	A Condition of Consent will require that any necessary tree felling will be supervised by a fauna ecologist to ensure the welfare of resident fauna during the felling operations. Any hollows are to be relocated to nearby trees of equivalent ecological conditions.
<b>M14</b> An education program for property purchasers that promotes community understanding and ownership of the ecological outcomes intended for the site.	✓	By-Law 63 of the Community Management Statement requires the establishment of a Community Environmental Education Program in accordance with Consideration S7 of the Open Space and Public Access Management Plan forming part of the Masterplan documents. This program is designed to promote understanding and ownership of the ecological values of the site.
<b>M15</b> An education program for site staff that promotes community understanding and ownership of the ecological outcomes intended for the site. An environmental representative is to be appointed to perform this task (Refer Figure 4-1 in the Construction Management Plan, SKM June 2002).	✓	A Condition of Consent will ensure this outcome during construction works.
<b>M16</b> Encourage the establishment of a	✓	The Landscape Report and Bushland Management Manual (Manidis Roberts 2007)



dedicated management system by encouraging LMCC and other land managers to take a pro-active approach to integrated land management.		provide a program of works and management to be undertaken by the land owners, Community Association and Lake Macquarie City Council.
<b>M17</b> Exclude inappropriate fire regimes from areas containing threatened flora and fauna.	✓	The Bushfire Management Strategy is considered appropriate for the proposed development. This is discussed further in the following section which addresses compliance with the Masterplan Bushfire Management Plan.
<b>M18</b> A targeted flora survey of the site to identify threatened species, including Black Eyed Susan <i>Tetralochea juncea</i> and <i>Diuris praecox</i> .	✓	Targeted surveys were undertaken as part of the Flora and Fauna Study (Travers Bushfire and Ecology).  Methodology for surveys followed the Lake Macquarie Flora and Fauna Survey Guidelines.
<b>M19</b> No public vehicle access into Wallarah National Park. This restriction extends to trail bikes.	N/A	The National Park is managed by DECCW (NPWS).
<b>M20</b> Development adjoining Aboriginal heritage sites to include an assessment of any impacts on the heritage site and appropriate impact mitigation measures.	✓	This has been undertaken. However a Condition of Consent has been provided in the case where an item is discovered during the construction process.
<b>M21</b> A conservation strategy is to be developed in consultation with the NPWS and Bahtabah LALC if Aboriginal heritage sites additional to those identified in the LES are discovered during the construction period.	✓	A Condition of Consent has been provided in the case where an item is discovered during the construction process.
<b>M22</b> Foster community stewardship of the site by encouraging community participation in achieving positive ecological outcomes for the site.	✓	The Community Management Statement and Design Essentials document encourages community participation in ecological restoration through landscape works.
<b>NB: It should be noted that all further considerations contained within this Management Plan refer specifically to areas of the North Wallarah site which are not the subject of this Development Application.</b>		
<b>Walarah Peninsula Master Plan – Bushfire Management Plan</b>		
<b>Consideration 1:</b> Building in a Bushfire Prone Environment (pp 64-65).	✓	Documents that form part of this DA include a Bushfire Risk Management Plan (Travers Bushfire & Ecology) and Fuel Management Plan (Travers Bushfire & Ecology) which outline appropriate APZs and construction standards in line with Planning for Bushfire Protection (NSW RFS 2006).

<b>Consideration 2:</b> Settlement Design and Form (pp 65-66).	✓	Stage 14 is a Development Type 4 area as outlined in the CLUMP (Woodward-Clyde 2000). The layout of the subdivision allows for appropriate APZs and their management for this development type.
<b>Consideration 3:</b> Managing Bushfire Hazard (pp 67-69).	✓	The Fuel Management Plan addresses the issue of hazard reduction. The proposed development has access provided via roads to all the lots within the subdivision. The Fuel Management Plan identifies the Asset Protection Zones for the site. The proposed response to the specific strategies listed in the Masterplan Bushfire Management Plan are presented in the Bushfire report and they are considered to meet the requirements of the Masterplan.
<b>Consideration 4:</b> Providing Bushfire Suppression Measures (pp 69-70).	✓	The Bushfire Protection Assessment report submitted with the DA outlines the proposed measures to address each of the strategies in Consideration 4 of the Masterplan, Bushfire Management Plan. They are considered to adequately address the Masterplan requirements.
<b>Consideration 5:</b> Providing Bushfire Suppression Services (pp 70-71).	✓	The Bushfire Protection Assessment report submitted with the DA identifies the measures to address the requirements of Consideration 5 the Masterplan, Bushfire Management Plan. They are considered to adequately address the Masterplan requirements.
<b>Consideration 6:</b> Development of a Bushfire Contingency Plan (pp 71-72).	✓	The Bushfire Protection Assessment report submitted with the DA identifies the measures taken to address the requirements of Consideration 6 the Masterplan, Bushfire Management Plan. They are considered to adequately address the Masterplan requirements.
<b>Consideration 7:</b> Providing Adequate Access, Egress and Evacuation Capability (pp 72-73).	✓	The Bushfire Protection Assessment report submitted with the DA identifies the measures taken to address the requirements of Consideration 7 of the Masterplan, Bushfire Management Plan. They are considered to adequately address the Masterplan requirements.
<b>Consideration 8:</b> Monitoring of Fire Protection Measures (pp 73-74).	✓	The Fuel Management Plan outlines a monitoring schedule for the proposed fire suppression measures. Those areas exceeding

		the stipulated fuel load range will be required to be further managed on the basis of expert advice of a bushfire and ecological consultant.
<b>Consideration 9:</b> Protection from Neighbouring Land Uses (pp 74-75).	✓	Appropriate APZs have been identified between the development and neighbouring areas. These zones are considered to meet the requirements of this consideration.
<b>Consideration 10:</b> Managing Hazard without Compromising Ecological or Scenic Values (pp 75-76).	✓	Planning guidelines in the Planning for Bushfire Protection (NSW RFS 2006) document stipulate the protection of environmental values as part of bushfire planning. The Bushfire report submitted as part of the DA has been developed in line with the requirements of PBP (NSW RFS 2006) and complies with the requirements of this consideration.
<b>Consideration 11:</b> Fuel Management Responsibility (pp 76-77).	✓	The fuel management responsibility is through the Community Association and is passed onto the individual owners following purchase. The lines of responsibility are detailed within the Community Management Strategy.
<b>Consideration 12:</b> Protection of the Wallarah National Park (pp 77-78).	N/A	
<b>Consideration 13:</b> Protecting Wildlife and Riparian Corridors (pp 78)	✓	The Bushfire report submitted with the DA identifies bushfire management strategies that include Management Zones along the riparian corridor and foreshore reserve that incorporate APZs in order to manage the bushfire risk whilst preserving the ecological values. The strategies outlined in the bushfire documentation are considered to meet the requirements of the Masterplan.
<b>Consideration 14:</b> Protecting the Physical Environment (pp 79-81).	✓	The bushfire documentation for this DA has been developed in line with the requirements of PBP (NSW RFS 2006) and are considered sufficient to protect the physical environment. Appropriate construction standards for each of the Lots is provided in the Bushfire report.
<b>Consideration 15:</b> Conservation of Biodiversity Values (pp 81-83).	✓	The Bushfire report submitted with the DA identifies the measures taken to address the requirements of Consideration 15 of the Masterplan. The proposed measures are considered to adequately address the Masterplan requirements.
<b>Consideration 16:</b>	✓	While there are no identified objects of cultural heritage value, planning guidelines within the

Protection of Cultural Heritage Resources (pp 84).		PBP (NSW RFS 2006) for bushfire protection stipulate the protection of life and property in the development of bushfire planning. The bushfire documents submitted as part of this DA has been developed in line with the requirements of PBP (NSW RFS 2006) and comply with the requirements of this consideration.
<b>Consideration 17:</b> Developing and Maintaining Community Awareness (pp 84-86)	✓	This will be the responsibility of the Community Association and is outlined in the Community Management Statement.
<b>Consideration 18:</b> Maintaining Liaison with NSW Rural Fire Service/Lake Macquarie Bush Fire Management Committee (pp 86)	✓	This requirement will be the responsibility of the Community Association and is outlined in the Community Management Statement.
<b>Consideration 19:</b> Special Protection Developments (pp 87).	✓	There are no Special Protection Developments proposed in the DA.
<b>Relevant Wallarah Peninsula Masterplan – Bushfire Management Plan Strategies – Coastal Sector</b>		
<b>Strategy 50 to 57.</b>	N/A	These strategies do not apply to the Lake Sector.
<b>Walarah Peninsula Master Plan – Physical Infrastructure Management Plan</b>		
<b>Consideration 1:</b> Regional Stormwater Management Objectives and Environmental Values (pp 51-55).	✓	The Physical Infrastructure Report identifies the stormwater management objectives and details the design response to ensure the objectives of the approved Master Plan will be achieved.
<b>Consideration 2:</b> Walarah Peninsula Stormwater Management Controls (pp 56-60).	✓	The Physical Infrastructure Report contains a preliminary stormwater design and modeling to meet the management controls.
<b>Consideration 3:</b> Existing Drainage and Catchment Specific Strategies (pp 61-71).	✓	The Physical Infrastructure Report contains a preliminary stormwater design and modeling to meet the management controls. Swales are not proposed to be constructed in the road reserve and will be replaced by roll kerb and gutter. End of line basins will be larger to ensure similar water quality outcomes are achieved. This variation to the Masterplan is supported as the existing swales require excessive maintenance. It is not expected that this will negatively impact the streetscape. A condition of consent has been recommended to require detailed designs to be provided at the Construction Certificate stage.
<b>Consideration 4:</b> Primary Site Access (pp 72-76).	✓	Primary access to the Wallarah Peninsula project is via the new interchange constructed by the developer. Access to the Lake Sector is via Jetty Point Drive, which was constructed in Stage 1 of

		the development.
<b>Consideration 5:</b> Old Pacific Highway (pp 77-82).	✓	The section of Old Pacific Highway between the new interchange and Swansea has been reopened in accordance with Consideration 5 of the Masterplan, Physical Infrastructure Management Plan.
<b>Consideration 6:</b> Emergency Access (pp 82-86).	✓	The Physical Infrastructure Management Plan (PIMP) that forms part of the approved Masterplan provides for emergency access via the existing track at Raffertys Road. The Emergency Access will be controlled by a locked gate and only used for emergency vehicles and for evacuation if Jetty Point Drive is blocked.
<b>Consideration 7:</b> Road Characteristics (pp 86-95).	✓	The Physical Infrastructure Report lists the characteristics of the various categories of roads within the development. The road characteristics meet the requirements of the Masterplan.
<b>Consideration 8:</b> Community/ Public Transport (pp 95-100).	✓	The Applicant and LMCC have held discussions with public transport providers but no commitment is expected until population levels in the area reach the critical level required to make public transport viable. Provision has been made for buses in the road design and public pathways and cycleways are included in the development.
<b>Consideration 9:</b> Traffic Noise from the Pacific Highway (pp 100-105).	N/A	
<b>Consideration 10:</b> Swansea roundabout (pp 105-107).	✓	The Physical Infrastructure Report states that development of Stage 14 will not increase traffic flows through the Swansea roundabout to the threshold level that would require upgrading the capacity of the roundabout.
<b>Consideration 11:</b> Infrastructure Coordination and Crossing of Environmentally Sensitive Areas (pp 108- 109).	✓	The Physical Infrastructure Report states that development of Stage 14 will not involve crossing any of the sensitive areas identified in the Masterplan PIMP.
<b>Consideration 12:</b> Sewerage (pp 109- 111).	✓	All lots in Stage 14 will all be connected to the sewer.
<b>Consideration 13:</b> Water Supply (pp 111-114).	✓	A reticulated water supply is available to all lots. Rainwater tanks will be installed on all lots to reduce the potable water use.
<b>Consideration 14:</b> Electricity and Street Lighting (pp 114-117).	✓	Street lighting and underground electricity supply will be to Energy Australia's standards and work as executed plans are to be provided.

<b>Consideration 15:</b> Communications (pp 117-119).	✓	Underground communications will be to Telstra standards and work as executed plans are to be provided.
<b>Consideration 16:</b> Natural Gas (pp 119).	✓	Underground gas will be to Alinta standards and work as executed plans are to be provided.
<b>Wallarah Peninsula Master Plan – Construction Management Strategy</b>		
<b>Consideration 1:</b> Training and Awareness Plan (pp 40-41).	✓	The Construction Management Plans listed in the approved Masterplan are required to be prepared and implemented prior to the commencement of construction works. A condition of consent will require the CMPs to be prepared, implemented, monitored and if necessary remedial action taken.
<b>Consideration 2:</b> Site Emergency Response Plan (pp 41-43).	✓	As per Consideration 1
<b>Consideration 3:</b> Air Quality (pp 44-45).	✓	As per Consideration 1.
<b>Consideration 4:</b> Water Quality and Soil Management (pp 46-49).	✓	As per Consideration 1
<b>Consideration 5:</b> Construction Traffic (pp 49-50).	✓	As per Consideration 1
<b>Consideration 6:</b> Ecological Conservation (pp 50-52).	✓	As per Consideration 1
<b>Consideration 7:</b> Hazardous Material (pp 52-53).	✓	As per Consideration 1
<b>Consideration 8:</b> Aboriginal Heritage (pp 53-55).	✓	As per Consideration 1
<b>Consideration 9:</b> Noise from Subdivision Construction (pp 55-56).	✓	As per Consideration 1
<b>Consideration 10:</b> Soil Contamination (pp 57-58).	✓	A preliminary Soil Contamination Assessment Report has been submitted with the DA. No soil contamination is present on the site.
<b>Consideration 11:</b> Waste from Subdivision Construction (pp 58-60).	✓	As per Consideration 1
<b>Consideration 12:</b> Erosion and Sediment Control (pp 60-	✓	As per Consideration 1

62).		
<b>Consideration 13:</b> Waste from Building Activities (pp 62-63).	✓	As per Consideration 1
<b>Consideration 14:</b> Site Footprint (pp 63).	✓	The Ecological Site Management Plan identifies the need to maximize the retention of remnant vegetation. Contractors and all others involved in development activities on site will need to be made aware of the designated development envelopes and ensure that remnant vegetation is not damaged by site access, delivery and stockpiling of materials.
<b>Consideration 15:</b> Noise from Building Activities (pp 64-65).	✓	A Condition of Consent will require a CMP that deals with noise to be prepared, implemented, monitored and if necessary remedial action taken.
<b>Warrarah Peninsula Master Plan – Open Space and Public Access Management Plan</b>		
<b>Consideration S1:</b> Use of emergency access locations (pp 37).	N/A	
<b>Consideration S2:</b> Designated areas of community bushland (pp 37-40).	✓	Areas of community bushland are located throughout the Lake Sector and are identified on the Precinct Plan.
<b>Consideration S3:</b> Access to waterways (pp 40-42).	✓	Public access is available to the Lake Foreshore reserve and riparian corridors by a system of pathways.
<b>Consideration S4:</b> Use of roads as part of the public access network (pp 42-47).	✓	The SEE indicates the proposed network of roads, tracks and paths.
<b>Consideration S5:</b> Provision to value local and regional views (pp 47-49).	✓	A detailed visual impact assessment has been prepared. The subdivision layout, building envelopes and Design Essentials Manual ensure that impacts on views will be minimized.
<b>Consideration S6:</b> Connections to areas off-site (pp 49-50).	✓	Road and pedestrian access is available throughout the Precinct.
<b>Consideration S7:</b> Provision for community environmental education (pp 50-51).	✓	The Community Management Statement (By-law 63), provides for the establishment and operation of a community environmental education program. This is to further supplement the Design Essentials which provides for the basis of a community environmental education program.
<b>Consideration S8:</b>	✓	Pedestrian and cycle connection between the Coastal Village, Northern Sector and Lake Sector

Connections between sectors (pp 51-52).		will be provided by a system of roads and pathways.
<b>Consideration S9:</b> Use of existing and proposed bushfire trails (pp 52).	<b>N/A</b>	
<b>Consideration L1:</b> Preservation of the sensitive habitats within the Wallarah National Park (pp 56-58).	<b>N/A</b>	
<b>Consideration L2:</b> Protection of the Forest Red Gum Reserve (pp 58-61).	✓	The proposed development adjoins part of the Forest Red Gum Reserve. The proposed layout and tree planting will protect and enhance the Forest Red Gum reserve.
<b>Consideration L3:</b> Access across and along the Habitat Corridor (pp 61-62).	<b>N/A</b>	
<b>Consideration L4:</b> Provision for appreciating regional and local views (pp 62-63).	✓	A detailed visual impact assessment has been prepared. The subdivision layout, building envelopes and Design Essentials Manual ensure that impacts on views will be minimized.
<b>Consideration L5:</b> Community activities within the Lake Sector (pp 63-64).	✓	Community activities are focused on the Village Green and Foreshore Reserve. A Community swimming pool is under construction.
<b>Walarah Peninsula Master Plan – Social Equity Management Plan</b>		
1. Grade separated intersection (work in kind)	✓	Completed
2. Cycleway/ walkway (north) to Swansea (work in kind)	✓	Completed
3. Public Wharf (work in kind)	✓	Completed
4. Informal Parkland Area x1 (no facilities) in lake Foreshore Reserve (work in kind)	✓	Completed
5. Park with facilities (x1) in lake Foreshore Reserve (work in kind)	✓	Completed
6. Wallarah National Park (land already transferred to NSW Government)	✓	Completed
7. Coastal Walk from Spoon Rock to Pinny Beach Southern Headland already completed.	✓	Completed.
8. Netted swimming enclosure at lake foreshore and beach.	✓	Part completed
9. Lake Sector Amphitheatre.	✓	Completed
10. Pedestrian walk along lake edge.	✓	Part completed and further extension will be undertaken as a part of this subdivision.
11. Park with facilities (x1) in Lakeshore and Slopes precinct (work in kind)	<b>N/A</b>	



12. Informal Parkland Areas (x2), (no facilities) in Lakeshore and Slopes Precinct and Swansea Valley Precinct (work in kind)	N/A	
13. Cycleway/ walkway (south) to Nords Wharf oval (work in kind)	N/A	
14. Mawsons lookout upgrade (work in kind)	N/A	
15. Walking trail and cycle network throughout the Lake Sector and Wallarah National Park	✓	Part completed. Further extensions will take place as further subdivision stages proceed.
16. Community Development Program	✓	Community facilities have been provided in the Lake Sector.
17. Meeting Space in Lake Sector village centre	✓	Completed
18. Lookouts (as per Open Space and Public Access Management Plan)	N/A	
19. Pacific Highway footbridge	✓	Completed
20. Rural Fire Service, Brigade Depot, fire tender and equipment	✓	Completed
21. Community newsletter and Website	✓	Completed.
22. Promotion of Stewardship programs	✓	<p>The Community Association and Stockland engage in various activities in relation to the Community Development Program, which include:</p> <ul style="list-style-type: none"> <li>• donations of plant stock to the Galgabba Landcare Group</li> <li>• a Memorandum of Understanding with the DECCW (NPWS) to facilitate a cooperative approach to management of the North Wallarah Peninsula;</li> <li>• education, public information and promotion through school programs, publications, and signage;</li> <li>• participation in Bushcare and Coastcare.</li> </ul>
23. Promotion of festivals and events	✓	The Community Association and Stockland is engaged in various activities, which includes support for various festivals and events.
<b>Walarah Peninsula Master Plan – Built Form Management Plan</b>		
<b>Consideration 1:</b> Ecological Sustainability and Energy Efficiency (pp 65-71).	✓	<p>The Community Management Statement (By-Law 9) requires that approval for all buildings be obtained from the Design Review Committee established under By-Law 7. Building designs must be in accordance with the approved Lake Sector Design Essentials document.</p> <p>An approval certificate from the Design Review Committee must be included with the DA when it is submitted to Council or a private certifier. All buildings must also comply with the requirements</p>

		of Basix.
<b>Consideration 2:</b> Village character pedestrian-oriented development (pp 71- 74).	✓	The Design Essentials document, Landscape Report and Public Domain Elements submitted with the DA all aim to create a village character that is pedestrian-oriented.
<b>Consideration 3:</b> Retention of native vegetation and lot landscaping (pp 74- 80).	✓	Retention of vegetation on individual lots in accordance with the Site Analysis and Development Envelope Plans and landscaping to meet the requirements of the By-Laws of the Community Management Statement will address this consideration. In addition the Landscape Report and Public Domain Elements defines the proposed landscape works in community land and road corridors.
<b>Consideration 4:</b> Water sensitive urban design (pp 80-84).	✓	Water sensitive urban design principles have been incorporated into the stormwater design.
<b>Consideration 5:</b> Building on sloping land (pp 84-86).	✓	Item 15 of the Design Essentials submitted with the DA specifies that no cut or fill is to be carried out on slopes greater than 10%, other than as required for access, garaging and footings. There are no lots steeper than 10% in this stage.
<b>Consideration 6:</b> Building in bushfire prone areas (pp 87).	✓	Conditions included in the Rural Fire Service's approval under the Rural Fires Act 1997, include a requirement to comply with Planning for Bush Fire Protection 2006. In addition Stockland and the Community Association are required to ensure that all development addresses bushfire management recommendations in the various bushfire related documents submitted with the DA.
<b>Consideration 7:</b> Building to retain views (pp 87-88).	✓	A Building Envelope has been designated for each lot that has considered the impact on views. The issue of views from buildings has been considered in preparing these envelopes.
<b>Consideration 8:</b> Privacy and security (pp 88-90).	✓	Issues of privacy and security are addressed in the Community Management Plan and Design Essentials document.
<b>Consideration 9:</b> Home based business (pp 90-91).	✓	Lake Macquarie LEP 2000 – North Wallarah Peninsula provides for 'home-based business'. The Masterplan provides for signage for home-based business and requires signage to be integrated with the design of the building.
<b>Consideration 10:</b> Other site-wide issues (pp 91-92).	✓	The Design Essentials sets a comprehensive framework for building designs including fencing and landscaping.

<b>Consideration 11:</b> Create a defined and attractive entrance to the Lake Sector – Swansea Valley Precinct from the existing settlement of Swansea (pp 99-100).	✓	Completed
<b>Consideration 12:</b> The internal valley space will be enhanced by development (pp 100-102).	N/A	
<b>Consideration 13:</b> Lakeshore Village will be pedestrian-oriented (pp 107-108).	✓	The subdivision has been designed to be pedestrian friendly and integrates with the Lake Foreshore pedestrian pathways.
<b>Consideration 14:</b> View corridors will be retained and preserved (pp 108-109).	✓	The site building envelopes have set appropriate setbacks and heights for buildings so that view corridors will be retained.
<b>Consideration 15:</b> Development adjoining the Habitat Corridor will be sensitive to the natural landscape character and ecological qualities (pp 109-110).	N/A	
<b>Consideration 16:</b> Visual impact of development will be minimised (pp 111-112).	✓	Building heights and sizes are defined by the Building Envelopes. The colour of buildings and design parameters are all contained in the Design Essentials document.
<b>Consideration 17:</b> Community uses will be integrated into the Forest Red Gum Reserve and public open space fronting Lake Macquarie (pp 112-115).	✓	A Plan of Management has been prepared for the Forest Red Gum Reserve (or Foreshore) Reserve. Provision for community uses have been provided in accordance with this Plan.
<b>Consideration 18 to 38:</b>	N/A	These considerations do not apply to this part of the North Wallarah site.
<b>Walarah Peninsula Master Plan – Visual Integration Management Plan</b>		
<b>Consideration L1:</b> Sector Integration (page 33-36) The VIMA sets guidelines for: <ul style="list-style-type: none"> <li>• Massing and densities within the Lake Sector.</li> <li>• The layout and form of development.</li> <li>• Materials, textures and colours of buildings.</li> <li>• Vegetation management.</li> </ul>	✓	The Building Envelope for each lot in Stage 14 has been designed by a specialist team of urban planners, ecologists and bushfire specialists. Approximately 54% of the existing trees are to be retained after development and this ensures that the development can be visually absorbed within the vegetation. It is proposed to plant additional trees in the Foreshore Reserve directly adjoining

		<p>this stage to further reduce visual impacts from the Lake.</p> <p>The building envelopes are located below the tree canopy. This will ensure that views from the Lake are dominated by tree lined ridgetops.</p> <p>The lots that front the Lake have a building set back of 6 metres and 10 metres or greater in critical areas, from the Foreshore Reserve and provision is made for landscaping on each lot.</p> <p>The materials, textures and colours of all future buildings are controlled by the Design Essentials document.</p>
<p><b>Consideration L2:</b></p> <p>Regional Integration (page 36-39)</p> <ul style="list-style-type: none"> <li>• Dominance of the natural landscape.</li> <li>• Retention of natural vegetation.</li> <li>• Protection of the natural character of ridgeline j.</li> <li>• Protection of natural character of hillsides.</li> <li>• Protection of the natural character of the foreshore.</li> <li>• Pacific Highway viewshed management.</li> <li>• Lake Macquarie viewshed management.</li> </ul>	✓	<p>Approximately 54% of existing trees are to be retained and additional planting will take place on the foreshore reserve. The Building Envelopes will sit “within” the natural vegetation.</p> <p>Ridgeline J is not impacted by this stage.</p> <p>There is no hillside development in this stage.</p> <p>Building Envelopes are set back from the Foreshore Reserve and additional vegetation planting will take place in the reserve. Fencing and landscaping adjoining the Foreshore Reserve are all controlled by the Design Essentials document.</p> <p>The Pacific Highway viewshed is not contained within this stage of development.</p> <p>The viewshed of Lake Macquarie is protected by Building Envelopes that control height and setbacks. All buildings are located below the tree canopy. Building designs and colours are controlled by the Design Essentials document.</p>

[illegible]

## Appendix D

### Council's Planner – Flora and Fauna's Comments

#### *1*

## **Development – Flora/Fauna**



<b>Application Number:</b>	DA/1297/2009	<b>Date:</b>	8 July 2010
<b>Location:</b>	LOT 27 DP 270485, PT LOT 124 DP 270485 ( 59.79 HA ), LOT 123 DP 270485 2 LAKE FOREST DRIVE, MURRAYS BEACH NSW 2281, 39 JETTY POINT DRIVE, MURRAYS BEACH NSW 2281, 6 TWO PONDS LANE, MURRAYS BEACH NSW 2281		

I have reviewed additional information and revised 7 part test provided by owl expert John Young and nigh environmental (May 2010). Information was reviewed with regard to previous flora and fauna requests of 20 October 2009 as well as the Integrated Ecological Assessment (Travers bushfire and ecology, 25 August 2009) and advice from owl expert Dr Rod Kavanagh provided on the 11 January 2010 (see Appendix 1) and 4 March 2010 (see Appendix 2).

Flora and fauna comments are provided below:

#### ***Site Ecology***

Stage 14 is comprised of 5.34 hectares of spotted gum / ironbark forest, 2.80 ha the Endangered Ecological Community (EEC) River-flat Eucalypt Forest on Coastal Floodplains and 0.37 hectares of cleared land. The vegetation has been disturbed in the past by grazing, earthworks and ongoing groundcover maintenance such that the shrub layer is largely removed.

Threatened species recorded on or immediately adjacent to the subject site include the masked owl, powerful owl, little lorikeet, glossy black cockatoo, squirrel glider, little bentwing – bat, east coast freetail-bat, yellow bellied sheath-tail-bat, greater broad-nosed bat and the large-eared pied bat. Threatened species habitat of particular significance include:

- an active masked owl roost tree and nest tree that has been identified from the Stage 14 proposed footprint. This is a significant feature in that to date there have been only three other masked owl nest sites recorded within the city, one at Northlakes, one at Apollo Drive near the Charlestown Golf Course and one recently south of West Wallsend;
- The EEC which provides important habitat for a number of threatened species such as the little lorikeet; and
- A high proportion of habitat trees. A total of 98 habitat trees have been identified.

#### ***Proposed Impact and Amelioration***

The application proposes to:

- subdivide 8.5 hectares of threatened species habitat including 2.8 ha the Endangered Ecological Community (EEC) River-flat Eucalypt Forest on Coastal Floodplains;
- encroach to within 30 and 50 metres of an active masked owl roost tree and nest tree;
- remove 48 of the 98 habitat trees identified on site;

These impacts, Clearing of Native Vegetation, Loss of Hollow-bearing Trees and Removal of Dead Wood and Dead Trees are Key Threatening Processes listed in the Threatened Species Conservation Act and may contribute to others such as invasion of exotic grasses.

To ameliorate this impact the application:

- commits to the retention of a 30 and 50 metre buffer around the masked owl roost tree and nest tree respectively that would be retained as part of the community association land;
- commits to the retention of approximately 50% of trees within created residential lots as per the Conservation Land Use Management Plan adopted as part of the North Wallarah Masterplan DA;
- commits to the preparation of a masked Owl Management Plan including monitoring and installation of nest boxes;
- relies on offsets provided as part of the adoption of the North Wallarah Local Environmental Plan (2000). The Local Environmental Plan rezoned approximately 630 hectares of environmental protection land of which the 8.5 hectares of Stage 14 was a part. Approximately 33% (or 200 hectares) of this area was retained for conservation and public open space (ie; approximately 150 hectares within the Wallarah National Park, 20 hectares within the conservation corridor, 19 hectares within costal land and 7.7 hectares within the Foreshore Reserve). Approximately 66% (or 430 hectares) was rezoned to residential development with requirements for a high proportion of trees within individual lots to be retained as well as vegetation along drainage lines and within some larger lots . With regard to the River-flat Eucalypt Forest, approximately 7.7 hectares will be retained in the existing modified state for public open space within the Foreshore Reserve;

### ***Flora and Fauna Referral Comments / Recommendations***

In general I am accepting of the proposal with the exception of impacts proposed to the masked owl. I am of the view that an SIS should have been prepared particularly given the level of proposed impact as well as the uncertainties that have been applied in considering the key factors required for consideration under Section 5A, particularly:

- (a) in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction;
- (d) in relation to the habitat of a threatened species, population or ecological community:
  - (ii) whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and
  - (iii) the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality; and
- (f) whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan. The Large Forest Owl Recovery Plan (DECCW October 2006) includes, amongst other, the following objectives:
  - Objective 4 : Ensure the impacts on large forest owls and their habitats are adequately assessed during planning and environmental assessment processes;
  - Objective 5 : Minimise further loss and fragmentation of habitat by protection and more informed management of significant owl habitat (including protection of individual nest sites);



- Objective 6 : To improve the recovery and management of the three large forest owls based on an improved understanding of key areas of their biology and ecology.

(g) whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

The DECCW 'Threatened species assessment guide: the assessment of significance' (see <http://www.environment.nsw.gov.au/threatenedspecies/tsaguide.htm> ) states that the Section 5A assessment or "threatened species assessment of significant should not be considered a 'pass or fail' test. Instead, consideration of the factors will inform the decision-making process of the likelihood of significant effect. Where necessary, the process will trigger further assessment in the form of a species impact statement ... The assessment of significance should not be used as a substitute for a species impact statement...If information is not available to conclusively determine that there will not be a significant impact on a threatened species, population or ecological community, or its habitat, then it should be assumed that a significant impact is likely and a species impact statement should be prepared".

On the 11 January 2010 Dr Rod Kavanagh provided a written discussion of issues and recommendations for owl conservation for the Stage 14 application (as provided in Appendix 1). Recommendations included that:

- An SIS be provided given there is considerable uncertainty about the most appropriate management actions required to ensure owl conservation in the context of residential subdivisions; and
- That the SIS focus on 1) an assessment of the availability of alternative nest trees and roost trees for the owls; 2) an assessment of the amount and distribution of riparian zone vegetation and undisturbed native forest cover that will remain available to the owls as foraging habitat in perpetuity; 3) an assessment of the distribution and locations of adjacent owl territories for the masked owl (and for other large forest owls) on the Peninsula; and 4) an assessment of the amount and distribution of suitable vegetation and native forest cover remaining in perpetuity as foraging habitat for owls in adjacent and nearby territories.

Following submission of a revised Masked Owl Discussion paper and 7 part test by ngh environmental in February 2010, Rod Kavanagh provided council with revised emailed advice on the 4 March 2010 (as provided in Appendix 2), that stated:

"In summary I do not believe that an SIS is required to consider the Stage 14 development because the report contains much of the information and assessment that would be provided in an SIS, or at least provides an undertaking that the required information will be obtained. However, if substantial new developments are planned or proposed in neighbouring areas (especially those outside of the estimated home-range of this pair of Masked Owls) then I believe that an SIS is required to adequately consider the likelihood of unfavourable cumulative impacts on the local populations of large forest owls".

With regard to the Rod Kavanagh's advice to date, additional information provided by John Young and ngh environmental (May 2010) and Section 5A, the following was noted:

- Substantial new developments are planned for the Wallarah area (ie; as shown in the Wallarah Masterplan DA) especially in the vicinity of a second pair of masked owls detected in the northern sector of the Wallarah Masterplan area. To date three pairs of masked owls have been confirmed within the Wallarah Peninsula (ie; one within the Stage 14, one within the northern sector and another pair within the Wallarah National Park). The nest site within Stage 14 is of particular significance in that it is an important part of the local population's habitat and ability to retain breeding viability. There is potential for other nest sites to occur



within the peninsula (ie; either within conservation areas or also potential within similar future proposed development areas) there is also some potential for the breeding pair to relocate either to conservation areas or to similar proposed future development areas. However at this stage there is a high level of uncertainty about how the local population is functioning within the peninsula (eg; How many nest sites occur within the area? What proportion of these nest sites occur within secured conservation areas? What are the home ranges of these nesting pairs? Will the other pairs be able to tolerate home range reductions if the Stage 14 pair need to relocate and compete for resources? Are there sufficient active nest sites within secured conservation areas to tolerate the potential loss of a viable breeding pair and the associated cumulative affect this will have to the local populations genetic diversity and associated resilience?). Based on the information provided to date the Stage 14 site has potential to impact 1 or the 3 known pairs and potentially the only pair actively breeding on the peninsula (ie; 1/3 of the known local population). Given the northern sector is also identified for residential development there is also potential that a further 1/3 of the known population will be placed under similar development pressure in the future. While there may be a pair breeding within the Wallarah National Park this would leave only one potential nest site in secure tenure. While there may also be further pairs to the south within Coal and Allied and Rosecorp Land there are to date no known nest sites in this area or guarantee that this area will be secured for conservation;

- There is no scientific research to demonstrate that the masked owl can tolerate encroachment and encompassing residential development to the level proposed (ie; to within 30 and 50 metres) so the application will rely heavily on the owls ability to relocate. The majority of alternate owl trees identified for the Stage 14 pair to potentially relocate to occur within areas already approved for residential development or within areas immediately adjoining residential development placing there validity under question. If the pair are forced to relocate further from the Stage 14 site it is likely they will be forced to compete with the other pairs identified from within the Wallarah Peninsula for the same resources and / or permanently move from the area reducing the local population and associated genetic diversity by 1/3;
- The application proposes a management plan and monitoring however there is concern that even with monitoring, it is not possible to gage how the owls respond to the impact in the long term. The masked owls at Northlakes and Apollo Drive are not detected during monitoring at these sites anymore so there is no certainty about how masked owls responded to the proposed buffer and offset provisions that were applied at these sites (Murray 2010, Ecotone Ecological Consultants 2006). There is also no certainty that future monitoring at Wallarah will be able to demonstrate how masked owls have responded to the current proposed buffer and offset provisions; and
- Council assess a large number of development applications each year and to date this application represents only the third in at least the last 16 years for which an active masked owl breeding site has been detected within the proposed development area. The other two previous development applications (ie; Northlakes and Apollo Drive) were both considered a "more than ordinary impact" under Section 5A and were both supported by SISs. In this regard this application would represent a substantial deviation from the way Council has been assessing proposed impacts to masked owls under Section 5A and what has previously been considered a "more than ordinary" impact to their habitat. Note: Preston (1990), as referred to in Oshlack V Richmond River Shire Council, defines the meaning of significant for Section 5A assessments as "important, notable weight or more than ordinary" and the word "likely" as "real chance" or "possibility".

Given the uncertainty of information applied within the Section 5A assessment provided for the application (ie; there is no research to demonstrate that the masked owl pair will be able to tolerate

this level of impact to their breeding habitat or that cumulatively this will not place a more than ordinary impact on the local population), and the potential significant impact the proposed impact and the associated uncertainties applied could have to the local population, it is considered that the Section 5A assessment should have concluded that a more detailed assessment of the impact to the local population, via the SIS process, was required.

An SIS, as per Section 110 of the Threatened Species Conservation Act would have required, amongst other, a more detailed:

- quantification of the local population (ie; confirmation of other known nest sites and habitat utilisation areas of pairs within the local population, or at least within the Stockland landholding, to assist in understanding how potential relocation of the breeding site will affect the local populations viability);
- assessment of cumulative impacts;
- assessment of development alternatives;
- assessment of proposed prevention, remediation and offsetting measures against current prevention, remediation and offsetting requirements, that are required of other developers through the DGR and SIS process, such that the conservation of this population is retained in the long term (see Appendix 3)."

Note: Written legal advice was also sought with regard to Section 5A of the EP&A Act from Councils city solicitor (8 July 2010) that stated: *"I have considered the following: Dr R.P Kavanagh's Discussion of Issues and Recommendations for Owl Conservation, 11 January 2010; Emails from Dr Kavanagh of 4 March 2010; and NGH Environmental's Revised 7 Part Test, May 2010. Having considered this material, I am of the opinion that the development is more likely than not to have a significant effect on the threatened species, Tyto novaehollandiae"*.

### **Summary**

In summary I am not satisfied that Section 5A of the EP&A Act has been adequately addressed particularly given the level of proposed impact as well as the uncertainties that have been applied in considering Section 5A(a), d(ii), (d)(iii), (f) and (g). I am of the view that the proposed impact of Stage 14 represents a 'more than ordinary' impact to the local population. It is recommended that the assessment of impacts on the masked owl be completed via the SIS process to adequately meet Section 5A and 78(8)A of the EP&A Act and therefore, pursuant of Section 110 of the TSC Act, provide a more detailed:

- quantification the local populations use of the area (ie; confirmation of known nest sites and habitat utilisation areas of pairs within the local population, or at least within the Stockland landholding, to assist in understanding how potential relocation of the breeding site will affect the local populations viability);
- assessment of cumulative impacts to the local population;
- assessment development alternatives;
- assessment of proposed prevention, remediation and offsetting measures against current prevention, remediation and offsetting requirements, that are required of other developers, such that the conservation of this population is secured in the long term.

Should you require any information please contact me on extension ext 1198.

Sarah Warner  
**Development Assessment and Compliance**



## Refereneces

DECCW (2006) Recovery Plan for the Large Forest Owls.

DECC (2007) *Threatened Species Assessment Guidelines: The Assessment of Significance*.

<http://www.environment.nsw.gov.au/threatenedspecies/tsaguide.htm>

DECC (2007) *Principles for the use of biodiversity offsets in NSW*.

DECC (8 February 2000) Letter to Roslyn Adams Re: draft Local Environmental Plan for North Wallarah Peninsula.

Ecotone Ecological Consultants (August 2006) Masked Owl Monitoring Results prepared for AV Jennings.

Forest Fauna Surveys (7 July 2010) Northlakes Estate Masked Owl Tree Inspection.

Forest Fauna Surveys and East Coast Flora Surveys 2001 *Lake Macquarie Flora and Fauna Survey Guidelines* for Lake Macquarie City Council.

Forest Fauna Surveys (July 1999) Distribution of Large Forest Owls in the City of Lake Macquarie. HCCREMS and Bates, G (Draft 2010) Section 7.2.1 Offsets under Planning Agreements from *Draft Scoping Paper Options for Funding Compliance*.

Kavanagh R (11 January 2010) Discussion of Issues and Recommendations for Owl Conservation.

Kavanagh, R (4 March 2010) *RE: Masked Owl Response*.

*Kavanagh, R (undated)* Lake Macquarie, Wyong and Gosford Local Government Areas Wildlife Workshop Owls and Arboreal Mammals.

ngh environmental and John Young (10 May 2010) Letter to Lake Macquarie Council DA Staged Subdivision Point Morisset (Stage 14).

ngh environmental (May 2010) Revised 7 part test Stage 14 North Wallarah.

nghenvironmental (February 2010) Masked Owl Discussion Paper and 7 part test Stage 14 North Wallarah.

Travers bushfire & ecology (August 2009) Integrated Ecological Assessment Stage 14 Point Morisset Murrays Beach.

Young, J. (31 August 2009) Letter to Mr John Travers Re: Masked Owl at Murrays Beach Stage 14 Point Morisset.

## Appendix 1

### DA for Residential Development at Murrays Beach, Wallarah Peninsula, Lake Macquarie City Council area:

#### Discussion of issues and recommendations for Owl Conservation

Dr R.P. Kavanagh (11 January 2010)

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#### Background

The Masked Owl *Tyto novaehollandiae* is listed as a vulnerable species on Schedule 2 of the NSW Threatened Species Conservation Act 1995. This owl is uncommon throughout its range in NSW (Kavanagh 2002a) with parts of the Central Coast, including Lake Macquarie City, being a hotspot for its occurrence (Kavanagh 2004). The Masked Owl is cryptic and difficult to detect during surveys (Wintle *et al.* 2005), except at certain, mostly unpredictable, times of the year when its pre-breeding calling behaviour is readily detectable.

The Masked Owl nests in large, old (usually live) eucalypts which are among the largest and tallest trees in the forest (Kavanagh 1996, Kavanagh and Murray 1996, Hollands 2008). The owls roost by day either in tree hollows (live or dead trees) or among canopy or sub-canopy foliage. Home-ranges for these owls are approximately 1200 ha, based on one adult female radio-tracked near Warners Bay-Charlestown (Kavanagh and Murray 1996), but can be much larger (1500 ha, >3000 ha) based on two males radio-tracked near Whiporie and Minnie Water on the NSW north coast (Kavanagh unpublished data). Masked Owls prey mostly on small terrestrial mammals, including native species and introduced rats and mice (Kavanagh 2002b, and unpublished data).

A species recovery plan has been prepared for the Masked Owl in NSW (DECC 2006). This document reviewed the ecology, habitat requirements and estimated population status of the Masked Owl and recommended a series of management actions that should be undertaken to ensure that viable populations of this species continue in the wild in NSW in each region where it presently occurs. These recovery actions included the need to ensure the impacts of development activities on the Masked Owl and its habitat off-reserve were adequately assessed and mitigated during planning and environmental assessment processes (Objective 4), and to minimise further loss and fragmentation of habitat by protection and more informed management of significant owl habitat, including protection of individual nest sites (Objective 5).

#### Large Forest Owls and the Murrays Beach Development

A breeding pair of Masked Owls has been located near Murrays Beach on the Wallarah Peninsula near Cams Wharf in the Lake Macquarie City Council area. The nest tree, a Spotted Gum *Corymbia maculata* with a large hollow in which at least one young was raised in 2009 has been located, along with another old hollow tree nearby that has been used regularly by the owls for roosting (i.e. diurnal shelter) (John Young, personal communication). These two trees are located within the next stage proposed for residential development.

Other (currently unknown) Masked Owl territories are likely to be present on the Peninsula, and at least one breeding pair of the Powerful Owl *Ninox strenua* is also known to occur on the Peninsula (Kavanagh, personal observations in 1996). In addition, there are other records, possibly from different owl territories, of the Powerful Owl on the Peninsula (in 1992 and 1999 by Michael Murray, personal communication).

On 11 November 2009, I inspected the site in company with John Young (Wildlife Consultant), Sarah Warner, John Andrews and Robbie Economos (LMCC), and Jacqui Coughlan (ngh environmental). Issues discussed included the minimum width of buffers to be placed around the owl nest and roost trees, the availability of alternative nest and roost trees within the estimated home-range of these owls, the amount of foraging habitat that would remain available to the owls at the completion of all of the proposed developments, the need for a comprehensive Plan of Management for the Peninsula that would ensure that sufficient habitat was retained to maintain all of the large forest owls present (likely to be several additional territories), and the need for an effective monitoring program to document, and specifically to publish in the scientific literature, the outcomes of any developments for owl conservation.

Also during our meeting on 11 November 2009, four regurgitated pellets from the Masked Owls were collected within 100 m of the nest tree. Each pellet contained the remains of a single rat, each of which was identified as the native Bush Rat *Rattus fuscipes*. One of the pellets had a complete rat skull and a pair of pelvic girdles. The other three pellets each had a pair of pelvic girdles that looked the same as the first pellet. These owl pellets provide confirmation of at least one prey species in the diet of the Masked Owls at this location, and this information is in accordance with expectations from the scientific literature.

#### Owl Management Issues for consideration

There is currently no scientific basis for assigning any particular width (radius) buffer around nest and roost trees for large forest owls in Australia. However, it is generally agreed that nest sites and roost sites for these owls, and indeed for many other species, need to be protected from certain human activities, including those involving nearby habitat disturbance. An effective buffer is required around owl nest and important roost trees as a minimum level of management attention if continued use of these trees by the owls is to be achieved.

Buffers of 50 m and 30 m radius have been specified to protect owl nest and roost trees, respectively, in a forestry context (DECC 2006), however, buffers have not yet been specified for use in the context of residential developments. Conceivably, buffers in residential areas should be larger than those applied in the forestry context because, in the latter situation, trees and other vegetation are not permanently removed from the site.

We cannot be certain that any recommended buffer around the nest site (and roost sites) will be adequate to ensure that the owls continue to nest and breed successfully in the known nest tree. However, in the event that we are wrong, and to provide more confidence in any recommendation, it is important to know whether there are plenty of alternate nest and roost trees available for the owls within their home-range.

Buffers around nest and roost trees are only part of the story. Of greater importance, subject to the availability of alternative nest and roost trees, is “landscape context”, in particular, the amount of suitable foraging habitat that will remain in perpetuity after the completion of the development. This refers, in part, to the amount of mature tree cover retained within the residential development but, most importantly, also to the amount of natural bushland cover that will remain within the home-range of this pair of owls. In a previous study, I radio-tracked an adult female Masked Owl between Charlestown and Warners Bay (near Newcastle) and the home-range for this bird was approximately 1200 ha, of which 360-400 ha was forest including some open, low-lying, wet areas where the bird foraged extensively. This suggests that it is important to buffer and protect creeklines and minor drainage lines within and outside of the residential development and to ensure that about 400 ha of forest is protected in perpetuity within a 2 km radius (i.e. the approximate size of an owl’s home range).

One pair of owls does not represent a population. Hence, it is important for owl conservation to ensure that the cumulative effects of local and regional developments do not limit the capacity of the habitat to support additional breeding territories for the owls in nearby areas. A comprehensive Owl Management Plan (OMP) is needed to address the issues raised above, and to document the locations of other additional pairs of Masked Owls (and other large forest owl species) in the general vicinity. A comprehensive OMP would consider the locations of all owl nests on the Wallarah Peninsula and the requirements of these owls for long-term habitat protection.

A monitoring program is also crucial. Given the paucity of documented precedents, it is important to monitor whether this pair of Masked Owls continues to use and breed successfully in the known nest tree or whether another tree is selected for breeding. If no breeding is observed, then evidence of continued occupancy within the home-range should be sought. The monitoring program should also extend to include annual assessments of territory occupancy, and preferably also breeding success, by other large forest owls living on the Wallarah Peninsula.

### Recommendations

Considerable uncertainty exists about the most appropriate management actions required to ensure owl conservation in the context of the proposed residential developments. In a legal sense, this uncertainty warrants the preparation of a Species Impact Statement for the Masked Owl.

A Species Impact Statement should be prepared that would address the issues of management concern highlighted above. The SIS would focus upon: 1) an assessment of the availability of alternative nest trees and roost trees for the owls; 2) an assessment of the amount and distribution of riparian zone vegetation and undisturbed native forest cover that will remain available to the owls as foraging habitat in perpetuity; 3) an assessment of the distribution and locations of adjacent owl territories for the Masked Owl (and for other large forest owls) on the Peninsula; and 4) an assessment of the amount and distribution of suitable vegetation and native forest cover remaining in perpetuity as foraging habitat for owls in adjacent and nearby territories.

Masked Owls are thought to be more tolerant of disturbances around their nest trees and roost trees than may be the case for other species of large forest owls. While acknowledging this uncertainty, and subject to the identification of a number of alternative suitable nest trees and roost trees that will remain protected within this owl territory, it is recommended that minimum buffer sizes of 50 m and 30 m radius be applied to the known nest tree and roost trees, respectively.

It is recommended that a comprehensive Owl Management Plan be developed for the Masked Owls at Murrays Beach that should also include consideration of the conservation requirements for other large forest owls on the Wallarah Peninsula.

It is recommended that an Owl Monitoring Program be established to regularly assess continued owl occupancy and breeding success, as described above.

Given the uncertainty (including lack of documented cases in the published scientific literature), it is recommended that the results of the proposed development, should it proceed, be placed on the public record (i.e. published in a scientific journal). In this way, our public knowledge will steadily improve so that better assessments can be made of the impacts of residential developments on owl conservation outcomes.

#### References cited

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- Kavanagh, R.P. (2002b). Comparative diets of the Powerful Owl (*Ninox strenua*), Sooty Owl (*Tyto tenebricosa*) and Masked Owl (*Tyto novaehollandiae*) in south-eastern Australia. Pp. 175-191 in *Ecology and Conservation of Owls*, ed. by I. Newton, R. Kavanagh, J. Olsen and I. Taylor. CSIRO, Melbourne.
- Kavanagh, R.P. (2004). Conserving owls in Sydney's urban bushland: current status and requirements. Pp. 93-108 in *Urban Wildlife: more than meets the eye*, ed. by D. Lunney and S. Burgin. Royal Zoological Society of New South Wales, Mosman, NSW.
- Wintle, B.A., Kavanagh, R.P., McCarthy, M.A. and Burgman, M.A. (2005). Estimating and dealing with detectability in occupancy surveys for forest owls and arboreal marsupials. *Journal of Wildlife Management* **69**, 905-917.

## Appendix 2

-----Original Message-----

From: Rod Kavanagh [mailto:rod@def.nsw.gov.au]  
Sent: Thursday, 4 March 2010 5:57 PM  
To: Sarah Warner  
Subject: RE: Bashed Owl advice response

Dear Sarah,

I have read the report prepared by BSB Environmental on behalf of Stocklands, including their responses to the "7 part test" (Appendix A).

This report appears to provide sufficient assurances as to allay most of my concerns about the impact of the Stage 14 residential development on the continued occupancy of a breeding pair of Bashed Owls living in this area. As such, I no longer think that it is necessary to require Stocklands to prepare a Species Impact Statement before Council proceeds to further consider this Development Application.

However, I remain concerned about the cumulative impacts of other residential developments in the general locality. This concern refers partly to any additional developments within the estimated home-range of this pair of Bashed Owls. However, and given the assurances provided in the above report, I am mainly concerned about other developments that may be proposed or planned within the estimated home-ranges of other known or unknown pairs of the Bashed Owl that are adjacent to or near the subject pair of Bashed Owls. The occurrences of other species of large forest owls in these areas, including the Powerful Owl and potentially the Sooty Owl, also need to be taken into account.

I agree that Stocklands, in relation to the Stage 14 Development, should not have to bear the cost of additional surveys for owls and their nest trees and roost trees in other areas on the Wallarah Peninsula. However, if substantial new developments are proposed or planned for adjacent areas then the danger of cumulative impacts must be considered, most appropriately in an SIS, and new broader-ranging surveys should be undertaken.

In summary, I do not believe that an SIS is required to consider the Stage 14 development because the report contains much of the information and assessment that would be provided by an SIS, or at least provides an undertaking that the required information will be obtained. However, if substantial new developments are planned or proposed in neighbouring areas (especially those outside of the estimated home-range of this pair of Bashed Owls) then I believe that an SIS is required to adequately consider the likelihood of unfavourable cumulative impacts on the local populations of large forest owls.

Regards,

Rod

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### **Appendix 3**

**Section 7.2.1 Offsets under Planning Agreements from *Draft Scoping Paper Options for Funding Compliance (HCCREMS and Dr Gerry Bates (Draft 2010))*.**



the land he offered. The latter approach has more often been and more adopted by the courts in relation to development. More particularly, the focus of the land is on the starting point in considering the viability of a development proposal. The proposition that a substantial spring exists with it for existing or potential development that constituted a substantial part of the land, with it for its intended consequences for loss of native vegetation, is not accepted. What is called for is an approach to the land that enables the retention of significant native vegetation on the land.

A similar approach was adopted by the Land and Environment Court in *Reverend's Fibreglass Church* [2007] 150 LJR 107.

"The applicant made an offer to enter into a planning agreement with Council under the Environmental Planning and Assessment Act 1979 for an office development to be constructed on the site of that part of the residential property agreed upon by the parties on the site. The agreement would involve the sale of the site to the Council for the purpose of the development. ... In this case the Council would not agree to entering into a planning agreement with the applicant for the development of LPP (local industrial). The two parties to an offer where it has been used by one authority has been as a tool to get a managed result. ... This proposal involves the Council and the land, it is not the property that is sold to the Council."

There is an requirement or suggestion of the fact LPP position, its intended use, soil, water supply, resources and agricultural requirements are so specified and should not depend on the LPP. ... On the one hand, a new LPP in the same area may not be a new idea for a new type of business. In this negotiation which the applicant has offered to consider, the agreement is that the Council to spend other parts on other LPP areas. Once again the focus is that the applicant LPP is a managed result and there is a need for the existing business of independent industrial community LPP in the region."

The Tribunal has also adopted such an approach in determining proposed environmental impact EPA Part 44 of the Environmental Planning and Assessment Act 1979, and the Environmental Planning and Assessment Act 1979.

#### 7.4. Other relevant factors in the case

In *Reverend's Fibreglass Church* [2007] 150 LJR 107, the court said that the fundamental principle of planning is that the land is not to be used for a purpose that is not in the public interest and that the land is not to be used for a purpose that is not in the public interest.

- information of the values for the land is a factor in the decision-making process;
- the land is a factor in the decision-making process;
- the land is a factor in the decision-making process;
- the land is a factor in the decision-making process;
- the land is a factor in the decision-making process;
- the land is a factor in the decision-making process;

#### 7.5. Land use and planning

There is a need for the land to be used for a purpose that is not in the public interest and that the land is not to be used for a purpose that is not in the public interest.

- information of the values for the land is a factor in the decision-making process;

<sup>1</sup> *Reverend's Fibreglass Church* [2007] 150 LJR 107.

- requiring regular monitoring and reporting, and
- providing for the ongoing management of the project<sup>11</sup>.

<sup>11</sup> *Reverend's Fibreglass Church* [2007] 150 LJR 107, the court said that the fundamental principle of planning is that the land is not to be used for a purpose that is not in the public interest and that the land is not to be used for a purpose that is not in the public interest.

<sup>12</sup> *Reverend's Fibreglass Church* [2007] 150 LJR 107, the court said that the fundamental principle of planning is that the land is not to be used for a purpose that is not in the public interest and that the land is not to be used for a purpose that is not in the public interest.