



Planning &
Infrastructure

**MAJOR PROJECT ASSESSMENT:
Concept Plan for Mixed Use Development
Tallawarra Lands, Yallah
(MP09_0131)**



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

March 2013

ABBREVIATIONS

CIV	Capital Investment Value
Department	Department of Planning and Infrastructure
DGRs	Director-General's Requirements
Director-General	Director-General of the Department of Planning and Infrastructure
EA	Environmental Assessment
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPI	Environmental Planning Instrument
MD SEPP	State Environmental Planning Policy (Major Development) 2005
Minister	Minister for Planning and Infrastructure
PAC	Planning Assessment Commission
Part 3A	Part 3A of the <i>Environmental Planning and Assessment Act 1979</i>
PPR	Preferred Project Report
Proponent	Energy Australia Tallawarra Pty Ltd

Cover Photograph: Looking south over the site from Mount Brown

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EXECUTIVE SUMMARY

This application seeks Concept Plan approval for a mixed use development comprising residential, commercial, industrial and retail land uses. The proposal also includes public open space areas, recreational facilities, road networks, environmental management works, conservation areas and riparian corridors. The site is owned by Energy Australia Tallawarra Pty Ltd and is commonly known as the Tallawarra Lands, Yallah. Specifically, the Concept Plan includes:

- Three residential precincts known as the North Shore Precinct, Central Precinct and the Lakeside (southern) Precinct accommodating a total of 1,010 lots;
- A 200 dwelling retirement village and a primary school within the B7 Business Park zoned land in the Lakeside precinct;
- A neighbourhood centre (4.25ha) within the Central Precinct;
- Approximately 12 hectares of land zoned B6 Enterprise Corridor in the Lakeside Precinct;
- Approximately 54 hectares of land for industrial and light industrial uses on the northern and southern side of Yallah Bay Road accommodating 34,160m² of industrial development;
- A 2.5 hectare tourist site at the eastern end of the Central Precinct on the headland along the foreshore of Lake Illawarra;
- Associated road networks, foreshore open space network, walkways, cycle paths, share paths; and
- Approximately 360 hectares of open space.

The Environmental Assessment was publicly exhibited from 22 September 2011 until 7 November 2011. A total of 112 submissions were received comprising 95 public submissions (all in the nature of objections), 14 submissions from Local and State Government authorities, and 3 submissions from interest groups. Issues raised in the submissions included traffic and access, bicycle infrastructure, flooding, impact on the ecology and water quality of Lake Illawarra, inappropriate land use, inadequate documentation, land clearing and ecological issues, power station noise, and the loss of horse riding land. In response to the issues identified by the Department during its assessment of the Concept Plan and issues raised in submissions, the proponent prepared a Preferred Project Report. Key amendments made in the Preferred Project Report included:

- A road linkage to the suburb of Haywards Bay, which adjoins the southern boundary of the site;
- Reconfiguration of the lot layout in the northern residential precinct;
- Clarification and justification of the proposed flood risk management; and
- Amendments to the proposed cycleway network.

The Preferred Project Report was publicly exhibited from 19 July 2012 until 20 August 2012. A total of 21 submissions were received comprising 11 public submissions (10 in the nature of objections and one in support), including 4 submissions from special interest groups and 10 submissions from Local and State Government authorities. Issues raised in the submissions included roads and access, bicycle infrastructure, flooding, impact on Lake Illawarra, land use, inadequate documentation, ecological issues, noise, and loss of horse riding land.

In assessing the proposed Concept Plan, the Department has identified the following key issues:

- Permissibility;
- Noise;

- Flooding;
- Environmental issues; and
- Roads and access.

The Department has assessed the Concept Plan on its merits and is satisfied that the identified impacts have been addressed in the Environmental Assessment, Preferred Project Report, the Statement of Commitments and the Department's recommended terms of approval.

It is therefore recommended that the Concept Plan be **approved** subject to the recommended conditions specified in the Instrument of Approval pursuant to Part 3A of the Environmental Planning and Assessment Act 1979.

The Department has recommended a suite of conditions to ensure that the residual impacts associated with the proposal are appropriately managed. Recommended conditions require:

- The proposed southern access road to the Lakeside Precinct from the Princes Highway to be deleted to satisfy environmental and road safety concerns;
- The proposed road and bridge across Duck Creek to be deleted as the Minister is unable to approve this aspect of the Concept Plan as it is both prohibited within the zone and located within an environmentally sensitive area of State significance;
- Site contamination to be further addressed by requiring additional investigation into identified areas of environmental concern and the adequacy of these investigations be verified by a site auditor;
- The proponent to develop a site specific set of development guidelines, incorporating the information contained in the Concept Plan;
- The primary school and retirement village proposed within the B7 Business Park zone to be deleted via modification to protect employment lands on the site from inappropriate land uses;
- A Cultural Heritage Management Plan to be developed to address potential impacts on Aboriginal and non-Aboriginal heritage across the site;
- The Vegetation Management Plan to be amended to address issues associated with vegetation management beyond the initial five-year period identified in the plan;
- The proponent to establish a bio banking agreement to secure environmental offsets necessary to compensate to the permanent loss of endangered ecological communities, in the event that public authorities are unwilling to accept the transfer of land zoned for environmental purposes or land required as an environmental offset; and
- The existing and proposed road linkages to the north and south of the site to be traffic calmed.

The Department concludes that the impacts of the proposal can be suitably mitigated and/or managed to ensure satisfactory environmental performance and a good planning outcome. The proposal will provide on-going social and economic benefits to the Wollongong area and the wider Illawarra region.

In accordance with the Minister's delegation of the 14 September 2011, the application is forwarded to the Planning Assessment Commission for determination as more than 25 public submissions in the nature of objections have been received and the Proponent has declared that they have made reportable political donations.

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1. BACKGROUND

1.1 Site Description

The site is located in the suburb of Yallah within the Wollongong Local Government Area and is located approximately 13 km south of Wollongong town centre. The site lies east of the F6 corridor on the western foreshore of Lake Illawarra. The site has an area of 536 hectares and comprises the former buffer zone lands of the Tarrawarra power station. The site is commonly known as the "Tallawarra Lands" and comprises the following allotments:

- Lot 1 in DP109795;
- Lot 31 in DP 1175058;
- Lot 1 in DP 551658;
- Lots 30 in DP1175058;
- Lot 20 in DP 633211;
- Lot 102 in DP 716727;
- Lot 3 in DP 109795;
- Lot 15 in DP1050255;
- Lot 151 in DP 628980;
- Lot 1 in DP 543285;
- Lots 10 and 11 in DP 552933;
- Lots 1 and 2 in DP 792664;
- Lots 7 and 8 in DP1049520;
- Lot 1 in DP 1146409; and
- (Southern) Part 1092 in DP 1140369

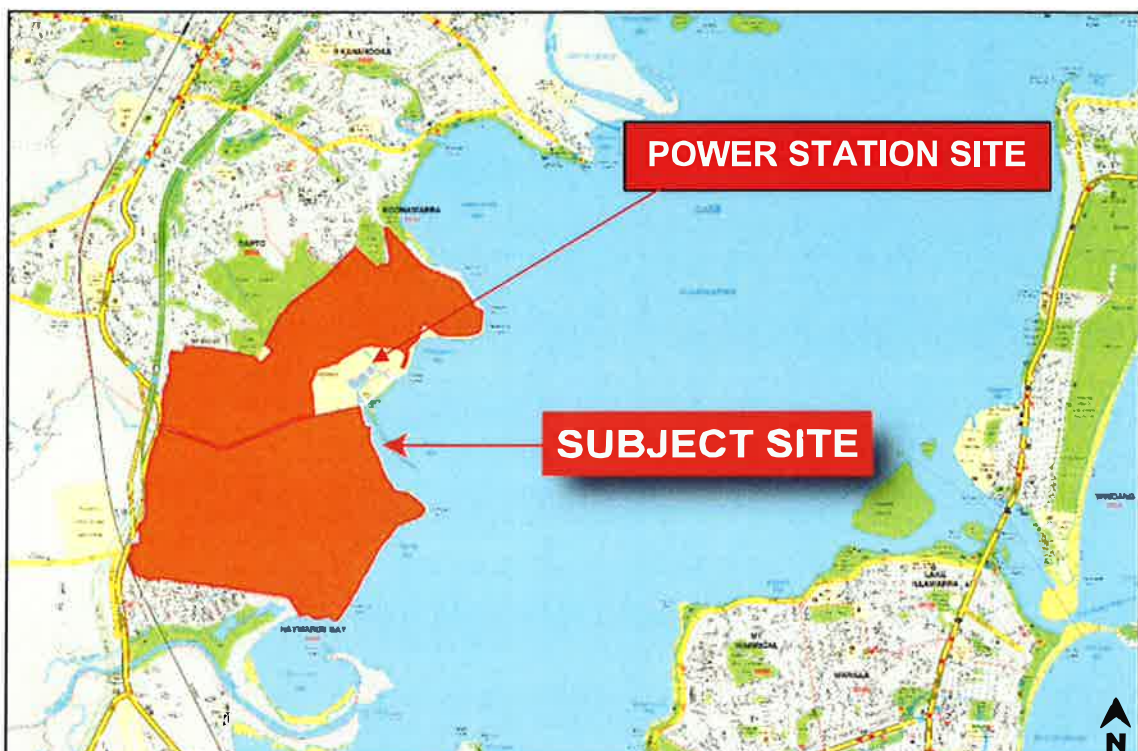


Figure 1: Site Locality Plan (Source: Environmental Assessment)



Figure 2: Regional Context (Source: Corkery Consulting, Environmental Assessment)

1.2 Site Features

The western boundary of the site adjoins the F6 Southern Freeway/Princes Highway and the southern rail corridor. Yallah Bay Road dissects the site and extends from the Princes Highway in the west to the foreshore of Lake Illawarra in the east, and is a Council owned local road.

The site has a 4.7km (approx) frontage to Lake Illawarra which is influenced by tides. Duck Creek transverses the site from east to west and is a regionally significant waterway with its upper reaches and catchment extending westward, beyond the freeway and rail corridor. There are a number of other natural watercourses within the site.

The topography of the site comprises a mix of steep ridges and elevated land to the north of the site, undulating to flat land and low-lying flood affected wetland areas to the south of the site. **Figures 3 and 4** are oblique aerial photos of the subject site. **Figures 5 and 6** are photos of the site taken from Mount Brown, and provide an indication as to the varied topography of the site.

The site includes coastal wetlands identified under State Environmental Planning Policy 14 – Coastal Wetlands. Other environmentally sensitive areas within the site include critical habitat for threatened species and endangered ecological communities.

The new Tallawarra Gas Turbine Power Station is located on the foreshore of Lake Illawarra, north of Duck Creek. Areas within the site are known to be contaminated, as a consequence of the operation of the former coal fired power station and other previous land uses.



**Figure 3 – Oblique aerial view of the site looking north-west
(Source: Environmental Assessment)**



**Figure 4 – Oblique aerial view of the site looking south
(Source: Environmental Assessment)**



Figure 5 – View looking south towards Haywards Bay and the Shellharbour shoreline of Lake Illawarra (Source: Site Inspection)



Figure 6 - View looking north (from Lakeside Precinct to Mt Brown) (Source: Site Inspection)

1.3 Surrounding Development

The residential areas of Dapto and Koonawarra adjoin the site to the north while the recently established residential subdivision of Haywards Bay adjoins the site to the south. The residential development in these settlements are generally characterised by low density detached housing with building heights of one and two storeys.

The western boundary of the site adjoins the F6 Corridor/ Princes Highway. The West Dapto new release area is located on the opposite side of the freeway/rail corridor, to the north-west of the site. (Refer to **Figure 1** for site locality plan and **Figure 2** for regional context). The Tallawarra (gas turbine) Power Station, and approved Stage B expansion, is located at the end of Yallah Bay Road, on the foreshore of Lake Illawarra, within the northern portion of the site.

The Illawarra Regional Airport is located a short distance south east of the site, within the Shellharbour local government area. The Shellharbour town centre is visible from the site, across the waters of Lake Illawarra.

1.4 Site History

The site comprises the former buffer zone lands of the old Tallawarra coal fired power station, which operated from 1954 to 1989. The plant and much of its ancillary buildings have since been demolished.

Extensive ash ponds associated with the former coal fired power station, located on the southern and central portions of the site are known to have elevated levels of ammonia and nitrogen contaminants. The ash ponds and other potential areas of environmental concern located on the site have been the subject of several geotechnical, contamination and acid sulphate soil investigations between 1992 and 2010.

In 1999 Wollongong City Council granted development consent for a new Combined Cycle Gas Turbine (CCGT) power station on the site of the previous coal fired power station. The new CCGT power station was commissioned in 2010 and is known as Tallawarra Stage A.

On 21 December 2010, the Minister for Planning and Infrastructure approved Major Project MP07_0124 for the construction of the Tallawarra Stage B power station which will utilise much of the existing infrastructure associated with Tallawarra Stage A. The power stations are located on lands outside of the subject site.

The project approval for MP07_0124 contains operational noise conditions, which establish noise criteria to ensure that the total cumulative contribution from the combined operation of Tallawarra A and B to the background acoustic environment does not exceed specified noise limits. The noise criteria have been applied to the existing residential areas of Koonawarra, Mount Warrigal and Haywards Bay, together with the proposed residential areas within the subject site.

The 530 hectares of former buffer zone land was rezoned under Wollongong Local Environmental Plan 2009 in order to permit a mix of development including residential and employment uses and provide protection to environmentally sensitive lands. The detailed master planning which preceded the rezoning anticipated a north-south collector road across Duck Creek. However, under the E2 Environmental Conservation Zone which was applied to Duck Creek, roads are a prohibited use. This prohibition has implications for the implementation of this Concept Plan and the orderly development of the land and is discussed later in this report.

2. PROPOSED CONCEPT PLAN

2.1 Project Description

2.1.1 Environmental Assessment (as exhibited)

The proposal as exhibited in the Environmental Assessment sought Concept Plan approval for the following:

- Approximately 1,010 residential lots over three precincts;
- A 200 dwelling retirement village;
- A 3 hectare site for a primary school;
- Approximately 40 hectares of commercial and industrial development;
- Approximately 16 hectares of retail development;
- Public open space areas;
- Recreational facilities;
- A network of roads, bicycle paths and share paths; and
- Approximately 360 hectares (67% of the site area) of environmental management areas, conservation areas and riparian corridors.

2.1.2 Preferred Project Report

Following the public exhibition of the Environmental Assessment, the Department advised the proponent that a number of issues required further consideration, and requested the submission of a Preferred Project Report.

The main issues were in relation to roads and access (permissibility); flooding; noise; land use; open space; public domain; and environmental matters.

On 28 June 2012, the proponent submitted a response to submissions and a Preferred Project Report. The Concept Plan as refined within the Preferred Project Report is detailed in **Table 1**.

Table 1: Key Project Components

Precincts	Description
Project Summary	Concept Plan for a mixed use development over 3 Precincts (530 hectares)
<i>Northshore Precinct (110 hectares)</i>	<ul style="list-style-type: none"> • Approximately 310 residential lots (22.3 hectares); • Environmental management areas in the vicinity of Mount Brown; and • Open space areas on the foreshore of Lake Illawarra (87 hectares). <p>The Northshore Precinct has existing vehicular access via Gilba Road from the residential areas of Koonawarra.</p>
<i>Central Precinct (210 hectares)</i>	<ul style="list-style-type: none"> • Approximately 340 residential lots (27 hectares) and 10 large residential lots (11 hectares); • A Neighbourhood Centre (4.25 hectares), incorporating a small supermarket, specialty shops, medical centre and child-care centre; • Industrial and light industrial uses (54 hectares);

Precincts	Description
Project Summary	<p>Concept Plan for a mixed use development over 3 Precincts (530 hectares)</p> <ul style="list-style-type: none"> • A tourism (2.5 hectares) use on the Lake foreshore headland at the eastern end of the precinct; and • Open space, incorporating the recreational sports ground & Duck Creek riparian lands (109 hectares environmental and recreational). <p>The Central Precinct would have total urban area of 101 hectares, with the remaining 109 hectares being open space and land reserved for environmental conservation.</p>
Lakeside Precinct (215 hectares)	<ul style="list-style-type: none"> • Approximately 350 residential lots; • 200 dwelling retirement village (11.2 hectares) and primary school (2.5 hectares); and • Commercial uses, including business/office and bulky goods retail. <p>The Lakeside Precinct has a total urban area is 51.2 hectares, with the remaining 164 hectares being open space and land reserved for environmental management, conservation.</p>
Summary	
Residential component	A total of 1,010 residential lots.
Industrial component	Approximately 54 hectares of land for industrial and light industrial uses.
Retail component	Retail uses would be accommodated within the central and Lakeside precincts.
Traffic arrangements and vehicular access	<p>Traffic and access arrangements comprise:</p> <ul style="list-style-type: none"> • Three roundabout entrances off the Princes Highway at Cormack Avenue, Yallah Bay Road, and the southernmost entrance to the B7 zoned land within the Lakeside precinct; • Road linkage from Haywards Bay to the Lakeside Precinct; • Upgrade of the existing Yallah Bay Road to a collector road; and • Construction of a north-south collector road, including a vehicular bridge across Duck Creek.
Open space	<p>Provision of publicly accessible open space and through site links totalling 3,097m² including:</p> <ul style="list-style-type: none"> • Sports facilities located in central precinct, such as playing fields, netball and tennis courts, children's playground, communities and surface car parking; • Lake Illawarra foreshore open space, pocket parks and bike path; and • Barbecue and picnic facilities in open space areas and foreshore pocket parks.
Environmental management	A total of 360 hectares (67% of the site) zoned <i>E2-Environmental Conservation</i> and <i>E3-Environmental Management</i> zones, including Mount Brown, a large portion of flood prone land, lakes and wetlands south of Duck Creek, together with the riparian corridor of Duck Creek.

The revised concept plan which accompanied the Preferred Project Report is shown in **Figure 7**.

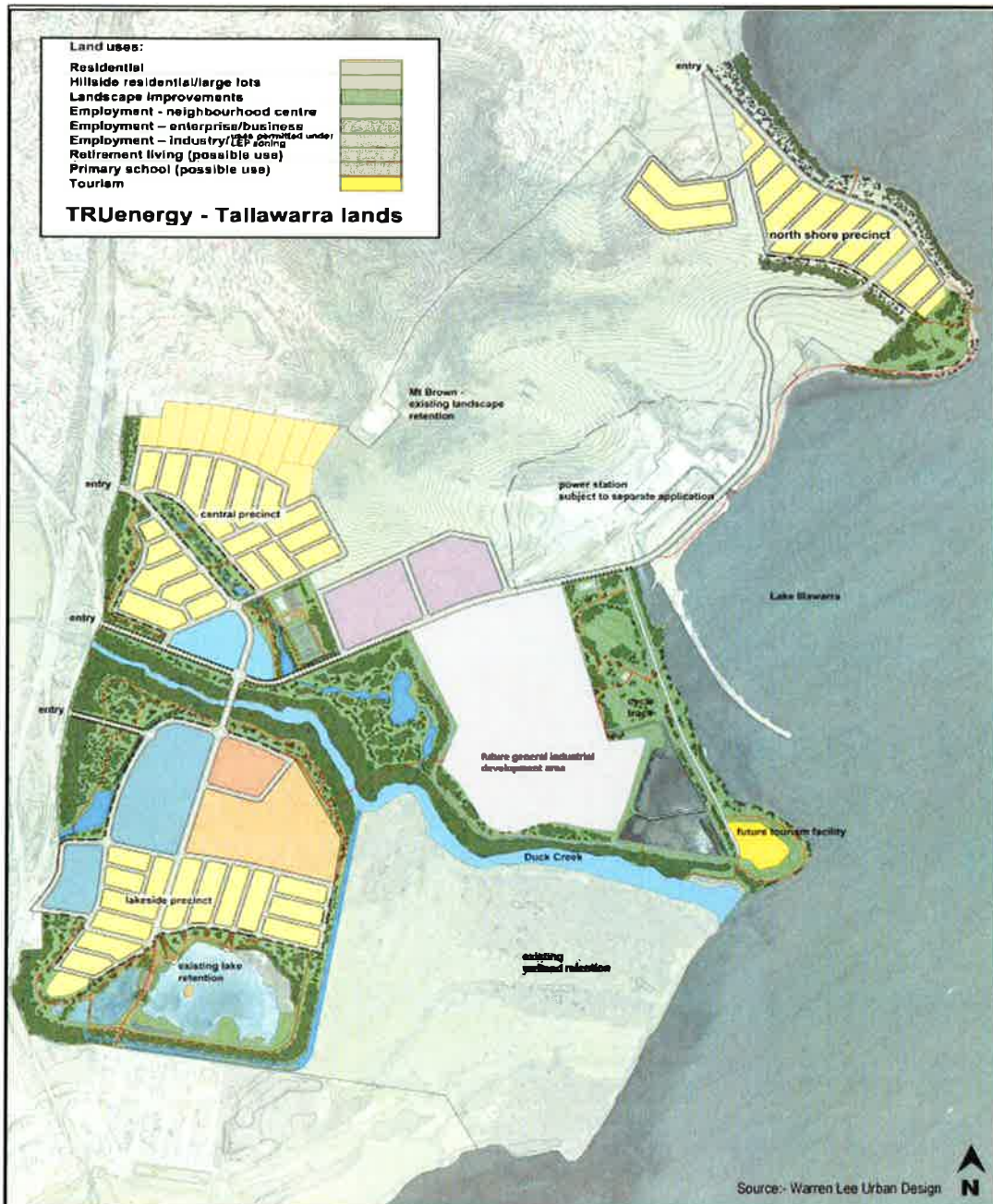


Figure 7 – Concept Plan (Source: Warren Lee Urban Design)

2.2 Project Need and Justification

NSW State Plan (NSW 2012)

The NSW State Plan, *NSW 2021* is a 10 year plan to rebuild the economy, provide quality services, renovate infrastructure, restore government accountability, and strengthen the local environment and communities. The project is consistent with Goals 20, 23, 27 and 28 of the Plan as it will assist in the creation of liveable centres, the protection of the natural environment, together with the enhancement of sporting and recreational opportunities. In accordance with goal 28, extensive flood modelling and the creation of flood free new residential areas with flood time access will ensure that the site is capable of dealing with major emergencies and natural disasters.

The aims of *NSW 2021* include improving urban environments and promoting sustainable development. In this regard, the proposal will contribute positively and strengthen the urban

environment south of Wollongong. The development has been designed to be sustainable and to remediate areas contaminated through previous uses and activities.

Illawarra Regional Strategy

The Illawarra Regional Strategy sets the context for development in the Illawarra region towards 2031.

The Tallawarra Lands are identified on the Regional Strategy Map as “*Existing Urban Area*” and “*Proposed Employment Lands Investigation Area*”. The site is in close proximity to the Dapto Town Centre and the West Dapto new release area. The Strategy defines the existing Dapto Centre as a “*planned Major Regional Centre*”. The Strategy identifies West Dapto as “*the priority new release area for the region*” which is “*expected to deliver approximately 19,000 new dwellings over the next 30-40 years*”.

The proposal will complement the new release area because of its close proximity and will assist in meeting the regional dwelling and new job targets. The location on the shoreline of Lake Illawarra and provision for a tourist facility in an area dominated by environmental management and conservation lands will reinforce the area’s role as a sustainable tourism destination.

The site is in close proximity to existing and planned employment lands at Kembla Grange and Albion Park and has the potential to provide complimentary employment growth to these areas. The Strategy anticipates an additional 47,600 new residents and 30,000 new jobs by 2031. In this regard, the proposed Concept Plan is set to produce 1,010 households and an estimated 1,731 full-time jobs.

Accordingly, the proposal is consistent with the Strategy and will assist in achieving identified dwelling and job targets.

3. STATUTORY CONTEXT

3.1 Continuing operation of Part 3A

Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act), as in force immediately before its repeal on 1 October 2011 and as modified by Schedule 6A to the Act, continues to apply to transitional Part 3A projects. Director-General's Environmental Assessment Requirements were issued in respect of this project prior to 8 April 2011 and the project is therefore a transitional Part 3A project.

This report has been prepared in accordance with the requirements of Part 3A and associated regulations, and the Minister (or his delegate) may approve or disapprove of the carrying out of the project under Section 75O of the EP&A Act.

3.2 Major Project

On 26 August 2009, the proposal was declared a Major Project under Part 3A of the EP&A Act as it met the non-discretionary criteria for residential, commercial or retail projects valued in excess of \$100 million under the provisions of clause 13 of Schedule 1 of *State Environmental Planning Policy (Major Developments) 2005*. At the same time, the submission of a Concept Plan was also authorised for the proposal.

Clause 8N(2)(b) of the Environmental Planning and Assessment Regulations (2000) precludes the Minister or his delegate from granting Concept Plan approval for prohibited development within a 'Sensitive Coastal Location' or an 'Environmentally Sensitive Area of State Significance'. There are two proposed roads that are prohibited and sit within a 'Sensitive Coastal Location' and an 'Environmentally Sensitive Area of State Significance'. Accordingly, both roads are recommended to be deleted to enable the Concept Plan to be determined. Further discussion of this issue is provided in **Section 5.1** of this report.

3.3 Delegations

On 14 September 2011, the Minister delegated his powers and functions in relation to giving or refusing to give approval for a Concept Plan for a project under Section 75O EP&A Act, to the Planning Assessment Commission where an objection has been received by the relevant local Council, where the proponent has provided a political donation disclosure statement, or where there are more than 25 public submissions in the nature of objections.

The application is being referred to the Planning Assessment Commission for determination as the exhibition of the Environmental Assessment resulted in more than 25 public submissions in the nature of objections and the proponent has declared a reportable political donation.

3.4 Permissibility

Wollongong Local Environmental Plan 2009

The site contains the following land use zones under the Wollongong Local Environmental Plan 2009:

- B1 - Neighbourhood Centre;
- B6 - Enterprise Corridor;
- B7 - Business Park;
- E2 - Environmental Conservation;

- E3 - Environmental Management;
- IN1 - General Industrial;
- IN2 - Light Industrial;
- R2 - Low Density Residential;
- R5 - Large Lot Residential;
- RE1 - Public Recreation; and
- SP3 - Tourist.

The proposed Concept Plan is consistent with the zoning of the site with the following exceptions:

- the proposed 200 dwelling retirement village within the B7 Business Park zone;
- the proposed primary school within the B7 Business Park zone;
- the proposed northern access road from Yallah Bay Road to the Lakeside Precinct within the E2 Environmental Conservation zone;
- the proposed southern access road from the Princes Highway to the Lakeside Precinct, within the E2 Environmental Conservation zone; and
- the proposed foreshore public open space, south of Yallah Bay Road, within the IN1 General Industrial Zone.

The proposed retirement village, primary school and some road works are prohibited under the Wollongong Local Environmental Plan 2009. An assessment of these prohibitions is provided in **Section 5.1** of this report.

The Concept Plan nominates that an area of land zoned General Industrial zone, located adjacent to the power station cooling water outlet, will be used as a public open space. The Department's Southern Regional Office has raised no concerns in relation to this loss of employment land and the enlargement of the foreshore public open space. Recreation areas are a permissible use within the IN1 zone.

3.5 Environmental Planning Instruments

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

The Department's consideration of relevant State Environmental Planning Policies and Environmental Planning Instruments is provided in **Appendix D**.

3.6 Objects of the EP&A Act

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

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

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

The objects under s.5 (a)(i)(ii) and (vii) are relevant to the proposal. The Illawarra Regional Strategy and Wollongong LEP 2009 promote and permit its development for these purposes. This Concept Plan reinforces the existing land use zonings and provides a more detailed level of planning for its development. Its development in this manner will provide social and economic benefits to the community.

The site sits within an urban context with residential areas located to the north and south. It has ready access to existing state infrastructure, including roads and rail, and its development will assist in maximising the benefits from this infrastructure.

The development of the site will lead to the provision of additional infrastructure including roads and cycle ways which will provide links between the lakeside suburbs. The provision of this infrastructure will improve the general functioning of the road network, as vehicles will no longer have to use a major arterial road for local trips. The Concept Plan also sets aside lands for active open spaces for the future community.

The site has a number of significant environmental attributes, including Duck Creek, Mt Brown and the Lake Illawarra foreshore. The development of the site will lead to the rehabilitation and protection of these areas with public access available, providing a significant benefit.

The development of the site is consistent with the objectives contained in Section 5 of the EP&A Act.

3.7 Ecologically Sustainable Development

The EP&A Act adopts the definition of ESD found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

- (a) *the precautionary principle,*
- (b) *inter-generational equity,*
- (c) *conservation of biological diversity and ecological integrity,*
- (d) *improved valuation, pricing and incentive mechanisms.*

The project is consistent with the key principles of ESD as discussed below:

(a) the precautionary principle,

The Statement of Commitments and the Instrument of Approval contain suitable provisions to ensure that there is no threat of serious or irreversible environmental damage as a result of the development of the site in accordance with the Concept Plan.

(b) inter-generational equity,

The development will deliver economic benefits for the Wollongong Local Government Area, and the Illawarra region by facilitating the continued provision of strategic employment lands and additional dwelling supply. The proposal will also facilitate improvement in the environment of the site via remediation of contaminated areas and the sustainable management of a large portion of the site zoned for Environmental Conservation and Environmental Management purposes.

The residual environmental impacts will be sufficiently mitigated and managed through appropriate measures and recommended terms of approval.

(c) conservation of biological diversity and ecological integrity,

The proposal contains provisions to ensure the conservation of biological diversity and economic integrity within the site and adjoining areas. Wetlands under *State Environmental Planning Policy No.14 – Coastal Wetlands* located in the southern portion of the site would be protected by 50m buffer zones in accordance with the requirements of the Policy. Duck Creek would be protected via a 100m wide environmental corridor. The proposed Duck Creek riparian management and implementation of the Vegetation Management Plan within the Duck Creek corridor will assist in conserving the biological diversity and ecological integrity of the site by facilitating the movement of native fauna species, and providing connectivity to other conservation areas outside the site.

(d) improved valuation, pricing and incentive mechanisms.

The Vegetation Management Plan sets environmental goals for the rehabilitation and conservation of the sites environmental assets to offset the developments impacts. The proponent has estimated that it will cost \$3.8 million over a five-year period to implement the plan. Previous land management practices are in part responsible for the sites environmental condition and it is appropriate that the cost of repair be borne by the proponent. It is intended that the rehabilitated environmental assets will become public assets.

The Concept Plan proposes to remediate the site to make it suitable for the proposed future uses. Previous uses of the site have led to it becoming contaminated and it is appropriate that the cost of repair be borne by the proponent. Detailed remediation works will be the subject of future applications and it is important that these ensure that the proponent is responsible for the full life cost of the remediation works.

Accordingly, the proposal is consistent with the principles Environmentally Sustainable Development.

3.8 Statement of Compliance

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

3.9 Super Lot Subdivision Future Environmental Assessment Requirements

The proponent has requested that the Minister direct under Section 75P(1)(c) of the EP&A Act that no further environmental assessment be required for a subsequent super lot subdivision application (**refer to Figure 8 below**).

Clause 6.1 of Wollongong Local Environmental Plan 2009 states:

“satisfactory arrangements to be made for the provision of designated State public infrastructure before the subdivision of land in an urban release area to satisfy needs

that arise from development on the land, but only if the land is developed intensively for urban purposes”.

The Tallawarra Lands are identified by Wollongong Local Environmental Plan 2009 as an urban release area and the Concept Plan indicates that the land would be developed intensively for urban purposes. Satisfactory arrangements for the provision of designated state public infrastructure, based on the contribution rates within the *draft Environment Planning and Assessment (Special Infrastructure Contribution – Illawarra (West Lake Illawarra)) determination, 2011* will need to be made as part of the application for super lot subdivision. If satisfactory arrangements are not required to be made by the proponent at the time of super lot subdivision, the Department would be faced with the prospect of negotiating satisfactory arrangements with multiple landowners, in the event that super lots are sold before satisfactory arrangements are made.

In addition to requiring satisfactory arrangements to be made, Future Assessment Requirements contained in the draft instrument of approval require the proponent to submit a number of plans of management, including a Cultural Heritage Management Plan and an updated Vegetation Management Plan, with the first future super lot application. These plans will provide additional detail as to how these issues are to be managed across the site and will require assessment by the consent authority. Accordingly, the Department does not support the proponent's request that there be no further environmental assessment of the future application for super lot subdivision.

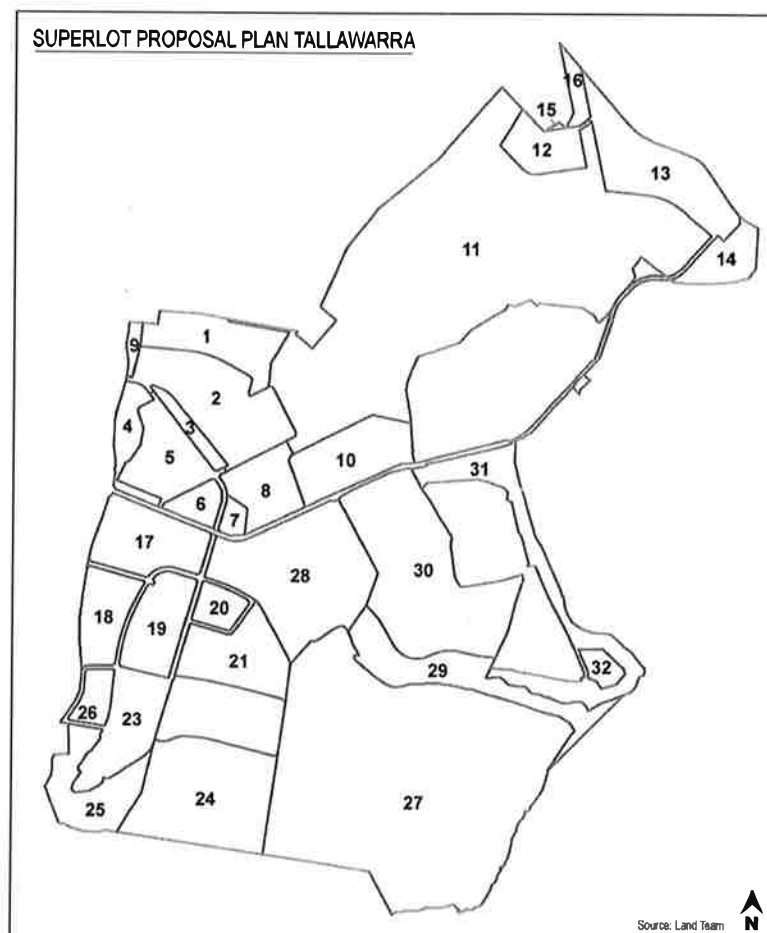


Figure 8 – Tallawarra Super Lot Proposal Plan (Source: Environmental Assessment)

4. CONSULTATION AND SUBMISSIONS

4.1 Exhibition of Environmental Assessment and Preferred Project Report

Under Section 75H(3) of the EP&A Act, the Director-General is required to make the Environmental Assessment publicly available for at least 30 days. The Environmental Assessment was publicly exhibited from 22 September 2011 until 7 November 2011 (46 days) on the Department's website, and at the following locations:

- Department of Planning and Infrastructure – Sydney and Illawarra offices.
- Wollongong City Council; and
- Shellharbour City Council, Administration Centre.

The Department also advertised the public exhibition in the *Sydney Morning Herald*, the *Daily Telegraph* and the *Illawarra Mercury* on 22 September 2011 and notified landholders, and relevant State and local government authorities in writing.

The Department received 112 submissions during the exhibition of the Environmental Assessment including 14 submissions from public authorities and 98 submissions from the general public, including 3 from special interest groups (Concerned Residents of East Dapto, Save Lake Illawarra Action Group and the Illawarra Bicycle Users Group). A summary of the issues raised in submissions is provided below.

In response to the issues raised by the Department, government agencies and public submissions, the proponent submitted a Preferred Project Report on 28 June 2012. The Preferred Project Report presented a number of amendments including a road link to Haywards Bay and therefore was again publicly exhibited from 19 July 2012 until 20 August 2012, and notified to surrounding landowners in writing. The Preferred Project Report was also placed on the Department's website.

The Department received 21 submissions during the exhibition of the Preferred Project Report consisting of 10 submissions from public authorities and 11 submissions from the general public, including 4 from special interest groups (Bicycle Institute of New South Wales, Concerned Residents of East Dapto, Save Lake Illawarra Action Group, and the Illawarra Bicycle Users Group). A summary of the issues raised in submissions is provided below.

4.2 Public Authority Submissions

Submissions were received from Wollongong City Council; Shellharbour Council; NSW Roads and Maritime Service; NSW Office of Environment and Heritage; RailCorp; Housing NSW; NSW Office of Water; Lake Illawarra Foreshore Authority; the Heritage Branch of the Office of Environment and Heritage; the Southern Rivers Catchment Management Authority; Sydney Water; and the Rural Fire Service. The submissions from public authorities are summarised in **Table 2** below:

Table 2

Wollongong Council does not object to the proposal.	
<i>Environmental Assessment</i>	<p><i>Issues</i></p> <p>Council raises the following concerns:</p> <ul style="list-style-type: none"> • Infrastructure should lead development, employment lands should be developed first, ahead of residential development; • Council should retain the ability to prepare a site-specific chapter of the DCP for the locality to reinforce the above requirement; • The development should fully address impacts on water quality and Lake Illawarra; • Bicycle paths should satisfy those requirements identified by the Bicycle Users Group; • The proposed retirement village and school within the B7 Business Park zone are inconsistent with the objectives of the zone and should be relocated to the adjacent residential R2 zone; • Impacts on the local road network between the Fowlers Road F6 ramps to the north of the site due to limited access to the F6; • Impacts on the residential amenity of residents in Cormack Ave, due to circuitous vehicular access from the North; • Requests more details on the proposed cycling network, clarification of terminology, together with a request for separated cycle paths in preference to on road cycle lanes; • Safety and efficiency of the proposed access between the site and adjacent road network; • Concerns over the flood study and requests that flood modelling be in accordance with chapters E13 & E14 of Wollongong Development Control Plan 2009, and the NSW Floodplain Development Manual; • Uncertainty in relation to the proposed vegetation management plan. In the absence of a Voluntary Planning Agreement, including an agreed set of performance criteria; • Concern in relation to the riparian assessment and ecological assessment; • Request for the Department to certify that satisfactory arrangements have been made for the provision of state public infrastructure; and • Request for the Department to have regard to Council's Section 94A Development Contributions Plan 2011
<i>Preferred Project Report</i>	<p>Council raises the following concerns:</p> <ul style="list-style-type: none"> • Retention of the school and retirement village within the B7 zone is not consistent with the intent of the B7 zone. Uses should be relocated; • The site is an Urban Release Area. The Department should ensure that satisfactory arrangements have been made to the provision of state infrastructure; • Preferred Project Report does not satisfy the requirements of cl 6.2 of Wollongong Local Environmental Plan 2009 for site-specific Development Control Plan; • Potential transportation/mobilisation of elevated levels of ammonia and arsenic from the ash ponds into the adjacent salt marsh and groundwater dependent ecosystems, and potential flow into Duck Creek and Lake Illawarra - Coal Wash should not be used as part of the 32,000m³ of fill, proposed to be imported into the site; • Groundwater investigations should be revised to include a more thorough investigation of all three ash ponds (not just Ash Pond 3), together with the potential adverse impacts on existing ecosystems from the discharge of elevated concentrations of ammonia and arsenic into the nearby shallow aquifer; and • Concerns relating to traffic volumes on existing local roads, together with the proposed Haywards Bay link was subsequently resolved following the provision of supplementary traffic modelling by the proponent.

Shellharbour Council does not object to the proposal.

<i>Environmental Assessment</i>	<p>Council raised the following concerns:</p> <ul style="list-style-type: none"> • Undetermined strategies to ensure minimal visual impact and likely aesthetic appearance viewed from Shellharbour centre; • Reduction in the area and priority of residential development over the development of employment lands; • Proposed retirement village and school on B7 zoned will not optimise the use of employment lands and is inconsistent with the objectives of the zone. These uses would be better suited on adjacent residential zoned land; • Concept Plan not referred to CASA to demonstrate the development has had regard to the operation of the Illawarra regional airport; • Proposed noise mitigation measures through building design and layout would be difficult to impose as a result of the Codes State Environmental Planning Policy and in the absence of a site specific Development Control Plan; and • Concerns regarding super lot subdivision and potential fragmentation of ownership.
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<i>Preferred Project Report</i>	Reiterated Concerns
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Roads and Maritime Services does not object to the proposal.

<i>Environmental Assessment</i>	<ul style="list-style-type: none"> • Raised concern with initial traffic generation and objected to some aspects of the proposed intersection and roundabout entrance treatments. Further information, including modelling and justification for the trip distribution was requested; • Requests road linkage and connectivity to Haywards Bay; and • Requests consideration of the provision of F6 ramps as 'works in kind' in lieu of required State infrastructure contributions.
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<i>Preferred Project Report</i>	<ul style="list-style-type: none"> • Advised that the Preferred Project Report generally addressed the previous concerns raised in respect of the Environmental Assessment. Conditions of approval were provided; • Happy to accept a monetary contribution in relation to State infrastructure contributions; • Expressed support for the inclusion of the road link to Haywards Bay; and • Requests the deletion of the southern access road from Princes Highway to the Lakeside Precinct.
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Transport for NSW (Transport NSW) does not object to the proposal.

<i>Environmental Assessment</i>	<p>Raised concerns regarding the absence of a local road connection to Haywards Bay and the consequent negative impacts on local connectivity and access. The absence of a link would compromise the efficiency of any future public bus route and require vehicles travelling south from Tallawarra to Haywards Bay to use the F6/Princes Highway.</p>
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<i>Preferred Project Report</i>	<p>Expressed support for the inclusion of the road link to Haywards Bay, together with the revised recommendations for potential future public bus routes.</p>
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RailCorp does not object to the proposal.

<i>Environmental Assessment</i>	<p>Requests that all future development applications in proximity to the rail corridor be referred to Railcorp for review and ensure that drainage is not discharged to the corridor.</p>
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Comment

This issue is addressed by recommended **Future Assessment Requirement 19**.

Department of Primary Industries, NSW Office of Water (NOW)

does not object to the proposal.

Environmental Assessment

- Raises concerns in relation to the proposed riparian management of Duck Creek, Barrons Gulley, Brooks Creek and Yallah Creek document in the Riparian Assessment Report;
- Concerned over the incorporation of bushfire asset protection zones and recreational uses within the proposed Duck Creek corridor;
- Supports the proposed provision of a 50m wide buffer around the SEPP 14 wetlands;
- Acknowledges the degree of assessment that has been undertaken in relation to groundwater and groundwater dependent ecosystems; and
- Indicates that the site is subject to a Water Sharing Plan, under the *Water Management Act 2000* and that a licence will be required to be held by anyone taking water from aquifer or a river system.

Comment

The proponent has responded to the identified issues in the Preferred Project Report. The assessment of the proponent's proposed riparian management in **Section 5.4** of this report addresses the NOW's riparian management concerns.

Office of Environment and Heritage (formerly Department of Environment, Climate Change and Water) does not object to the proposal.*Environmental Assessment*

- Recommends the identification and securing of an appropriate legal mechanism to ensure perpetual conservation of the retained vegetation;
- The proposed roads/ bridge in E2 - Environmental Conservation Zone are prohibited under Wollongong Local Environmental Plan 2009, and will have an impact on endangered ecological communities;
- concerned over the impact on endangered ecological communities, and the uncertainty of the proposed measures to offset the loss of endangered ecological communities given the uncertainty of future ownership of the proposed conservation lands and the proposed five-year duration for revegetation and weed eradication outlined in the Vegetation Management Plan;
- Requests a catchment based floodplain risk strategy rather than a local, site specific study;
- Noise concerns in relation to noise from industrial zoned land and the power station on the proposed residential areas;
- Concerns over the management of Aboriginal Cultural Heritage;
- Concerns of the site contamination; and
- Recommend the involvement of an auditor accredited under the *Contaminated Land Management Act 1997* to verify the adequacy of investigations, the effectiveness of remediation, and to certify the suitability of the land for its proposed use.

Comment

The proponent has responded to the identified issues in the Preferred Project Report. The assessment of the identified environmental issues is detailed in **Section 5.4** of this report.

Preferred Project Report

- Concerns reiterated;
- Especially concerned about the security of environmental offsets and floodplain risk management; and
- Recommends the establishment of a bio bank agreement to secure environmental offsets in the event that public authorities (i.e. Council and the

Lake Illawarra Foreshore Authority) are either unwilling to accept ownership of the relevant parcels of conservation lands or unable to implement the proponent's Vegetation Management Plan - in the absence of a bio bank agreement or other similar mechanism to secure the proposed environmental offsets, the Office of Environment and Heritage has indicated that it would be unwilling to support the proposed Concept Plan.

Comment

- The issue of flooding and the proponent's floodplain risk management strategy is assessed in **Section 5.3** of this report
- The issue of permissibility in relation to the roads/bridge within the E2 zone has been addressed in **Section 5.1** this report.
- **Future Assessment Requirement 7** addresses the Office of Environment and Heritage's concerns in relation to the security of environmental offsets by requiring the establishment of a bio bank agreement in the event that the relevant public authorities are unwilling to accept ownership of the relevant parcels of conservation land, or are unwilling to implement Vegetation Management Plan.

Environment Protection Authority does not object to the proposal.

Preferred Project Report

Comment from the Environment Protection Authority was incorporated into the submission from the Office of Environment and Heritage following the exhibition of the Environmental Assessment. A separate comment following the notification of the Preferred Project Report was received as follows:

- Concerned in relation to potential noise impacts on proposed residential land uses emanating from future industrial land uses. In this regard, requests that the amenity criteria in the *NSW Industrial Noise Policy* not be exceeded at the boundary of residential lots;
- Requests that a program be developed and implemented to ensure that the LAeq noise levels detailed in the *State Environmental Planning Policy (Infrastructure), 2007* be achieved for all dwellings on the site; and
- Concerned over contamination and has requested that the proponent engage a site auditor accredited under the *Contaminated Land Management Act 1997* to certify the suitability of the land for its proposed use as well is to verify the adequacy of the investigation and remediation works (if necessary) performed.

Comment

The noise and contamination concerns are addressed in **Section 5.4** of this report.

Family and Community Services - Housing NSW does not object to the proposal.

Environmental Assessment

- Concerned over the proposed location of the 200 dwelling seniors living within the Lakeside precinct. Future residents will have limited access to retail, health and other services to be provided within the neighbourhood centre of the Central Precinct. It would be preferable to locate the seniors living within the residential zoned land within the Central Precinct; and
- Requests early consideration for adequate bus routes within Tarrawarra Lands, and connecting the site and surrounding areas.

Lakes Illawarra Authority does not object to the proposal.

Environmental Assessment & preferred project report

- Agreeable in principle to the negotiation of a Voluntary Planning Agreement to facilitate the transfer of Lake foreshore lands into the ownership of Lakes Illawarra Authority; and
- Remediation of areas of environmental concern must occur before land transfer and transfer of land to be at no cost to Lakes Illawarra Foreshore Authority.

Southern Rivers Catchment Management Authority does not object to the proposal.

- Environmental Assessment*
- Concerns over the proposed clearing of endangered ecological communities, on the site. Recommends that areas of Illawarra Lowland Grassy Woodland to be retained be the subject of legally binding conservation agreements;
 - The long-term ownership of conservation areas is uncertain; and
 - Recommends that the Vegetation Management Plan be extended beyond the proposed five-year establishment period.

Comment

The concerns have been addressed in **Section 5.4** of this report.

Sydney Water does not object to the proposal.

- Environmental Assessment & Preferred Project Report*
- Concerned over the proponent's utilities and infrastructure strategy outlined in the Statement of Commitments submitted with the Preferred Project Report. Requests detailed planning including Sydney Water endorsed Preferred Servicing Strategy to be carried out prior to lodgement of future development applications;
 - Requests that the Department require the proponent to complete detailed planning investigations based and Sydney Water's requirements;
 - Indicates that the required trunk infrastructure may be delivered in 2015-2016, in accordance with Sydney Water's growth servicing plan; and
 - Requests that the proponent supply an options report to Sydney Water so that Sydney Water can endorse a Preferred Servicing Strategy prior to the application for a Section 73 certificate.

Comment

The requirements of Sydney Water have been addressed by **Future Assessment Requirement 20**.

Rural Fire Service does not object to the proposal.

- Environmental Assessment*
- Requests that the landscape management of land not retained in private ownership be managed in perpetuity;
 - Requests that the future location of buildings and facilities on bushfire prone affected land considered the provision for asset protection zones;
 - Requests that the type 4 roads that form the perimeter road in the Corkery Consulting Landscape Plan be changed to type 3 roads or increased in width to meet the requirements of Planning for Bushfire Protection 2006; and
 - indicates that future access to the tourist facility will require asset protection zones and roads in accordance with the Planning for Bushfire Protection 2006.

Comment

The requirements of the Rural Fire Service have been addressed through **Modification B5** and **Future Assessment Requirements 21 and 22**.

Department of Education and Communities does not object to the proposal.

- Environmental Assessment*
- The proposed development is situated in the Lakelands Public School and Kanahooka High School intake areas. Currently, there is sufficient capacity at these schools to accommodate the anticipated student demand generated from by the proposed Tallawarra development.

Heritage Branch of the Office of Environment and Heritage does not object to the proposal.

- Environmental Assessment*
- Requests that the proponent commit to further assessment of sites TH2, TH3, TH4, TH5, TH6, TH7, TH8, TH9, and TH10;
 - Requests that the proponent adopt a stop-work and notification procedure in the event of the discovery of substantially intact archaeological deposits; and
 - Requests the preparation of a Heritage Management Plan.

- Preferred Project Report*
- Acknowledges that the proponent has incorporated some of the Heritage Branch's earlier comments; and
 - Reiterates the request for additional commitments to be incorporated into the Statements of Commitment, together with the request for the preparation of a Heritage Management Plan.

Comment

Commitment 17 within the revised Statement of Commitment requires further assessment into the identified TH sites, while commitment 17a requires preparation of a Heritage Management Plan. **Future Assessment Requirement 6** requires the preparation of a Cultural Heritage Management Plan. Having regard to the specific terms requested by the Heritage Branch.

4.3 Public Submissions

The key issues raised in public submissions to the Environmental Assessment are listed in **Table 3**.

Table 3: Summary of Issues Raised in Public Submissions

Issue	Proportion of submissions (%)
Loss of horse riding land;	(58%)
Inadequate bicycle paths/infrastructure;	(54%)
Land clearing/impact on native fauna;	(37%)
Impact on ecology and water quality of Lake Illawarra from site contamination, increased stormwater run-off, and increased levels of nitrogen;	(23%)
Traffic and access, including impacts on the amenity of nearby local streets;	(20%)
Loss of Employment Lands to inappropriate land uses	(11%)
Staging of development, super lot subdivision, provision of infrastructure prior to development;	(8%)
Loss of views/ outlook;	(8%)
Noise from the power station, future industrial uses, the rail corridor and the F6 freeway; and	(7%)
Unresolved, groundwater, geotechnical/contamination issues.	(7%)

The key issues raised in public submissions to the Preferred Project Report are listed in **Table 4**.

Table 4: Summary of Issues Raised in Public Submissions

Issue	Proportion of submissions (%)
Loss of horse riding land;	(43%)
Bicycle paths/infrastructure;	(26%)
Land clearing/impact on native fauna;	(37%)
Traffic and access;	(20%)
Loss of Employment Lands;	(11%)
Staging of development, super lot subdivision, provision of infrastructure prior to development;	(7%)
Support for Haywards Bay Link;	(7%)
Groundwater, geotechnical/contamination issues; and	(7%)
Object to Haywards Bay Link.	(1%)

The Department has considered all issues raised in the agency and public submissions in its assessment of the proposal in **Section 5** of this report.

5. ASSESSMENT

The Department considers the key environmental issues to be:

- Permissibility;
- Noise;
- Flooding;
- Environmental issues; and
- Roads and access.

5.1 Permissibility

Proposed school and retirement village within the B7 Business Park Zone

The Concept Plan proposes a primary school and a 200 dwelling retirement village within the B7 Business Park zone in the Lakeside Precinct. Both of the uses are prohibited within the B7 zone by Wollongong Local Environmental Plan 2009. The entire area of land zoned B7 would be taken by the school and retirement village.

Following the exhibition of the Environmental Assessment, the Department advised the proponent that it did not support the proposed uses, as they were inconsistent with the objectives of the zone and would compromise the ability of the Tallawarra Lands to contribute to regional employment opportunities. Wollongong City Council and Shellharbour Council, together with a number of the public submissions also raised this issue. Notwithstanding, the primary school and retirement village uses were maintained within the B7 zone in the Preferred Project Report.

The Preferred Project Report states that a retirement village is permissible within the B7 zone under the provisions of *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004*. The retirement village could be made permissible if the Director-General were to issue a Site Compatibility Certificate.

The Preferred Project Report further states the proposed primary school is permissible under the provisions of *State Environmental Planning Policy (Infrastructure) 2007*. The Policy does make schools permissible within the B7 zone.

The Department acknowledges that the uses may be permissible, but still does not support their location in the B7 zone, for the following reasons:

- The proposed uses are inconsistent with the objectives of the B7 zone which seek to provide a range of office and light industrial uses, encourage employment opportunities and enable other land uses that provide facilities or services to meet the day to day needs of workers in the area;
- The proposed uses would create future land use conflicts with permissible light industrial and commercial uses, capable of being established in the zone;
- The retirement village would be better located in a more accessible location, in close proximity to the proposed neighbourhood centre;
- The Department of Education and Communities advises that there is sufficient capacity in existing schools in surrounding areas to accommodate the demand generated by Tallawarra;
- Although the school and retirement village would provide some employment opportunities, the type and intensity of the employment generated would be inappropriate within the strategically important employment zones;

- Approval of the uses within the B7 zone would impede the future ability of other more intensive employment uses to be established on the land as they may be considered inconsistent with the Concept Approval; and
- There is insufficient detail in the current application to demonstrate the merits of the uses. The proponent can apply for a Site Compatibility Certificate for the retirement village and make a Part 4 Development Applications for both uses after the approval of the Concept Plan.

It is the Department's view that the inclusion of a primary school and retirement village in the B7 zone as part of the Concept Plan approval is not desirable. Accordingly, the Concept Plan has been modified by deleting these uses from the B7 zone (**Modification B1**).

Road/ bridge across Duck Creek in E2 Zone.

The Concept Plan provides for an internal road network, which includes a road and bridge over Duck Creek, together with an access road from the Princes Highway to the B6 Enterprise Corridor zone within the Lakeside Precinct. Both of these roads are within the E2 Environmental Conservation zone under the provisions of Wollongong Local Environmental Plan 2009.

'Roads' are separately defined within the Wollongong Local Environmental Plan 2009 and are prohibited within the E2 zone. Clause 8N(2)(b) of the Environmental Planning *Regulation 2000* prevents the Minister from approving the Concept Plan, because the proposed roads within the E2 zone are a prohibited use and the lands are defined as being an "environmentally sensitive area of state significance" and a "sensitive coastal location", under State Environmental Planning Policy (Major Developments) 2005. Accordingly, both roads are required to be deleted via modification, to enable the Minister to approve the Concept Plan.

However, the road and bridge across Duck Creek are critical components of the proposed internal road network and are necessary to provide connectivity between the Lakeside Precinct, south of Duck Creek, and the Central and Northshore Precincts on the northern side of Duck Creek. Further, without the bridge and road across Duck Creek there would be no connectivity between the B6 and B7 employment lands within the Lakeside Precinct and the industrial zoned land, north of Duck Creek which would compromise the ability of the site to function as regionally significant employment lands.

Legal advice obtained by the Department indicates that the issue of permissibility can be resolved through the application of Clause 94(1) of the State Environmental Planning Policy (Infrastructure) 2007. This Policy provides for "*development for the purpose of a road for road infrastructure facilities*" to be carried out "*by or on behalf of a public authority*" on any land. Council would need to give its approval for the road and bridge as an "Activity" under Part 5 of the EP&A Act. However, this could occur after the approval of the Concept Plan.

It is still necessary to delete the road and bridge across Duck Creek from the Concept Plan, so that the Ministers approval does not contravene Clause 8N of the Environmental Planning and Assessment Regulation 2000, and this is provided for by **Modification B3**. However, the road and bridge would become development without consent under the provisions of State Environmental Planning Policy (Infrastructure) 2007, following the finalisation of the planning agreement between the proponent and Wollongong City Council, whereby the road and bridge would be constructed 'by or on behalf of' the Council.

The proponent has committed to negotiating a planning agreement with Wollongong Council whereby the necessary road and bridge could be constructed 'by or on behalf of' Council (**Statement of Commitment 1a**). The agreement will facilitate either the dedication of the land required for the road and bridge along with a monetary contribution to Council to

construct the road and bridge or alternatively the proponent constructing the road and bridge and dedicating the completed works to Council. Council's letter to the proponent dated 20 November 2012 indicates that Council is agreeable to the proponent constructing this section of road and bridge on behalf of Council.

Future Assessment Requirement 1 has been included in the draft instrument of approval to ensure that there is satisfactory access to the Lakeside Precinct and that the road and bridge across Duck Creek is constructed before the development of the Lakeside Precinct.

The Office of Environment and Heritage has objected to the access road from the Princes Highway to the Lakeside Precinct on the basis that it would result in unacceptable impacts to endangered ecological communities present in this part of the site. Roads and Maritime Services has also objected to this road as the road and associated roundabout will result in there being insufficient road length on the Princes Highway necessary to achieve 100 km/h to enter the freeway. The Department concurs with the positions of both State Government agencies and accordingly, the deletion of this road from the Concept Plan is provided for by **Modification B2**. The deletion of this road will not compromise access to the Lakeside Precinct as vehicles entering the site from the Princes Highway would do so via the intersection of Yallah Bay Road with the Princes Highway, further to the north.

5.2 Noise

The issue of noise relates to the potential for the amenity of residential land uses on the site to be adversely affected by noise emanating from the following sources:

- The existing Tallawarra power station (Tarrawarra A) and approved but yet to be constructed Tallawarra B power station;
- Future proposed industrial uses to be accommodated within the Central Precinct industrial zones; and
- The rail corridor and the F6 Freeway.

The noise from the existing and approved power stations, together with the noise generated from future industrial uses has the potential to impact on the amenity of residential land uses within the Northshore and Central precincts. Residential uses within both the Central precinct and the Lakeside Precinct could potentially be affected by noise from the rail corridor and freeway.

The noise assessment which accompanied the Environmental Assessment demonstrates that the residential areas within the proposed Central and Lakeside precincts would not be unreasonably impacted by noise from the existing and proposed power stations. However, portions of the proposed residential North Shore Precinct would be impacted.

The project approval for Tallawarra B (MP07_0124) contains operational noise conditions, which establish noise criteria to ensure that the total cumulative contribution from the combined operation of Tarrawarra A and B to the background acoustic environment does not exceed specified noise limits. The noise criteria were applied to the existing residential areas of Koonawarra, Mount Warrigal and Haywards Bay, together with the proposed residential areas within the site.

The proponent was asked to address this issue having regard to the noise mitigation conditions applied to the Tarrawarra B approval and the inappropriateness of measures such as the installation of double glazing and other specific building design measures to mitigate noise. In response, the proponent modified the lot layout of the North Shore Precinct in the Preferred Project Report (refer to **Appendix K: Landscape Plan**, prepared by Corkery Consulting). The revised layout provides for all residential lots to be located outside the

LMax 50 or LAeq 40 noise contours associated with the existing and approved power stations. The altered lot layout will enable dwellings within the North Shore precinct to comply with the noise criteria established by the Tarrawarra B approval, together with other relevant noise criteria without acoustic treatment being incorporated into the dwellings.

In its submission to the Environment Assessment, the Office of Environment and Heritage raised concern over the potential for noise impacts from future industrial land uses to impact on the amenity of residential land uses. The Office of Environment and Heritage submission to the Preferred Project Report reiterated this concern and indicated that the Preferred Project Report had not adequately addressed this issue.

In order to ensure that future industrial land uses do not detract unreasonably from the amenity of future residential uses, it is necessary to ensure that:

- the amenity criteria in the NSW Industrial Noise Policy, are not exceeded at the boundary of nearby residential lots; and
- the noise levels detailed in the State Environmental Planning Policy (Infrastructure), 2007, are achieved for all dwellings in the Tarrawarra lands area.

This is addressed by **Future Assessment Requirement 4** which requires that future Development Applications for industrial and light industrial uses satisfy these requirements.

The potential for residential land uses within the Lakeside and Central precincts to be impacted on by noise emanating from the rail corridor and Freeway is addressed by **Future Assessment Requirement 3**. This requires future Development Applications to demonstrate compliance with the NSW Government's *Development Near Rail Corridors and Busy Roads Interim Guideline, 2008*.

The Office of Environment and Heritage also requested that per-lot allowances for contribution noise levels from the proposed industrial areas be established to ensure that acceptable noise levels are not exceeded within residential areas. They have suggested that a sound power allocation per lot be calculated to assess the impact of proposed future industrial land uses.

In this regard, the SKM Supplementary Noise Assessment submitted with the Preferred Project Report indicates that the allocation of sound power levels per lot within the industrial zoned areas is possible. However, sound power allocations, can only occur during the future Development Application process where the size and location of individual lots within the industrial zones are defined. Therefore, the allocation of sound power levels per lot within the industrial zones on the site is addressed by **Future Assessment Requirement 5**.

Based on the above assessment and the recommended Future Assessment Requirements, the Department is satisfied that potential noise impacts will be appropriately managed and/or mitigated.

5.3 Flooding

Much of the site south of Yallah Bay Road is flood prone land as indicated in **Figure 9**, below. The residential areas of the Lakeside Precinct and the industrial areas between Yallah Bay Road and Duck Creek will require the placement of fill in order to be above the 1 in 100 Average Reoccurrence Interval (ARI) flood event.



Figure 9 – Existing Conditions, 100 year ARI Flood Envelope (Source: Environmental Assessment, Bewsher)

In its consideration of the Concept Plan it is necessary for the Department to be satisfied that the proponent's flood risk management strategy sufficiently addresses the flood risk to property and the future occupants of the site. The Department's consideration of this issue has had regard to an independent assessment provided by flooding consultants Evans & Peck. Evans & Peck were engaged by the Department to independently review the proponent's flood risk management measures.

The Office of Environment and Heritage raised concerns in relation to flood risk management and have identified that the proposed flood mitigation response outlined in the exhibited Environmental Assessment was derived without the benefit of an overall catchment-based Flood Risk Management Study and Plan. Concerns were also raised regarding the lack of defined flood levels for purposes of determining flood planning levels and fill levels as well as consistency with concurrent or subsequent studies, impacts from blockage of bridges and culverts upstream of the site and emergency access provisions.

In its submission to both the Environmental Assessment and the Preferred Project Report the Office of Environment and Heritage stated:

"The Office of Environment and Heritage has significant concerns with the current proposal as it is unclear whether there is adequate information regarding flood behaviour to enable the Department of Planning and Infrastructure to be satisfied that the:

- *Proposal will ensure that future development will be protected from flood damage to a reasonable flood standard;*
- *Risks to future occupants of the floodplain and development have been adequately considered and managed; and*
- *Proposal is being considered in a manner consistent with the NSW Government's flood prone land policy as set out in the Floodplain Development Manual (2005)."*

After reviewing the Preferred Project Report and Updated Statement of Commitments, the Office of Environment and Heritage commented that:

"Given the process for determination of floodplain risk management issues to date, Office of Environment and Heritage remains unclear how the commitments have been developed and how they will be implemented particularly given the lack of post development flood modelling and mapping for the full range of flood events in line with the Floodplain Development Manual with respect to:

- *Determination of fill levels;*
- *Determination of flood planning levels; and*
- *Consideration of emergency risk management."*

Following a meeting held on 31 January 2012 between the Department, Office of Environment and Heritage and the proponent's flooding consultants (Bewsher), the issue of flooding was further addressed by the proponent's Preferred Project Report.

Upon receipt of the Preferred Project Report, the Office of Environment and Heritage substantially maintained their concerns. This necessitated the proponent to submit a Supplementary Flood Risk Assessment Report and additional flood management related commitments. Given the concerns raised, the Department commissioned an independent review of flooding by Evans & Peck.

The Supplementary Flood Risk Assessment Report provided by the proponent and reviewed by Evans & Peck recognises that further detailed modelling will need to be undertaken to define precise details of fill levels and flood levels for each precinct. This modelling is to be undertaken prior to the Development Application assessment of each precinct.

The Preferred Project Report outlines that a catchment-based Flood Risk Management Study and Plan is unrealistic as the strategic planning process to develop such a study and plan can typically take 2-5 years to complete. Given that the relevant Duck Creek flood study has only just been completed by Wollongong City Council, it is anticipated that the subsequent Duck Creek Catchment-based Flood Risk Management Plan (including the Tarrawarra site) would not be completed for another 5 years.

The NSW Floodplain Manual advocates a "merit approach" for all development decisions on the floodplain which balances social, economic, environmental and flood risk parameters to determine whether particular development or use of the floodplain is appropriate and sustainable. On this basis, the proponent has proposed:

- All residential flood planning levels will be designed to be above the 1 in 100 ARI, plus a 0.5 m freeboard, plus an additional 0.5 m in consideration of predicted sea level rises; and
- Access roads to both the Central and Lakeside precincts will be at, or above, the Probable Maximum Flood (PMF) level. All access roads to these precincts, including the crossing of the Duck Creek floodplain from the Central to the Lakeside Precinct, will be

constructed at or above PMF level, ensuring failsafe flood time access. The same level of flood time access is not proposed for the North Shore Precinct since the catchments associated with that precinct and its access road to the north (Gilba Road) are very small and therefore flood events, including the PMF event, would typically have a very short duration. Further, the extension to Yallah Bay Road would be constructed above PMF level and would provide an alternative evacuation route.

This approach is consistent with the merit-based approach outlined in The NSW Floodplain Manual and the *Flood Risk Management Guide, Incorporating Sea Level Rise Benchmarks in Flood Risk Assessments*. The Manual states that:

"it is neither feasible nor socially or economically justifiable to adopt the PMF as the basis for FPLs. Typical residential FPLs would generally be based around the 1% AEP flood event, plus an appropriate freeboard (typically 0.5 m)."

This is essentially what the proponent's consultants are proposing.

The Preferred Project Report acknowledges that the post-development flood regime needs to be explicitly modelled as requested by the Office of Environment and Heritage. The Preferred Project Report incorporates reasonable estimates of these levels and contains sufficient accuracy, commensurate with the level of planning currently being undertaken to make an informed decision. The purpose of the flood modelling for the site is to demonstrate that the site can be developed without there being any insurmountable flood related obstacles or risks. In this regard, the independent review of the proponent's flood risk mitigation strategy undertaken by Evans & Peck considers that the additional proposed commitments contained in the Supplementary Flood Risk Assessment Report are adequate and appropriate for the Concept Plan.

The additional commitments provide clearly defined processes and criteria by which future detailed precinct development proposals would be evaluated and assessed. The Supplementary Flood Risk Assessment Report and proposed commitments provide a clear process that is consistent with The NSW Floodplain Manual and addresses the concerns expressed by the Office of Environment and Heritage.

In its concluding remarks, Evans & Peck's state that:

"the Supplementary Flood Risk Assessment Report, and commitments demonstrate that the site can be developed without there being any insurmountable flood related obstacles or risks and provide sufficient clarity and certainty as to the process to be followed and criteria to be met so as to warrant Concept Plan approval."

The additional Flood Risk Management commitments provided in the Supplementary Flood Risk Assessment Report have been endorsed by the proponent and included as **Statement of Commitment 29** in the draft instrument of approval.

Accordingly, the Department considers that the proposed Concept Plan is satisfactory with regard to the potential risk to property and the future occupants of the site. The Department is satisfied that the assessment has addressed the concerns of the Office of Environment and Heritage and adequately considered all relevant matters relating to the development of flood prone land on the site in accordance with the NSW Government's Floodplain Manual. The Department is satisfied that the proponent's flood mitigation measures are sufficient to guide the assessment of future development applications with respect to the issue of development on flood prone land.

5.4 Environmental Issues

Contamination

Parts of the site are known to be contaminated. The Coffey Environments, Geotechnical and Contamination and Groundwater Investigations Report, July 2010 (the Coffey Report) which accompanied the Environmental Assessment identified nine potential Areas of Environmental Concern. The former ash ponds are by far the largest potential Area of Concern, occupying approximately 50 hectares of the site south of Yallah Bay Road, in the vicinity of the Central Precinct industrial zones and the Lakeside Precinct.

The Coffey Report provides a summary of previous investigations undertaken on the site in the period between 1992 and 2010. In addition to the previous investigations, the Coffey Report undertook additional research including:

- Installation of 79 groundwater monitoring wells;
- Field screening tests to check for the presence of acid sulphate soils;
- Collection of soil samples from boreholes;
- Test pits and surface samples; and
- Laboratory analysis of collected soil and water samples.

While recognising the need for further investigation of the identified AECs, the report concludes that:

“the potential for soil contamination to constrain the proposed concept master plan is low. It is considered that further investigation of the identified AECs that fall within the proposed development areas (including any requirements for remediation and management) can be addressed at the time of (or just prior to) any earthworks for subdivision works in these areas.”

The revised Statement of Commitments which accompanied the Preferred Project Report included a commitment (**Statement of Commitment 6**) to continue land contamination investigations into the Areas of Environmental Concern as identified in the Coffey report and indicates that the AECs to be further investigated are those parts of the site that fall within proposed development areas – i.e. ash ponds one, two and three. **Future Assessment Requirement 9** has been included in the draft instrument of approval to reinforce the proponent's commitment.

The submission from the Office of Environment and Heritage to the Environmental Assessment recommended either an additional commitment or the imposition of an appropriate condition requiring the proponent to engage an auditor accredited under the *Contaminated Land Management Act 1997* to verify the adequacy of contamination investigations, the effectiveness of remediation, and to certify the suitability of the land for its proposed use. The requirement for the engagement of an auditor is included within **Future Assessment Requirement 9**.

The Preferred Project Report indicates that the proponent will manage the land contamination in accordance with *State Environmental Planning Policy No 55 - Remediation of Land (Statement of Commitment 6a)*. The Department has considered State Environmental Planning Policy 55 to determine whether any potential contamination will adversely affect the suitability of the site for its proposed use. The Department considers that contamination is adequately addressed by **Future Assessment Requirement 9**, which requires the proponent to undertake further investigation into identified areas of environmental concern. The adequacy of these further investigations is required to be verified by a site auditor accredited under the *Contaminated Land Management Act, 1997*. Subject to the proponent's Statement of Commitments and the inclusion of **Future**

Assessment Requirement 9, the Department is satisfied that it has addressed State Environmental Planning Policy 55.

Potential Asbestos Soil Contamination

The Environmental Assessment (Douglas Partners July 2010) considered potential asbestos contamination on the Tallawarra lands. Asbestos containing materials were found on land within the site following demolition of the former coal fired power station.

Douglas Partners analysed 536 surface sample locations and "*no detection were recorded at the limit of reporting... in any of the samples. Additionally, the laboratory did not find any trace amounts of asbestos in the form of fibres.*" Comment received from the Office of Environment and Heritage, and separately by the Environment Protection Authority, have sought additional information on the soil sampling methodology utilised and recommended that an auditor accredited under the *Contaminated Land Management Act 1997* be engaged to verify the adequacy of the investigation, the effectiveness of remediation, and to certify the suitability of the site for its proposed use.

Douglas Partners provided supplementary information within the Preferred Project Report in response to the request for clarification on the soil sampling methodology. The supplementary information indicated the following methodology:

- in order to access the surface soils, the grass surface was removed using hand tools to carefully clear the vegetation way from the surface of the sample location;
- approximately 40g of sample was collected from the exposed surface following clearing of vegetation; and
- the samples comprised surface soils such as topsoil, filling, clay, sand, silty sand, sandy clay and silty clay. Rootlets were noted in the majority of the samples.

While the methodology is considered to be suitable to meet the required aim of the investigation, the Department considers that the adequacy of the investigations and the suitability of the site for its proposed use should be verified by the engagement of a site auditor in accordance with the recommendation of the Office of Environment and Heritage. The requirement for the proponent to engage a site auditor is addressed by **Future Assessment Requirement 10**.

Groundwater contamination and Groundwater dependent eco-systems

Coffey Environments undertook three subsequent investigations into groundwater quality of the Tallawarra Lands. The investigations identified elevated concentrations of heavy metals (including arsenic, copper, nickel and zinc) and ammonia above the adopted investigation levels for the protection of aquatic ecosystems.

The submission from Wollongong City Council raised concern that excessive levels of contaminants present in the soils and groundwater in the vicinity of ash ponds (over which the southern Lakeside Precinct and the industrial zoned land are proposed to be developed) had the potential to be mobilised and transported to the surrounding groundwater, including the shallow aquifer, and ultimately to Duck Creek and Lake Illawarra. The ecology of the Lake and groundwater dependent ecosystems, including wetlands located on the site could be adversely affected.

In accordance with Section 60 of the *Contaminated Land Management Act 1997* (Duty to Report Contamination) the proponent notified the Environment Protection Authority of the contamination of groundwater in the area of the former ash ponds located south of Yallah Bay Road. The Environment Protection Authority reviewed the information contained in the reports prepared by Coffey Environments against the matters for consideration listed under Section 12 of the *Contaminated Land Management Act 1997* and determined that there is no

reason to believe that the groundwater contamination is significant enough to warrant regulation for the following reasons:

- there has been no identified impact of contaminants in groundwater to the surface waters of Duck Creek; and
- the contaminant concentrations measured in the surface waters of Duck Creek are consistent with background concentrations.

The Environment Protection Authority does not propose any regulation of the site under the *Contaminated Land Management Act 1997* and has indicated that the risk that may arise from the contamination would be properly managed under the planning process, and the implementation of *State Environmental Planning Policy 55 - Remediation of Land*.

In satisfying its obligations under State Environmental Planning Policy 55 in relation to the suitability of the land for its proposed use, the Department recommends **Future Assessment Requirement 9** to be included in the draft instrument of approval to require the proponent to engage a site auditor accredited under the *Contaminated Land Management Act 1997* to certify the suitability of the site for its proposed use and to verify the adequacy of the investigation and remediation works (if necessary) that are performed. The future assessment requirement has been drafted so as to require the auditor to address the issue of contaminated groundwater.

Acid Sulphate Soils

The results The Coffey Environments, Geotechnical and Contamination and Groundwater Investigations Report, July 2010 confirmed that acid sulphate soils were present within certain parts of the site. These areas are predominantly in the southern part of the site, including areas containing the former ash ponds. These areas have already been filled or will require filling to raise ground levels above the flood level. No excavation into the floor of the ash ponds is proposed. Therefore significant disturbance to any underlying acid sulphate soils is unlikely.

Riparian lands

In addition to Duck Creek, there are four other watercourses located on the site. These watercourses are known as Baron Gully, Brooks Creek, Yallah Creek and Wollingurry Creek. Duck Creek is a regionally significant waterway and has the potential to provide ecological connectivity between bush land areas west of the site and the foreshore of Lake Illawarra. The proposed management of riparian lands outlined in the Riparian Assessment Report (ELA 2010) is depicted in **Figure 10**, below.



Figure 10 – Proposed Riparian Management (Source ELA 2010)

The NSW Office of Water and Southern Rivers Catchment Management Authority have provided comment in relation to the Riparian Assessment Report which accompanied the Environmental Assessment. The comment from NSW Office of Water is generally supportive of the riparian management proposed for Duck Creek, being the provision of a 100m setback on either side of the Creek, together with the proposed provision of a 50m wide buffer around the State Environmental Planning Policy No. 14 wetlands. However, the NSW Office of Water has requested that the proposed Duck Creek corridor be fully revegetated and exclude public amenities (such as picnic tables, walking and cycling tracks etc) drainage infrastructure and bushfire asset protection zones, all of which are proposed.

The supplementary Riparian Assessment submitted with the Preferred Project Report demonstrates that the riparian outcomes for Duck Creek and the other watercourses on the site either satisfy or exceed the requirements of the *Riparian Corridor Management Study – DPNR 2004 (RCMS)*. In this regard, the Management Study requires a 40m core riparian zone, together with a 10m vegetated buffer to be provided on either side of the creek.

The proposed outcome for Duck Creek includes the provision of a 50m strategic vegetation corridor outside of the statutory 50m setback on either side of the creek. It is proposed to include the co-location of sympathetic public amenities, vegetated storm water detention basins and asset protection zones within this additional 50m wide vegetated corridor, beyond

the 40m core riparian zone and 10m vegetated buffer. Accordingly, the outcome for Duck Creek exceeds the requirements of the Riparian Corridor Management Study and the Department considers this will deliver appropriate strategic ecological connectivity outcomes within and beyond the site.

Another concern of NSW Office of Water was that the Riparian Assessment Report did not consider the future strategic role for each waterway and it was recommended that higher width stream setbacks for the minor waterways on the site be provided. The Preferred Project Report justified the proposed drainage categories where they were below the outcomes sought by the NSW Office of Water. In this regard, the proposed Category 2 outcomes for Barons Gully and Brooks Creek are considered to be acceptable given that a significant portion of Barons Gully is outside the site. Also, the strategic potential of both streams to provide a continuous corridor width facilitating the movement of flora and fauna is compromised.

NSW Office of Water has stated in its submission that they seek Category 1 corridor outcomes for Barons Gully and Brooks Creek, in order to provide ecological connectivity from Mount Brown reserve to the shore of Lake Illawarra. The Concept Plan acknowledges the need for connectivity from Mount Brown Reserve to the shore of Lake Illawarra, but demonstrates that the neither of the existing watercourses are capable of delivering this outcome. The Department considers that the Concept Plan adequately addresses the need for ecological connectivity through the planting of native woodland vegetation along the ridgeline of the North Shore Precinct to the foreshore of the Lake. This forms a native landscape buffer which is capable of providing an alternative ecological corridor for fauna. **Modification B4** has been included in the draft instrument of approval to ensure that this corridor is implemented so as to provide for ecological connectivity.

NSW Office of Water sought a 50m wide vegetated riparian setback from Lake Illawarra which was to exclude open space and recreational facilities. The Lake Illawarra Authority has expressed in principle agreement to take control and ownership of the Lake Illawarra foreshore and to incorporate and manage public recreational facilities within the foreshore area. Having regard to the view of the Lake Illawarra Authority and objectives of the RE1 Public Recreation zone of the foreshore land, the Department considers that publicly accessible open space and recreational facilities can be included within the 50m wide vegetated riparian setback without impacting on environmental attributes of the zone.

Based on the above assessment and having regard to the Preferred Project Report and the proponent's revised Statement of Commitments, the Department considers the proposed management of riparian lands is acceptable.

Endangered Ecological Communities, Threatened Species, Environmental Offsets and Vegetation Management Plan

The Ecological Assessment which accompanied the Environmental Assessment indicates that the proposed development will conserve 117 hectares of endangered ecological communities from a total of 122 hectares (96%) and will result in the removal of 4.37 hectares of endangered ecological communities. Of the endangered ecological communities to be removed, 3.28 hectares (75%) will be Illawarra Grassy Wood Land, which provides habitat for *Chorizema parviflorum* (an endangered plant population listed under the Threatened Species Conservation Act). The proposed removal of approximately 3.28 hectares of Illawarra Grassy Wood Land is spread across a number of small stands in the west and north-east of the site. The removal represents approximately 11% of the Illawarra Grassy Wood Land present on the site. The remaining 26.35 hectares of the Illawarra Grassy Wood Land is to be preserved along the Duck Creek corridor and incorporated into an environmental reserve.



Figure 11 – Vegetation Management Plan Land Management Zones (Source ELA)

Notwithstanding the listing of the Illawarra Grassy Wood Land under the *Environment Protection and Biodiversity Conservation Act 1999*, the proponent's advice from the Commonwealth Department of Sustainability, Environment, Water, Populations and Communities indicates that the Concept Plan is a 'non-control action'. (Note: An action is defined broadly in the *Environment Protection and Biodiversity Conservation Act 1999* and includes 'a project, a development, an undertaking, an activity or a series of activities, or an alteration of any of these things'. Actions 'include, but are not limited to construction, expansion, alteration or demolition of buildings, structures, infrastructure or facilities; storage or transport of hazardous materials; waste disposal; earthworks; impoundment, extraction and diversion of water; vegetation clearance; military exercises and use of military equipment; and sale or lease of land'. A proposed action that is likely to have a significant impact on a matter of national environmental significance or the environment of Commonwealth land is called a 'controlled action'.)

The vast majority of endangered ecological communities to be retained are located within land zoned E2 Environmental Protection. The Vegetation Management Plan seeks to implement restoration works in these areas. In addition to the management of native vegetation and weeds, the Vegetation Management Plan is also the mechanism which

environmental offsets necessary to compensate for the permanent loss of 4.37 hectares of endangered ecological communities would be implemented.

The Director-General's Requirements include a requirement for a Vegetation Management Plan to be developed for the 353 hectares of land that will require native vegetation and weeds to be managed as part of the project. The Vegetation Management Plan submitted with the Environment Assessment indicates that management of the lands to be conserved will cost \$3,881,538 for the first five years.

The Environmental Assessment indicates that vegetation within the various land management zones would be the responsibility of public authorities following land ownership transfers. Comment provided by the Office of Environment and Heritage indicates that the benefits of the measures outlined in the Vegetation Management Plan could be lost if the work ceases before the vegetation is self-sustaining. This same concern was outlined in the submission received from the Southern Rivers Catchment Management Authority. Given these concerns, the Department recommends that the proponent be required to amend the Vegetation Management Plan to demonstrate how the identified works would be self-sustaining beyond the first five-year period (**Future Assessment Requirement 8**) and managed in perpetuity.

The Office of Environment and Heritage has identified that the proposed southern access road, from the Princes Highway to the B7 zone within the Lakeside Precinct, will remove an area of Illawarra Grassy Wood Land endangered ecological community and isolate a *Chorizema parviflorum* threatened population from other areas of contiguous *Chorizema parviflorum* habitat. The land through which the proposed access road would run is zoned E2 Environmental Conservation and is an Environmentally Sensitive Area of State Significance.

After considering the ecological impacts and the prohibition under the E2 zone of the proposed access road, together with the availability of alternative access within the Lakeside Precinct from the Princes Highway entrance of Yallah Bay Road, the Department recommends that the southern access road be deleted by **Modification B2**. The deletion of the southern access road is consistent with the advice received from Roads and Maritime Services and will result in a reduced impact on the endangered ecological communities.

The guiding principles for a threatened species biodiversity assessment where impacts cannot be avoided, suggest that residual impacts must be compensated. The Environmental Assessment outlines a proposal to compensate for the permanent loss of biodiversity through the retention and management of native vegetation, including endangered ecological communities, through the implementation of the Vegetation Management Plan.

The Office of Environment and Heritage has raised concerns regarding the proposed environmental offsets that compensate for the permanent loss of 4.37 hectares of endangered ecological communities. Comments from the Office of Environment and Heritage indicate that while active management of endangered ecological communities will contribute to the long-term viability, it will not secure their preservation in perpetuity.

In response, the proponent has revised the **Statement of Commitments 18a and 18b** which commits the proponent to entering into discussions with relevant public authorities or recognised private conservation land managers to arrange for the transfer of ownership of the areas of retained vegetation. **Commitment 18a** outlines a number of alternative methods whereby the security of biodiversity outcomes would be managed in perpetuity in conjunction with staged implementation of the Vegetation Management Plan. **Commitment 18b** requires the proponent to enter into negotiations with the relevant public authorities such as Lake Illawarra Authority and Wollongong City Council involving future land ownership transfers, infrastructure provision, site remediation and implementation of the Vegetation Management

Plan. In the event that **Commitments 18a and 18b** do not result in the protection of environmental offsets in perpetuity, the Department recommends that the proponent be required to establish a bio banking agreement over the vegetation conservation areas on the site to be offset in accordance with **Future Assessment Requirement 7**.

The draft instrument of approval, including the Statement of Commitments will ensure that the impact on endangered ecological communities is satisfactorily mitigated.

Land Ownership

It is proposed to transfer those parts of the site zoned *RE1 Public Recreation*, *E2 Environment Conservation* and *E3 Environmental Management* into the ownership of public authorities following approval of the Concept Plan and subsequent approval of the Development Application for super lot subdivision. The future land ownership envisaged by the proponent is depicted in **Figure 12**, below. It is noted that the conceptual future ownership land parcels are consistent with the proponent's draft super lot plan of subdivision depicted in **Figure 8** (refer to **Section 3.9** of this report).

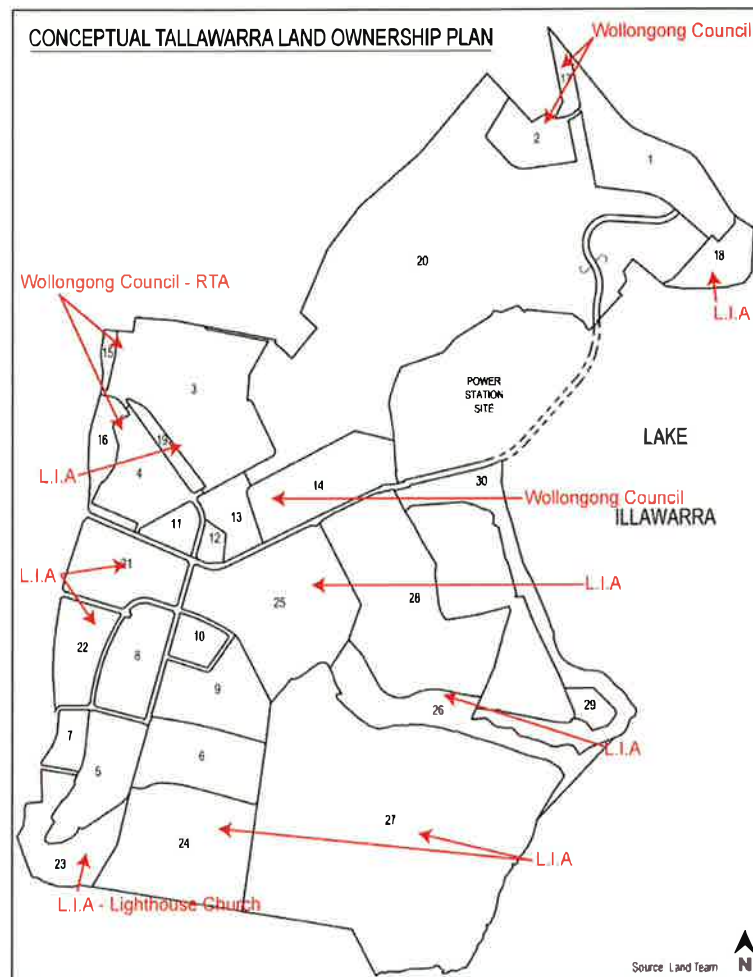


Figure 12 – Conceptual future land ownership (Source: Environmental Assessment)

The proponent has committed to holding discussions with the Lake Illawarra Authority and Wollongong City Council in relation to Planning Agreements which would involve future land ownership transfers and the implementation of the Vegetation Management Plan (**Statement of Commitment 18b**). The Lake Illawarra Authority in its submission to the Preferred Project Report indicated that it was supportive of a planning agreement with the proponent to facilitate the transfer of foreshore lands into public ownership. This support was provided on the grounds that there was no cost to the Authority and that areas of environmental concern located within the land to be transferred are remediated prior to transfer. Comments received

from Wollongong City Council indicate there is currently insufficient information in the documentation to make an informed decision. At this stage it is uncertain who will carry out ongoing management of conservation areas.

In order to address this concern, the Department recommends that the proponent be required to demonstrate that the Vegetation Management Plan (Ecological Australia, February 2011) will be self-sustaining beyond the initial five year period. In the event that the relevant public authorities are ultimately unwilling to accept ownership of the identified parcels of land, the proponent will be required to retain the land in private ownership to be managed either as publicly accessible private open space or as inaccessible conservation lands (**Future Assessment Requirements 7 and 8**).

Aboriginal Cultural Heritage

The proponent carried out consultation in accordance with the Office and Environment and Heritage guidelines. The Environmental Assessment was accompanied by an Aboriginal Archaeological Assessment which indicates that the Tallawarra Lands contain a number of Aboriginal archaeological sites considered to have low to moderate archaeological significance. The assessment also indicates that aspects of the proposed Concept Plan, including the Central Precinct and the tourism development (at Wollingurri Point and the mouth of Duck Creek) have a high likelihood to uncover intact aboriginal archaeological remains. The assessment included detailed recommendations and mitigation measures.

The recommendations contained in the Aboriginal Archaeological Assessment include continued aboriginal stakeholder consultation, cultural heritage awareness training of on-site contractors, procedures for the discovery of unanticipated Aboriginal sites, and procedures should any suspected human remains be discovered. Mitigation measures are also provided for documented Aboriginal archaeological sites and areas of archaeological sensitivity within the site.

The revised Statement of Commitments includes **Commitment 17a** to prepare a Heritage Management Plan detailing how construction impacts on Aboriginal and non-Aboriginal heritage will be minimised and managed. The Statement of Commitment indicates that the Heritage Management Plans are to be provided on a site-by-site basis and submitted when the construction involves site excavation works.

The Department recommends that the Heritage Management Plan should be prepared holistically and prior to the commencement of construction. In this regard, **Future Assessment Requirement 6** requires the preparation of a Heritage Management Plan based on the recommendations and mitigation measures contained in the Aboriginal Archaeological Assessment, prior to the commencement of any works on the site. Subject to the above recommendation, the Department considers that the potential impacts to Aboriginal cultural heritage will be appropriately managed.

European Cultural Heritage

The Environmental Assessment was accompanied by a Statement of Heritage Impact (Biosis Research, 2010) in relation to European cultural heritage on the site. The Statement of Heritage Impact identifies nine sites (TH1, TH2, TH3, TH4, TH5, TH6, TH7, TH8 and TH9) of potential European cultural heritage significance.

The potential significance of the nine sites are as follows:

- **TH1** - Existing structures on the north-west corner of the site, present at least by 1916 and most recently used as a riding school. The structures are possibly the homestead of Obrien, an early land owner;

- **TH2** - A potential archaeological site near a large fig tree to the west of the site and adjacent to the Princes Highway. The site is possibly part of the late 19th century "Jordans Farm";
- **TH4** - A potential archaeological site, south of duck Creek and adjacent to the Princes highway. Possibly part of the early 20th century Wollingurry Dairy;
- **TH5** - A potential archaeological site, south of Duck Creek. Possibly the house known as "Wolingurry" situated on the early 20th century Wollingurry Dairy;
- **TH6** - The site of the former Yallah rail platform, removed to Albion Park Rail Museum in the 1980s;
- **TH7** - Former smelting company rail alignment;
- **TH8** - A pair of existing tanks at the base of Mt Brown, built c.1950; and
- **TH9** - A widespread group of structures on the southern part of the site, possibly part of the early 20th century Wollingurry Dairy.

The assessment of potential impacts indicates that most of the TH sites would be destroyed as a consequence of implementation of the Concept Plan, as they are located in the vicinity of roads or areas proposed for intense urban development. To address this, the recommendations of the Statement of Heritage Impact require avoidance in the first instance of all of the identified TH sites. Where impacts are unavoidable, the recommendations require the preparation of a detailed archaeological assessment for each potential archaeological site.

Statement of Commitment 17 commits the proponent to implementing the management recommendations contained in Section 7.2 of the Statement of Heritage Impact, including obtaining detailed assessments of significance / assessments of archaeological potential in relation to sites TH2, TH3, TH4, TH5, TH9 and TH10, prior to undertaking works in the vicinity of the sites. Subject to the proponent's Statement of Commitments and **Future Assessment Requirement 6**, which requires the preparation of an Aboriginal and non-Aboriginal Cultural Heritage Management Plan, the Department considers that potential heritage impacts to European cultural heritage on the site will be appropriately managed.

5.5 Roads and Access

Prohibition of roads in the E2 Zone

The proposed main north-south collector road, which crosses Duck Creek is a prohibited use where the road/bridge passes through the riparian lands of Duck Creek which are zoned E2 Environmental Conservation. The issue of roads being a prohibited use within the E2 Zone has already been discussed in detail in **Section 5.1** of this report and is overcome through the implementation of a planning agreement between the proponent and Wollongong Council, following the approval of the Concept Plan. The delivery of the road/bridge is an activity under Part 5 of the EP&A Act, and is facilitated through Clause 94(1) of State Environmental Planning Policy (Infrastructure) 2007.

Southern entrance off Princes Highway

The proposed southern entrance off the Princes Highway, providing access to the Lakeside Precinct, is not supported by Roads and Maritime Services as this access would unacceptably compromise the acceleration lane length necessary for vehicles entering the F6 from the Princes Highway. Further, the Office of Environment and Heritage has objected to the southern access road to Lakeside Precinct as the road would have an unacceptable impact on the endangered ecological communities located in this part of the site.

The Department supports Roads and Maritime Services and the Office of Environment and Heritage comments regarding the deletion of the southern access road. The Department considers that the deletion of the southern entrance and access road will not compromise

access to the Lakeside Precinct, or the functionality of the proposed internal road network. Vehicles which would have used the southern access will simply use the proposed Yallah Bay Road main entrance off Princes Highway, located a short distance to the north of the deleted southern access.

The deletion of the southern access to satisfy the concerns of Roads and Maritime Services and the Office of Environment and Heritage is addressed through **Modification B2**.

Local access roads to the north and south

The Preferred Project Report seeks to connect the road network proposed with the Concept Plan to the established local road network, including the new Haywards Bay Road link.

The draft Environmental Planning and Assessment (Special Infrastructure Contribution-Illawarra) Determination, 2011 identifies the North facing F6 ramps as costed infrastructure items to be provided. The final location, design and costing of the ramps will not be known until the completion of Roads and Maritime Services investigations into the alignment and amplification of the F6 in the vicinity of the site. Wollongong Council was concerned that the inability to deliver the freeway ramps in the short term would result in unacceptable levels of traffic accessing the site via the local road network compromising the amenity of the surrounding residential areas. To address this issue the proponent provided additional modelling which indicated that the Concept Plan can be delivered without reliance on the freeway ramps, and without unacceptable traffic volumes and amenity impacts on the local road network. Council and the Roads and Maritime Services are satisfied this issue has been resolved.

Council indicated by letter dated 5 October 2012 that it has no objection to the proposed access arrangements, subject to the Haywards Bay link road and Gilba Road being traffic calmed, including the imposition of tonnage limits. Council has further required that the link from the southern section of Cormack Avenue to the Princes Highway be deleted in order to satisfy its concerns. In this regard, the link from the southern section of Cormack Avenue can be rerouted through the Central Precinct Neighbourhood Centre rather than joining directly onto the Princes Highway. This minor amendment addresses Council's concerns and would serve to facilitate a future local bus route through the Central Precinct. The traffic calming of Gilba Road is provided for by **Future Assessment Requirement 15**, while the closure of Cormack Avenue is provided by **Future Assessment Requirement 14**. The requirement for the future road link to Haywards Bay to be traffic calmed and to also accommodate the two-way movement of buses is addressed by **Future Assessment Requirement 18**.

Bicycle and pedestrian access

The proposal includes a network of bicycle paths, pedestrian paths and shared use paths. Wollongong Council, the Illawarra Bicycle Users Group, Bicycle New South Wales and a number of the public submissions objected to the proposal on the basis that, the terminology used in the Concept Plan was not recognised by the NSW Bicycle Guidelines, Aust Roads and the Australian Standards. The submission from Council and many of the public submissions also objected that the bicycle infrastructure described in the Environmental Assessment was not consistent with the Wollongong Bicycle Plan and that it failed to provide for strategic north-south link and a continuous path along the Lake Illawarra foreshore.

These concerns were addressed in the Preferred Project Report which corrected the use of bicycle infrastructure terminology, clarified the information provided, and made detailed provision for a strategic north-south bicycle link. Further, the Preferred Project Report also provided for an increased level of separate bicycle paths in preference to the bicycle lanes incorporated into local roads exhibited as part of the Environmental Assessment.

The Preferred Project Report provides for a continuous bicycle or shared use path running from the North Shore Precinct to the Lakeside Precinct, and connecting to Haywards Bay. This aspect of the Preferred Project Report is consistent with the requirements of Wollongong Bicycle Plan. The Department considers that the proposed bicycle infrastructure will provide appropriate connectivity to existing bicycle and shared use paths to the north and south of the site.

Having regard to the E2 Environmental Conservation zoning of the land, south of Duck Creek and east of the Lakeside Precinct, including the entire foreshore south of Duck Creek, the Department considers that it is not appropriate for the strategic north-south bicycle link to be located on the foreshore, between Duck Creek and Haywards Bay. This is reflected in the location of the cycle way in the Preferred Project Report.

5.6 Urban release area, site specific DCP & 'satisfactory arrangements' for the provision of designated state public infrastructure

Urban Structure

The Landscape Plan (Corkery Consulting) and Urban Design Master Plan (Warren Lee Urban Design) provide the basis for a functional urban structure for the Tallawarra lands, including:

- a street hierarchy providing access from the Princes Highway, together with connectivity to the existing suburbs to the north and south of the site;
- a neighbourhood centre, together with employment lands;
- a network of cycle ways, share paths and pedestrian footways, including a strategic north-south bicycle link connecting to existing bicycle networks to the north and south;
- riparian corridors for Duck Creek, and other watercourses;
- land reserved for environmental conservation and environmental management to ensure the preservation and enhancement of the environmental attributes of the site;
- provision to accommodate future public bus routes; and
- a network of publicly accessible open space providing for a range of recreational activities.

This urban structure is generally consistent with the land use zoning of the site.

The Department considers that the design of the internal street hierarchy outlined in the Landscape Plan will assist in establishing an appropriate urban character for the Tallawarra Lands redevelopment.

Urban release area and site specific Development Control Plan

The site is included as an Urban Release Area, in Wollongong Local Environmental Plan 2009 and Clause 6.2 of Wollongong Local Environmental Plan 2009 states that development consent must not be granted for development on land in an urban release area unless a Development Control Plan has been prepared for the land.

The Preferred Project Report suggests that the Concept Plan is to serve as a Development Control Plan for the purposes of Clause 6.2. The submission from Wollongong Council suggests that the Concept Plan is insufficient to satisfy Clause 6.2 and the Council expects that a site specific Development Control Plan chapter would be developed for the site.

The Department considers that the Landscape Plan (Corkery Consulting) and Urban Design Master Plan (Warren Lee Urban Design) contain sufficient detail to establish streetscape and landscape character, housing typologies and lot sizes. Further, the road reserves and carriageway widths are sufficient and are designed to contain separated cycle ways, share

paths, pedestrian footways as well as soft landscaping. These two Plans, together with the development controls and guidelines contained in *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008* are equivalent to a site-specific development control plan chapter, and are sufficient to guide the future development of the site. **Condition A5** recognises the ability of the Landscape Plan and Urban Design Master Plan to form the basis of development guidelines for the site. However, to ensure that the development guidelines are capable of being used as an assessment tool for future development applications, **Condition A5** requires that the guidelines be formatted so as to be capable of being inserted as a site-specific chapter in Section D of Wollongong City Council's Residential Development Control Plan 2009 and are capable of being read in conjunction with other relevant components of that plan.

Accordingly, the Department recommends that Clause 6.2 does not apply to the future assessment of Development Applications made to Wollongong City Council subsequent to Concept Plan approval. In order to facilitate this, the draft instrument of approval recommends that the Planning Assessment Commission, as Delegate for the Minister:

- determine that under Section 75P(1)(b) the approval of carrying out the Tallawarra Project be subject to Part 4 of the *Environmental Planning and Assessment Act*: and
- direct under 75P(2)(c1) that clause 6.2 of Wollongong Local Environmental Plan 2009 does not have effect in relation to the carrying out of the Tallawarra Project under Part 4 of the *Environmental Planning and Assessment Act*.

State Public Infrastructure

Clause 6.1 of Wollongong Local Environmental Plan 2009 requires 'satisfactory arrangements' to be made for the provision of designated state public infrastructure before the subdivision of land in an urban release area. The provision of such infrastructure is to satisfy needs that arise from development on the land, but only if the land is developed intensively for urban purposes. The development of the site in accordance with the Concept Plan is considered to be land developed intensively for urban purposes.

The Draft Special Infrastructure Contribution - Illawarra (West Lake Illawarra) Determination provides for monitory contributions and works in kind to deliver identified regional infrastructure. The identified regional infrastructure relates to road infrastructure improvements, including the delivery of F6 Freeway ramps at the Tarrawarra interchange.

The proponent has committed to consultation with the State Government to put in place, satisfactory arrangements for the provision of state/regional infrastructure (**Statement of Commitment 2**). The proponent has committed to submitting arrangements as part of a future Development Application seeking consent to subdivide the site into a series of super lots. The Department recommends that **Future Assessment Requirement 23** be included within the instrument of approval to ensure that the first application for super lot subdivision is accompanied by details demonstrating that satisfactory arrangements have been made for the provision of state/regional infrastructure.

The Department is satisfied that satisfactory arrangements for the provision of designated State public infrastructure in accordance with Clause 6.1 shall be made at the time of the first application for super lot subdivision.

6. CONCLUSION

The Department has assessed the merits of the proposal taking into consideration the issues raised in the submissions and is satisfied that the impacts have been addressed in the Preferred Project Report, the revised Statement of Commitments and recommended terms of approval.

The Department is satisfied that the amendments to the proposed development both in the Preferred Project Report and as required by the recommended terms of approval satisfy the Department's key issues and concerns identified during the assessment process. The Department is also satisfied that its assessment has addressed concerns raised in the public submissions and submissions received from Wollongong City Council, Shellharbour Council, and State Government agencies.

The Department recommends approval of the Concept Plan for a mixed-use residential, commercial, industrial and tourist development. The Concept Plan has largely demonstrated compliance with relevant environmental planning instruments. It has been amended to respond to concerns regarding land use (school and retirement living in B7 zone) and is considered to be acceptable for approval, subject to the terms of approval.


The proposed development will have long term social and economic benefits for the Wollongong and Shellharbour Local Government Areas including employment opportunities during construction and operation of the extensive employment lands, increased housing supply and diversity, a tourist facility to encourage additional visitors, and associated commercial activity in the area.


7. RECOMMENDATION

It is recommended that the Planning Assessment Commission, as delegate for the Minister for Planning and Infrastructure:

- (a) consider the recommendations of this Report;
- (b) **Approve** the Concept Plan application under the repealed Section 75O of part 3A of the *Environmental Planning and Assessment Act, 1979*;
- (c) **Sign** the attached Instrument of Approval (**Appendix E**).

Endorsed by:


11/3/13
Director Metropolitan & Regional Projects South


11.3.13
Executive Director
Development Assessments, Systems & Approvals

APPENDIX A ENVIRONMENTAL ASSESSMENT

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

APPENDIX B SUBMISSIONS

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

APPENDIX C PROPONENT'S RESPONSE TO SUBMISSIONS

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

APPENDIX D CONSIDERATION OF ENVIRONMENTAL PLANNING INSTRUMENTS

State Environmental Planning Policy (Infrastructure) 2007

The ability of the Minister to grant concept approval to the proposed collector road and bridge over Duck Creek relies upon the provisions of clause 94(1) of State Environmental Planning Policy (Infrastructure) 2007 to overcome the issue of permissibility as roads are prohibited within the E2 Environmental Conservation zone under Wollongong Local Environmental Plan 2009.

The issue of permissibility, together with the constraint imposed by the classification of the E2 zone as an 'Environmentally Sensitive Area of State Significance' is overcome by a contractual arrangement between the proponent and Wollongong City Council, whereby the required road and bridge would be constructed by or on behalf of Council. This is discussed in detail in **Section 5.1** of the assessment report.

State Environmental Planning Policy No. – Housing for Seniors & People with a Disability 2004 (SEPP Seniors)

The proposal includes a proposed retirement village comprising 200 retirement dwellings in the B7 Business Park zone of the Lakeside Precinct. Notwithstanding the prohibition of use within the B7 zone under Wollongong Local Environmental Plan 2009, the proponent's Preferred Project Report indicates that a retirement village within the B7 zone is permissible under the provisions of the SEPP Seniors.

However, clause 4 of the SEPP Seniors indicates that, "this policy applies to land... that is land zoned primarily for urban purposes... but only if development for the purpose of dwelling houses, residential flat buildings, hospitals are permissible". None of these uses are permissible within the B7 zone. Accordingly, the proposal is not permissible under the SEPP Seniors. Having regard to the prohibition of the use, and the need to protect the future capacity of the B7 zoned land for employment purposes, an appropriate condition has been included to delete the proposed retirement village from the B7 zone. The issue of permissibility is discussed in detail in **Section 5.1** of this report.

State Environmental Planning Policy No.14 – Coastal Wetlands (SEPP 14)

SEPP 14 is relevant to the Department's consideration of the concept plan as two SEPP 14 wetlands located on the site. One is on the southern side of Duck Creek, and the other is in the south-eastern part of the site on the northern foreshore of Haywards Bay. The ecological assessment accompanying the EA indicates that a 50m buffer is proposed around both wetlands. The proposed buffer is readily achievable as both wetland areas are located within a 95.98 hectare portion of the site zoned E2 Environmental Conservation, under Wollongong Local Environmental Plan 2009. The submission from NSW Office of Water indicates that the proposed 50m buffer and overall approach to the conservation of the wetlands is acceptable. Accordingly, the Concept Plan is considered to be consistent with the SEPP.

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

The site has contamination issues many of which are the consequence of its use as a coal fired power station from 1954 to 1989.

The Preferred Project Report indicates that the proponent will manage the land contamination in accordance with SEPP 55 (SoC 6a). However, the implementation of SEPP 55 is the responsibility of the consent authority, being the Department, which is required to consider SEPP 55 to determine whether any potential contamination will adversely affect the suitability of the site for its proposed use. In order to satisfy its obligations under SEPP 55 and to ensure that the issue of contamination is adequately addressed, a condition of consent has been imposed requiring the proponent to engage a site auditor accredited under

the Contaminated Land Management Act to certify the suitability of the land for its proposed use as well is to verify the adequacy of the investigation and remediation works performed.

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

SEPP 71 applies as the site is located within the "coastal zone" of NSW. The proposal is consistent with the relevant controls in that it involves a development of a tourist facility, maintenance and enhancement of public access to the foreshore, conservation and enhancements of the areas biodiversity, avoidance of land subject to coastal processes and hazards, together with protection of Aboriginal and European heritage. The Environmental Assessment also outlines protection of the amenity of the coastal foreshore through avoidance of development with an absolute frontage to Lake Illawarra, together with measures to protect the scenic qualities on this part of the New South Wales coast. Measures to conserve flora and fauna within the meaning of the *Threatened Species Conservation Act 1995*, together with measures to conserve fish maritime vegetation and their habitats within the meaning of Part 7A of the *Fisheries Management Act 1994* are outlined in the Ecological Assessment Report included in Appendix 9 of the Environmental Assessment. The relevant matters for consideration under clause 8 of the SEPP have been addressed in the Environmental Assessment and the proposed Concept Plan is considered to be consistent with the requirements of the SEPP.

Environmental Protection and Biodiversity Conservation Act, 1999 (EPBC Act)

Approval from the Commonwealth Environment Minister is required under the EPBC Act if an 'action' will, or is likely to, have a significant impact on matters considered to be of national environmental significance. The Flora and Fauna Assessment Report prepared found that the proposal is unlikely to have significant impacts on Illawarra Grassy Wood Land (a listed plant species) based on the criteria of assessment and approval from the Commonwealth Environment Minister is not required.

Threatened Species Conservation Act 1995 (NSW) and Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The site contains habitat for *Chorizema parviflorum*, an endangered ecological community (EEC) listed under the Threatened Species Conservation Act 1995 (TSC Act). The site also contains Illawarra Grassy Wood Land (ILGWL), which is listed under the both the TSC Act and the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

The TSC Act seeks to protect and encourage the recovery of threatened species, populations and communities listed under the Act. This will be achieved through the implementation of the Vegetation Management Plan.

The proposed development will conserve 117 hectares of EECs from a total of 122 hectares (96%). The majority of EECs to be retained are located within land zoned E2 Environmental Protection. The Vegetation Management Plan will implement restoration works in these areas. Further, the proponent's referral (2011/6002) to the Commonwealth Department of Sustainability, Environment, Water, Populations and Communities has determined that the Concept Plan is a 'non-controlled action' under the EPBC Act.

Accordingly, the proposal is considered as consistent with the Threatened Species Conservation Act (TSC Act).

Other plans and policies considered in the assessment of the proposal:

NSW Coastal Policy 1997

The *NSW Coastal Policy 1997* responds to the fundamental challenge to provide for population growth and economic development without placing the natural, cultural, spiritual and heritage values of the coastal environment at risk. The Policy is based on the principles

of ecologically sustainable development, and addresses a number of key coastal themes including population growth, coastal water quality issues and establishes a comprehensive and representative system of reserves.

NSW Coastal Design Guidelines

The *NSW Coastal Design Guidelines* aim to ensure that future developments and redevelopments are sensitive to the unique natural and urban settings of coastal places in NSW. The Guidelines provide an urban design focus for the coastal context. The coastal policies and guidelines are relevant legislation and planning provisions applicable to the site. The Guidelines recommend setbacks to protect the natural edges of coastal settlements: "For new developments the foreshore setbacks should be at least 50m wide as a precautionary measure where possible." The proposal will be setback from the foreshore in excess of 50m and, given the site characteristics is considered satisfactory. The proposed concept plan is also considered to be consistent with the relevant design principles contained in the guideline. Accordingly, the proposed Concept Plan complies with the Guidelines.

Wollongong City Council Local Environmental Plan 2009 (WLEP 2009)

Density, yields and Minimum Lot size

Clause 4.1 of WLEP 2009 provides for minimum subdivision lot sizes. The assessment of the concept plan does not involve subdivision. However, the proponent has provided an indication of lot yields and densities across the three development precincts, which are not inconsistent with the minimum allotment areas applicable to the site. In this regard:

- the average lot size for the Northshore residential precinct would be 719 m², while clause 4.1 provides for a minimum lot size of 450 m², this part of the site;
- the average lot size of the central precinct would be 769 m², while clause 4.1 provides, for a minimum lot size of 450 m²;
- clause 4.1 establishes a minimum lot size of 4000 m², for the R5 Large Lot Residential zoned land, whereas the concept plan indicates that each of the lots on this part of the site would have an average site area of 11,000 m²; and
- The average lot size for the Lakeside precinct would be 667 m², while clause 4.1 provides for a minimum lot size of 450 m².

Accordingly, the proposed lot sizes and density are consistent with clause 4.1.