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PREFERRED PROJECT REPORT & UPDATED STATEMENT OF COMMITMENTS



Tallawarra Lands Concept Plan Application MP09_0131

Prepared for: TRUenergy
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Preferred Project Report & Updated Statement of Commitments

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- A. Northern Residential Precinct Acoustic Report prepared by PKA Acoustic Consulting
- B. Tallawarra Lands Noise Assessment Letter prepared by SKM
- C. Flood Risk Management Response prepared by Bewsher Consulting dated 3 April 2012
- D. Addendum Traffic Impact Assessment prepared by Gabites Porter and Peer Review prepared by Bitzios Consulting
- E. Response to OEH Submission prepared by Eco Logical
- F. Asbestos Sampling Methodology prepared by Douglas Partners
- G. Response to NoW Submission prepared by Eco Logical
- H. Response to Wollongong City Council Submission prepared by TRUenergy
- I. Not used
- J. Updated Concept Plan prepared by Warren Lee Urban Design
- K. Updated Landscape Plan prepared by Corkery Consulting
- L. Letter prepared by Northrop Amending Bus Subsidy Recommendation
- M. Groundwater Modelling Assessment Report – Ash Ponds Tallawarra Lands, Yallah NSW prepared by Coffey Environments dated 3 April 2012.
- N. Groundwater Dependent Ecosystems at Tallawarra – Risk Assessment update prepared by Eco Logical dated April 2012.

Enclosures

- 1 x CD containing electronic copies of the traffic modelling files produced by Gabites Porter

1 Introduction

This Preferred Project Report and Updated Statement of Commitments has been prepared by Don Fox Planning (DFP) on behalf of TRUenergy in relation to the Tallawarra Lands Concept Plan application which is currently being assessed by the Department of Planning & Infrastructure (the Department). The Department's reference number for the Concept Plan application is MP09_0131.

Following public exhibition of the Tallawarra Lands Environmental Assessment (the EA), the Department reviewed the submissions received and identified a number of key issues. The Department subsequently wrote to TRUenergy on 23 December 2011 outlining the issues identified in the assessment and requesting that the Proponent prepare and submit a Preferred Project Report (PPR):

- Responding to the key issues raised by the Department as outlined in Schedule 1 of their letter dated 23 December 2011;
- Responding to the key issues raised in the submissions; and
- Incorporating an updated Statement of Commitments.

1.1 The Project

Concept approval is sought for a mixed use development comprising residential precincts (approximately 1010 lots and 200 retirement dwellings), commercial, industrial and retail precincts, a primary school site, public open space areas, recreational facilities, environmental management facilities, conservation areas and riparian corridors.

1.2 Statutory Context

The Tallawarra Lands Concept Plan application was declared a Major Project to which Part 3A applies by the Deputy Director-General of Development Assessment and Systems Performance on 26 August 2009 on the basis that the proposal is development of a kind described in the now repealed Schedule 1, Group 5 Clause 13(1) of State Environmental Planning Policy (Major Development) 2005.

The Director General's Requirements (DGR's) for the preparation of the EA were subsequently issued on 28 September 2009 and updated on 1 July 2010.

The Draft EA was submitted to the Department in March 2011. The report was updated following the Department's Test of Adequacy process and a revised EA was submitted in August 2011.

1.3 Environmental Assessment Exhibition

The EA was exhibited between 22 September and 7 November 2011. Submissions were made on the Tallawarra Lands Concept Plan by members of the public, community interest groups and various government agencies. A response to the pertinent planning issues raised in the submissions is provided at Section 2 of this report.

2 Response to Key Issues Raised by the Department

2.1 Land Use Strategy

Issue

The Department does not support the identification of areas in the B7 'Business park' Zone for Retirement living (possible) and Primary school (possible). It is important to protect the future capacity of this area for employment purposes. The Master Plan should be amended to show this area by a single colour as 'Business Park'.

Proponent's Response

TRUenergy requests that the proposed retirement living and primary school land uses be retained on the Preferred Project Plan for the following reasons:

- The land uses are permissible by virtue of the operation of the provisions of State Environmental Planning Policy (Infrastructure) 2007 and State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004;
- With regard to State Environmental Planning Policy (Infrastructure) 2007, it is noted that Clauses 28(1A) and (1B) were repealed on 17 February 2012. Clause 28(1A) permitted the provision of education establishments in prescribed zones by a person other than a public authority. Clause 28(1B) was a sunset clause which stated that subclause 1A would cease to apply after 20 February 2012. At the same time, Clause 28 (1) was modified to expand the previous provision so that it now permits the provision of educational establishments carried out by any person (not just public authorities as it did previously) with consent on land in a prescribed zone. The modified wording does not include a sunset clause applicable to the operation of Clause 28(1) and as such it is taken to apply indefinitely. This recent amendment to State Environmental Planning Policy (Infrastructure) 2007 highlights the Department's clear and current intention to facilitate the development of educational establishments (such as primary schools) in prescribed zones (including the B7 Business Park zone).
- Both the proposed retirement living and primary school land uses can reasonably be expected to generate employment involving professions such as doctors, nurses, care providers, caterers, cleaners, gardeners, teachers etc.
- No change to the underlying B7 Business Park zoning is proposed.
- Retention of the B7 Business Park zoning effectively means that if demand for a retirement living village or primary school does not eventuate, the inherent flexibility will be retained to deliver development permissible in the B7 zone under the provisions of Wollongong LEP 2009.

Having regard for the above justification, the Department is requested to assess the merits of the permissible land uses as part of its consideration of the Concept Plan application.

2.2 Residential Amenity – Noise

Issue

The potential for the proposal to result in noise impacts to the nearest future residences which exceed the criteria established for the Stage B Gas Fired Turbine is significant. It is of concern that exceedances due to power station noise of up to 5dB(A) are predicted for the northern residential precinct.

Receiver controls such as building design and architectural mitigation measures are not considered to be an acceptable method of mitigating noise exceedances in excess of the criteria established by the Tallawarra B Approval, as they would only reduce internal noise levels and would not address the criteria relating to acceptable external noise levels. Further, transmission controls such as the use of noise barriers are unlikely to be effective mitigating strategies given the height of the noise emissions and the topography of the site, particularly to the north, as much of the future residential development would be capable of being undertaken under the codes SEPP.

It must be demonstrated that the external noise criteria listed in the Tallawarra B Approval can be achieved for all the proposed residential areas, especially the residential areas within the northern precinct.

Table 2.1 of the SKM report provides Rating Background Noise Levels (RBLs) that were measured with Tallawarra A operating. The table should be revised to indicate RBLs in the absence of the existing operating noise of the Tallawarra power station.

Proponent's Response

TRUenergy commissioned PKA Acoustic Consulting and SKM to prepare responses to the noise related issues raised by the Department based on the modified concept plan referred to in this report as the Preferred Project. A copy of the report prepared by PKA Acoustic Consulting is attached at **Appendix A** and a copy of the letter prepared by SKM is attached at **Appendix B**.

SKM undertook noise modelling throughout the Tallawarra Lands site in order to establish the extent of noise impacts likely to affect sensitive receivers (such as future dwellings) associated with the operation of the existing and approved power stations. The only proposed residential area assessed as having the potential to be impacted by the operation of the existing (Tallawarra A) and approved (Tallawarra B) power stations was the Northern Residential Precinct.

The lot layout in the Northern Residential Precinct has been modified in the Preferred Project plan such that all the proposed residential lots are now located outside of the LA_{max} 50 and LA_{eq} 40 noise impact zones. Examination of the noise modelling results carried out by PKA Acoustic Consulting concluded that no lots within the proposed subdivision will be impacted by either the LA_{max} 50 or LA_{eq} 40 noise contours associated with the existing and approved power stations (and therefore that there is not expected to be any exceedance of external noise criteria within the Tallawarra Lands site caused by noise associated with the power station). Accordingly, PKA Acoustic Consulting advised that noise levels at all the proposed lots in the Northern Residential Precinct will comply with the relevant noise criteria without acoustic treatment in the form of receiver controls being required.

In response to the Department's request that the Rating Background Noise Levels (RBL's) be revised by removing the existing operating noise of the Tallawarra power station, SKM provided the following comments:

"It is noted that the NSW Industrial Noise Policy (INP, 2000) sets out a framework for establishing RBLs for a specific project. The RBL is defined as the overall single-figure background level representing each assessment period (day / evening / night) over the whole monitoring period.

With respect to measuring background noise for the purposes of defining RBLs in accordance with INP, it is considered appropriate to include the influence of Tallawarra A, as this is a normal feature of the area. Section 3.1.2 of the INP provides further definition in this regard, specific to extraneous noises which are to be excluded from background noise measurements, but the noise from Tallawarra A is not considered extraneous.

It is noted that the RBLs determined as part of the Tallawarra B development assessment process, the consent for which includes noise criteria for the Tallawarra Lands, were established using background noise measurements including any influence from the Tallawarra A power station."

2.3 Flooding Issue

The assessment of flood related issues within the EA is based on a locality specific flood study. Detailed advice received from the Office of Environment and Heritage (OEH) has indicated that a catchment-based FRMS&P is the appropriate basis to manage future development. The flood assessment must be amended to address the concerns raised by OEH in their submission of 7 November 2011.

Proponent's Response

A meeting was held at the Department's offices on 31 January 2012 and attended by representatives from the Department, OEH, DFP and Bewsher Consulting. The purpose of the meeting was to discuss the flood related issues raised by OEH in their submission regarding the Tallawarra Lands Concept Plan.

Bewsher Consulting has prepared a response on behalf of TRUenergy and a copy is attached at **Appendix C**. In their response, Bewsher Consulting advise as follows to explain why OEH's request for an updated flood impact assessment adopting a catchment based modelling approach is inappropriate in the circumstances:

- The Government's Flood Prone Land Policy and the Floodplain Development Manual advocate a "*merit approach*" for all development decisions in 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*".
- The NSW Floodplain Development Manual sets out a process for management of floodplain development and offers councils indemnity for their decisions and actions in relation to floodplain developments if they act in accordance with the Manual.
- The process described in the Manual hinges around the preparation of floodplain risk management studies and plans for catchments. These studies and plans are prepared by Councils with state and federal government financial assistance and can take typically 2-5 years to complete. These studies and plans are essentially strategic planning exercises where the flood risks are examined and the council and its floodplain management committee oversee the process of balancing "social, economic, environmental and flood risk parameters" in relation to a floodplain, including future major land releases.
- There has been no floodplain risk management study and plan prepared for the Duck Creek catchment and the Tallawarra Lands. A flood study (which is the precursor to the flood risk management study) has only just been completed. Discussions with Wollongong City Council suggest the floodplain risk management study for Duck Creek may possibly be completed in another five years.
- It is not uncommon for floodplain risk management studies not to have been completed prior to the planning of major land releases. By way of example, the Hawkesbury Floodplain Risk Management Study which covers some of the State's most significant flood risks has not been completed. Once Local Environmental Plans (LEPs) are prepared, it is rare for floodplain risk management studies to be initiated in respect of individual developments. Whilst ideally floodplain risk management studies should be completed before any land planning is undertaken, this is rarely feasible.
- Where floodplain risk management studies have not been undertaken, additional consideration of flood risk issues is usually required as part of local environmental studies supporting LEPs and land releases. A specific flood-related S117 Direction recognises the need for this.
- The Concept Plan has been prepared on the basis that a range of land uses are permissible on the Tallawarra Lands site and that wider strategic planning considerations concerning the location of land uses in other parts of the catchment has already been undertaken. Even if these wider whole-of-catchment considerations were to be undertaken now, any outcomes could not be implemented through the current Concept Plan approval process.

- An issue that could arise in whole-of-catchment considerations is the potential impact of upstream developments on downstream development. Consistent with normal practice throughout NSW including within the Wollongong LGA, planning to date has assumed that any future development upstream will not exacerbate flood behaviour on the Tallawarra Lands site and will include flood mitigation measures to ensure that there are no downstream impacts.

2.4 Traffic and Access

Issue

A revised Traffic Impact Study and Traffic Modelling is required. The submission by the Roads and Maritime Services (RMS) identifies that the modelling is based on assumptions which are contrary to its future planning in this section of the Princes Highway. The new traffic modelling must have regard to the points raised in the RMS submission, together with the points raised in Part 2 ("Traffic") of the WCC submission.

The terminology used in the EA is not in accordance with NSW Bicycle Guidelines, Aust Roads and the relevant Australian Standards. The EA and supporting documentation are required to be amended so that it is in accordance with relevant best practice.

Consideration should be given to amending the proposal so that is in accordance with Wollongong City Council's Bicycle Plan.

Gabites Porter was commissioned by TRUenergy to prepare an Addendum Traffic Impact Assessment responding to the issues raised by the Roads and Maritime Service (RMS) in their letters dated 7 November 2011 and 31 January 2012. A copy of the addendum report is attached at **Appendix D**. A copy of this report and supporting electronic model has been provided to the RMS and they have provided additional comments in a letter dated 20 April 2012. Subsequent to the Department's key issue letter, the Department has also requested a "definitive position on transport and access."

Proponent's Response

The updated modelling underpinning Gabites Porter's addendum report used 2036 as its base year. 2036 was agreed by both RMS and Council as a suitable base year as it meant that all of the proposed development on the Tallawarra Lands site, all of the regional infrastructure to be delivered under the Special Infrastructure Contribution and large amounts of the West Dapto and Calderwood developments could be incorporated in the modelling.

The addendum report includes commentary on:

- The Princes Highway lane arrangement between the F6 off ramp and the main entry to the Tallawarra Lands site.
- The provision of a vehicular link connecting the Tallawarra Lands site with Haywards Bay which is now included in the Preferred Project
- The operational efficiency of the Haywards Bay interchange.
- Demand for F6 North Facing Ramps.

The addendum report also includes traffic volume plots quantifying the estimated traffic flows associated with the Tallawarra Lands development entering and exiting the site and illustrating how these flows will be distributed throughout the local and classified road network.

As requested by the RMS, TRUenergy arranged for the traffic modelling undertaken by Gabites Porter to be peer reviewed by Bitzios Consulting. 18 issues were identified in the peer review, however none were deemed by Bitzios Consulting to be of a critical nature. A copy of the report prepared by Bitzios Consulting is included at **Appendix D**.

RMS also requested that an electronic copy of the traffic model be provided to the Department together with the PPR. Two CDs accompany this submission.

The models included in the Addendum Traffic Impact Assessment have analysed eight different scenarios and analysed the impacts on the wider network (AM and PM peaks) and internal traffic impacts. The table below summarises the impacts to the Level of Service (LOS) for each test run on the wider network.

TEST/ SCENARIO	WIDER NETWORK (AM)	WIDER NETWORK (PM)
Test One. The 2036 base network and land use with no development in Tallawarra. This run determines the performance of the network and identifies deficiencies that will occur as a result of other developments.	2036 Base Case	2036 Base Case
Test Two. The land use activity and pattern under the Warren Lee Master Plan for Tallawarra is added with no Haywards Bay link. The comparison of this run against Test One shows the effects of the development. Two changes to the base case road network are assumed for this test	This test includes the following two changes to the base case: <ul style="list-style-type: none"> Two lane circulating roundabouts at each of the 2 access points off Princes Highway A new roundabout at the northern access of Cormack Avenue. With the changes to the base case this test shows LOS during AM peak to be similar to the Base Case.	With the changes to the base case, this test shows LOS during PM peak to be reasonably similar to that which can be expected without Tallawarra (i.e. base case).
Test Three. Test Two but with the road link to Hayward's Bay.	This test shows LOS during AM peak to be similar to the LOS without Tallawarra (i.e. base case).	The LOS of the F6 and Princes Highway is expected to be similar to that without the Haywards Bay link. Improvements to Princes Highway (southbound) from LOS F to LOS E. Princes Highway merge at Yallah Interchange is expected to be better than LOS D.
Test Four. Test Two but with the North Facing F6 Ramps at Tallawarra. This, when compared to test two, shows the changes in flows and network behaviour as a result of including the ramps.	Little difference to 2036 Base Case without the ramps, except there is an improvement at the main entrance to the development site.	Similar LOS to the position without the ramps, except the northbound direction along the Princes Highway improves to LOS D, north of the ramps
Test Five. Test Two but with the Princes Hwy from the F6 off ramp to the Tallawarra main entrance three laned for with two lanes southbound.	The LOS of F along sections of the Princes Highway improves to better than LOS D when compared to the 2036 Base Case (current 2 lanes for the Princes Highway). This is a better situation than without the development.	The LOS of F along sections of the Princes Highway improves to better than LOS D when compared to the 2036 Base Case (current 2 lanes for the Princes Highway). This is a better situation than without the development.

TEST/ SCENARIO	WIDER NETWORK (AM)	WIDER NETWORK (PM)
Test Six. Test Two with an alternative road link to Hayward's Bay via Macquarie Place.	Intersections operate at same LOS as link to Haywards Bay Road (Test Three) and there is no improved performance of this option to Test Three.	Intersections operate at same LOS as link to Haywards Bay Road (Test Three) and there is no improved performance of this option to Test Three.
Test Seven. Test Two with the road link to Yallah Rd.	No performance difference to the Haywards Bay Road link in Test Three.	This alternative is found to be slightly less attractive to southbound vehicles. The LOS is identical to that with the Haywards Bay Road link.
Test Eight. The 2036 network with both the North Facing F6 Ramps and the Hayward's Bay Link.	The LOS with and without Tallawarra are similar with both the F6 ramps and Haywards Bay link. There is slight decrease in LOS on the Princes Highway as a result of Tallawarra.	Reduced LOS along Princes Highway south of Fowlers Road. Otherwise little difference in LOS as a result of the F6 ramps.

Based on the above findings it is apparent that Test Two (which includes traffic improvements) achieves an outcome similar to the base case (i.e. no Tallawarra development). All other tests are Test Two with other road improvement measures. However, the modelling is not indicating significant differences from Test Two or the Base Case. The Preferred Project Report is based on Test Three (i.e. Test Two plus the Haywards Bay link). The Preferred Project Report retains a Statement of Commitment regarding road improvements including the following (which includes the Test Two improvements):

- the conversion of the intersection of Cormack Ave and the Princes Highway into a two lane circulating roundabout;
- two lane circulating roundabouts at each of the two access points to the site from the Princes Highway;
- the provision of a roundabout at the site access point off Cormack Avenue;
- Upgrade Yallah Bay Road to a collector road;
- Construction of the north-south collector road;
- Consequential works to facilitate the site access points; and
- the road link to Haywards Bay via Haywards Bay Road as illustrated on the Concept Plan at **Appendix J**.

The Statement of Commitment in the EA has been modified following the inclusion of Haywards Bay link which involves.

- Removing the commitment relating to the provision of a two lane circulating roundabout at the intersection of the northbound off ramp and the Princes Highway. Gabites Porter has subsequently advised that this roundabout is not required as traffic from the south will use the Haywards Bay link to enter the development rather than travel up to the Princes and access through the main entrance.
- Removing the two laning of the Princes Highway southbound (from northbound freeway off-ramp to southern site access). This commitment has been removed the RMS in their submission of 7 November 2011 does not support the two lane upgrade as it the additional lane cannot be accommodated under the F6 bridge

structure without encroaching onto the cycle lanes and the removal of the cycle lane is also not supported by the RMS.

The Preferred Project report also includes amendments to the design of the cycleways which are outlined at **Section 4** of this report.

The RMS letter of 20 April 2012 raises questions regarding trip generation rates and trip distribution. Gabites Porter has reviewed the TRACKS model generation assumptions for the Tallawarra analysis. They have advised that the rates used for Tallawarra households in the development were higher than the average for the Wollongong/Shellharbour area. They also noted that the trips created during the AM and PM peaks are also in line with the RTA’s Guidelines. Gabites Porter has summarised the Wollongong/Shellharbour TRACKS model (known as WOLSH) against those used in their model which is reproduced in the table below.

Household Characteristics		
	WOLSH average	Tallawarra
Persons/Household	2.508	2.700
Cars/Household	1.558	1.945
Peak Trip Rates		
	RTA	Tallawarra
Peak Hour	0.85	0.91

The RMS in their letter of 20 April 2012 also notes that the F6 ramps would be “convenient” and “attractive” but the Gabites Porter modelling has indicated that they are not required. The RMS letter also notes that the Haywards Bay link would provide an attractive alternative and achieves performance improvements to the State and Regional network (namely Princes Highway and F6) and that it should be provided. As noted above, the Haywards Bay link, via Haywards Bay Road forms part of the Concept Plan application as illustrated on the Concept Plan at **Appendix J**.

2.5 Ecology

Issue

A revised Ecological assessment is required addressing the concerns of OEH. The Department supports the views of OEH that suitable mechanisms must be in place to ensure the effective and secure long term management of the proposed offsets, in perpetuity.

Proponent’s Response

Eco Logical Australia was engaged by TRUenergy to prepare a response to comments made by the OEH in their letter dated 7 November 2011 regarding the Tallawarra Lands Concept Plan application. A copy of Eco Logical’s letter dated 22 February 2012 is attached at **Appendix E**.

Figure 37 of the Environmental Assessment report prepared in relation to the Concept Plan proposal is an indicative future land ownership plan. The figure illustrates the intended future ownership of the conservation and open space areas within the Tallawarra Lands site. TRUenergy’s intention is that when individual precincts are granted development consent in the future, the adjacent environmental conservation areas will be transferred into public ownership subject to an agreement being reached between the relevant public authorities and TRUenergy. TRUenergy has commenced discussions with the relevant

public authorities who will ultimately own and/or manage the environmental conservation areas on the site. Given the preliminary nature of these discussions, it is considered premature to define the appropriate legal instrument (as identified in OEH's letter) to ensure protection in perpetuity.

Rather, in order to satisfy the Department and OEH, Eco Logical has recommended inclusion of the following commitment:

TRUenergy commits to entering into discussions with relevant authorities or recognised private conservation land managers such as Bush Heritage Australia to arrange for transfer of ownership of the areas of retained vegetation and/or dedicating the conservation lands to Wollongong City Council as reserves to be administered under the Local Government Act and/or establishing an in perpetuity Property Vegetation Plan under the Native Vegetation Act 2003 and/or applying for Conservation Agreement under the National Parks and Wildlife Act 1974 and/or establishing a conservation covenant under Nature Conservation Trust Act and/or securing in perpetuity the biodiversity outcomes of the retained vegetation of the E2 lands through other appropriate legal mechanism(s).

The above suggested commitment has been included as Commitment No. 18a in the updated Statement of Commitments detailed at **Section 5** of this report.

3 Response to Key Issues Raised in the Submissions

3.1 Agency Submissions

3.1.1 Roads and Maritime Services (RMS) submissions dated 7 November 2011 and 31 January 2012

The RMS letter of 7 November 2011 and raised a number of questions relating to assumptions used in the modelling and a suggestion that the Gabites Porter Tallawarra Lands Traffic Impact Assessment be peer reviewed.

The peer review was undertaken by Bitzios Consulting (refer **Appendix D**) and provided to the RMS. The RMS provided comments in their letter dated 31 January 2012 which has been addressed by Gabites Porter in their Porter Tallawarra Lands Traffic Impact Assessment report attached at **Appendix D**.

Discussion on the modelling questions as well as other issues regarding the Haywards Bay link is provided in the attachments at **Appendix D** and summarised in Section 2.4.

3.1.2 Office of Environment and Heritage (OEH) Submission Dated 7 November 2011 Biodiversity assessment and measures to avoid

Eco Logical in their response to OEH's comments (**Appendix E**) note that the LGW is EPBC listed. A referral (2011/6002) submitted under the EPBC Act has been determined by SEWPaC that the Concept Plan is a 'non-controlled action'.

As stated in the Ecological Assessment prepared by Eco Logical (Appendix 9 of the EA) (and in their letter at **Appendix E**) the proposal includes the removal of approximately 3.28ha of ILGW also listed under the TSC Act. This loss is spread across a number of small stands in the west and north east of the study area. This represents 11.07 % of the ILGW present within the study area. The remaining ILGW (26.35 ha) will be preserved along Duck Creek and incorporated into an environmental reserve. Other woodland vegetation that will be preserved and consists of a small stand of LWMF in the south west and a stand of Coastal Grassy Red Gum Forest / Moist Box – Red Gum Foothills Forest in the north east both of which are outside the proposed conservation areas (i.e. additional to zoning controls).

Eco Logical note that the placement of a road through the lower portion of the most consolidated stand of ILGW along Duck Creek will isolate a small portion of this stand of vegetation. However, they have formed the opinion that the connectivity along the Duck

Creek corridor is likely to be enhanced as a consequence of the proposal and the utilisation of the existing road disturbances.

It is also worth noting that Eco Logical has determined that 4.37ha of EEC is to be removed, compared to 117.23ha of EEC vegetation to be retained which is a significant environmental outcome (refer Ecological Assessment at Appendix 9 of the EA).

Further a VMP will be implemented across the site that includes revegetation works within the Duck Creek corridor. The VMP is also likely to reduce the current weed infestations in and increase the quality of this community within study area.

Table 1 of the Environmental Assessment lists the EECs to be removed and the ILGW is comprised of three stands of different communities including:

- Coastal Grassy Red Gum Forest - 0.54ha (comprising 0.42ha in residential, 0.12ha in roads),
- Moist Box – Red Gum Foothills Forest - 0.2ha (comprising 0.14ha residential, 0.06ha in roads); and
- Lowland Woollybutt - Melaleuca Forest - 2.54ha (comprising 0.75ha in employment, 0.47ha in residential and 1.32ha in roads).

The Preferred Project Plan has made amendments to the footprint of the northern and central precincts to address such issues as retaining the fig tree of Aboriginal significance and acoustic impacts from the power station. These amendments also have the benefit of reducing impacts on the Moist Box – Red Gum Foothills Forest and Coastal Grassy Red Gum Forest communities in these precincts. Eco Logical in noted that the ILGW is not a threatened species or population and they represent 11.07% of the ILGW present in the study area. The amendments to the Concept Plan will improve this outcome.

The Concept Plan aligns with the current zoning of the land. If the areas of ILGW to be removed are retained, then this would reduce the developable footprint, most significantly for the employment lands. The impacts of the removal of the ILGW has been assessed under the Threatened Species Conservation Act and the draft Guidelines for Threatened Species Assessment (DECC, 2005). Eco Logical concluded that *“whilst complete avoidance of all impacts on habitat for threatened species and EECs will not be achieved by the concept plan, the most significant areas of vegetation and habitat have been avoided and stringent mitigation measures will be implemented as part of the proposal which will further reduce potential impacts.”* An additional statement of commitment is also included in which TRUenergy commits to entering into discussions with relevant authorities to arrange for the transfer of the areas of retained vegetation. One option is to establish a Property Vegetation Plan under the Native Vegetation Act, 2003, as recommended by the Southern Region CMA.

Permissibility of proposed access roads and bridge in the E2 Environmental Conservation Zone

Roads are not permissible in the E2 – Environmental Conservation Zone under Wollongong LEP 2009. Despite this, State Environmental Planning Policy (Infrastructure) 2007 provides a mechanism for approval of the roads. Clause 94(1) of the SEPP states that “Development for the purpose of a road or road infrastructure facilities may be carried out by or on behalf of a public authority without consent on any land.” Clause 93 of the SEPP defines road infrastructure facilities as including vehicle bridges.

TRUenergy’s intention is to enter into a Planning Agreement with Wollongong Council to either dedicate to Council the land required for the access roads and bridge in the E2 zone and provide monetary contributions for Council to construct the infrastructure or alternatively dedicate the land to Council and undertake the construction on Council’s behalf before transferring ownership to Council. The timing for compliance will be

documented in the Planning Agreement. Under both options, the works will be carried out by or on behalf of a public authority satisfying Clause 94(1) of State Environmental Planning Policy (Infrastructure) 2007.

The infrastructure will need to be approved under Part 5 of the Environmental Planning and Assessment Act 1979 (EP&A Act). Accordingly, the following additional commitment has been included in the updated Statement of Commitments provided at **Section 5** of this report.

- TRUenergy commits to offering to enter into an agreement with Wollongong City Council whereby approval under Part 5 of the EP&A Act would be sought for the proposed roads and bridge in the E2 zone in accordance with Clause 94(1) of SEPP Infrastructure 2007. This process would put in place arrangements for the provision of the proposed roads and bridge in the E2 zone by or on behalf of Council. This includes the bridge across Duck Creek and the length of road either side of the bridge as well as the road that leads into the B6 Enterprise Corridor zoned land from the Princes Highway.

Flood Risk Management

The issues raised by the OEH relating to flood risk management are addressed at **Section 2.3** of this report and in the correspondence prepared by Bewsher Consulting attached at **Appendix C**. Bewsher Consulting note that an advanced copy of Council's draft Duck Creek Flood Study has been reviewed and no inconsistencies with the modelling undertaken for Tallawarra Lands and used for the preparation of the Concept Plan, have been identified. Bewsher Consulting also met with Council's Senior Floodplain Management Engineer on 23 March 2012 and discussed all the flood risk management issues associated with the project, including the content of the draft Duck Creek Flood Study. Council indicated its support for the flood risk management approach which has been adopted in draft Statement of Commitments which address flood risk management issues.

Aboriginal Cultural Heritage

The Statement of Commitments provided at **Section 5** of this report has been updated to address the concerns in relation to Aboriginal Cultural Heritage raised by the OEH via the insertion of additional commitment (No. 17a).

The ongoing involvement of OEH will be in accordance with the published OEH guidelines and applicable legislation.

Contamination

An explanation of the soil sampling methodology implemented by Douglas Partners is detailed in their letter dated 3 November 2011 submitted to the Department by email dated 14 December 2011. A copy of this correspondence is attached at **Appendix F**.

The Statement of Commitments provided at **Section 5** of this report has been updated to include the following additional commitment (No. 6a):

TRUenergy commits to managing ongoing site contamination matters in accordance with State Environmental Planning Policy No. 55 – Remediation of Land and the Managing Land Contamination: Planning Guidelines.

Noise

A response to the issues raised by OEH has been provided by SKM in their letter attached at **Appendix B**. Their comments are summarised as follows:

In their submission, OEH requested that the allowable contribution of noise levels from the proposed industrial areas be established so that acceptable noise levels are not exceeded in the proposed residential precincts. OEH suggested that a sound power allocation per lot

be calculated to control the acoustic impacts associated with the proposed industrial areas. The allocation of sound power levels per lot within industrial areas is possible where the development planning process has advanced to a stage whereby the size and location of individual lots within an industrial area are defined and the specific end land use is known. SKM agree that the allocation of sound power levels to individual industrial lots is a sound approach for future noise management on the Tallawarra Lands site. However, as the development planning has not advanced to a stage where individual industrial lot layouts and specific end land uses have been determined, it is not possible to allocate sound power levels per lot at this stage of the development process.

OEH also requested a cumulative acoustic assessment be carried out so that noise mitigation measures may be determined and assessed to address noise generated by the future industrial areas and the power station. As it is not possible to assess the sound power contribution of individual industrial lots or land uses within the development area, SKM advise that it is also not possible to further investigate mitigation measures associated with future industrial development. This is considered to more be appropriately addressed at the time lot layouts and specific end land uses within the industrial areas are being proposed.

Finally, OEH expressed concern at the reliance on building design within the Tallawarra Lands residential areas to meet the noise criteria outlined in the Tallawarra B approval. As noted above, due to the changes made to the lot layout in the Northern Residential Precinct, no receiver controls (such as building design and architectural mitigation) will be required to be applied to the future dwellings in order to comply with the relevant noise criteria.

3.1.3 NSW Office of Water Submission (NoW) Dated 11 January 2012

Eco Logical Australia was commissioned by TRUenergy to prepare a response to the issues raised by the NSW Office of Water (NoW). A copy of their response dated 22 February 2012 is attached at **Appendix G**. The letter addresses the following issues:

- Riparian Corridor Treatments;
- Duck Creek Corridor;
- Barrons Gully (North Shore Creek) and Brooks Creek Corridor;
- Yallah Creek Corridor Treatment;
- Kikuyu removal;
- Wollingurry Creek Corridor Treatment; and
- Lake Illawarra Foreshore.

3.1.4 Wollongong City Council (Council) Submission Dated 4 November 2011

A response to the issues raised by Council is provided in the following documents:

- Correspondence prepared by Bewsher Consulting attached at **Appendix C**.
- The Addendum Traffic Impact Assessment prepared by Gabites Porter attached at **Appendix D**; and
- Correspondence prepared by Anthony Savenkov, TRUenergy dated 8 November 2011 attached at **Appendix H**.

The correspondence prepared by Anthony Savenkov from TRUenergy was drafted and emailed to Council and the Department prior to additional work being undertaken by Gabites Porter, Bewsher Consulting and Corkery Consulting during preparation of the PPR and as such some of the comments in Mr Savenkov's response (such as those regarding provision of a Haywards Bay traffic link and the design of the cycleway network) have been superseded by recent events and the preparation of the Preferred Project Plan.

Accordingly, where there is any inconsistency between the response prepared by Mr Savenkov and the responses prepared by Bewsher Consulting, Gabites Porter and Corkery Consulting, the comments provided by Bewsher Consulting and Gabites Porter in the documentation attached at **Appendices C and D** and the development concept detailed in the Preferred Project Plan prevails.

3.1.5 Lake Illawarra Authority (LIA) Submission dated 4 November 2011 Foreshore Land, Riparian Corridors and Contaminated Land

The Statement of Commitments detailed at **Section 5** of this report has been updated to include the following additional commitment (No. 18b) regarding the negotiation of Voluntary Planning Agreements involving future land ownership transfers, remediation and implementation of the Vegetation Management Plan:

Prior to determination of the superlot subdivision development application, TRUenergy commits to holding discussions with the relevant authorities (such as Lake Illawarra Authority and Wollongong City Council) about entering into possible Voluntary Planning Agreements (VPAs) involving future land ownership transfers, infrastructure provision, site remediation and implementation of the Vegetation Management Plan etc. Any VPAs entered into will specify the works to be undertaken, the cost of the works, the party responsible for carrying out the works and the timeframe within which the works will be undertaken.

Urban Design

The block design of the residential areas is considered to be a matter more appropriately addressed at the subdivision stage for the individual precincts when the lot layout and fine grain street network has been planned in more detail. Nevertheless, it is noted that future dwellings on allotments adjacent to open space are likely to be double fronted to take advantage of the available views, thus encouraging passive surveillance across the open space and a sense of responsibility to ensure the adjoining land is not abused.

All future construction works on the Tallawarra Lands site will be required to implement sediment and erosion control measures consistent with the conceptual plans prepared by Northrop and included in their Report on Siteworks and Utilities Infrastructure submitted with the EA to ensure that water quality in Lake Illawarra is not adversely impacted.

3.1.6 Shellharbour City Council Submission dated 14 November 2011 Land Use Strategy

A key objective of the Concept Plan is to maximise employment outcomes (employment generation). In this regard, it is noted that employment generation is not solely correlated to industrial or business zoned land. In addition to the business and industrial land uses, employment can also be generated through other land uses such as the proposed retail precinct, retirement village site and school site. The mix of land uses can assist in achieving the Illawarra Regional Strategy's employment objectives and there is the potential for further employment lands subject to further investigation of geotechnical issues.

The Concept Plan also aims to ensure that the employment land is supported by viable overall development, an adequate population catchment and is located in areas where it is technically feasible.

In accordance with the provisions of State Environmental Planning Policy Infrastructure and State Environmental Planning Policy Seniors, both retirement villages and schools are permissible with consent in the B7 zone. Detailed commentary regarding this issue is provided at **Section 2.1** of this report.

Visual Impact

Richard Lamb and Associates prepared a Visual, Landscape and Scenic Resources Management Considerations report which was included as part of Appendix 15 to the EA.

The comments made by Shellharbour Council need to be considered in the context of the current zoning. Shellharbour Council notes that the *large lot residential and to a certain degree the residential on the elevated and sloping land in the proposed central precinct are likely to be highly visible and detract from the scenic quality of the site.* These residential areas are proposed in R2 zoned land. Therefore the Concept Plan does not alter the potential residential outcome from the current zoning of the land. The application is a Concept Plan and it does not include built form controls as these are best managed through the local provisions (e.g. development control plan) and built forms are a matter for consideration at future DA stage.

Lack of VPA Details and Infrastructure Provision

TRUenergy is proposing a statement of commitment to offer to enter into a VPA with Wollongong City Council regarding certain works. In addition, TRUenergy has also proposed a commitment to implement the utilities servicing strategies identified in the Report on Siteworks and Utilities Infrastructure, prepared by Northrop.

Unresolved geotechnical and contamination issues, primarily on proposed industrial zone and unresolved groundwater impacts in areas of environmental concern

The Groundwater Modelling Assessment Factual Report – Ash Ponds prepared by Coffey Environments dated May 2011 established the data needed to build a groundwater model. The groundwater model has been completed based on the May 2011 data and the findings are presented in the Groundwater Modelling Assessment Report – Ash Ponds, dated 3 April 2012. A copy of this report is attached at **Appendix M**.

This modelling has found that there is minimal difference in arsenic concentrations between the no development and development results. Coffey notes that arsenic concentrations in Duck Creek reach a level which is just above the ANZECC trigger value. Despite this the Lake Illawarra arsenic concentrations remain less than laboratory detection limits (i.e. less than ANZECC trigger values).

The modelling has also found that there are no differences in ammonium concentrations between the 'no development' and 'development' results. Both Duck Creek and Lake Illawarra ammonium concentrations remain below the ANZECC trigger value.

Coffey's 3 April 2012 report contains a number of recommendations that have been incorporated into the updated Statement of Commitments.

Coffey's Groundwater Modelling Assessment Report – Ash Ponds, dated 3 April 2012 has been reviewed by Eco Logical and an updated Groundwater Dependent Ecosystems Risk Assessment has been prepared which is at Appendix N.

Eco Logical's original report summarised the risk assessment in a matrix for each of the various risk impacts to the various groundwater dependent ecosystems. Following the updated modelling by Coffey, Eco Logical has found that the risk from contamination can be lowered from 'moderate-high' to 'moderate and low' subject to the implementation of a Construction Environment Management Plan (CEMP).

The recommendations from the previous Eco Logical report of December 2010 have been reviewed. The previous recommendations contained a table of additional information for the development of a CEMP. The Coffey report of April 2012 provides a greater level of information which has reduced the scope of Eco Logical's recommendations in relation to the additional work needed to inform the CEMP. The amended recommendations from Eco Logical have been reflected in an updated to commitment no. 21.

Concept Plan not referred to CASA re: obstacle limitation issues

Buildings are not proposed as part of the Concept Plan application. It would be inappropriate to impose height controls on land parcels at this point in time and the future

height of buildings is most appropriately dealt with at subsequent DAs. In this regard the EA notes that Clause 7.9 of Wollongong LEP 2009 contains a provision in relation to airspace operations. Clause 7.9 requires that when a DA is received and the consent authority is satisfied that the proposed development will penetrate the Limitation or Operations Surface, the consent authority must not grant development consent unless it has consulted with the relevant Commonwealth body about the application. Clause 7.9 provides the appropriate planning mechanism for the assessment of future buildings. This process is the same as would occur for any zoned land around the Illawarra Regional Airport.

With regard to noise impacts, Sinclair Knight Merz (SKM) prepared a Noise Assessment report which is included at Appendix 25A to the EA. SKM noted that the Tallawarra Lands site is outside of the ANEC 20 contour and noise impacts are considered acceptable for the proposed development types.

Shellharbour Council also expresses a concern that noise impacts would not be assessed under the Codes SEPP (i.e. SEPP (Exempt and Complying Development Codes) 2008). We assume that this comment relates to residential land uses. In this regard we note that under clause 1.18(2) of the SEPP, the complying development provisions of the SEPP only apply to the erection of a new dwelling house or an addition to a dwelling house on land in the 20-25 ANEF contours, if the development is constructed in accordance with AS 2021—2000, *Acoustics—Aircraft noise intrusion—Building siting and construction*.

Concerns regarding superlot subdivision and fragmented ownership

The Statement of Commitments in relation to provision of utilities services will be undertaken at DA stage. This would include a DA for super lot subdivision to ensure servicing occurs in a logical and orderly manner before subdivision and potential change in ownership occurs.

3.1.7 Southern Region Catchment Management Authority Submission Dated 2 November 2011

Native Vegetation Act 2003

As noted by the Southern Region CMA, the Native Vegetation Act 2003 is not required to be addressed under Part 3A of the EP&A Act. If future DAs require approval under the Native Vegetation Act 2003 then that process can still occur. In addition a new statement of commitment is proposed with the option of a Property Vegetation Plan under the Native Vegetation Act 2003 as one of the means of transferring areas of retained vegetation.

Extent of Clearing of Illawarra Lowlands Grassy Woodland (ILGW)

Discussion on removal of the ILGW EEC is provided in Section 3.1.2 and Eco Logical's response letter at **Appendix E** in response to a similar issue raised by OEH.

Ownership of Conservation Areas is Uncertain

A new statement of commitment has been proposed to explore the options for the future ownership or management of areas of retained vegetation. It is considered that significant delays in the determination of the Concept Plan would occur if the means of transferring ownership or management is required to be resolved before the Concept Plan is determined.

Short term focus of the Vegetation Management Plan and the need for better management of existing areas

The VMP has proposed a 5 year maintenance period for retained vegetation, which is not an uncommon time period. A statement of commitment is also proposed regarding the options for the transfer or management of retained vegetation. The arrangements for

management and maintenance are likely to be the subject of discussions with the relevant authorities that are to be approached regarding these lands.

3.1.8 Transport for NSW Submission dated 14 November 2011

Road Network

Transport NSW raises a comment that the Haywards Bay link is not proposed. The Gabites Porter Addendum Traffic Impact Assessment attached at **Appendix D** has included further analysis to assess the traffic volumes using such a link and the performance of the surrounding roads and intersections as a result of the link. Whilst they have found that traffic flows would not create congestion the AM and PM peaks could result in an unreasonable drop in amenity in the local Haywards Bay residential community. Despite this residential amenity impact, the link to Haywards Bay is included as suggested by the Department, RMS and Transport for NSW.

Public Transport – Bus Network

Since reviewing the Peer Review report prepared by Bitzios Consulting (attached at **Appendix D**), Northrop has revised their recommendations regarding the augmentation of bus services to service the Tallawarra Lands site. Northrop's original advice was detailed in the table to Section 12 of the Report on Siteworks and Utilities Infrastructure and recommended that:

- Existing bus services should be extended to connect Tallawarra Lands to Dapto and Albion Park Railway Stations prior to uptake of any residential land use (100% attributable to development on Tallawarra Lands).
- A new bus service should be provided connecting Tallawarra Lands with the future Huntley Railway Station if and when the new railway station is operational (25% attributable to development on Tallawarra Lands).

In their Peer Review report, Bitzios Consulting state as follows:

"It is unlikely that the proposed bus routes [to Tallawarra Lands] would be feasible as patron levels would not exceed the critical mass required to make it viable. Reconsideration of the proposed bus route strategy / plan is required unless the services are planned to be heavily subsidised by the developer on an on-going basis."

In response to the above, Northrop has issued a letter dated 22 March 2012 a copy of which is attached at **Appendix L**. The letter amends their recommendation to note that while consideration should be given to TRUenergy subsidising buses to service the site, it is unlikely that the development yield will make it feasible for any stage of the proposed Tallawarra Lands development. Accordingly, Northrop's updated recommendation states that:

- Existing bus services should be extended to connect Tallawarra Lands to Dapto and Albion Park Railway Stations if / when the development yield is sufficient to support redirecting / extending bus services (100% attributable to development on Tallawarra Lands).

Cycle and Pedestrian Network

As set out in Section 4 of this report, modifications have been made to the road and cycleway network to address concerns raised during the exhibition period by Council and members of the public including bicycle user groups.

The recommendation for provision of parking, lockers and showers etc is a level of detail that is considered to be beyond the Concept Plan.

3.1.9 Housing NSW Submission Dated 18 November 2011

Social Impact Assessment

The Tallawarra Lands site has been the subject of a comprehensive planning process to date including preparation of a Local Environmental Study (LES) which led to the land being rezoned. Throughout the LES process and during preparation of the EA, Elton Consulting has carried out extensive and ongoing community consultation. The feedback provided in relation to social infrastructure needs has been incorporated into the Concept Plan proposal. The community infrastructure likely to be required for the proposed population at Tallawarra Lands has been determined having regard for the forecast population and employment yields identified in the EA and the approach and service provision standards applied to infrastructure provision in the West Dapto Release Area, which is set out primarily in the Draft West Dapto Urban Release Area Section 94 Development Contributions Plan. This is considered to be an appropriate base as it is a recently prepared document for a similar urban release area in close proximity to the site. On this basis, a social impact assessment is not considered to be necessary at this stage of the planning process.

Density and Housing Mix

Housing NSW comments that the West Dapto release area has a higher maximum density of 25 dwellings per hectare. We note that the residential density being achieved in the recent residential subdivisions in West Dapto (i.e. Brooks Reach on Bong Bong Road) is averaging 15 dwellings per hectare.

The residential zones in the Tallawarra Lands site are zoned R2 - Low Density and does not contain any R3 zoned land that would be better at achieving such a density. A higher residential density could be achieved with other forms of permissible housing, such as attached dwellings, multi unit housing, semi-detached dwellings provided that consistency with the zone objective of providing a low density residential environment must also be capable of being achieved. In addition SEPP (Affordable Rental Housing) 2009 also provides a mechanism for other forms of housing, including social housing, to facilitate a dwelling mix.

The dwelling mix and density of the future residential precincts will be a matter relevant to the future DAs.

Design Guidelines

Housing NSW also suggests the preparation of design guidelines to guide future development. The future design of housing is a matter for future residential precinct DAs. The introduction of site specific guidelines is considered to potentially introduce another layer of development control in addition to the Housing Code SEPP and Wollongong DCP 2009. If such guidelines were prepared they would need to be consistent with these other instruments to avoid any conflicts in controls. The necessary consistency would then negate their purpose.

Location of seniors housing

The main entrance to the retirement living precinct is approximately 600m from the neighbourhood centre zone. The land is generally flat and footpaths will be created to provide access to the centre. The retirement living precinct is well located to be accessible to the neighbourhood centre.

The options for other forms of seniors housing or adaptable housing in the residential precincts can be explored as part of future DAs.

Bus services

Discussion regarding bus routes is provided in Section 3.1.8.

Use of tourist site

The specific tourist use is not known at this stage and can be determined at a later stage. Housing NSW appear to be concerned that a tourist use will influence the availability of permanent accommodation for residents and should not place pressure on nearby caravan park accommodation. These concerns are not considered to arise as a consequence of the Concept Plan as the nominated tourist site is consistent with the SP3 Tourist zone applying to this part of the site. The nature of the tourist facility and potential impacts on tourist accommodation is a detailed matter that is more appropriately considered at DA stage.

3.1.10 Heritage Council of NSW Submission dated 28 October 2011

The recommendations outlined in the Heritage Council's submission have been incorporated into the updated Statement of Commitments detailed at **Section 5** of this report (No. 17 and 17a).

3.2 Public Submissions

The issues raised in the public submissions can be grouped into the following broad topic areas:

Issue - Ensuring that parts of the Tallawarra Lands site continue to be available for horse agistment.

Comment – This is a commercial consideration for the landowner and is not a pertinent planning issue applicable to the Department's assessment of the Concept Plan proposal.

Issue - Ensuring that the proposed cycle network complies with the Wollongong Bicycle Plan, NSW Bicycle Plan and NSW Bicycle Guidelines.

Comment – Since lodging the Concept Plan application, TRUenergy has continued to undertake key stakeholder consultation including with representatives from the Illawarra Bicycle Users Group to discuss plans for the site. The Preferred Project Plan incorporates design changes to the cycle network (outlined in Section 4 of this report) to address the concerns raised. The Landscape Plan at **Appendix K** confirms that the RTA's *NSW Bicycle Guidelines 2003* have been applied in planning the network.

Issue -Ensuring the sufficient provision of employment lands and that priority is given to delivery of the employment lands.

Comment – As stated above, a key objective of the Concept Plan is to maximise the employment potential of the site by ensuring that the employment land is supported by viable overall development, an adequate population catchment and is located in areas where it is technically feasible.

Issue -Ensuring the sufficient provision of affordable housing.

Comment – This is a matter more appropriately addressed at the precinct development application stage. It is noted that the NSW Planning system contains legislation such as State Environmental Planning Policy (Affordable Rental Housing) 2009 that incentivises the provision of affordable housing.

Issue – EECs are threatened and degradation in recent years

Comment – The impacts on EECs have been addressed in the EA and supporting appendices. The alleged degradation in recent years is unrelated to the Concept Plan, however, the EA and the Ecological Assessment prepared by Eco Logical identifies mitigation measures to be implemented and the implementation of a Vegetation Management Plan that can provide protection of EECs when development proceeds.

4 Preferred Project

As requested by the Department, the following plans that formed part of the EA are attached at **Appendix I** printed to A3 size:

- Concept Plan prepared by Warren Lee;
- Landscape Plan summary prepared by Corkery Consulting; and
- Street Hierarchy Plan prepared by Corkery Consulting.

The project as modified is illustrated in the revised Concept Plan prepared by Warren Lee attached at **Appendix J** and the revised Landscaped Plan prepared by Corkery Consulting attached at **Appendix K**. These plans superseded the plans submitted with the EA (attached at **Appendix I**). The proposal illustrated in the revised Concept Plan is referred to as the 'Preferred Project' throughout this report.

The changes made to the development proposal are summarised as follows:

4.1 Changes to northern and central precinct footprints

Adjustments to the boundaries of the Northern and Central Precincts to ensure:

- That the land uses proposed accurately follow the zone boundaries (and there is no encroachment of proposed residential areas into adjoining zones).
- That none of the future residential allotments will be impacted by noise contours associated with the operation of the power station etc.
- That the fig tree of Aboriginal significance located to the east of Cormack Avenue can be retained as requested by the stakeholders who participated in the Aboriginal Archaeological study.

4.2 Modifications to road and cycleway network

Modifications to the road and cycleway network to address concerns raised during the exhibition period by Council and members of the public including bicycle user groups.

- Inclusion of the road link to connect Haywards Bay via Haywards Bay Road with the Tallawarra Site.
- The in-road cycle lane has been replaced with an out of road dedicated cycle path. Figure 29 in the Landscape Plan prepared by Corkery Consulting (**Appendix K**) has been updated to illustrate the location dedicated cycle lane and shared use paths.
- The dedicated cycle path will generally be located on the northern / western side of Yallah Bay Road but will cross over to the southern side just east of the industrial precinct
- The benefits of the modified cycleway design include provision of a safer path for cyclists by separating them from vehicles which will also provide a more enjoyable cycling experience, reduction in the required width of Yallah Bay Road and additional flexibility in designing the alignment and gradients of the cycle path by separating it from the roadway.
- Adjustments to Road Types as set out in Section 5.0 of the Landscape Plan prepared by Corkery Consulting.

4.3 Development Control Plan (clause 6.2 of Wollongong LEP 2009)

The Proponent confirms that it intends that the Concept Plan is to serve as a DCP for the purposes of clause 6.2 of the Wollongong Local Environmental Plan 2009.

5 Updated Statement of Commitments

A revised Statement of Commitments has been prepared to respond to the issues raised in the submissions and to reflect the Preferred Project described in **Section 4** of this report. The amendments made are highlighted in yellow in Table 1.

Table 1: Updated Statement of Commitments

No	Subject	Commitment	Timing	Responsible Monitoring Body/Authority
1	Local Infrastructure	TRUenergy commits to consulting with Wollongong City Council to put in place satisfactory arrangements for the provision of local infrastructure.	Arrangements to be submitted as part of a future development application which seeks consent to subdivide the Tallawarra Lands site into a series of superlots generally consistent with Figure 10 of the EA. The timeframe for delivery of the works will be detailed in the agreement when it is prepared.	Relevant Consent Authority
1	Roads / Bridge in E2 Zone	TRUenergy commits to offering to enter into an agreement with Wollongong City Council whereby approval under Part 5 of the EP&A Act would be sought for the proposed roads and bridge in the E2 zone in accordance with Clause 94(1) of SEPP Infrastructure 2007. This process would put in place arrangements for the provision of the proposed roads and bridge in the E2 zone by or on behalf of Council. This includes the bridge across Duck Creek and the length of road either side of the bridge as well as the road that leads into the B6 Enterprise Corridor zoned land from the Princes Highway.	Arrangements to be submitted as part of a future development application(s) relating to carry out road works for those parts of the site.	Relevant Consent Authority
2	State/Regional Infrastructure	TRUenergy commits to consulting with the State Government to put in place satisfactory arrangements for the provision of State/Regional	Arrangements to be submitted as part of a future development application which seeks consent to subdivide the Tallawarra Lands site	Department of Planning & Infrastructure

No	Subject	Commitment	Timing	Responsible Monitoring Body/Authority
		infrastructure.	into a series of superlots generally consistent with Figure 10 of the EA. The timeframe for delivery of the works will be detailed in the agreement when it is prepared.	
3	Superlot subdivision	TRUenergy commits to lodging a development application with Wollongong City Council to carry out a superlot subdivision generally in the manner illustrated in the indicative superlot plan prepared by LandTeam and included at Figure 10 of the EA. TRUenergy also commits to preparing more detailed subdivision plans and notes that further environmental assessment will not be required, having been adequately addressed through the Concept Plan application.	The timing of lodgement of a super lot DA is not contingent upon the timing of the Concept Plan application.	Relevant Consent Authority
4	Landscape Design	Future Development Applications will reference the Landscape Plan and adopt the Landscape Principles prepared by Corkery Consulting to guide the design and treatment of the following: <ul style="list-style-type: none"> the residential precincts areas, employment lands, and neighbourhood centre components of the Concept Plan, including the principles of visual amenity, function, ESD principles and biodiversity. the open space zones (e.g. boundary zones, riparian zones, drainage lines and stormwater 	Landscape plans to be further refined during the preparation of subsequent applications for the development of the super lots (or part of the super lots)	Relevant consent authority

No	Subject	Commitment	Timing	Responsible Monitoring Body/Authority
		quality ponds, recreational areas) of each Precinct, including the recommended planting schedule. <ul style="list-style-type: none"> the street network. cycling infrastructure. 		
5a	Geotechnical	TRUenergy commits to undertaking further geotechnical engineering assessment of those parts of the Concept Plan development footprint identified as being constrained in the Geotechnical, Contamination and Groundwater Investigation dated 30 July 2010, prepared by Coffey Environments.	To be undertaken on a stage by stage basis as part of future development applications on affected land for residential subdivision, road works or construction of buildings.	Relevant consent authority
5b	Groundwater	TRUenergy commits to implementing the recommendations in Section 12 of the Groundwater Modelling Assessment Report dated 3 April 2012 prepared by Coffey Environments.	Recommendations to be implemented as per the timing set out in each recommendation and on a stage by stage basis.	Relevant consent authority and NSW Office of Water
6	Land contamination	TRUenergy commits to continuing investigations into the areas of environmental concern (AECs) identified in the Geotechnical, Contamination and Groundwater Investigation dated 30 July 2010, prepared by Coffey Environments. The AECs to be further investigated are those parts of the site that fall within proposed development areas.	Further investigation to be undertaken on a stage by stage basis as part of future development applications on affected land.	Relevant consent authority
6a		TRUenergy commits to managing land contamination in accordance with State Environmental Planning Policy No. 55 – Remediation of Land and	Further investigation to be undertaken on a stage by stage basis as part of future development applications on affected land.	Relevant consent authority

No	Subject	Commitment	Timing	Responsible Monitoring Body/Authority
		the Managing Land Contamination: Planning Guidelines.		
7		TRUenergy commits to undertaking any requirements for remediation and management as part of the findings from the further investigations of the AECs.	Recommended remediation works to be carried out on a stage by stage basis at the time of (or just prior to) any earthworks for subdivision works in the AECs.	Relevant consent authority
8		TRUenergy commits to implementing the recommendations detailed in the Preliminary Hydrogeological Assessment – Ash Ponds dated 23 November 2010, prepared by Coffey Environments.	To be undertaken on a stage by stage basis as part of future development applications on affected land.	Relevant consent authority
9		The recommendations detailed in the Register of Hazardous Materials Report in Residences in Northern Precinct dated 15 March 2010 prepared by Coffey Environments will be implemented.	To be undertaken in on a stage by stage basis accordance with the timing specified in the Register of Hazardous Materials Report in Residences in Northern Precinct	Relevant consent authority
10	Urban design strategies	<p>The urban design strategies recommended in the Richard Lamb and Associates Visual, Landscape and Scenic Resource Management Considerations will be reviewed and adopted for future development in the following areas of the Concept Plan site as identified in the Report:</p> <ul style="list-style-type: none"> the large lot and central residential precinct in Visual Exposure Zone A and north shore residential precinct in Visual Exposure Zone B the lakeside residential precinct in Visual Exposure 	To be considered on a stage by stage basis during the preparation of future development applications for the identified zones only.	Relevant consent authority

No	Subject	Commitment	Timing	Responsible Monitoring Body/Authority
		<p>Zone D</p> <ul style="list-style-type: none"> the employment in Visual Exposure Zones A and D 		
11	Traffic Management	<p>TRUenergy commits to consulting with Wollongong City Council to put in place satisfactory arrangements to deliver the following road improvements:</p> <ul style="list-style-type: none"> the conversion of the intersection of Cormack Ave and the Princes Highway into a two lane circulating roundabout; two lane circulating roundabouts at each of the two access points to the site from the Princes Highway; the provision of a roundabout at the site access point off Cormack Avenue; Upgrade Yallah Bay Road to a collector road; Construction of the north-south collector road; and Consequential works to facilitate the site access points. 	<p>Road improvements will be undertaken on a stage by stage basis. The timeframe for delivery of the road improvements will be detailed in discussion regarding the satisfactory arrangements.</p>	<p>Relevant Consent Authority</p>
12	Ecologically Sustainable Development	<p>Precinct scale and other major development applications consistent with the Concept Plan will demonstrate how they address the relevant desired sustainability outcomes contained in the Sustainability Report prepared by Urbis and dated 18 October 2010.</p>	<p>Details of the response to be submitted on a stage by stage basis with the relevant development application(s).</p>	<p>Relevant consent authority</p>
13	BASIX	<p>Future residential development will achieve potable water and</p>	<p>Compliance to be demonstrated on a stage by stage basis</p>	<p>Relevant Consent</p>

No	Subject	Commitment	Timing	Responsible Monitoring Body/Authority
		greenhouse gas reductions equivalent to BASIX +10% (2010 = 50% reduction).	in the development application submissions.	Authority
14	Sustainability for commercial and retail	<p>Future commercial and retail development will aspire to a target of a 40% reduction in:</p> <ul style="list-style-type: none"> operational greenhouse gas emissions associated with energy use; and operational potable water use <p>in comparison to similar types of development in NSW.</p>	Compliance to be demonstrated on a stage by stage basis in future development application submissions.	Relevant Consent Authority
15	Utilities infrastructure	TRUenergy commits to implementing the utilities servicing strategies identified in the Report on Siteworks and Utilities Infrastructure, prepared by Northrop.	Further investigations to be undertaken on a stage by stage basis with development applications.	Relevant Consent Authority
16	Aboriginal heritage	TRUenergy commits to implementing the recommendations of the Aboriginal Archaeological Assessment.	To be implemented on a stage by stage basis with the relevant development application.	Relevant Consent Authority
17	European Heritage	<p>TRUenergy commits to implementing the management recommendations in Section 7.2 of the <i>Statement of Heritage Impact: Tallawarra Lands Part 3A</i>, prepared by Biosis Research, dated September 2010.</p> <p>TRUenergy commits to obtaining assessments of significance / assessments of archaeological potential in relation to sites TH2, TH3, TH4, TH5, TH9 and TH10.</p> <p>TRUenergy commits to ensuring that if substantial intact archaeological deposits and/or State significant</p>	To be implemented on a stage by stage basis with the relevant development application.	Relevant Consent Authority

No	Subject	Commitment	Timing	Responsible Monitoring Body/Authority
		<p>relics not previously identified are discovered, work will cease in the affected area(s), the Heritage Council will be notified and the required assessment / approval will be sought prior to works continuing in the affected area(s).</p>		
17a	Heritage	<p>TRUenergy commits to preparing a Heritage Management Plan detailing how construction impacts on Aboriginal and non-Aboriginal heritage will be minimised and managed. The Plan shall include, but not necessarily be limited to:</p> <p>(i) Specific measures to be applied to works undertaken in close proximity to identified Aboriginal and non-Aboriginal heritage items and "Defined Areas of Aboriginal Sensitivity" to minimise and avoid impacts on these items;</p> <p>(ii) How heritage items (Aboriginal objects and relics or works) discovered during the construction will be considered and managed. This shall include a component within the site induction program for construction workers on Aboriginal and non-Aboriginal heritage within the site area;</p> <p>(iii) Stop-work and notification procedures to be implemented compliant with Heritage Office and OEH guidelines should any unexpected intact archaeological deposits and/or State significant relics not previously identified be discovered;</p>	<p>Details to be provided on a stage by stage basis and submitted with the relevant construction involving site excavation works</p>	<p>Relevant Consent Authority</p>

No	Subject	Commitment	Timing	Responsible Monitoring Body/Authority
		and (iv) The procedure for continued consultation with the relevant Aboriginal stakeholders.		
18	Ecology	TRUenergy commits to implementing the mitigation measures detailed in Table 12 of the Ecological Assessment report dated 4 March 2011 (Appendix 9 of the EA).	Mitigation measures to be implemented on a stage by stage basis in accordance with the timing requirements contained in Table 12. The mitigation measures detailed in Table 12 should be included in any conditions of consent issued in relation to future development applications.	Relevant Consent Authority
18a	In perpetuity security of biodiversity outcomes	TRUenergy commits to entering into discussions with relevant authorities, or recognised private conservation land managers such as Bush Heritage Australia, to arrange for transfer of ownership of the areas of retained vegetation; and/or; dedicating the conservation lands to Wollongong City Council as reserves to be administered under the <i>Local Government Act</i> ; and/or; establishing an in-perpetuity Property Vegetation Plan under the <i>Native Vegetation Act 2003</i> ; and/or applying for Conservation Agreement under the <i>National Parks and Wildlife Act 1974</i> ; and/or establishing a conservation covenant under <i>Nature Conservation Trust Act</i> ; and/or	To be undertaken on a stage by stage basis prior to completion of relevant works under the <i>Vegetation Management Plan</i> referred to in Commitment No. 19	Relevant authority or recognised conservation land manager Wollongong City Council Catchment Management Authority NPWS/DECCW Nature Conservation Trust of NSW.

No	Subject	Commitment	Timing	Responsible Monitoring Body/Authority
		securing in perpetuity the biodiversity outcomes of the retained vegetation of the E2 lands through other appropriate legal mechanism(s).		Relevant consent authority
18b		TRUenergy commits to holding discussions with the relevant authorities (such as Lake Illawarra Authority and Wollongong City Council) about entering into possible Voluntary Planning Agreements (VPAs) involving future land ownership transfers, infrastructure provision, site remediation and implementation of the Vegetation Management Plan. Any VPAs entered into will specify the works to be undertaken, the party responsible for carrying out the works and the timeframe within which the works will be undertaken.	Prior to determination of the superlot subdivision DA.	Relevant consent authority
19	Ecology	TRUenergy commits to implementing the Vegetation Management Plan prepared by Eco Logical dated 4 February 2011, unless other arrangements are made arising out of VPA discussions referred to in Commitment 18b.	Implementation of the Vegetation Management Plan to occur on a stage by stage basis and should be required as a condition of consent on future DAs.	Relevant Consent Authority
20		TRUenergy commits to implementing the Environmental Management Strategy prepared by Eco Logical dated 4 February 2011.	Implementation of the Environmental Management Strategy to occur on a stage by stage basis and should be required as a condition of consent on future DAs.	Relevant Consent Authority
21		TRUenergy commits to the recommendations detailed at Section 5.1 of the GDE Risk Assessment prepared by Eco Logical Australia dated 19 April 2012.	Compliance with the recommendations of the GDE Risk Assessment to occur on a stage by stage basis and may be regulated via the conditions of consent	Relevant Consent Authority

No	Subject	Commitment	Timing	Responsible Monitoring Body/Authority
			on future DAs.	
22	Bushfire	TRUenergy commits to implementing the recommendations and management measures contained in the Bushfire Planning Assessment prepared by Eco Logical Australia dated 4 February 2011,	The recommendations are to be implemented on a stage by stage basis as required as part of the assessment of future DAs.	Relevant Consent Authority
23	Climate Change	TRUenergy commits to implementing the 'adaptation considerations' contained in the Climate Change Assessment report prepared by BMT WBM.	To be implemented on a stage by stage basis at the appropriate time of the design development as per the Climate Change Assessment report.	Relevant Consent Authority
24	Access	TRUenergy commits to working with the Lake Illawarra Foreshore Authority to facilitate public access to the foreshore.	Timing will be determined as part of the VPA discussions referred to in Commitment 18b, if such discussions reach an agreement.	Lake Illawarra Authority and Wollongong City Council.
25	Demolition	TRUenergy commits to undertaking demolition activities in accordance with AS 2601-2001: <i>The Demolition of Structures</i> .	At the time of demolition and on a stage by stage basis.	Relevant Consent Authority
26		TRUenergy commits to employing licensed contractors to remove all contaminated material and to requiring them to comply with the provisions of the <i>Occupational Health & Safety Regulation 2001</i> .	Prior to commencement of works associated with removal of contaminated material and on a stage by stage basis.	Relevant Consent Authority
27		TRUenergy commits to ensuring that demolition activities will only be carried out between 7am and 5pm Monday to Saturday and that no demolition activities will be carried out at any time on a Sunday or a public holiday.	On going during construction	Relevant Consent Authority

No	Subject	Commitment	Timing	Responsible Monitoring Body/Authority
28	Flood Risk Management	<p>Future DAs will adopt the following flood risk management principles. It is noted that these principles exceed, or are equal to, those currently applied by Wollongong City Council in respect of the West Dapto Release Area:</p> <ul style="list-style-type: none"> All access roads to development precincts to be at or above 100 year flood level after allowing for year 2100 climate change impacts. Filling for development areas to be at a minimum level of the 100 year flood level allowing for year 2100 climate change impacts. Development floors levels for each land use to be at the flood planning levels set by Wollongong City Council's DCP (Chapter E13). 	Design to be incorporated into future development applications and on a stage by stage basis.	Relevant development application consent authority