17 January 2014

Robert Byrne
Senior Planner
NSW Department of Planning & Infrastructure
23-33 Bridge Street
Sydney NSW 2000

LIFE CITY WOLLONGONG - PREFERRED PROJECT REPORT ECOLOGY REVIEW

Dear Robert,

The purpose of this letter is to provide an ecological review of the Preferred Project Report ("PPR") for the development of Life City Wollongong, a cancer and medical hospital facility. Our findings are presented in **Appendix A**.

Under the current PPR previous ecological concerns raised by Cumberland Ecology and OEH regarding the low condition, regenerating ISR patch have been taken into consideration by the proponent in the revised development plans. The decision to limit most of the clearing of vegetation to areas outside of the community on the subject site is considered to be a good ecological outcome, though quantities of areas that are to be cleared need to be clearly communicated.

We believe some further information is required to clarify the intended conservation outcome and have provided some additional recommendations in the conclusion to this report.

If you would like to discuss this matter further, please contact either Bryan Furchert or myself on 9868 1933.

Yours sincerely,

David Robertson

Dr David Robertson
Director
david.robertson@cumberlandecology.com.au

Appendix A

Ecological Review of Preferred Project Report

A.1 Introduction

The proposed development is for the land within Lot 4 DP 258635 Warwick Street, Lot 2 DP 534116 Nottingham Street and Lot 2 DP 249814 York Street at Berkeley (hereafter collectively referred to as the 'subject site'). The subject site covers 16.7 ha.

This letter provides the following:

- Review relevant ecological components of the document Life City Wollongong – Preferred Project Report (24th October 2013);
- Provide ecological advice pertaining to the acceptability of the proposal from an ecological perspective; and
- Provide ecological advice on the viability of the revised Statement of Commitment found within the PPR.

A.2 Background

Cumberland Ecology was formerly asked to review the reports prepared by Kevin Mills and Associates for the proposed development of the subject site, including the Flora and Fauna Impact Assessment (Kevin Mills & Associates 2012) and the supplementary Review of Ecological Issues (Kevin Mills & Associates 2013)

Cumberland Ecology was also asked to address concerns raised by the NSW Office of Environment and Heritage (OEH) that the vegetation community on the subject site classified by Dr Mills as Mixed Regrowth Forest/Woodland was consistent with the listing for the Endangered Ecological Community (EEC) Illawarra Subtropical Rainforest (ISR). OEH noted that the flora species list provided by Dr Mills contained eight of the 29 of the listed characteristic species for the community. Following a site inspection, we concurred with OEH that the community is consistent with the listing for ISR. It was considered that despite a lack of tall trees on the subject site, the community would regenerate on the subject site with time, particularly as many rainforest species have seeds dispersed by bats and birds (Cumberland Ecology 2013)). We added the caveat that the community as it exists on the subject site is in poor condition as it is infested by weeds, is native species poor, and currently regenerating from former farmland.

Concept plans previously proposed by the proponent for the development of the subject site involved clearing up to one hectare of the low condition, regenerating ISR. A Statement of Commitments from the proponent in May 2013 stated that clearing of the vegetation would be offset by the regeneration of nine hectares of forest elsewhere on the subject site.

Cumberland Ecology concluded that ISR occurs on the subject site and recommended that the concept plan be modified to shift the development predominantly into cleared land.

Cumberland Ecology has been asked to review ecological components of the PPR and to provide advice as to the ecological acceptability of the development plan as proposed.

A.3 Methods

Cumberland Ecology reviewed the PPR for the Life City Wollongong development and assessed whether the Statement of Commitments contained within were adequate to address ecological issues pertaining to the development of the subject site.

No further field reconnaissance was deemed necessary because of our familiarity with the site.

A.4 Key Findings

A.4.1 ***Section 4.3 Biodiversity***

Section 4.3 of the PPR addresses biodiversity issues related to the proposed development. It shows that the development has been modified to avoid clearing of the majority of the low condition, regenerating ISR. **Figure 1** (**Appendix B**) shows that most of the development footprint is now within areas mapped as kikuyu grassland which is dominated by exotic species and has very little ecological value.

The current proposed development footprint will also involve the clearing of an area of Wattle Forest/Woodland, predominately consisting of *Acacia mearnsii* (Black Wattle) and the exotic *Lantana camara* (Lantana). This area has low ecological value, however it may provide some habitat for native mammal, bird and reptile species.

The current version of the project would require a car park to be built on the periphery of the low condition, regenerating ISR but it is not mentioned how much vegetation will need to be cleared for construction of the car park. The PPR does not quantify the extent of any of the vegetation communities that will be cleared for the development. It is standard practice for a Fauna and Flora Assessment with a Development Application to include the areas of vegetation communities that will be cleared for a development and this is information that should be provided by the proponent of the development.

While the access road off Nolan Road is shown on the Preferred Project Concept Plan (**Figure 1 – Appendix B**) and the road is mentioned in the document, it is not mentioned in Section 4.3 or addressed in terms of ecological implications. It is mentioned in this section that the majority of the eastern and south-eastern areas of the subject site which contain the highest native plant diversity will be retained. Additionally, it is not mentioned that the access road from Nolan Road will bisect the core area of the low condition, regenerating ISR, nor quantified the area that will be cleared. This information should be provided. Construction of a road through this area will result in edge effects, and exacerbated light penetration into the understorey which will favour further weed growth. Road edges are also a source of weed propagules that are dispersed by attachment to vehicles.

Construction and maintenance of Asset Protection Zones (APZs) has been discussed within the document, however the clearance associated within the APZs have not been discussed. The area of the community to be removed for these purposes needs to be stated.

The current PPR has limited development of the subject site to a separate catchment to the majority of the native vegetation present. This is a good ecological outcome for the subject site, as it will limit weed propagule dispersal from the grounds of the facility, and will reduce the runoff of nutrients from fertilisers and other contaminants from maintenance activities of the grounds into the low condition, regenerating ISR patch.

A.4.2 ***Section 6.4 – Revised Statement of Commitments***

The revised Statement of Commitments in the current PPR commit to:

- Regeneration of retained Illawarra Subtropical Rainforest as an off-set package for removal of vegetation;
- Maintaining vegetation in the eastern area of the subject site except where clearing is required for road construction, car park construction, and asset protection;
- Creation of a vegetation/habitat management plan prior to commencing development for restoration of the low condition, regenerating ISR; and
- Revegetation works in stages as the development commences to be undertaken, plans of which are to be developed in conjunction with OEH.

The commitments in Section 6.3 outline an adequate biodiversity strategy for the subject site, particularly if the strategy for restoration of low condition, regenerating ISR is developed in consultation with OEH.

The original statement in the now superseded May 2013 PPR Statements of Commitment stated that nine hectares of forest would be restored as an off-set for clearing under a hectare of vegetation. The current Statement of Commitments has been changed to: *"As an off-set package, the proposed forest regeneration of the retained Illawarra Subtropical Rainforest will be undertaken in compensation for removing under one (1) hectare of regrowth native and weed vegetation"*. The amended wording has omitted the quantity of forest to be regenerated and implies that the entire low condition, regenerating ISR community on the subject site will undergo regeneration. It is not clear within the document what the words "regeneration" and "restoration" mean. If "regeneration" and "restoration" are used to define weed control across the community occurrence on site and revegetation with a diverse array of ISR species, this is a desirable ecological outcome. The phrasing of the statements regarding regeneration and restoration are somewhat vague and clarification of exactly what works/funding are being committed to should be provided by the development proponent before development consent is granted. It is also essential that it is clarified whether the commitment is to revegetate and restore the entirety of the low condition, regenerating ISR present on the subject site, or only smaller areas of the community on the subject site in a ratio to the area of the community to be cleared.

A.5 Recommendations

In order to achieve the best ecological outcomes for the subject site, we recommend the following:

- The area of low condition, regenerating ISR should be subject to an appropriate conservation mechanism, (ie. covenant or zoning) to ensure the entirety of the community remaining on the subject site following road, car park, and APZs are constructed, is permanently protected and Statements of Commitment are upheld;

- The low condtion, regenerating ISR community on the subject site should be subject to a detailed management plan that ensures that it is gradually improved over time. The first priority of a management plan should be removal of noxious weeds such as *Lantana camara, Ligustrum lucidum* and *Ligustrum sinense*., which outcompete native groundcover and shrub species, and prevent germination of native seeds by blocking access to light. Over time as weed densities are reduced native species chosen from the Final Determination for ISR should be replanted to improve diversity on the subject site. Exotic weeds should continue to be controlled, so plantings and regenerating seedlings of species currently present are not smothered. Particular attention should be paid to ensuring new weed outbreaks along the future access road through the community are monitored and controlled. These works should be undertaken by qualified employees of a suitable bushland regeneration company;

- A stipulation of the dedication of ongoing funds to provide for regeneration/restoration of low condition, regenerating ISR on the subject site as outlined in the management plan; and

- Areas of particular vegetation communities to be cleared within the development footprint should be clearly stated by the proponents of the development.

A.6 Conclusion

Under the current PPR previous ecological concerns regarding the low condition, regenerating ISR patch have been taken into consideration by the proponent in the revised development plans. The decision to limit most of the clearing of vegetation to areas outside of the community on the subject site is considered to be a good ecological outcome, though quantities of areas that are to be cleared need to be clearly communicated.

The commitments to restoration, regeneration, and revegetation of the low condition, regenerating ISR appear to be good ecological outcomes, however, the extent of the commitments the proponent is making is unclear. The proponent needs to define in precise language exactly what works and funding are being committed to, and whether they apply to the extent of the occurrence of the low condition, regenerating community on the subject site.

Commitments from the proponent to the extent of our recommendations above would be adequate to offset the loss of areas of the community for the car park, asset protection zones, and bisection by the access road.

ISR is an EEC that is highly fragmented and poorly conserved in reserves across its range. Improvement of a low condition, regenerating patch and the potential to add to the area of the community conserved will benefit the community as a whole.

A.7 References

Cumberland Ecology (2013). LIFE CITY HIGH-TECH HOLISTIC UNDER DOPI 2012/227 - PART 3A ECOLOGY REVIEW. Sydney.

Kevin Mills & Associates (2012). Flora and Fauna Assessment, Proposed Hi-Tech Holistic Cancer And Medical Facility, Lot 4 DP 258635 Warwick Street, Lot 2 DP 534116 Nottingham Street and Lot 2 DP 249814 York Street, Berkeley, City of Wollongong Jamberoo.

Kevin Mills & Associates (2013). Review of Ecological Issues Life city Wollongong.

Appendix B

Figures

Coordinate System: MGA Zone 56 (GDA 94)

Legend

- Site Boundary

Vegetation Communities (Kevin Mills & Associates)

- Kikuyu Grassland
- Low Condition Regenerating Illawarra Subtropical Rainforest
- Wattle Forest/Woodland

Grid North

Image Source:
Preferred Project Report
- Life City Wollongong
(TCG Planning)

Data Source:
Kevin Mills & Associates (2012)
Flora and Fauna Assessment

CUMBERLAND ECOLOGY

I:\...\13071\Figures\Figure 1 Preferred Project Concept Plan with Onsite Vegetation Communities

Figure 1 Preferred Project Concept Plan with Onsite Vegetation Communities

50 0 50 100 150 200 m