Edmondson Park Ecological Assessment – Addendum 1

10SYDPLA-0024

Prepared for
Landcom

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Contents

List of Tables

1 Background

A proposed adjustment to the Regional Park boundary at Edmondson Park will result in an equal area swap of land.

The Department of Planning has requested detailed information on the composition and condition of the land that will be lost and added as part of this proposal.

Further information has also been requested relating to the areas of Certified ENV that are now proposed to be retained.

2 Methodology

The site has been surveyed twice by Eco Logical Australia ecologists:

Date: 13th July 2010

Surveyors: Ross Wellington and Steven House

Effort: 4 person hours

Date: 28th July 2010

Surveyors: Steven House

Effort: 1.5 person hours

The second survey on the 28th July was attended by DECCW staff.

The survey used the random meander methodology to identify flora species, assess canopy coverage and overall condition of the vegetation. Canopy cover was assessed according to NPWS guidelines (2002) as indicated in Table 1 below.

Table 1. Canopy Codes

Code	Area (ha)	Crown Cover Projection Density	Description
A	> 0.5	>10%	Relatively intact native tree canopy. Dominant canopy and understorey species identified.
B	> 5	5 % - 10%	Larger areas of remnant vegetation with a low or discontinuous canopy. Often found on the disturbed edges of larger remnants. Assessed to identify the dominant canopy species only, and understorey characteristic not assessed.
C	> 5	<10%	Areas of native vegetation that do not have a Eucalypt canopy cover.
TX	> 0.5	<10%	Areas of native trees with very discontinuous canopy cover. Tree cover only with agriculture but no major urban or suburban development.
TXr	> 0.5	<10%	Areas of Tx (as above) located in areas where there rural residential development.
TXu	> 0.5	<10%	Areas of Tx (as above) located where the dominant land use is urban (residential/industrial etc).

Source: Table 4 in the Interpretation Guidelines for the Native Vegetation Maps of the Cumberland Plain Western Sydney (NPWS 2002a).

3 Results

A description of the vegetation proposed to be lost and added to the Regional Park is provided below.

3.1 AREA PROPOSED TO BE REMOVED FROM THE REGIONAL PARK

The vegetation in this area is predominantly cleared land with a mix of native and exotic grasses. The native grasses are dominant with Kangaroo Grass *(Themeda australis)* and three-awned spear grass *(Aristida vagans)* being the most common species. African Lovegrass *(Eragrostis curvula)* is the dominant weed species.

A small number of Grey Box *(Eucalyptus molucanna)* are located on the site. Surrounding the base of these trees were stands of African Olive *(Olea europaea)*. The native canopy cover is estimated to be less than 5% and would be classified as 'TX' under the Western Sydney Vegetation Mapping Guidelines.

3.2 AREA PROPOSED TO BE ADDED TO THE REGIONAL PARK

In contrast to the predominantly cleared area that is proposed to be removed from the park, the area to be added displays good structural diversity with well developed native canopy, shrub and ground layers.

The canopy layer is dominated by Grey Box with a Crown Cover Projected Density (CCPD) of 40%. The trees are generally young in age and range in height from 8 – 15 metres. A dense shrub layer was found on the site dominated by Native Blackthorn *(Bursaria spinosa)*. African Olive is present throughout the site where it often forms dense stands around the base of the Grey Box trees. The ground layer was relatively sparse due in large part to a dense layer of leaf litter afforded by the extended tree cover and lower levels of light filtration to the ground layer.

This vegetation meets the NPWS (2002) description of 'A' class vegetation and is contiguous with surrounding areas of native vegetation that have been mapped as 'A' class by the NPWS and exceed 20 hectares in total area. Given the good canopy cover now observed it is uncertain if the original classification of this vegetation was erroneous. Alternatively as the NPWS mapping was based on 1998 dated aerial photos, the current condition of the site could be reflective of 12 years of regrowth that has occurred since the aerial photos were taken.

3.3 AREAS OF CERTIFIED ENV PROPOSED TO BE RETAINED

As shown in figure 1, there are 6 areas of Certified ENV that are now proposed to be retained. ENV is defined in the biodiversity certification order as;

Areas of existing trees (including any sapling) that:

a) *Had 10% or greater over-storey canopy cover present,*

b) *Were equal to or greater than 0.5 ha in area, and*

c) *Were identified as 'vegetation' on maps 4 and 5 of the draft Growth Centres Conservation Plan*

Table 2, below assessed each of the 6 proposed ENV additions against the above criteria and demonstrates that the ENV criteria have been met.

Table 2. Comparison of certified ENV proposed to be retained with ENV classification criteria

Area	Criteria 1 (canopy cover)	Criteria 2 (patch size)	Mapped as 'vegetation'
1	>50%	4.1 ha	Yes
2	20%	>20 ha	Yes
3	25%	1.5 ha	Yes
4	25%	>20 ha	Yes
5	40%	>20 ha	Yes
6	30%	>20 ha	Yes

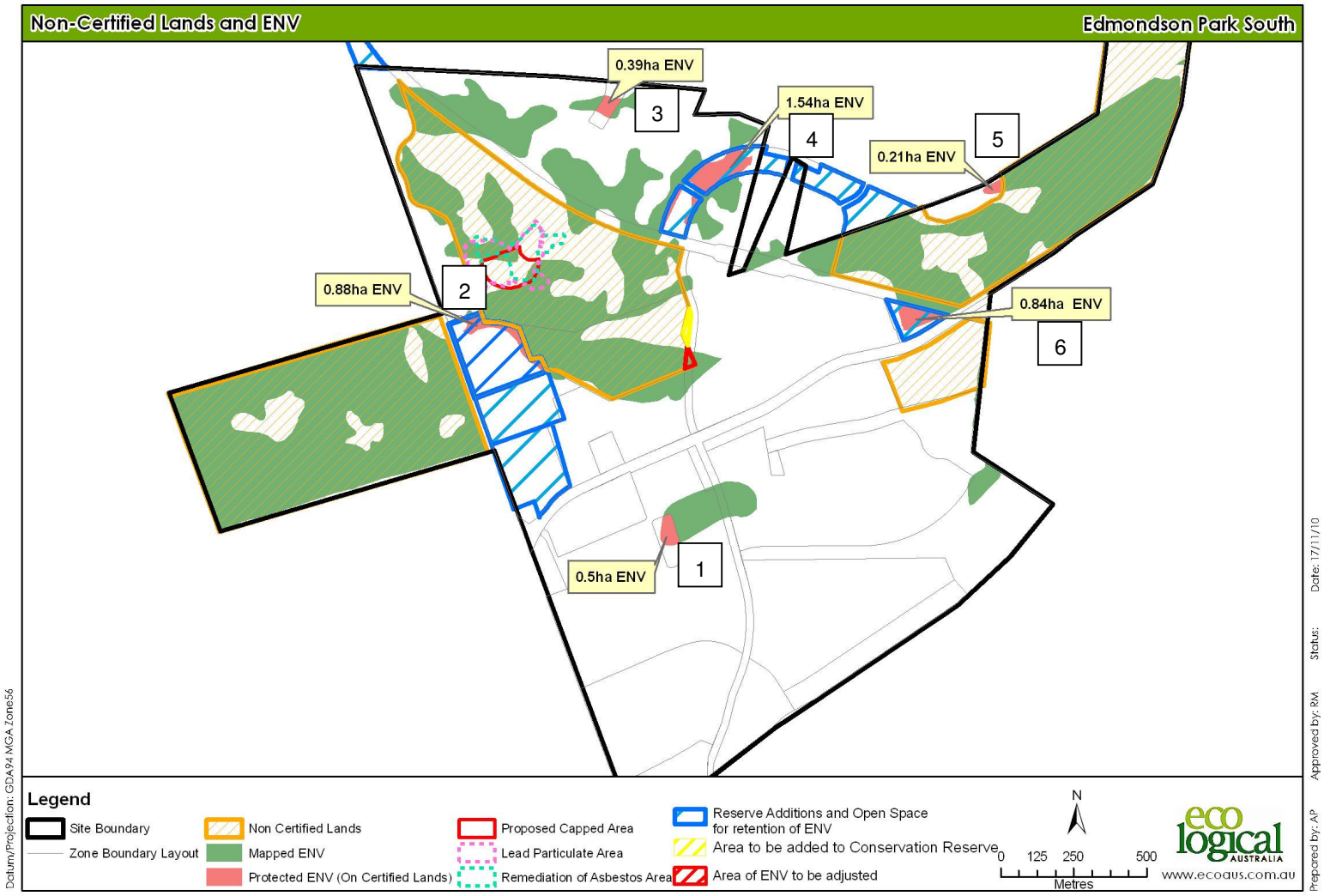

Figure 1. Biodiversity certification and certified ENV proposed to be retained

4 Conclusion

The proposed modifications would result in the loss of predominantly cleared vegetation and the addition of high quality 'A' class vegetation.

The description of ENV in the Growth Centres Biodiversity Certification Order is vegetation;

(a) had 10% or greater over-storey canopy cover present,

(b) were equal to or greater than 0.5 ha in area, and

(c) were identified as "vegetation" on maps 4 and 5 of the draft Growth Centres

Conservation Plan.

The vegetation that is proposed to be removed from the Regional Park does not meet the above description as it has been cleared and the canopy cover is estimated to be less than 5%.

The vegetation that is proposed to be added to the Regional Park meets conditions a and b above, but is not identified on maps 4 or 5 of the draft Growth Centres Conservation Plan.

The 6 areas of certified ENV that are proposed to be retained meet all the ENV criteria and collectively add up to 4.36 hectares.

References

NSW NPWS, 2002. Interpretation guidelines for the Native Vegetation Maps of the Cumberland Plain, Western Sydney.