



**PRELIMINARY
FLORA AND FAUNA ASSESSMENT
LIMITATIONS REPORT**

MINTO RENEWAL PROJECT

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For Housing Finance Investment Group

Amended October 2005

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Executive Summary

This study been undertaken to determine any limitations in terms of the Minto Renewal project. The results of the preliminary assessment indicated that there are very few limitations to the redevelopment of the area other than Piggot Reserve for which Eight Part Tests of Significance will be required. This is because the vegetation within this reserve is remnant Shale Sandstone Transition Forest, which is listed as an Endangered Ecological Community.

Contents

1.	INTRODUCTION	1
1.1	Background	1
1.2	Study Site.....	1
1.3	Desktop Study	1
1.4	Statutory Requirements	1
2.	FLORA	2
2.1	Introduction and Methodology.....	2
2.2	Taxonomy and References	2
2.3	Vegetation Description	2
2.4	Vegetation Analysis	2
3.	FAUNA	3
3.1	Introduction and Methodology.....	3
3.2	Taxonomy and References	3
3.3	Fauna Species Detected	3
3.4	Site Habitat Value.....	3
4.	REFERENCES	5
	APPENDICES.....	6
	APPENDIX 1 - FLORA SPECIES RECORDED FROM THE SITE.....	6
	APPENDIX 2 - FAUNA SPECIES RECORDED FROM THE SITE.....	7

1. Introduction

1.1 Background

The Housing Finance Investment Group engaged Anderson Ecological Surveys Pty Ltd to conduct a Flora and Fauna Assessment in relation to the Minto Renewal Project. This first stage of the assessment entailed a preliminary scoping study to identify any limitations in terms of flora and fauna to the redevelopment. This report was amended in October 2005 to take account of an area not previously examined in the previous report. This area is shown on the map in the appendix of this report.

1.2 Study Site

The study site entails the precincts of Darcy, Caroline, Erskine, Fenton Piggot, Eagleview, Sarah, Campbellfield, Commercial, Luttrell, Goodwin, Dunlop and Friendship. Much of the area is residential development with other areas being parklands. Generally the residential development areas contained only a few trees. The only significant bushland area is located within Piggot Reserve on the north-eastern side of the study area. The precinct of Eagleview contains some native vegetation although it is highly disturbed and not representative of any native vegetation community.

1.3 Desktop Study

Prior to the fieldwork being undertaken a desktop study was carried out. This involved background searches of the New South Wales National Parks and Wildlife Service Atlas of NSW Wildlife for a 10-km grid centred on the study site. The following were also consulted; Native Vegetation Maps of the Cumberland Plain Western Sydney Interpretation Guidelines by NSW National Parks and Wildlife Services 2000, and Urban Bushland Biodiversity Survey, Flora and Fauna components 1997. The vegetation within Piggot Reserve has been mapped by NPWS (2000) as Shale Sandstone Transition Forest (Low Sandstone Influence) Class A being greater than 10% crown cover and greater than 0.5 ha.

1.4 Statutory Requirements

This study and report was undertaken utilising the Environmental Planning and Assessment Act (1979), the Threatened Species Conservation Act (1995) and the Environmental Protection and Biodiversity Conservation Act (1999). Final determinations of the NSW Scientific Committee are current to the time of writing.

2. Flora

2.1 Introduction and Methodology

A detailed botanical survey of the area was carried out in order to document the vegetation communities present on the site. The botanical survey was carried out on the 7th of March 2003. This involved traversing all areas of the site on foot and recording flora species as they were encountered. Particular attention was paid to any possible threatened species that may occur. The methodology used is from Cropper (1993). The methodology mainly entailed detailed surveys of areas such as Piggot Reserve and the Eagleview precinct as these were the main areas where threatened species had any potential to occur. These areas were surveyed on foot. The other suburbs were surveyed by vehicle combined with many stops (to enable assessment on foot) as only scattered trees and mown parkland areas were present in most of these areas.

2.2 Taxonomy and References

Taxonomy is from Harden (1990 – 1993) and from any recent updates from the Royal Botanic Gardens, Sydney. The main references utilised for flora background information is in Table 1 and the Eight Part Tests of Significance include; NSW National Parks and Wildlife Service (1997), Robinson, L (1997), Fairley, A and Moore, P (1995), Threatened Species Profiles compiled by NSW NPWS and from field and research experience of the authors.

2.3 Vegetation Description

The following descriptions of the vegetation occurring on the site classify the vegetation according to the structural forms used by Specht (1981).

2.4 Vegetation Analysis

This section discusses the vegetation communities present on the site in relation to their:

- Species Present
- History of disturbance including the stage of regeneration and the presence of exotics
- Presence of significant plant species
- Condition
- Viability

Vegetation Types and Condition

The full list of flora species detected is provided in Appendix 1 of this report. No threatened species were detected during the survey. The whole of the study area is generally highly disturbed and generally contains negligible native vegetation in terms of a defined community. None of the vegetation within the study area is representative of any native vegetation community other than the vegetation contained in Piggot Reserve in the north eastern corner of the study site. The vegetation within Piggot Reserve has been mapped by NPWS (2000) as Shale Sandstone Transition Forest (Low Sandstone Influence) Class A being greater than 10% crown cover and greater than 0.5 ha. This community represents a highly disturbed remnant. It appears to have been largely cleared approximately 20 years ago and is highly disturbed in terms of its structure and floristics. The overstorey is generally discontinuous in most areas, as is the shrub layer. Introduced weeds dominate the ground covers, although some native species still occur. The reserve is not fenced and as such there are large levels of domestic garden waste combined with other rubbish, which has been dumped. The viability of the reserve is likely to be quite low in the longer term, as it will gradually lose its viability and integrity through lack of management. Its condition at the current time is very poor due to its past and current disturbances, lack of management and the high levels of exotic weeds present. The high levels of exotic weeds present have established due to past disturbances and are

most prevalent in areas, which are largely cleared of all native vegetation. Management and restoration of this reserve is possible however would require considerable input over approximately 2-3 decades to restore it to a more representative community. It is recommended that an Eight Part Test of Significance be undertaken for this reserve to analyse potential impacts if development within or adjacent to its boundaries is to occur.

The remaining areas including Eagleview represent no native vegetation community. The other precincts are residential areas with only scattered trees in residential areas and mown parks. The Eagleview precinct represents remnant vegetation however contains mostly exotic weeds and a few *Acacia decurrens* with no overstorey species. This area has been recently burn't and as such much rubbish was visible including dumped cars and other domestic rubbish.

None of these areas other than Piggot Reserve represent any significant limitations to development.

3. Fauna

3.1 Introduction and Methodology

Fauna survey was undertaken on the 7th of March 2003. Diurnal work only was undertaken. The methodology used encompassed the following.

Opportunistic Observations – Opportunistic observations of fauna species and potential habitat was made throughout the survey.

Habitat Analysis – Assessments of potential habitat for threatened species was undertaken. This included an assessment of the condition of this habitat. This included searching for glider chews, scratches on eucalypts, diggings, searches for Land Snails, owl pellets, owl whitewash, and identification of any specific habitat components for threatened fauna. Logs were turned over in search of reptiles then replaced in their original positions.

3.2 Taxonomy and References

Taxonomy is from the following sources; Mammals (Strahan, 1995), Reptiles and Amphibians (Cogger, 1994), and Birds (Simpson and Day (1993). The main references utilised for the fauna background information in Table 2 and the Eight Part Tests of Significance include; Strahan, R (1995), Cogger, H (1994), Simpson and Day (1993), State Forests of NSW (1995), Robinson M (1995), Threatened Species Profiles compiled by NSW NPWS and from field and research experience of the authors.

3.3 Fauna Species Detected

The full list of fauna species detected is shown in Appendix 2. No threatened species or populations were detected.

3.4 Site Habitat Value

No threatened fauna was detected. There are generally negligible hollow trees present within the study area. One exception is a large dead eucalypt within Piggot Reserve, which could be utilised by arboreal mammals including microchiropteran bats. As discussed in the flora section the main area of remnant vegetation, which remains, is in Piggot Reserve. Due to the interrelationship between flora and fauna habitat the main area of potential fauna habitat within the study area is within Piggot Reserve. The fauna habitat within the rest of the study area is negligible due to the high levels of disturbances from residential development and its associated infrastructure. The fauna habitat within

Piggot Reserve is of a low quality and there is negligible fallen timber, no rocky outcrops or other special habitat features such as free water, streams or dams. Targeted searches for the Land Snail were undertaken and none were located. The site does not conform to potential Koala habitat as per SEPP 44 and no signs of Koalas were located in the form of scratches on trees or scats.

4. References

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- Threatened Species Conservation Act (1995).

Appendices

Appendix 1 - Flora species recorded from the Site

Species	
<i>Acacia decurrens</i>	
<i>Acacia parramattensis</i>	
<i>Ageratina adenophora</i> *	
<i>Amaranthus viridis</i> *	
<i>Andropogon virginicus</i> *	
<i>Angophora costata</i> (planted)	
<i>Araujia hortorum</i> *	
<i>Avena fatua</i> *	
<i>Axonopus compressus</i> *	
<i>Axonopus affinis</i> *	
<i>Bursaria spinosa</i>	
<i>Conyza albida</i> *	
<i>Cymbopogon refractus</i>	
<i>Cynodon dactylon</i>	
<i>Danthonia pilosa</i> var <i>pilosa</i>	
<i>Dichondra reprens</i>	
<i>Entolasia marginata</i>	
<i>Eucalyptus beyeriana</i>	
<i>Eucalyptus crebra</i>	
<i>Eucalyptus moluccana</i>	
<i>Eucalyptus tereticornis</i>	
<i>Glycine tabicina</i>	
<i>Gomphocarpus fruticosus</i> *	
<i>Hardenbergia violacea</i>	
<i>Imperata cylindrica</i>	
<i>Indigofera australis</i>	
<i>Juncus usitatus</i> *	
<i>Kennedia rubicunda</i>	
<i>Ligustrum lucidum</i> *	
<i>Ligustrum sinense</i> *	
<i>Melia azedarach</i>	
<i>Olea europea</i> *	
<i>Opuntia stricta</i> var <i>stricta</i> *	
<i>Paspalum dilatatum</i> *	
<i>Pennisetum clandestinum</i> *	
<i>Plantago lanceolata</i> *	
<i>Ricinus communis</i> *	
<i>Rubus fruticosus</i> *	
<i>Senecio madagascariensis</i> *	
<i>Setaria verticillata</i>	
<i>Sida rhombifolia</i> *	
<i>Taraxacum officinale</i> *	
<i>Themeda australis</i>	
<i>Verbena bonariensis</i> *	
<i>Vicia sativa</i> var <i>sativa</i> *	

* indicates exotic species

Appendix 2 - Fauna species recorded from the Site

<i>Dacelo novaeguineae</i>	Laughing Kookaburra
<i>Gymnorhina tibicen</i>	Australian Magpie
<i>Lampropholis guichenoti</i>	Garden Skink
<i>Manorina melanocephala</i>	Noisy Minor
<i>Oryctolagus cuniculus</i> *	Rabbit
<i>Rhipidura leucophrys</i>	Willie Wagtail
<i>Strepera graculina</i>	Pied Currawong
<i>Streptopelia chinensis</i>	Spotted Turtle-dove

* indicates exotic species

Appendix 3 - Mapping



