ECOLOGICAL REPORT PERTAINING TO WILDLIFE CORRIDOR ISSUES

This ecological report has been prepared on behalf of Bernie de Witt Consulting to accompany a Development Application for a proposed subdivision for residential purposes at Morisset Park Road, Morisset Park.

Michael Roderick, of Harper Somers O'Sullivan Pty. Ltd., Newcastle, hereby certifies that this report has been prepared from data gathered by Harper Somers O'Sullivan and other relevant sources such as Harper Somers O'Sullivan (2003a; 2003b) and the various references cited therein.

Certification

Principal Author:

MICHAEL RODERICK
BAppSc(EAM)
Senior Ecologist – HSO Ecology
August 2004

Supplementary Ecological Report Pertaining to Wildlife Corridor Issues at Morisset Park Road, Morisset Park

Introduction

This Supplementary Ecological Report has been undertaken at a site proposed for rezoning at Morisset Park Road, Morisset Park. The purpose of this report is to discuss wildlife corridor issues at the site (Lot 9 DP 244002 and Portion 358 DP 755242), with particular reference to Portion 358. A proposal has been forwarded to rezone the site to enable a subdivision for residential purposes. It has been flagged by Council officers that Portion 358 should be included within a 7(5) 'Environmental (Living)' zoning that currently exists on land to the west of the site. It was considered by Council that the bushland within Portion 358 forms an integral part of an identified wildlife corridor that links larger areas of bushland within Lake Macquarie State Conservation Area (SCA) with bushland to the north on the Morisset Peninsula.

This report assesses whether the bushland within Portion 358 is actually an essential part of this potential habitat corridor. In undertaking this assessment, this report utilises information contained within two reports previously undertaken on site, as listed below.

- Harper Somers O'Sullivan (2003a). *Flora and Fauna Assessment over land proposed for rezoning at Portions 358 and Lot 9 DP 244002 Chifley Road and Morisset Park Road, Morisset*. Report to DeWitt Consulting, August 2003.

- Harper Somers O'Sullivan (2003b). *Bushfire Threat Assessment over land proposed for rezoning at Chifley Road and Morisset Park Road, Morisset*. Report to DeWitt Consulting, June 2003.

For the purposes of this report, the following definitions will apply:

- **'the site'** refers to Portion 358 DP 755242, being the western landholding subject to the proposed rezoning.

- **'adjacent land'** refers to the land zoned 7(5) to the west of the site.

Existing Environment

Further to assessments undertaken during the Flora and Fauna Assessment, a vegetation and habitat appraisal has been undertaken as part of this investigation over the site, adjacent land and land to the south of Morisset Road (within Lake Macquarie SCA). Three vegetation communities have been recognised as occurring on these lands, being Open Eucalypt Forest, Woodland and Cleared Land. The Open Eucalypt Forest occurs within the northern part of the site and the majority of the adjacent land. The dominant upper strata species within this community include *Eucalyptus haemastoma* (Scribbly Gum), *Angophora costata* (Smooth-barked Apple) and scattered individuals of *Corymbia gummifera* (Red Bloodwood) and *Allocasuarina torulosa* (Forest Oak). The Woodland to the south contains similar upper strata species as the Open Eucalypt Forest, although occurring at a lower density than within the Open Forest areas.

The Cleared Area occurs on the southern section of the site adjacent to Morisset Park Road. This area is dominated by pasture grasses and offers little opportunity for native fauna species (refer to Photos 1 2, 3 and 4). A small patch of land that contains a cleared area, existing dwelling and associated gardens also exist on the adjacent land.

Dynamics of Potential Fauna Corridors

Both of the wooded vegetation communities contain potential habitat for native fauna species. These areas both connect with larger patches of bushland to the north towards Bonnells Bay and the Morisset Peninsula and to the south towards Bird Cage Point. Currently, the potential for north / south fauna movement in the locality occurs predominantly in two areas – one to the west, near the intersection of Fishery Point and Morisset Park Roads – the other, through bushland within the site and the adjacent land. It is important to note that both of these connections cross Morisset Park Road, which forms somewhat of a barrier for several guilds of fauna likely to occur in the area. As such, the appropriateness of this patch of bushland to serve as a functioning fauna corridor may be questionable in the first instance. Notwithstanding, the following assessment has been made given that that this area could potentially form a linkage between areas of habitat to the north and the south that may be used by native fauna occurring in the area.

The suitability of the site to act as part of this potential corridor is diminished by the existence of a 40-50m wide cleared area between a row of trees that front Morisset Park Road and the actual bushland itself. Such a cleared area would provide a barrier to movement for certain fauna species, in particular arboreal mammals. As such, the most appropriate section of the potential corridor would be through the bushland on the adjacent land and not through the site itself. Given that Morisset Park Road already forms a barrier to fauna in itself, the existence of this cleared area suggests that the hindrance to fauna is in fact 60-70m broken only by a narrow strip of trees. Such a gap is unlikely to be of importance to fauna in terms of effective movement opportunities.

Furthermore, the bushland on the site backs onto existing residential allotments to the north. As such, transient fauna would then be forced to channel to the west, through the adjacent land, and eventually to bushland to the north. That is, whilst the bushland on the site could be construed as potential habitat, the fact that it runs out a further 180m to the north suggests that it is unlikely to be an integral part of any wildlife corridor.

Figure 1 illustrates potential fauna corridors in the vicinity and how the most effective potential fauna movement corridor passes to the west of the site on adjacent land.

Consideration of Proposed Land-uses

It is noted that there is a proposal to rezone the site (and neighbouring Lot 9 DP 244002) to enable a residential subdivision. With regards to this proposal, it is important to recognise that sections of the site (post-development) will still provide potential habitat for fauna species. This will occur due the majority of the site becoming an Asset Protection Zone (APZ) for the protection of the proposed dwellings to the east of the site from bushfire hazards presented by the bushland within the adjacent land to the west. This APZ consists of a 30m-wide area that would see limited tree removal and underscrubbing. Such an area would still retain many of the current habitat attributes currently existing therein

It has been recommended within the associated Flora and Fauna Assessment that where possible, any trees containing hollows be retained. There is scope for ensuring

that these trees are protected by making their preservation a condition of consent under the relevant Section 88b certificate. There is also scope for erecting artificial nest boxes to replace and potentially enhance existing nesting habitat especially within the already cleared area of the site.

Conclusion

The following points conclude the arguments presented within this report, asserting that the bushland within Portion 358 DP755242 should not be identified as an integral part of any wildlife corridor.

- The bushland within the site is separated from bushland to the south by both a 40-50m-wide cleared area and Morisset Park Road, with only a row of remnant trees in between, giving up to a 70m gap between forested areas of habitat in this 'corridor'.

- The bushland on Portion 358 terminates in the north into residential dwellings, whereas the bushland to the west continues northwards into larger areas of habitat. As such, this area could only be construed as being an outlier to the true corridor, which lies on the adjacent land.

- Under the proposal to rezone and subdivide the site and land to the east, habitat trees within an Asset Protection Zone (bushfire protection) area will remain as managed habitat in the future, thus retaining many of the ecological attributes currently existing in that area. The APZ comprises 33% of the vegetation in question and therefore the total impact of future development on vegetation cover will be minimal.

- It is considered that this area is best-served as providing 'habitat', as opposed to being identified as an essential part of a wildlife corridor in the long term. Many habitat trees have been noted on the Site Analysis drawings in the rezoning application and can be retained as part of a future development on the site.

It is therefore concluded that although the site is connected to bushland to the west zoned 7(5), it does not form an important part of any potential habitat corridor and should not be included within the 7(5) zoning.

Figure 1 – Locality Plan Showing Potential Habitat Corridors in the Vicinity and on Adjacent Land

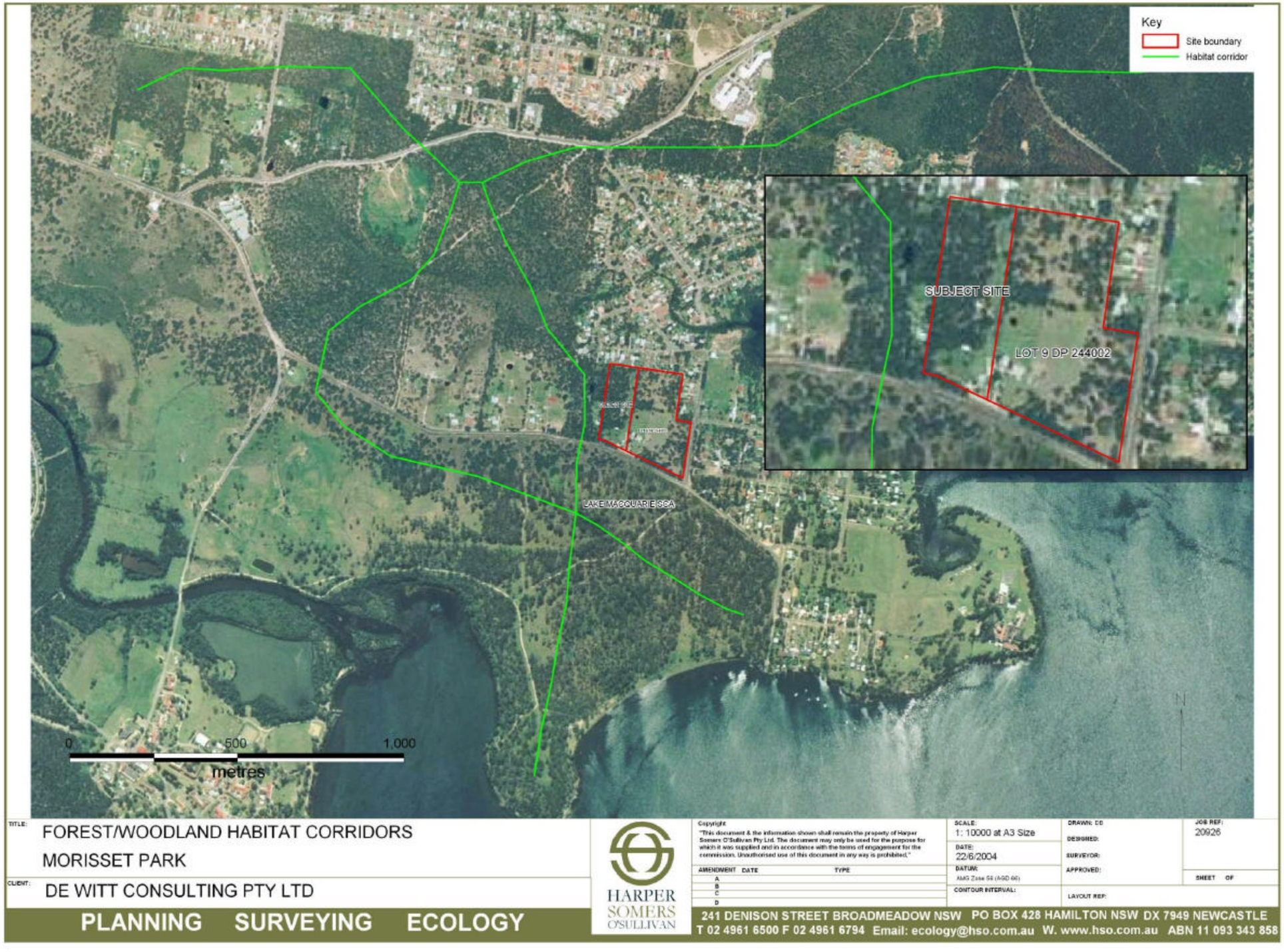

PHOTO 1 Showing Cleared Land looking north towards the Open Forest

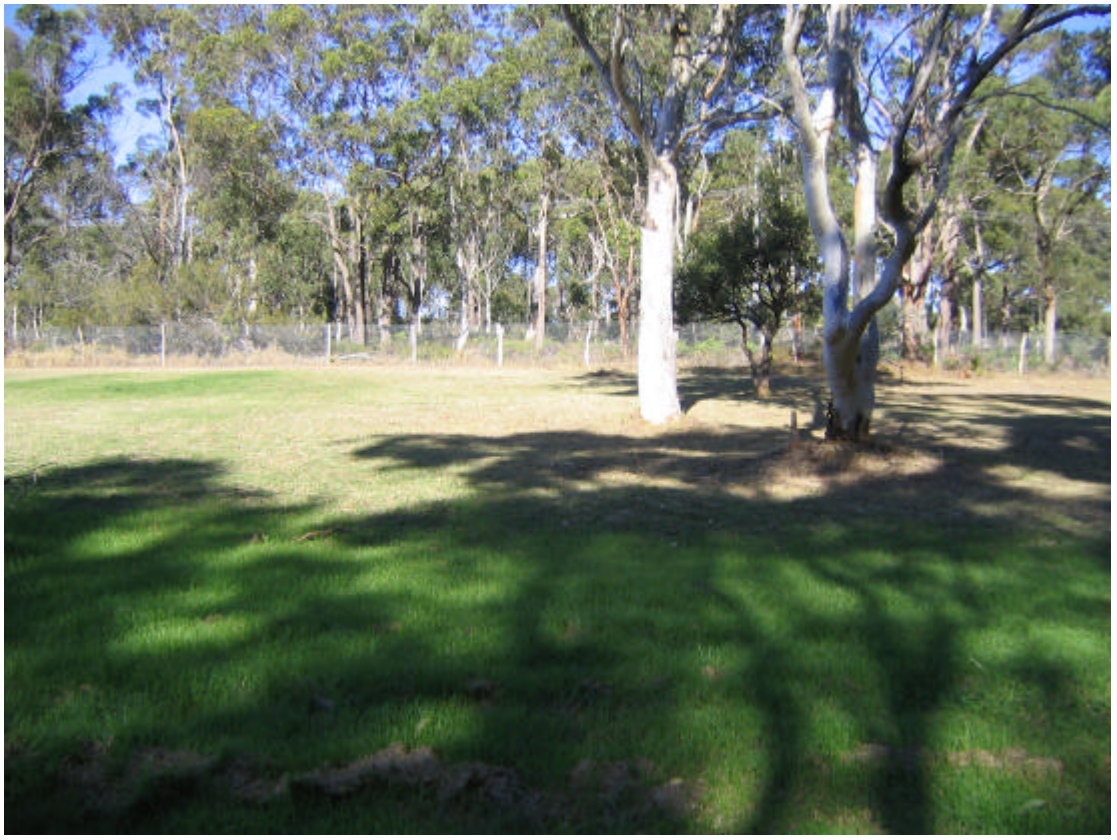

Photo 2 Showing Cleared land looking north-east to the Open Forest.

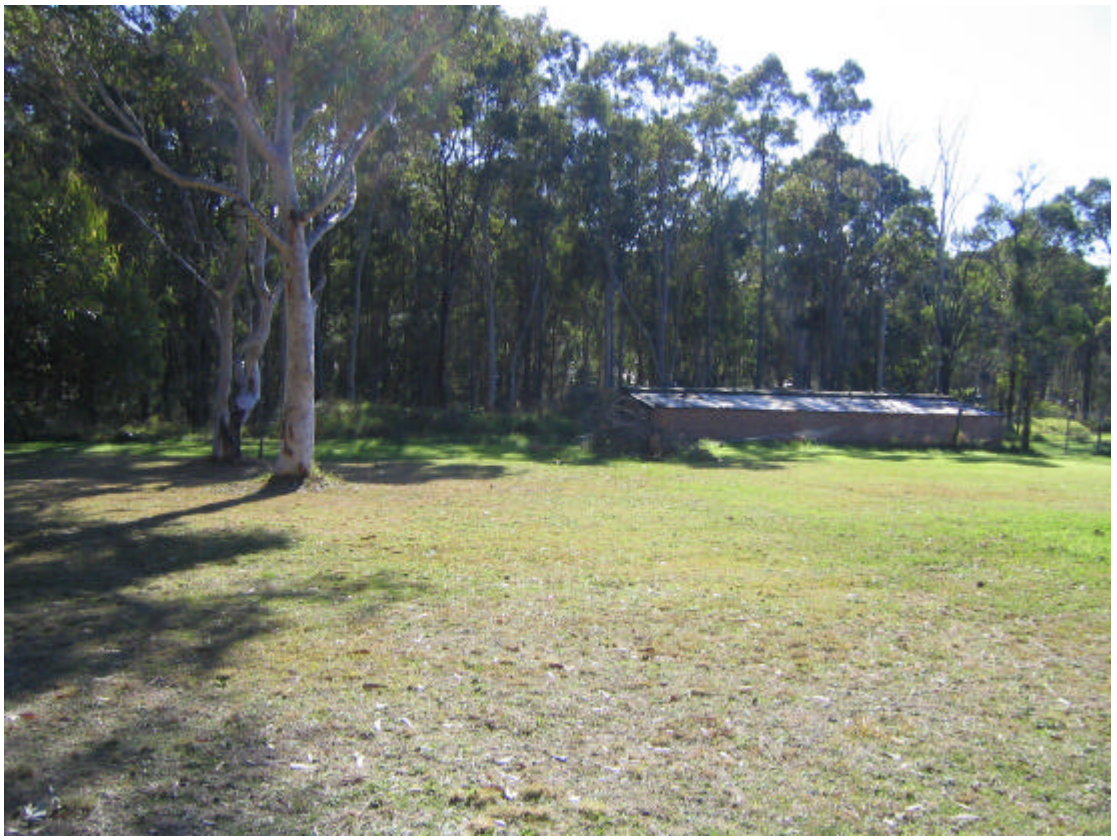

Photo 3 Cleared land within the site looking west

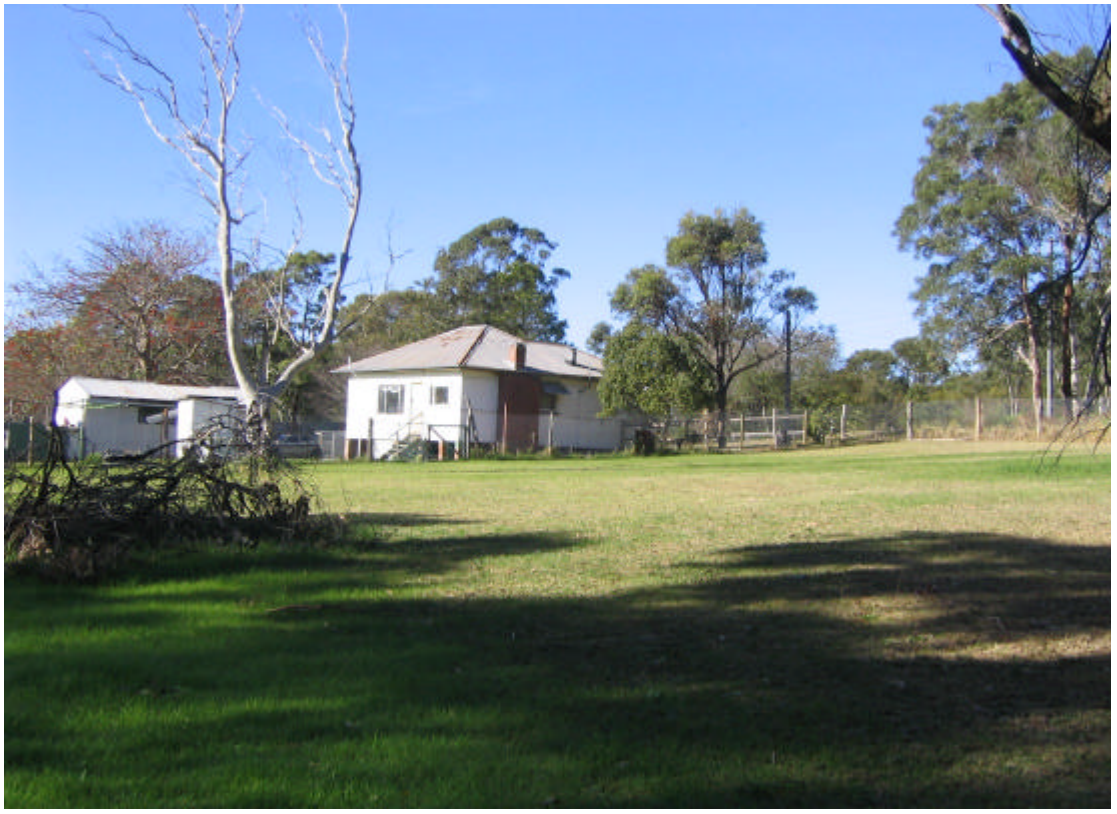

Photo 4 Looking South towards Lake Macquarie SRA

Photo 5 looking north from Morisset Park Road showing the Open Forest within the front part of the adjacent land.

MICHAEL RODERICK BAPPSC(EAM)

Senior Ecologist

Nine years experience undertaking a diverse array of ecological and environmental surveys, assessments and management.

Date of Birth 26th December 1972

Qualifications B.App.Sc. (Environmental Assessment and Management) University of Newcastle, New South Wales (1992-94).

Fields of Special Competence
Environmental Impact Assessment and mediation
Flora, fauna and habitat survey method, design and identification
Threatened species plans of management
Detailed understanding of legislation and threatened species issues
Threatened and migratory wildlife monitoring
Project management
Bushfire Threat Assessment & management reporting
Volunteer co-ordination and training

Professional and Other Affiliations
Hunter Bird Observers Club (HBOC)
Australasian Wader Study Group (AWSG)
Birds Australia (BA)

Credentials
NSW NPWS Scientific Investigation Licence (No. A2428)
RFS / PIA NSW Consulting Planners Bushfire Training Course
Occupational Health and Safety Induction Training
NSW Driver's Licence: Car (Class "C")

EMPLOYMENT HISTORY

Nov 2002 – current Ecologist / Senior Ecologist
HSO Ecology, Broadmeadow, NSW

Dec 2002 – Nov 2003 Senior Project Officer
Ekerlogic Consulting Services, Wallsend, NSW

Jan 2003 Leader - Coastcare Summer Festival Walks Program
The Wetlands Centre, Shortland and Kooragang NR, Stockton

Mar 2002 Field Assistant (mistnetting avifauna - 'Wings of America' project)
Podocarpus National Park, Ecuador

Jan – Mar 2002 Ecologist (compiling avifauna and amphibian inventories)
Cotacachi Cloud Forest and Cerro Seco Rainforest Reserves, Ecuador

Mar 1998 - Oct 2001 Ecologist / Senior Ecologist
Wildthing Environmental Consultants, Salt Ash, NSW

June - July 2001 Contract Ornithologist

Connell Wagner Pty Ltd

Dec 2000 – Sept 2001 Part-time Ecologist
Shortland Wetlands Consultancy, Shortland, NSW

SARAH EVANS BENV.SC

Ecologist

Two and a half years experience undertaking ecological and environmental surveys, assessments and management

Date of Birth 2nd May 1977

Qualifications B.Env.Sc. (Environmental Management)
University of Newcastle, New South Wales (2000)

Fields of Special Competence
Terrestrial flora and fauna surveys
Threatened species plans of management
Understanding of environmental legislation and threatened species issues
Bushfire Threat Assessment & Management reporting
Native Vegetation Clearing Applications
Environment Australia Referrals
Production of educational pamphlets

Credentials
RFS / PIA NSW Consulting Planners Bushfire Training Course
Occupational Health and Safety Induction Training
NSW Driver's Licence: Car (Class "C")
NSW NPWS Scientific Investigation Licence (No. A3124)

EMPLOYMENT HISTORY

Jan 2002 – current Ecologist
HSO Ecology, Broadmeadow, NSW

Jan 2001 – Nov 2001 Ecologist
Ecotone Environmental Consultants, NSW

Sept 2000 - Dec 2000 Environmental Educator (Volunteer)
Community Partnerships Department**,** Newcastle City Council