



7 August 2006

Mr Garry Craig
Ash Disposal Project Manager
Eraring Energy
PO Box 5044
Dora Creek NSW 2264

RE: DEC Response - Offset Habitat Areas

Dear Garry,

I refer to the Department of Environment and Conservation's (DEC's) letter dated 3 July 2006 (DEC Reference: NEF19467, File: 270758A13), relating to the DEC's review of the environmental assessment (EA) prepared and submitted to the Department of Planning (DoP) in respect of proposed upgrade works to Eraring Power Station (*Environmental Assessment - Proposed Upgrade to Eraring Power Station Rocky Point Road, Dora Creek* – HLA Envirosciences Pty Ltd (HLA), May 2006). I make specific reference to the issues raised on pages 2 and 3 of this letter with regard to the flora and fauna assessment undertaken for the project.

The proposed mitigation measures described in this correspondence relate to the provision of compensatory habitat, albeit in the form of rehabilitation and measures to control the occurrence of weeds. The focus of this compensatory habitat is the construction of a habitat corridor based on floral assemblages of both the Coastal Plains Smooth-barked Apple Woodland vegetation community and Coastal Plains Scribbly Gum Woodland (*Hunter and Central Coast Regional Environmental Management Strategy*, NPWS 2003), both of which occur on Eraring Energy lands. It is proposed that this goal will be achieved by the implementation of the following mitigation measures:

- Surveying of proposed habitat corridor of dimensions approximately 40 metres wide and 500 metres across. The location of this corridor is shown on **Figure 1**. The corridor is designed to provide a strategic pathway running east – west for the movement of arboreal and avian fauna across the decommissioned ash dam, and in doing so provide linkages to surrounding areas of native vegetation;
- Capping of the area of the corridor on decommissioned ash dam using locally sourced chitter;
- Placement of locally sourced top soil material along the corridor;
- Placement of locally sourced organic material on the topsoil, to assist in the development of micro-organism activity and the enhancement of soil nutrient. This material will include, though not be limited to, chipped brush material from local plants that have developed on the topsoil stockpiles;
- Placement of large woody debris across the surface of the topsoil corridor. This material will serve as fauna habitat for species utilising the corridor and assist in the stabilisation of the soil surface. It will also provide roost sites and temporary refuge for avian fauna that

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choose to feed on the ground cover and understorey species that will develop across the corridor and that proliferate on the adjoining decommissioned ash dam surfaces;

- Erection of log material to serve as stag and roost trees. The timber for these features will be locally sourced from the vegetation that developed on the topsoil stockpiles, utilising the larger trees. These features will serve as refuges for both avian and arboreal fauna that utilise the corridor. An example of the use of this technique is provided in **Plate 1**.

Plate 1: Stag Trees in background at Final Dredge Hole RZM Pty Ltd – Tomago Sandbeds



- Direct seeding of the top soil material with a range of endemic cover and understorey plant species. Species could include:
 - *Acacia mrytifolia*, *A. suaveolens*, *A. terminalis* and *A. longifolia* subsp. *longifolia*;
 - *Dillwynia retorta*;
 - *Dodonea triquetra*;
 - *Entolasia stricta*;
 - *Hardenbergia violacea*;
 - *Lomandra longifolia*; and
 - *Themeda australis*.

- Planting of the site using tube stock of endemic species that are known to be difficult to establish from direct seeding methods. Species could include:
 - *Allocasuarina littoralis*;
 - *Angophora costata*;
 - *Banksia oblongifolia*;
 - *Banksia spinulosa*, *B. oblongifolia* and *B. serrata*;
 - *Corymbia gummifera*;
 - *Eucalyptus capitellata*;
 - *Eucalyptus haemastoma*;
 - *Lambertia formosa*;
 - *Leptospermum trinervium*, and *L. polygalifolium* subsp. *polygalifolium*;
 - *Pandorea pandorana* subsp. *pandorana*; and
 - *Ptilothrix deusta* (*Ptilanthelium deustum*)..

- Weed control as part of Eraring Energy's current program to restrict the colonisation and spread of weed species that are known to exist locally;

- Vertebrate pest control as part of Eraring Energy's ongoing site wide program. This program includes the seasonal control and monitoring for the following species:
 - Wild Dog;
 - European Fox;
 - European Feral Rabbit; and
 - Indian Myna.

- Maintenance and monitoring of the site. This will include regular visual inspections of the entire site with data recorded on the success of the revegetation program, the need for supplementary plantings, the success of weed control programs and evidence of usage of the site by local fauna.

These measures have been proposed based on industry leading practice that relates to habitat reconstruction and have been underpinned by research which includes, though is not limited to:

- *Innovative Techniques for Promoting Fauna Return to Rehabilitated Sites Following Mining* – Brennan. K, Nichols. O. and Majer. J.D. (ACMER) 2005;
- University of Queensland – Centre for Mined Land Rehabilitation research including: *Native Understorey Species Regeneration at NSW Coal Mines* – Gillespie. M, Murray .M., Mulligan. D, Bellairs. S.





The initial objective of these proposed works at Eraring Energy is to create a habitat corridor that is a stable, near-natural ecosystem. A second objective of this program is to utilise cultural practices and habitat reconstruction protocols that:

- Maximise seedling establishment and growth among both upper storey and understorey species;
- Determine the appropriate mix of species (and their establishment requirements) necessary to create ecosystems that will facilitate and/or encourage habitation of the reconstructed sites by fauna species; and
- Develop ecosystems that, through their diversity and structural composition, will have both resistance and resilience to the impact of major disturbances such as fire and drought.

Should you require further details on the content of this letter please contact me in the Singleton office on 02 6571 2822.

Yours faithfully,

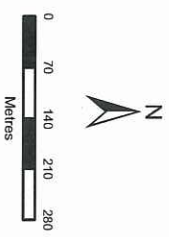

Dee Murdoch
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This document was prepared for the sole use of Eraring Energy and the regulatory agencies that are directly involved in this project, the only intended beneficiaries of our work. No other party should rely on the information contained herein without the prior written consent of HLA-Envirosciences Pty Limited and Eraring Energy.

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Legend
Excavation Area
First Vegetation Corridor



PROPOSED OFFSET HABITAT AREA
Eraring Energy
Proposed Offset Habitat Area
Eraring Power Station



Figure 1

