



566-594 Princes Highway, Kirrawee

Addendum to Biodiversity
Management Plan

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566-594 PRINCES HIGHWAY, KIRRAWEE

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Prepared under instructions from
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1.0 INTRODUCTION

On 23 August 2012, as delegate of the Minister for Planning and Infrastructure, the Planning Assessment Commission (PAC) approved Concept Plan MP10_0076 for a mixed use development at 566-594 Princes Highway, Kirrawee. The Concept Plan provides for the following:

- Indicative building envelopes for 9 buildings to a maximum height of 14 storeys;
- 60,735 square metres of gross floor area, comprising 45,505 square metres of residential floor space (432 dwellings) and 15,230 square metres of retail/commercial floor space (including a 3,900 square metre supermarket and 1,470 square metre discount supermarket);
- Basement, ground and above ground car parking;
- Road layout to support the development;
- Public pedestrian and cycle pathway;
- Public park with lake and surrounding forest; and
- Landscaping areas throughout the site.

The Concept Plan approved the Biodiversity Management Plan prepared by Cumberland Ecology dated November 2011.

This report is an addendum and provides an updated methodology which replaces the methodology in Section 5.10 of the Biodiversity Management Plan prepared by Cumberland Ecology dated November 2011.

2.0 ADDENDUM

2.1. Former Methodology

Section 5.10 Phase 9: Drainage and Compensatory Water Body of the Biodiversity Management Plan provided a methodology for dewatering the brick pit to ensure that a constant minimum 800 square metre water surface remains available at all times as a drinking water source for the bats which occupy on the site.

Specifically, the methodology in the Biodiversity Management Plan under Section 5.10 stated:

Each stage however, must be completed prior to the commencement of the following stage.

i. Construction of the temporary pond

The requirements for this pond are to serve only as a drinking source for the GHFF and EBWB. To fulfil this requirement, the temporary pond specification will generally conform to the specifications for the permanent water body as provided in Section 5.10.3, and cover a total area of approximately 800m².

ii. Drainage of the existing pit

The drainage process may reveal aquatic or semi-aquatic fauna species currently occupying the brick pit. The extent of use by native species is unknown, however the lack of natural water sources nearby and the recent filling indicates that this will be limited. A detailed subplan for the translocation of native species will be prepared subject to expert advice, and the determination of suitable permanent or temporary habitat.

iii. Filling of the pit, and construction of the permanent pond within the Southwestern Sector

The filling of the pit will be carried out, followed by the construction of the permanent pond. Construction on the pond will be carried out at the earliest possible time to reduce the time period between drainage of the brick pit and the construction of the permanent pond.

The GHFF is known to drink water from these bodies by skimming over the top of the water body. To provide adequate quantities of clean freshwater for the GHFF and EBWB, the pond must:

- i. Be of a total area of approximately 800m²;
- ii. Be of an elongated shape, in order to accommodate the 'skimming' drinking behaviour of the GHFF;
- iii. Be located adjacent to suitable roosting habitat for the GHFF;
- iv. Have methods in place to maintain water level, quality and clarity to meet the site specific water quality guidelines as outlined by Equatica8 and Northrop and as agreed with Council.

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- v. Be constructed generally in accordance with the VPA documents as agreed with Council.

2.2. Revised Methodology

The critical factor is to ensure the ongoing presence of a minimum 800 square metre area of water on the site at all times to ensure the protection of the bats which occupy the site. Accordingly, it is possible to commence dewatering of the brick pit on the site provided that the dewatering does not result in a reduction of water surface area below 800 square metres.

Therefore, the critical trigger for providing a temporary alternative source of water of at least 800 square metres is not prior to the commencement of dewatering, but rather prior to dewatering the brick pit below 800 square metres of surface area.

Accordingly, a revised methodology is provided to allow simultaneous commencement of dewatering and construction of the temporary water source, with a limitation on dewatering of the brick pit below 800 square metres until the temporary water source is complete and provided with a minimum of 800 square metres.

This approach achieves significant improvements to the efficiency of construction works on site with no adverse impact to the bats. An important additional benefit of this approach is that it allows some of the water which is to be removed from the lake to be recycled into the temporary water source, which is not possible under the approved methodology.

The dewatering methodology is amended and the following revised methodology replaces the former methodology in Section 5.10 of the Biodiversity Management Plan by Cumberland Ecology dated November 2011:

i. Initial drainage of the existing pit only to 800 square metres

The dewatering process will commence and will continue only until a minimum of 800 square metres of water surface area is maintained. The drainage process may reveal aquatic or semi-aquatic fauna species currently occupying the brick pit. The extent of use by native species is unknown, however the lack of natural water sources nearby and the recent filling indicates that this will be limited. A detailed subplan for the translocation of native species will be prepared subject to expert advice, and the determination of suitable permanent or temporary habitat.

ii. Construction of the temporary pond

The requirements for this pond are to serve only as a drinking source for the GHFF and EBWB. To fulfil this requirement, the temporary pond specification will generally conform to the specifications for the permanent water body as provided in Section 5.10.3, and cover a total area of approximately 800m².

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iii. Complete drainage of the existing pit

Once the temporary pond is completed and contains a body of water with a minimum of 800 square metres water surface area, complete drainage of the existing pit will be finalised. The drainage process may reveal aquatic or semi-aquatic fauna species currently occupying the brick pit. The extent of use by native species is unknown, however the lack of natural water sources nearby and the recent filling indicates that this will be limited. A detailed subplan for the translocation of native species will be prepared subject to expert advice, and the determination of suitable permanent or temporary habitat.

iv. Filling of the pit, and construction of the permanent pond within the Southwestern Sector

The filling of the pit will be carried out, followed by the construction of the permanent pond. Construction on the pond will be carried out at the earliest possible time to reduce the time period between drainage of the brick pit and the construction of the permanent pond.

The GHFF is known to drink water from these bodies by skimming over the top of the water body. To provide adequate quantities of clean freshwater for the GHFF and EBWB, the pond must:

- i. Be of a total area of approximately 800m²;
- ii. Be of an elongated shape, in order to accommodate the 'skimming' drinking behaviour of the GHFF;
- iii. Be located adjacent to suitable roosting habitat for the GHFF;
- iv. Have methods in place to maintain water level, quality and clarity to meet the site specific water quality guidelines as outlined by Equatica8 and Northrop and as agreed with Council.
- v. Be constructed generally in accordance with the VPA documents as agreed with Council.

This revised methodology should be read in conjunction with architectural plan 0600 Version C - Indicative Staging - Lower Ground Stage 1 dated 31 October 2013.