

19th January 2009

Ben MacGibbon
Murlan Consulting
Suite 110, Jones Bay Wharf
26 Pirrama Road

PYRMONT NSW 2009

Dear Mr MacGibbon,

Re: Comments in Reply to DECC Assessment – Waterbrook Nield Avenue, Greenwich

The following comments are made in response to the statements made by Debora Stevenson, Senior Regional Operations Officer, NSW Dept. of Environment & Climate Change (DECC) dated 18/12/08.

Pre-development ecological community

I agree with the DECC officer's comments in that it is difficult to determine whether the original pre-development community was Sydney Turpentine Ironbark Forest or Blue Gum High Forest as there are very few indigenous species on the site. This is highlighted in the Flora & Fauna Assessment 10/10/08.

The Sydney Blue Gums (*Eucalyptus saligna*) on the site are positive diagnostic species of both Sydney Turpentine Ironbark Forest and Blue Gum High Forest (Tozer, 2003) and Blue Gum- Bangalay hybrids (*Eucalyptus saligna x botryoides*) are not noted as being characteristic of either community but are positive diagnostic species of Riparian Forests (Tozer, 2003). Sydney Blue Gums (*Eucalyptus saligna*) are not good indicator species to determine the community in this situation as they also occur as part of the sandstone vegetation in riparian areas along the Lane Cove River. Other areas such as Darvall Park and Denistone Park at Eastwood that are dominated by Sydney Blue Gums (*Eucalyptus saligna*) were once described as Blue Gum High Forest but are floristically more similar to the Turpentine Ironbark Forest (Tozer, 2003).

With the lack of indigenous species on the site to positively determine the pre-development community the use of predictive modeling is considered to be an accepted practice where site floristic data is not present. The modeling, The Native Vegetation of the Cumberland Plain, Western Sydney: Systematic Classification and Field Identification of Communities, Tozer, M. (2003) included factors that influence vegetation such as; climate, terrain, geology etc, which led to the production of published mapping by the NSW Department of Environment & Climate Change (2002). This mapping indicated that the original community on the site was Turpentine Ironbark Forest, part of the endangered Sydney Turpentine Ironbark Forest ecological community. Further consideration was also given in the Flora & Fauna Assessment 10/10/08, noting the presence of remnant Turpentines (*Syncarpia glomulifera*) occurring within 250m of the site in Bellevue Avenue and Ulonga Avenue Greenwich.

Based on the above comments it is considered that the pre-development community on the site was Sydney Turpentine Ironbark Forest.

Biodiversity values

The site is within a landscape that is predominately commercial and urban development and the ecology is influenced by such development and activities. There is little or no chance of any natural regeneration occurring and due to the dominance of weed and planted species, the previous site disturbance and on going maintenance activities. Over time the few remnant trees will continue to decline and without natural recruitment any biodiversity values will also decline.

During the field assessment period a Sydney Blue Gums (*Eucalyptus saligna*), reported as being unstable, failed and fell on the dwelling at 4b Nield Avenue. In addition to this, colonies of *Armillaria* sp.

(Root Rot) fungi and their white sprays of their spores were observed over portions of the ground and vegetation within the Urban Gully (Area C). *Armillaria sp.*, is known to cause the failure of native and exotic trees and can be problematic in urban areas.

The Madeira Vine (*Anredera cordifolia*) is a problematic environmental weed and there is a significant infestation on the site, smothering indigenous and exotic ground covers and shrubs. The removal of the Madeira Vine (*Anredera cordifolia*) as part of the development process would benefit any biodiversity values on the site and more importantly the downstream habitats.

With the likely decline in the remnant trees on the site, retention and replenishment of indigenous flora as part of the proposed development can only improve the floristic biodiversity values associated with the site.

Being in a commercial and urban landscape the urban fauna biodiversity is limited to more common species and although threatened species such as the Grey-headed Flying-fox (*Pteropus poliocephalus*) and Eastern Bent-wing Bat (*Miniopterus schreibersii oceanensis*) could forage on and above the site they would be expected to continue to occur. In terms of the urban faunal composition taking into account the surrounding landuses it is unlikely that faunal species biodiversity would be affected by the proposal. With continued decline of the indigenous flora on the site, increasing the numbers of indigenous plants and trees can only increase foraging opportunities for existing fauna populations.

It is recognized that there will be removal of some indigenous trees as a result of the proposed development, however the declining condition of the existing vegetation and many of the trees is evident and without natural regeneration processes occurring the biodiversity values will be lost. With active management and an increase in the component of indigenous flora on the site as part of the proposed development, it is considered that the site's biodiversity from a species and ecosystem level will be improved.

Whilst biodiversity is considered not only at species and ecosystem level, it is also considered at genetic level. I agree with the DECC officer's comments in that to maintain genetic biodiversity seed should be collected from the indigenous trees to be removed, propagated and used in the revegetation / landscape works and this could be dealt with by a development conditions.

Retention of the Urban Gully (Area C)

I agree with the DECC officer's comments in that retention and rehabilitation of the site will require active management; however, from an ecological perspective it is considered that rehabilitation works, of any size or configuration within the site boundaries, will not result in a viable remnant pocket of native vegetation and active management will be required. This is evident by the current condition of the site's where it has generally received little positive maintenance and is currently in a state of biodiversity decline.

I agree with the DECC officer's comments in that the Urban Gully (Area C) has the most potential for rehabilitation works having semi natural topography. Based upon the Flora & Fauna Assessment 10/10/08 and the proposed development plans this Area C is, albeit, outside the building footprint of Wards B within the landscaped areas. In addition to this removal of the existing swimming pool and surrounding deck in the south eastern corner of the site will increase the area to be rehabilitated along with other areas along the south western boundary.

Given the small size of the Urban Gully (Area C), the existing limited biodiversity values, the indirect surrounding landuse impacts, retention of the Urban Gully (Area C), configuration of the areas for rehabilitation / landscape works and the need for active management, it is considered that modification of the Ward B building footprint will not influence the long term viability of the rehabilitation / landscape works.

Yours sincerely

Mark Couston

Director & Principal Ecologist

Footprint Green Pty Ltd



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Landscape Plan extract showing the proposed development footprint

Taylor Brammer Landscape Architects
not to scale